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Happily Ever Resilient: A Content Analysis of Themes of Resilience in Fairytales

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Walden University
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Abstract

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MEd, Edinboro University of Pennsylvania, 1986

BA, Allegheny College, 1976

Dissertation Submitted in Partial Fulfillment

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Abstract

One in 4 children in the United States lives in a family impacted by the chronic, heritable disease of substance use disorder (SUD), also known as alcoholism or addiction. Recent research has demonstrated that resilience is a key protective factor against developing the disease in adolescence and adulthood and that the neurological roots of resilience lie in the child's experiences in early childhood. In spite of this, few resources related to family SUD or current models of resilience are included in preservice teacher preparation for early childhood educators. This study examined whether key components of Masten's model of resilience are found in fairytales, a form of literature commonly used in early childhood teacher preparation programs. A qualitative, descriptive, deductive content analysis was conducted on 24 fairytales from 22 different cultures, using a tool derived from Propp's morphology of fairytales and Masten's model of resilience. Results indicated that the texts of 96% of these stories contained multiple specific references to the 3 dominant evidence-based factors for resilience: attachment/relationships, initiative, and self-regulation. When broken into the 7 subcategories of these 3 protective factors, as identified by Masten, 9 fairytales contained examples of all 7 protective factors; 9 had examples of 6, and another 5 had examples of 5. The results of this study may be used to provide teacher educators with resources to better prepare preservice early childhood teachers to understand and nurture resilience in children, while addressing existing mandated learning objectives related to emergent literacy. This will benefit all children the teachers will work with, but especially those who are impacted by SUD and other forms of trauma.

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Dedication

I dedicate this dissertation to my beloved lifelong friend and husband, Mike Hospodar. His openness and insight into his decades-long battle with substance use disorder and his willingness to fight it with his whole heart and soul until the end taught me more about the disease than a thousand peer-reviewed references ever could. He wanted, more than even his own recovery, for others to be spared from the suffering he endured, and believed that early childhood was the place to begin. While the SUD dragon may have snatched away our own chance at happily ever-aftering, it is my hope that this work will help teachers joyfully and playfully nurture resilience in all children, so that they can claim the happy endings they so richly deserve.

Acknowledgments

I gratefully acknowledge my chair, Dr. Donald Yarosz, for encouraging and supporting me on this journey, even when he couldn't see the path I was on as I trudged through the dark forest. I would also like to thank Dr. Darragh Callahan, whose interest in the storytelling/storyacting pedagogy of Vivian Paley during my last class encouraged me to follow my heart as I circled around a topic for this study. In addition, Dr. Nancy Williams was a thoughtful and thorough URR, whose suggestions contributed significantly to the strength of this project.

I would like to thank my family, especially my parents, Ed and Phyllis Goloway, for always believing that I would get my doctorate, and my children, Zeke and Jinnie Templin, who put up with having a mom who would rather tell them fairytales than bake them cookies like the other mothers. They have all cheered me on every step of the way. Finally, I am grateful for my friends and colleagues who have provided constructive feedback, encouragement, and the occasional magical elixir to keep me going even when I wanted to stop.

Table of Contents

List of Tables

Chapter 1: Introduction to the Study

One in 4 children in the United States lives in a home where at least one parent suffers from a substance use disorder (SUD); (American Academy of Pediatrics, 2014). These children are between four and 10 times more likely to develop alcoholism or addiction as adults (Lander, Howesare, & Byrne, 2013) and are at higher risk to experience a variety of other trauma, such as child abuse, homelessness, and the incarceration of a parent (Gardner, 2014). They are also at high risk for academic and behavioral challenges (Connors-Burrow et al., 2013). Programs for the prevention of SUDs are targeted primarily at middle schools and high schools (Straussner & Fewell, 2011). However, recent advances in neuroscience affirm that the early childhood years are a sensitive period for the development of neuro-protective factors that can help a person offset the genetic and environmental risks of living with SUD (National Scientific Council on the Developing Child, 2015). These neuro-protective factors are broadly characterized as *resilience* (Masten, 2015).

Chapter 1 is my examination of the nature of the problem and a survey of the preparation teachers undergo to work with children living with the disease of SUD. I will also present an overview of this study, a content analysis of fairytales for themes of resilience. The use of fairytales in teacher preparation programs will be discussed as a way in which preservice teachers can learn about the development of resilience as they gain skills that can be used to offset the consequences faced by young children living with the family disease of SUD.

Background

The Adverse Childhood Experiences (ACEs) study surveyed 10,000 individuals from primarily middleclass backgrounds (American Academy of Pediatrics, 2014). The results of the study indicated that 26.9% of participants reported living as children in homes impacted by SUD, also known as alcoholism and addiction. The extent of the problem is highlighted by the federal agency charged with the scientific study of SUD, the National Institute on Drug Abuse (NIDA), which describes it as one of the major public health challenges in the United States (Volkow, 2016).

While the current national focus on addiction in the media has focused on the rise of opioid addiction, its concurrent legal consequences, and the prevention of death (McGinty et al., 2015), research over the past decades has also looked at the impact on children living with the disease. The genetic component of SUD is powerful and has been well-documented by many studies, including those of the NIDA (2012), which reported that SUD is between 50% and 60% heritable, putting it above the heritability of cardiovascular diseases and most cancers. Children with birth relatives who have the disease are between four and 10 times more likely to develop the disease than children living in the same environment without the genetic connection (Lander et al., 2013; Sher, 1997).

Many researchers, including Fuller-Thomson, Roane, and Brennenstuhl (2016), Gardner (2014); Lander et al. (2013); and Solis, Shadur, Burns, and Hussong (2012), have studied the relationship between SUD and ACEs. They reported that children living with SUD are significantly more likely to experience ACEs and trauma than children

from the same demographics living in homes where SUD is not a factor. It has been estimated that 80% of children who are involved with the child welfare system in the United States come from homes with at least one substance misusing parent (Bittler & Brinker, 2014; Mallow, 2011).

Studies conducted by Gardner (2014), Niccols et al. (2012) and the U.S. Department of Health and Human Services (2009) are among those that demonstrated that childhood trauma also plays a significant role in the development of SUD. These and other studies found that many adolescents and adults suffering from SUD reported childhood trauma including physical and sexual abuse (NIDA, 2012, 2015, n.d.). Thus, the interaction between the genetic predisposition to SUDs and the increased likelihood of experiencing emotional, physical, or sexual abuse contributes to a bleak long-term outlook for the millions of children living with SUD.

Unfortunately, challenges face these children in the short-term as well. Conners-Burrow et al. (2013); Brook, Saar, and Brook (2010); Ronel and Levy-Cahana (2011); Solis et al. (2012); and Webster-Stratton and Taylor (2001) have conducted research that linked familial SUD with a variety of problems in children. These include academic and behavioral difficulties, delinquency, violence, and earlier and more severe cases of SUD in adolescents. These researchers also cited strong evidence that precursors of these challenges can be seen in children as early as the preschool years.

However, not all children with an addicted family member experience this downward trajectory. The negative impact of living with SUD may be offset by protective factors. Research done by the National Scientific Council on the Developing

Child (2015); American Academy of Pediatrics (2014); Chassin, Sher, Hussong, and Curran (2013); and Ronel and Levy-Cahana (2011) offered evidence of the influence of such protective factors.

Often referred to as resilience, there is a specific combination of such protective factors that seems to be particularly potent in helping children move towards healthy adulthoods after they have experienced family SUD or other forms of trauma (Masten, 2015). Harvard's Center on the Developing Child (National Scientific Council on the Developing Child, 2015) has studied the phenomenon and has identified four specific components of resilience. The following components are supported by research across disciplines and have been found to have neurological foundations as well: (a) at least one stable, caring, and supportive relationship with an adult, also known as attachment; (b) a sense of mastery or initiative; (c) strong self-regulation and executive function skills; and (d) a faith- or culture-based context that is supportive.

The importance of early intervention is well-acknowledged in the field of child development. Multiple studies have included research that demonstrated that early intervention specifically targeted to building these components of resilience in young children can reduce behavioral and academic challenges in the short-term and may also offset later mental health issues (McCabe & Altamura, 2011; Niccols et al., 2012; Nicolopoulou, Cortina, Ilgaz, Cates & de Sá, 2015; Office of Planning, Research and Evaluation, 2014; Templeton, 2014; U.S. Department of Health and Human Services, 2015; Webster-Stratton, 2004; Webster-Stratton & Taylor, 2001). Yet in spite of this, neither professional development nor teacher preparation for early childhood educators

has focused on developing resilience as a way to protect children living with SUD and other forms of trauma.

Only one workshop out of the more than 3,500 offered at the annual professional development conferences of the National Association for the Education of the Young Children (NAEYC) between 2012 and 2015 specifically referenced SUD (NAEYC, 2012, 2013, 2014, 2015). Seven workshops out of the 3,500 presented had resilience as a topic. Thus, at the largest early childhood conference in the country, attended by more than 10,000 practicing and preservice educators annually, less than one-100th of 1% of the professional development offered directly addressed the needs of the 1 in 4 children living with SUD.

Similarly, the teacher preparation requirements for PreK–4 certification in a Mid-Atlantic state did not mention SUD in any of the guidelines for teacher preparation programs. A survey of the learning outcomes for all of the early childhood teacher preparation courses at a community college in this state likewise revealed no coursework on this topic. This survey of professional development opportunities did not include the training that teachers in the field may receive as part of the adoption process of packaged curriculum models that target social and emotional skills that are important for children living with SUD.

According to the National Registry of Evidence-Based Programs and Practices (NREPP), there are specific early childhood curricula that support the development of resilience in young children (Substance Use and Mental Health Services Administration, 2016). This database, compiled and regularly updated by the Substance Abuse and

Mental Health Services Administration (SAMHSA), identifies programs targeting SUD and mental health, including strengths-based resilience models. A search for relevant programs listed five evidence-based preschool curricula that specifically target the development of social and emotional skills related to resilience (SAMHSA, 2016). All require professional development for teachers as part of the curriculum adoption process. However, the cost to implement each, including required teacher trainings, averages over $800 per teacher, which puts them out of range for many childcare centers. While statistics on the average training budget for childcare centers in a Mid-Atlantic state are not currently available, a well-respected textbook for childcare director training (Sciarra, Dorsey, Lynch, & Adams, 2015) contained sample budgets for a center with 10 classrooms and a $497,000 annual budget; it listed $1,500 in the line item for total training expenses for a year.

Further, overlapping studies of these programs by Head Start and other government agencies (U.S. Department of Health and Human Services, 2015; U.S. Department of Planning, Research and Evaluation, 2014) provided evidence that the curricula identified in the NREPP database are “add on” social and emotional curriculum components that do not specifically address early literacy or other preacademic goals. The reports identified this as a disadvantage, since Head Start and other early care and education settings prioritize providing a foundation in literacy, especially for children at risk. If preservice teachers are not employed by centers that offer this training, they will not have the opportunity to participate in in-depth curriculum-specific training of this kind.

An alternative to these packaged curricula is Vivian Gussin Paley's (1990, 1992, 1997) storytelling/story-acting (STSA) curricular approach. Research studies by Nicolopoulou et al. (2015) and others (Cooper, 2009; Cooper, Capo, Mathes, & Gray, 2007; Mardell, 2013; McNamee, 2015) have provided evidence that the Paley approach develops specific literacy skills as well as resilience-related social and emotional competencies. Because both emergent literacy and resilience are simultaneously targeted, a curriculum based on Paley's pedagogy addresses the learning needs of all children in a classroom, while supporting development of the specific social and emotional skills especially critical to children living with SUD and other forms of trauma. In addition, the focus on early writing, storytelling, and play overlaps with the learning objectives in teacher preparation programs in a Mid-Atlantic state.

The most unique aspect of Paley's approach involves children regularly telling their own stories to an adult scribe, usually the teacher (McNamee, 2015). The children in the classroom then act out the stories, as the teacher narrates them verbatim from the transcriptions (Lee, 2016). This ST/SA process develops emergent and early literacy skills in the context of classrooms that also include frequent reading and telling of stories by the teacher as well as many opportunities for pretend play, which Paley (1990) describes as young children's primary form of storytelling. Equally important, the classroom culture has been found to revolve around these shared stories, and this develops a strong sense of community among the children and adults involved, according to McNamee (2015), Sachs, Mardell, and Boni (2014), and Paley (1997).

College coursework on these strategies could be a possible solution to the

problem of how to prepare preservice teachers to address the social and emotional needs of young children living with SUD and other forms of trauma. This approach targets vulnerable children while meeting the learning needs of all of the children in early childhood classrooms. Since the teacher's ability to tell stories is an important aspect of Paley's approach (Mardell, 2013), instructional materials on storytelling are specifically needed.

Fairytales are one option for materials to teach storytelling in this context. There are a number of reasons for this: (a) fairytales are already part of the children's literature component of many early childhood teacher preparation programs; (b) the specific form and structure of fairytales (Propp, 1968) make them easy to learn to tell for beginning storytellers (Zipes, 1995); and (c) they have been used for professional development by others to introduce teachers to the storytelling component of Paley's approach (Mardell, 2013). In addition, fairytales are stories about good outcomes in the face of adversity, one definition of resilience (Masten, 2001, 2015).

Problem Statement

Teacher preparation programs in a Mid-Atlantic state do not include specific learning outcomes related to working with young children living with the family disease of SUD. There is, however, overlap in the teacher preparation outcomes with the storytelling and literature elements of Paley's ST/SA pedagogy. This approach has been found to promote literacy as well as resilience, a primary protective factor against many of the consequences of SUD (Wingo, Ressler, & Bradley, 2014).

At an urban community college, two required early childhood education classes

address emergent literacy, children's literature, and storytelling, all components of Paley's approach. These classes also require students to become familiar with the state's *Learning Standards for Early Childhood*, issued by the Office of Child Development and Early Learning. These standards specifically address resilience, and the related components of initiative, self-regulation, and attachment. If instructional materials explicitly linked the understanding of resilience with the skills required to implement Paley's model, preservice teachers would be better prepared to address the needs of young children living with SUD and other forms of trauma, within the context of the existing teacher preparation guidelines.

Purpose of the Study

In this study, I conducted a descriptive, deductive content analysis of fairytales. I determined that fairytales contained specific references to the three within-child protective factors for resilience: attachment, initiative, and self-regulation, using a researcher-constructed coding protocol. Early childhood faculty could use exemplars of fairytales to help preservice teachers construct an understanding of resilience while developing their skills in implementing early literacy strategies such as Paley's.

Research Questions

1. How are the three elements of resilience (attachment, initiative, and self-regulation) represented in the actions of the protagonists within a sample of multicultural fairytales used in a community college early childhood teacher preparation program in a Mid-Atlantic state?

2. How are all three of these elements of resilience concurrently represented in any specific fairytale(s) included in the sample?

Conceptual Framework

While there is limited professional development about SUD for early childhood educators, there is substantial research in the literature about the developmental trajectories of children impacted by the family disease of SUD and the importance of protective factors. In this study, I used Masten's (2015) model of the protective factors for resilience to identify the experiences that offer the best chances for positive outcomes for these children. Specifically, Masten's model was used to examine the four primary protective factors common to most models of resilience: (a) attachment, defined as a close relationship with at least one significant caregiver or other competent adult or peer; (b) initiative, which involves taking opportunities to develop mastery of tasks and situations; (c) self-regulation of emotions and behaviors in order to cope with a variety of circumstances; and d) a framework of spiritual and/or cultural affirmation. Masten's model of resilience formed the conceptual framework for this study, and I placed emphasis on the first three of the protective factors identified in the model. This was because fairytales, as continually evolving cultural artifacts with spiritual roots (Tatar, 2009), are themselves an example of Masten's fourth protective factor, a framework of spiritual or cultural affirmation.

Many theories contributed to the foundation of the developmentally appropriate practices that may be conducive to the development of resilience in children. However, there are two theories that were explicitly connected with the conceptual framework of

this study as it relates to resilience, those of Vygotsky (1978) and Piaget (1962). I will discuss these two theories within this conceptual framework section because they supported the relevance of resilience theory to early childhood curriculum development and provided a bridge between resilience theory and the use of fairytales in an early childhood teacher preparation program. Both theories are currently included throughout coursework in existing teacher preparation programs in the state the study took place in, as well as in teacher preparation guidelines focusing on developmentally appropriate practice. Both have relevance to the pedagogy of Paley, whose work I used as an example of a model that has been found to foster both resilience and emergent literacy in children.

Vygotsky studied the role of pretend play in the development of self-regulation in young children and described the process by which a child often acted as if he were "one head taller than himself" (1978, p. 102) in the context of play. This ability to delay gratification and control impulses in a more mature manner in order to sustain the story being played out in pretend play has been substantiated by recent research (Bodrova, Germeroth, & Leong, 2013; Diamond & Ling, 2016; Leong & Bodrova, 2006, 2012). Because self-regulation is one of the protective factors for resilience and pretend play is one of the primary contexts in which children make meaning out of their experiences, including their understanding of fairytales, it was important to include Vygotsky's theory in this framework.

Piaget's (1962) theory of symbolic function and construct of magical thinking in young children also contributes to an understanding of both the importance of pretend play in children's development as well as their fascination with fairytales. By definition,

fairytales include magical elements, including magical characters, magical objects, and the magical resolution of challenges faced by ordinary people (Tatar, 2009). These magical elements in fairytales align with children's evolving conception of physical and social causality, according to Piaget, and offer one way to engage children's interest and active participation in literacy as well as play experiences.

The self-regulatory functions of pretend play were extensively described by Vygotsky. Both Vygotsky and Piaget wrote about the intrinsic motivation and social interactions which arose out of such play experiences. All of these factors align with the constructs of relationship/attachment and initiative in resilience theory (Masten, 2015).

Nature of the Study

For this study, I used a content analysis to determine whether three specific within-child protective factors related to resilience (attachment, initiative, and self-regulation) occur in a purposive sampling of nine fairytales and their variants. A similar Walden dissertation study (see Ellefsen, 2015) included coding on 20 books. In my study, I analyzed 24 fairytales from 21 different cultural traditions.

Content analysis is a systematic and replicable research methodology that uses texts, images, recordings, and other media as data (Mayring, 2000, 2014). While in previous generations content analysis was used primarily by journalists and communication researchers to quantify the frequency of words and phrases in texts and other media, it is now actively used by social scientists to study the latent meaning embedded in texts and other media within the context of their uses (Krippendorff, 2013).

Mayring (2014) identified four broad research designs of content analysis based on the kinds of research questions being asked: explorative, descriptive, relational, and causal. Mayring differentiated between explorative and descriptive through their use of either inductive or deductive analysis. Inductive content analysis is used when the researcher wishes to discover themes within texts, in a way similar to other qualitative coding strategies (Creswell, 2012). Mayring labeled this kind of analysis as explorative. In contrast, deductive analysis begins with the researcher establishing a priori mutually exclusive and well-defined categories, based on theoretical constructs. These are then used to systematically analyze the data in a descriptive research design (Mayring, 2014).

For this study, I chose the deductive, or descriptive, approach because the research questions required that specific theoretical constructs related to resilience be examined within the context of fairytales. A priori categories were established from operationalized descriptions of the three elements of resilience, in both their positive and negative forms. Definitions were cross walked with Propp's morphology of the folktale (1968). Propp's coding scheme for fairytale characters and their functions continues to be used by folklorists and linguists around the world (Thompson, Battle, & Padget, 2015).

I employed the three-read method of analysis adapted by Ellefsen (2015) from the work of Madsen (2011). Two peer reviewers analyzed three fairytales not included in the study, using this method and the coding protocol, prior to the beginning of the study. I compared the peer reviewers' results with my own to test for confirmability. After using the researcher-constructed coding scheme to examine the sample of fairytales, occurrences of attachment, initiative, and self-regulation in the data were analyzed.

As with all research, qualitative content analysis requires rigor in sampling. Representational sampling was a challenge in this study since thousands of fairytale variants have been collected, transcribed, and published in Europe, Africa, Asia, and the Americas over the past 300 years (Tatar, 2009). The sampling approach I selected was to identify books from archived lists of the stories chosen by preservice early childhood teachers for their fairytale projects in a language and literacy methods class at a community college. The project required students to identify a core fairytale, locate four variants, and construct an early learning standards-based integrated curriculum unit. These stories are ones that classroom teachers would be more likely to use, because of their availability at public libraries.

A list of fairytales was compiled from these archived data on student core story choice for six semesters. The final selection of core stories was then made by identifying the Aarne-Thompson- Üther (ATU) tale type number of each story, and including only those which met the criterion of "Tales of Magic." Once this process was completed, I assembled a list of variants of each of these seven to 10 core stories, using a combination of the ATU tale typology (Üther, 2004), SurLaLune fairytale website (Heiner, 2016), and the online catalog of the local public library system (to determine availability). These lists of available variants for each story were then categorized by geographic region (Northern European; Southern European; American, including Native American; Meso- and South American and American Mountain lore; and non-European/non-American [African, Middle Eastern, and Indo-Asian stories]). Variants representing three distinct cultural traditions for each core story were selected, and the geographic origins of variants were

distributed somewhat equally between fairytales. Both story titles and geographic regions were alphabetized, and this strategy was used to select the final sample in cases where there was more than one variant for each geographic region.

Definitions

Aarne-Thompson-Üther Folktale Typology (ATU): Finnish folklorist Antti Aarne first constructed a way to categorize folktales in 1910 (Tatar, 1987). Based on themes and motifs, the numerical categorization system highlighted both the universality and the diversity of folk literature (Zipes, 1997). His American colleague Stith Thompson expanded and refined the numerical system in 1928 and revised it in 1961 (Tatar, 1987). Known as the AT Folktale Typology, the system was used throughout the 20th century by folklorists and storytellers around the world (Tatar, 1987). In 2004, German folklorist Hans-Jorge Üther updated the system to include tale types not included in the original system, and to make it more inclusive of non-Western cultural traditions (Zipes, 2012).

Attachment: A within-child protective factor of resilience, attachment refers to the stable, supportive, and caring relationship that a child has with at least one adult (Masten, 2015).

Disease model of SUD: Most clinicians and researchers support the disease model of SUD because it is a progressive, chronic, and potentially fatal disease of the brain, resulting in structural changes to the brain's structure (Volkow & Koop, 2015). The physiological understanding of SUD is important for this study since it highlights the critical nature of experiences in early childhood which support healthy brain architecture in areas key to the later prevention of SUD.

Executive functions (EF): EFs are cognitive processes centered in the prefrontal cortex (Diamond & Lee, 2011). According to Diamond (2014b), the three primary processes involved with EF are inhibitory control (related to self-regulation), working memory (being able to keep relevant information in mind while working on tasks), and cognitive flexibility (being able to see things from different perspectives and find multiple solutions to a problem).

Fairytale: A category of folktale which is distinguished by magical objects, feats, or beings. Fairytales take place outside of time and specific space, and its heroes or heroines have no historical significance (Tatar, 2009). For the purposes of this study, fairytales included only those stories classified as "Tales of Magic" by the ATU typology (Üther, 2004). Fairytales written by a single author, such as Hans Christian Anderson, were not included in the analysis.

Folktale: Any story that was told and passed on via oral transmission before being written down. Every known culture has folktales and these have been categorized by folklorists into distinct genres, including, for example, fairytales, legends, creation myths, animal tales, and tall tales (Üther, 2004).

Initiative: Another within-child protective factor, initiative or mastery refers to a child's ability to act on his or her own ideas in order to gain control over his/her environment. In early childhood, play is one context in which this is developed (Brown & Patte, 2013).

Protective factors: Any of a number of factors which support healthy social and emotional development in children even under adverse conditions (National Scientific Council on the Developing Child, 2015).

Resilience: Resilience can be broadly defined as an individual's capacity to adapt successfully in the face of adversity (National Scientific Council on the Developing Child, 2015). Masten (2015) more specifically defined it as, "The capacity of a dynamic system to adapt successfully to disturbances which threaten its function, viability or development" (p. 9).

Self-regulation: Sometimes called self-control, self-regulation is the ability to manage one's emotions and actions. Often included in executive functions (EF), self-regulation skills have a developmental and physiological basis and are considered a key indicator for success in school (Center on the Developing Child, 2011). It is notable that the same neurological systems involved with self-regulation are impacted by SUD (Volkow, Janda, Nestler, & Levine, 2014).

Storytelling/storyacting (ST/SA): The strategy at the core of Paley's pedagogy involves children dictating a story to an adult scribe and then sharing the story in a group process whereby children take on the roles in the story (King, dog, house, tree, etc.) and act it out for the class as the teacher or other adult reads the story (McNamee, 2015; Paley, 1990).

Substance use disorder (SUD): The American Psychiatric Association (2013) defines SUD as a mental disorder involving characteristic cognitive, behavioral, and physiological symptoms that contribute to an individual continuing the use of one or

more substances (e.g. alcohol, opioids, stimulants, hallucinogenics, etc.) in spite of significant social, psychological, physical or economic consequences. In previous versions of the *Diagnostic and Statistical Manual of Mental Disorders*, other names were used, including alcoholism and addiction.

Variant: The term used by folklorists to describe folktales which bear a striking resemblance to another story, told either in the same culture, or a different one. Variants usually have distinctive cultural referents, while sharing the same general motifs (aspects of the story without which the story would cease to be the same story, e.g., Hansel and Gretel's abandonment in the woods by a parent; Tatar, 2009).

Assumptions

In this study, I assumed that fairytales are a valid instructional tool for introducing preservice teachers to storytelling skills and that these skills will allow them to better implement aspects of Paley's ST/SA pedagogy. While many texts on storytelling advocate for the use of fairytales by beginning storytellers (Livo & Rietz, 1986; MacDonald, Whitman & Whitman, 2013; Maguire, 1992; Zipes, 1995), little empirical research has been completed that compares the efficiency of learning folktales and fairytales with the learning of other genres of literature for novice storytellers. Further, while Mardell (2013) explained the importance of training teachers in basic storytelling skills as part of professional development on Paley's pedagogy, I found no research that examined whether the lack of this training has an impact on successful classroom implementation of the model.

These assumptions were necessary to this study for several reasons. First, because there were no alternative suggestions for other commonly used and widely accessible genres of literature that support the development of storytelling skills for early childhood educators. In addition, since storytelling is specifically identified in the learning outcomes of several early education courses at the community college, it aligns with teacher preparation requirements as well as with its possible use as an instructional strategy that will promote preservice teacher understanding of resilience.

Scope and Delimitations

Fairytales have been studied extensively by folklorists all over the world. There there is ample evidence of the universality of their structure (Murphy, 2015; Propp, 1968), tale type (Üther, 2004), and continued relevance in the lives of children (Tatar, 2009; Zipes, 1997, 2012). In the current study, I drew on this body of scholarly research to make the case that although only a relatively small number of fairytales were analyzed for themes of resilience, the findings may be applicable to the broader genre.

Similarly, one of the premises of this study was that if fairytales were found to contain specific examples of the three primary protective factors that contribute to resilience (attachment, initiative, and self-regulation), instructional materials could be developed in the future that would use fairytales to deepen understanding of resilience while addressing the learning outcomes in early childhood teacher preparation programs. It is important to note that these learning outcomes are based on the state guidelines for teacher preparation for PreK–Grade 4 and NAEYC's standards for preparing early childhood professionals (Hyson, 2003). Therefore, the findings of this study may have

relevance to other early childhood teacher preparation programs in both the state it took place in and in other parts of the United States.

Limitations

Current models of resilience (Masten, 2015; National Scientific Council on the Developing Child at Harvard University, 2015) identify four primary protective factors for resilience: (a) relationships/attachment, (b) initiative, (c) self-regulation, and (d) a framework of spiritual or culturual affirmation. I only analyzed the first three (relationships, initiative, and self-regulation) in this study because fairytales are deeply integrated into most cultural traditions and popular culture in this country (Tatar, 2009; Tippett, 2014; Zipes, 2012), and fairytales were seen as a preexisting component of the framework for cultural affirmation for young children. Therefore, a focused examination of this element was not included in the content analysis.

While this research was based on an understanding of fairytales drawn from the scholarly research on folklore, I am not a folklorist. Therefore, I used folkloristic research findings by scholars, such as Propp (1968), Üther (2004), and Murphy (2015), to help with the identification, selection, and, to a lesser extent, analysis of the fairytales used in this study without pretending to understand the complexity of these scholars' work. I have located current revisions of seminal works and have done my due diligence to ensure that the seminal works have been acknowledged by experts in the field, such as Dr. Zipes, Professor Emeritus of Folklore Studies at the University of Minnesota (1995, 1997, 1999, 2012, 2016) and Dr. Tatar, Professor of Germanic Studies and Folklore at Harvard University (2009), as worthy contributions. However, my focus was on using

these as tools to examine fairytales as instructional materials for teacher preparation rather than to evaluate their relevance or value to the field of folkloristic studies.

My selection of core stories was based on the fairytales college students chose over multiple semesters for use in a project in an early literacy and literature course. For the project, each student was to choose four multicultural variants of the same core story. I did not use these same variants, in order to get variants from a variety of cultural traditions, including Northern European, Southern European, Native American, African, and Indo-Asian. While I used the same local public library system to locate variants, I organized variants by geographic and cultural regions and then randomly selected the specific exemplars to be analyzed so that the regions were represented more equally. Related to this limitation was my decision to use only variants that derive closely from the oral tradition, rather than to include the many versions of fairytales which draw somewhat on the traditional motifs and plotlines but significantly change perspective of the characters, such as *The True Story of the Three Little Pigs* (Scieszka & Smith, 1996) or *Sleeping Ugly* (Yolen, 1997).

I did not examine stereotyping of gender in fairytales in this study. The majority of recent educational and psychological research on fairytales has focused on this topic and that was not my research interest in this study. I also did not explicitly investigate the sometimes fierce punishments meted out in fairytales. My own experiences as a researcher, a teacher, and a storyteller have informed my bias that fairytales are an important aspect of childhood and are understood by children from a developmentally different perspective than that of adult scholars and parents.

Significance

With this study, I determined whether explicit themes of resilience occurred in a sample of fairytales. Because multiple examples of resilience were found, preservice teachers may have an additional pathway to construct an understanding of the three elements of resilience (attachment, initiative, and self-regulation) within the context of required coursework on emergent literacy. The results of this study contribute to closing the gap in practice surrounding early childhood teacher preparation on resilience in young children. This is important for all children but especially critical for those who are exposed to high-stress environments, including family SUD.

Summary

In Chapter 1, I described in general terms the research on the impact of family SUD on young children. The importance of resilience in reducing the negative psychosocial and academic challenges facing these children was discussed, and a gap in practice in the preparation of teachers, most of whom enter the field without the background knowledge to adequately meet these children's needs, was identified. One solution might be to integrate evidence-based strategies that address both literacy and social emotional/resilience objectives, such as the pedagogy of Paley, into teacher preparation programs. I provided a rationale for this by identifying the overlaps between existing learning outcomes in early childhood college coursework with the skills necessary to successfully implement Paley's practices into a preschool classroom. A study in which multicultural variants of fairytales were analyzed for themes of resilience was introduced, along with the conceptual framework upon which this study was based.

In Chapter 2, I will expand on each of these themes and examine the research that provided the foundation for this investigation. In addition to reviewing the literature on the impact of SUD on young children and their families, the research on resilience as a protective factor that can inform early childhood practices will be discussed. The pedagogy of Paley will be elaborated on using primary sources. I will also present empirical evidence for the effectiveness of developing resilience through both Paley's specific approach and components of it, such as pretend play and storytelling. Research on the role that other genres of children's literature can play in developing resilience and in addressing other forms of trauma, such as child abuse and chronic illness, will be reviewed. Finally, I will discuss fairytales and review the literature on their use in educational, clinical, academic, and professional development settings.

Chapter 2: Literature Review

The purpose of this qualitative content analysis was to determine whether themes of resilience could be identified in traditional fairytales commonly used in early childhood teacher education settings. I studied resilience because it is considered a key protective factor for young children living with SUD. Materials are needed that will better prepare preservice teachers to understand resilience and implement early childhood strategies that promote it in young children, both within the context of both teacher preparation programs and typical early childhood classrooms. Fairytales may be one source of such material because they are included in the children's literature component of many teacher preparation programs and are developmentally appropriate for young children.

Chapter 2 will begin with an explanation of the literature search strategies I used for this study. Key sources of research will be identified and justified. A brief explanation of the conceptual model of this project will follow. I will then provide a rationale for the integration of multiple theoretical and research frameworks within this model. Key areas of research pertaining to the research question that will be discussed include: background information on current research on SUD, including its impact on young children and its relationship to other potential sources of trauma; research on resilience from multiple perspectives; a survey of studies of early childhood programs which promote resilience; and an in-depth look at one of these programs, the ST/SA pedagogy of Paley.

Next, I will present research on how children's literature in general has been used to address the needs of children at risk as well as how fairytales and storytelling have

been used in classroom and clinical settings. The relationship between these uses and the nature and structure of fairytales, as described by folklore scholars, will be discussed. The chapter will conclude with a summary of the literature pertaining to the problem statement, and as a transition to the following chapter, I will provide an introduction to the research methodology derived from this literature review. I will describe this methodology in detail in Chapter 3.

Literature Search Strategy

I began my review of relevant literature with a broad search for information related to professional development about SUD geared for early childhood educators. I used Walden Library databases, including Academic Search Complete, ERIC, SAGE Premier, Education Research Complete, Teacher Reference Center, and PsychINFO. I continued to use these databases as I went on to refine and expand my topics of interest throughout the course of my studies. Key search terms included were: *substance use disorder, addiction, alcoholism, early childhood mental health, social and emotional learning, social and emotional development, teacher preparation,* and variations of *preschoolers* which I used in multiple combinations.

When I discovered that both resilience and EFs were key protective components, I began to include them in my searches, and broke resilience down into attachment, self-regulation, and initiative, based on the three protective factors identified in current models of resilience. I then combined these terms with those listed above. Search terms used when I decided to focus on fairytales included *fairy tales, fairytales, folklore, teacher education, professional development, Vivian Gussin Paley, Vladimir Propp*, and

storytelling, which I combined systematically with previous search terms of *substance use disorder* and its variants, *resilience, executive function,* and *early childhood mental health*. It was during this stage of my research that I began to include the ProQuest Dissertations and Theses Global database in my searches as well as the database of Walden dissertations.

In addition to these databases, I used academic and government websites that disseminated information and research. These included Harvard's Center on the Developing Child, NIDA, SAMHSA, National Institute on Early Education Research, Geogetown University's Center for Early Childhood Mental Health Consultation, Collaborative for Academic, Social and Emotional Learning, Devereux Center for Resilient Children, and Vanderbilt University's Center on the Social and Emotional Foundations for Early Learning. Google Scholar was used to locate specific articles mentioned in reference lists and in articles, websites, and popular media as well as to locate current research by specific scholars whose earlier work had been found relevant. Finally, I joined both Academic.edu and Researchgate.net, which are open source research databases where scholars can share their own work. These were used to specifically target key researchers of interest, such as Nicolopoulou, Zipes, and Diamond, who posted their current research that had been accepted for publication in a wide variety of peer-reviewed sources, often prior to either formal publication or their inclusion in the databases at Walden.

The Conceptual Framework

There is strong theoretical and empirical support for resilience as a primary protective factor for children facing adverse experiences, including familial SUD (American Academy of Pediatrics, 2014; Masten, 2015; National Scientific Council on the Developing Child, 2015). Therefore, I used a model of resilience as the primary framework upon which this study was based. Resilience is broadly defined as the individual's ability to show "a pattern of adaptation or recovery in the context of potentially destablizing threats" (Masten, 2015, p. 9), or, more simply, to bounce back in the face of adversity. Masten (2015) identified four primary protective factors common to most models of resilience: (a) attachment, defined as a close relationship with at least one significant caregiver or other competent adult or peer; (b) initiative, which involves taking opportunities to develop mastery of tasks and situations; (c) self-regulation of emotions and behaviors in order to cope with a variety of circumstances; and (d) a supportive framework of faith and/or cultural traditions that affirm the individual and the community.

These protective factors for resilience formed the conceptual framework for this study. They were used to integrate diverse bodies of scholarship from the fields of neuroscience, addiction studies, social work, psychology, education, and folklore. I examined resilience in the context of current research from each field individually in order to deepen my understanding of what it is that teacher educators can do to best prepare preservice teachers to work effectively with young children impacted by the disease of family SUD.

Masten (2000, 2015) described the experiences that can promote these protective factors for resilience as *ordinary magic*, rather than specialized clinical strategies. This ordinary magic, Masten said, is found in within the context of family, school, and community interactions. An analysis of the theory of resilience reveals that the components of resilience mesh well with the central tenets of developmentally appropriate practice in early childhood education (Copple & Bredekamp, 2009) as well as the specific objectives and competencies found in the learning standards for young children mandated in a Mid-Atlantic state.

Two specific theories that underlie developmentally appropriate practice are also especially relevant to the conceptual framework that forms the foundation of this study: Piaget's construct of magical thinking and Vygotsky's theory of self-regulation. This study was based on the premise that both of these theoretical views of childhood are essential components of preservice early childhood educators' framework for understanding the development of resilience in young children. Each theory provided a pivotal insight that was central to the design and purpose of this study. These pivotal insights were:

- Young children believe in magic. Piaget (1962) described this phenomenon in detail and believed that it was an essential aspect of children's logical development, bridging their sensorimotor and concrete operational frameworks for understanding the world. According to Piaget, this understanding of the magical nature of reality underlies the rich symbolic representation found in young children's pretend play as well as their

acceptance of animism and the whimsical explanations of physical causality found in their storytelling. Both storytelling and pretend play were central to Paley's pedagogy, and the fairytales that children both heard and told in her classroom frequently demonstrated elements of the *magical thinking* described by Piaget.

- Pretend play allows children to express a higher level of development than they do in their nonplay activities, according to Vygotsky (1978). Vygotsky offered a detailed analysis of how pretend play in early childhood specifically provided children with their best opportunities to develop language, cognitive, and social-emotional skills, including self-regulation.
- Both Piaget and Vygotsky believed strongly that the delight that children exhibited when engaged in play was critical to its central role in their development. This aspect of Vygotsky's and Piaget's theories aligns with both the element of mastery/initiative that Masten (2015) described.

Vygotsky (1978) stated, "But while pleasure cannot be regarded as the defining characteristic of play, it seems to me that theories which ignore the fact that play fulfills children's needs result in a pedantic intellectualization of play" (p. 92). Similarly, writing of the importance of the affective and motivational components of play, or *pre-exercise*, Piaget (1962) described this as one source of its power:

> The pleasure which accompanies the stimulation of any instinctive tendency, and the joy inherent in any successful action, the well-known "joy of being the cause," are the affective concomitants of this pre-

> exercise. From them consciousness of make-believe will be derived. "The joy of being the cause" involves consciousness of the aim. Far from being purposeless activity, play can only be conceived as pursuit of specific ends. (p. 191)

This conceptual framework is complex in its overlapping theoretical and empirical traditions. However, in this content analysis of fairytales for themes of resilience, I relied upon each of these bodies of knowledge for its fidelity. Young children living with family SUD are at high risk for academic, behavioral, and mental health challenges as well as developing the disease themselves as adolescents (Burlew et al., 2013; Straussner & Fewell, 2011). Bringing together existing research in novel ways may be the best hope for providing their teachers with the tools they need to help these children wield the sword of resilience against the dragons they face.

Literature Review Related to Key Concepts and Variables

As stated in the introduction to Chapter 2, in this literature review I will examine the theoretical and empirical research on topics related to the conceptual framework I described in the previous section. These topics will include: SUD and its impact on young children and families; resilience; early childhood curriculum and resilience, including the pedagogy of Paley; the role of stories in promoting children's social and emotional learning and resilience; and fairytales, including a discussion of resilience. Each will be reviewed individually and connections will be made, as applicable.

Substance Use Disorder (SUD)

To place this study in context, it is critical to understand the nature of SUD. Also known by terms such as alcoholism, addiction, and substance abuse, the American Psychiatric Association (2013) currently defines SUD as a group of cognitive, behavioral, and physiological symptoms resulting in an individual continuing to use one or more substances in the face of significant consequences. Current diagnostic criteria emphasize that central to the disorder is "an underlying change in brain circuits that may persist beyond detoxification" (American Psychiatric Association, 2013, p. 483). These changes in brain chemistry are, then, independent of the specific effects of a substance and lay the foundation for the widely accepted *disease concept* of SUDs (Volkow & Koob, 2015).

This neurophysiological understanding of SUD has relevance to this paper, although an in-depth discussion of it is beyond the scope of my academic expertise. An overview of pertinent research follows to support the importance of understanding both SUD's heritability, and the impact of early experiences on the brain development of young children living with the disease. These will be discussed as they affect both the social and emotional well-being of children, as well as their later vulnerability to the disease.

I have elected to use the term SUD exclusively in this paper because of the research of Kelly, Saitz, and Wakeman (2016) and Kelly and Westerhoff (2010). They demonstrated that the language used when describing this disease has a significant effect on the attitudes of those hearing and using the terms. Kelly and colleagues conducted multiple empirical studies with therapists, addiction specialists, and journalists, and

discovered that there were significant differences in the consequences each group felt afflicted individuals should receive, depending on whether the term *addict* or *person suffering from SUD* was used in identical scenarios. When addict was used, punishment, incarceration and retribution were considered appropriate consequences. When the same description referenced SUD, psychological and medical treatment and emotional support were more common responses.

Because I hope to effect social change by learning things that will provide preservice early childhood teachers with new tools to support the development of young children living with substance use disorder, I believe it is important to be consistent and respectful in the language used. Societal attitudes about SUD have been identified as a major factor in the reluctance of many individuals to seek treatment (Kelly, Saitz, & Wakeman, 2016). Teachers of young children who understand this will be more likely to be respectful and supportive of the parents and children affected by this disease.

Overview of Current Research

According to the *2013 National Survey on Drug Use and Health* (SAMHSA, 2014), some 24.6 million Americans over the age of 12 had used illicit drugs within the past month, including marijuana, cocaine, heroin, hallucinogens, inhalants and prescription drugs used nonmedically. Results of the annual survey of approximately 67,500 individuals further indicated that 136.9 million individuals were current drinkers of alcohol, with 22.9 percent of Americans over 12 reporting binge alcohol consumption within the past month, and 16.5 million people acknowledging *heavy drinking*, defined as binge drinking five or more drinks on at least 5 days within the past month. While use of

illicit drugs and/or consumption of alcohol does not mean that individuals are suffering from clinical substance use disorder, the SAMHSA survey asserts that at least 21.6 million Americans merit the diagnosis of SUD (SAMHSA, 2014). This is consistent with other estimates (Volkow, 2016).

The report further stipulates that fully 18.3% of people with mental illness have a dual diagnosis of SUD, while only 6.3% of the population without mental health challenges succomb to SUD (SAMHSA, 2014). Anxiety and depression disorders are common among those with SUDs, as is PTSD (NIDA, 2016). Among women seeking treatment for SUD, recent research revealed that 80% reported having experienced lifetime histories of physical and/or sexual assault (NIDA, 2014), increasing their susceptibility to both PTSD and mood disorders. There is also a higher than expected co-occurrence of schizophrenia and SUD.

There is much debate in the scientific community about why there is such a strong connection between SUD and other mental illnesses (NIDA, 2010) and neither causation nor correlation can be definitively attributed. Key factors include overlapping genetic vulnerabilities, shared regions of the brain, and childhood experiences, including early use of drugs or alcohol, that seem to trigger the co-occurrence. However, the net result for the 26.7 % of children who self-reported having grown up living with SUD as children (American Pediatric Association, 2014), is that many likely experienced a combination of other ACEs such as the mental illness of family members; physical, emotional or sexual abuse; or domestic violence. In addition to being a key finding in the landmark ACEs study (American Pediatric Association, 2014), many other research

studies have substantiated this co-occurrence of multiple sources of trauma and toxic stress in children living with SUD.

Evidence for such overlapping sources of trauma may be seen in the high percentage of children involved with the child welfare system who are living with family SUD. A government report from the 1990s estimated that between one-third and two-thirds of all children referred to child protective services came from homes where SUD was a factor (Solis, Sahdur, Burns, & Hussong, 2012). More recent estimates place this figure even higher, although differences in methodologies, geographic location and criteria for determining SUD may contribute to some of the disparity (Child Welfare Information Gateway, 2014). Locally, it is reported that up to 80% of the children in the southwestern region of a Mid-Atlantic state who are referred to county child protective services live with one or more individuals who are heavy drug or alcohol users (Bitler & Brinker, 2014). Lander et al. (2013) report that a parent with SUD is three times more likely to abuse a child than a parent not suffering from the disease. Further, it has been reported that up to two-thirds of incest cases involve alcohol use prior to the incident (Lander et al., 2013).

The comorbidity of SUD with mental illness also increases the likelihood that children will be exposed to adverse environments for healthy development. In addition to increased potential for domestic and community violence, neglect, abuse, financial stress, and unstable living conditions, day-to-day family functioning is often characterized by inconsistency and chaos (Solis et al., 2012). Common characteristics of SUD parenting may include unpredictable and volatile emotional response to children's actions; neglect

of basic needs such as food because of preoccupation with substance use; lying or withholding the truth from children; forgetfulness about important times, dates and events in the child's life; and substance-fueled behaviors in front of others that cause children embarrassment (Lander et al., 2013; Solis et al., 2012).

Such findings grow in significance when one reviews the research on how toxic stress affects the brain development of children (Center on the Developing Child, 2011; Center on the Developing Child, 2016; National Scientific Council on the Developing Child, 2005/2014), especially juxtaposed with the neuroscience of addiction (NIDA, 2014, 2016). First proposed as a concept in child development by the Center on the Developing Child in 2005, *toxic stress* has been the source of extensive research ever since (Center on the Developing Child, 2016). Rooted in the research on the biological foundations of the stress response, "Toxic stress response can occur when a child experiences major, frequent, and/ or prolonged adversity…without adequate adult support or, worse, where the adult is the source of both support and fear" (Center on the Developing Child, 2016, p. 12).

Common sources of toxic stress identified in the research include abuse, chronic neglect, caregiver substance use disorder or mental health challenges, and repeated exposure to violence. Each of these adverse experiences can set in motion the child's stress responses and when the toxic stress is chronic or severe, can highjack the developing brain's ability to self-regulate and negatively impact the development of neural connections between the limbic system, which regulates emotion, and the prefrontal cortex where executive functions such as working memory, cognitive

flexibility, inhibitory control, attention, and problem-solving (Center on the Developing Child, 2011). It is significant to note that these are the same parts of the brain which are impacted by SUD, and are the source of the impulsive and compulsive behaviors without regard for consequences that are symptomatic of the disease (NIDA, 2014).

In addition to the clinical evidence that has been accumulated about the negative impact of toxic stress on brain development, recent research has included studies of the biochemical basis for this disruption in brain architecture and its relationship with SUD. An example of this was reported by Reynolds (2012) and shed light on how much scientists are learning about the complex interaction between adverse experiences and neurological development. In this study, mice were bred to have an extra copy of the gene responsible for glucocorticoid receptors (GR). These GRs, located all over the brain, have been found to play a part in the physiological response to stress, the neural circuits that shape an individual's emotional make-up, and sensitivity to cocaine in adults. By manipulating the expression of these added genes, and comparing the mice with controls, scientists discovered that the early impact of stress on the brain significantly increased the likelihood of later mouse addiction.

A further example of this research is the study of young adults who had been maltreated in childhood conducted by Teicher, Anderson, & Ohashi (2014). MRI brain scans were conducted on participants and controls. The results of 123 participants who had been identified as having experienced physical or sexual abuse or severe neglect in childhood, as measured by a battery of screening instruments, were compared to the scans of 142 control participants who had not been identified as having been maltreated.

Significant differences in brain architecture were identified, especially in the cortical connections between two areas of the brain which handle the awareness and regulation of emotions and cravings. Those individuals who had been subjected to childhood abuse or neglect were found to have weaker and fewer connections between various parts of the limbic system, responsible for an individual's ability to regulate emotions and control impulses, compared to the controls. Further, measurable differences were noted in the parts of the brain associated with self-centered thinking, working memory, attention, visual processing and the ability to attribute thoughts and feelings to others. Many of these developmental brain functions are involved with the risk factors for SUD and characteristic of a variety of mental health issues. All are also implicated in academic success. The researchers suggested that their findings offered physical evidence that severe stressors in childhood can significantly impact the structure and trajectory of brain development. The study, funded by NIDA, is part of a broader research movement that is working to develop tools that can more accurately determine an individual's specific vulnerabilities to SUD and mental health challenges by examining brain architecture and other physiological measures (Center on the Developing Child, 2016).

The issue of children living with family SUD is further complicated by the research on the heritability of the disease, which is estimated to be between 50 and 60%: this is more than most cancers, diabetes and cardiovascular diseases which are said to "run in the family" (Volkow, Janda, Nestler, & Levine, 2014). Depending on whether one or both birth parents have SUD, a child's chances of developing the disease are between two and 10 times higher than those of a child whose does not have the genetic

predisposition. Current investigations of epigenetics, or how the environment plays a role in the expression of genetic structure (NIDA, 2016; Reynolds, 2012) offer insight into the complex way in which genes play a role in the vulnerability to SUD.

The growing body of research about SUD and young children was the impetus behind NIDA's March 2016 publication of a report focused on ages 0-8, *Principles of Substance Abuse Prevention for Early Childhood: A Research-Based Guide.* This supplement to the agency's 2003 publication about preventing substance use disorders in children and adolescents (NIDA, 2003) was determined to be necessary because of the significant amount of research on brain development and neuroplasticity in early childhood that had occurred since the original publication (NIDA, 2016). The publication highlighted both the risk factors and protective factors at work in early childhood, from the perspective of SUD vulnerability and prevention. The research that was cited corroborated the study on ACEs (American Academy of Pediatrics, 2014) and summarized the physiological evidence for the impact of toxic stress on the brain development of young children.

Impact of SUD on Children

Researchers have examined the negative impact of family SUD on children. Both the ACEs study (American Academy of Pediatrics, 2014) and the Center on the Developing Child (2008/2012; 2015) identified living with SUD as one of the major sources of toxic stress in children. Included in the long-term consequences of toxic stress are mental and physical health challenges, such as impaired executive functioning,

reduced self-regulation skills; cardiovascular disease; an increased incidence of risky behaviors; and a dramatically increased likelihood of developing SUD in adulthood.

This toxic stress is thought to be the result of SUD's specific effects on parenting skills and habits, ranging from inconsistent or ineffective parenting, to neglect and abuse. Child Welfare Information Gateway (2014) provided a list of such effects for social workers addressing the needs of children and families impacted by the disease. Among the most relevant to this study are: (a) reduced attunement to a child's social and emotional cues; (b) challenges in attaining and maintaining healthy parent-child attachment patterns; (c) poor emotional regulation and increased anger and impulsivity; and (d) estrangement from extended family and friends who might offer the child a positive social network.

Many studies have examined how the disease affects children's school performance, both academically and behaviorally (Brook, Saar, & Brook, 2010; Conners-Burrow et al., 2013; Ronel & Levy-Cahana, 2011; Solis, Sadur, Burns, & Hussong, 2012; Webster-Stratton & Taylor, 2001). Solis et al. (2012), for example, analyzed more than 90 research studies on risk factors for children experiencing familial substance use disorder. Their analysis revealed that while many variables, such as the co-existence of other mental disorders, domestic conflict, and parental incarceration, made it a challenge to predict outcomes with confidence, children were at higher risk for academic underachievement, externalizing or internalizing symptoms, and earlier and more severe substance use disorder than their peers whose families were not suffering from SUD. Solis et al. (2012) also reviewed research that identified specific parental characteristics,

such as lower maternal warmth, erratic routines, and less consistent disciplinary measures by both the mothers and the fathers.

Connors-Burrow et al. (2013) reported similar results in their study of teachers' reports of young children's classroom performance and observed family interaction patterns. Their research pointed to the significance of multiple risk factors on children's classroom behaviors. They also discussed protective factors, since 45% of the children participating did not have significant classroom behavior challenges. Similar results were reported in the earlier and often-cited work of Webster-Stratton & Taylor (2001), who identified a variety of risk factors and academic and behavior challenges in children of substance users, as early as preschool.

Studies that scrutinized protective factors, such as Ronel and Levy-Cahana's qualitative research with children of substance users (2011) and the National Scientific Center on the Developing Child's *Working Paper # 13* (2015) centered their discussions on relationships and resilience as primary protective factors. *Working Paper #13* analyzed multiple research studies from a variety of perspectives and extrapolated a set of key factors that contribute to resilience. These are: (a) a relationship with at least one stable, caring and supportive adult; (b) a sense of control over circumstances; (c) strong executive function and self-regulation skills; and (d) a supportive faith and/or cultural context (National Scientific Center on the Developing Child, 2015). These will be discussed further in the following section.

Resilience as a Protective Factor

Resilience is broadly defined as the individual's ability to overcome adversity and move on to positive outcomes (Masten, 2015). It is a strengths-based approach to understanding how some individuals continue to thrive in the face of significant challenge, while others face severe and lifelong physical and mental health consequences. Because of the evidence that resilience is a protective factor for the development of substance use disorder, the research on resilience was examined. Both empirical research and the theoretical models based upon it are discussed below.

Research Models and Supporting Evidence

In *Working Paper No. 13: Supportive Relationships and Active Skill-Building Strengthen the Foundations of Resilience*, The National Scientific Council on the Developing Child (2015) stated: "Decades of research in the behavioral and social sciences have produced a rich knowledge base that explains why some people develop the adaptive capacities to overcome significant adversity and others do not" (p. 2). Zolkoski and Bullock's (2012) extensive review of more than 90 studies on resilience and its impact on outcomes offered insight into a wide swath of this research. They analyzed longitudinal studies begun in the 1950s, as well as recent quantitative and qualitative studies from the fields of psychology, social work, and education.

Their meta-analysis examined key trends in the research. These included varying definitions and conceptual models of resilience, as well as protective factors, measures of resilience, interventions implemented to promote resilience, and current challenges facing resilience researchers. Among the challenges that the authors identified was the use of

differing terminology among researchers which made comparison of studies more difficult. However, their analysis confirmed that there were greater differences in conceptual models and their theoretical foundations than in the interpretation of data.

Among the most solidly supported research results were those that identified protective factors. Protective factors were grouped into *individual characteristics*, such as certain kinds of temperament, self-regulation and self-concept; *social dynamics*, such as family conditions that provided responsive and consistent caregiving; and *community supports*, such as teachers, clergy, and social services. Further, data from multiple paradigms confirmed that these protective factors mediated outcomes for at-risk children and youth. Understanding such protective factors may be critical to the early childhood professional, who has little or no control over the risk factors that children bring into a classroom.

Masten is one of the leading researchers on resilience, with over 170 publications on the topic in scholarly books and journals (Masten, 2015b). Dr. Masten was awarded the 2014 Urie Bronfenbrenner Award for Lifetime Contribution to Developmental Psychology in the Service of Science and Society by the American Psychological Association. The seminal article, "Ordinary Magic: Resilience Processes in Development" (Masten, 2001) has been cited 5,277 times, according to Google Scholar (Google Scholar, February 18, 2017).

In a recent book, *Ordinary Magic: Resilience in Development*, Masten (2015) examined the current models of resilience and offered in-depth discussions on areas of research focusing on individual resilience across contexts such as poverty, homelessness

and war, terrorism and natural disasters. In it, Masten defined resilience as: "the adaptation and survival of a system after a perturbation, often referring to the process of restoring functional equilibrium, and sometimes referring to the process of successful, transformation to a stable new functional state" (p. 9). Applied to individuals, the term is generally taken to mean the ability to make a "positive adaptation in the face of risk or adversity" (p. 9).

Masten described four waves of resilience research, each building upon the questions and findings of the previous (Masten, 2015; Masten, 2013). The first wave helped to *describe and define* resilience, and focused on questions of what it was, and why it made a difference. The second wave examined the *processes* of resilience, and how protective factors actually worked. The third wave investigated *interventions*: how could we promote resilience in high-risk populations? Resilience research has now entered the fourth wave, where advances in *neuroscience and epigenetics* raise questions about genetic differences in susceptibility to both trauma and intervention, and the biological impact of toxic stress on brain development.

Masten's decades of research and the analysis of the research of others has led to an understanding that resilience develops in ordinary people, out of ordinary experiences. In the past, "captivating stories of resilient individuals may have created misleading perceptions that resilience is rare and results from extraordinary power or resources (symbolized by magic powers or helpers in myths and fairytales)" (2015, p. 7). In contrast, current research has demonstrated that resilience develops when common experiences such as caring relationships with competent adults, positive school and

community environments, the opportunity to learn and succeed at learning, and a belief in oneself (Masten, 2015).

The ordinariness and universality of these factors, according to Masten, is evidence that they are derived from the common adaptive systems humans have evolved. Masten identified and discussed what she called the "short list" of these adaptive systems that promote the protective factors associated with resilience in young people, based on five decades of research. These resilience factors in young people and their associated adaptive systems are outlined in Table 1.

Table 1

Widely Reported Factors Associated with Resilience and Related Adaptive Systems

Resilience Factors	Adaptive Systems
Effective caregiving and parenting quality	Attachment: family
Close Relationships with other capable adults	Attachment: social networks
Close friends and romantic partners	Attachment: peer and family systems
Intelligence and problem-solving skills	Learning and thinking systems of the CNS (central nervous system)
Self-control; emotion regulation; planfulness	Self-regulation systems of the CNS
Motivation to succeed	Mastery motivation and related reward systems
Self-efficacy	Mastery motivation
Faith, hope, belief life has meaning	Spiritual and cultural belief systems
Effective schools	Education systems
Effective neighborhoods; collective efficacy	Communities

Note: Adapted from "The 'Short List' of Widely Reported Factors Associated with Resilience in Young People and Implicated Adaptive Systems" by A.S. Masten, 2015, *Ordinary Magic*, p. 148. Copyright 2015 by The Guilford Press.

While temperament is often identified as a key factor in resilience (Zolkoski & Bullock, 2012), Masten (2015) discussed the cultural and contextual bias that may underlie such interpretation of data. There were examples of research that conflicted with the work that associated the so-called "easy," or affable cluster of temperament traits (Center for Early Childhood Mental Health Consultation, n.d.) with high resilience. For example, there was research on the Masai that followed infants born during a severe drought, after the researchers identified their temperaments. While it was predicted that the "easy" babies would have fared better in the face of adversity, in fact, the more irritable and reactive children were the ones to thrive. Further examination of the Masai culture revealed that these were traits more highly valued in adults.

Masten also analyzed the research body that indicated that consistent temperament traits of conscientiousness and constraint were associated with stronger academic achievement in the face of adversity. Many of the findings could be viewed in light of recent advances of understanding of executive function skills, rather than related strictly to in-born temperament. Other research on effortful control and executive functions offered similar conclusions (Liew, 2012).

While epigenetics may continue to offer insight into the interaction between temperament and relationship systems that promote resilience, Masten summarized the evidence to this point: "Thus, it is the function of the trait that matters, considered in a particular context. The trait itself is not inherently a vulnerability or a protective factor; the function arises in the interplay of individual and context" (Masten, 2015 p. 167).

The National Scientific Center on the Developing Child's (2015) analysis of the research on resilience parallels Masten's. Focusing on the importance of early experiences, a neurobiological explanation is given for their importance: "A resilient brain adapts to similar types of non-life-threatening stressors by adopting coping skills based on experience. As a result, the stress response system "learns" to activate more moderately" (National Scientific Council on the Developing Child, 2015, p. 5).

The kinds of experiences that promote the resilient brain are well-researched, according to the Council (National Scientific Council on the Developing Child, 2015). Not surprisingly, they align with Masten's adaptive systems. The four kinds of experiences identified as critical for the child's development of the resilient brain are: (a) relationships with at least one least one consistent, caring and supportive adult; (b) the opportunity to develop a sense of mastery over their environment; (c) experiences that promote development of strong EF and self-regulation skills; (d) Support from a strong faith or cultural context.

It is beyond the scope of this paper to review the thousands of studies that support this shared conceptual model of resilience. The adaptive systems and protective factors that have been identified above are also well-substantiated in the literature. However, in the sections that follow, evidence will be provided of the relationship of these protective factors to the more broadly defined domain of social and emotional learning, as well to academic achievement.

Key Protective Factors for Resilience

There is significant overlap between the skills commonsly described as *social-emotional learning* (SEL)and the protective factors of resilience. Gartrell and Cairone defined resilience, in fact, as "the ability to use social-emotional skills to overcome, or bounce back from, the effects of stress in one's life" (Gartrell & Cairone, 2014, p. 92). One measure of early childhood social and emotional is the Devereux Early Childhood Assessment for Preschool-2 (DECA P2; LeBuffe & Naglieri, 2012). This evidence-based, standardized and norm-referenced behavioral checklist for preschoolers has been widely used in early childhood classrooms (Center for Resilient Children, 2016) and aligns with the adaptive systems and protective factors for resilience discussed above. The nine skills identified in the tool for each of the three domains of resilience (attachment/relationships, initiative, and self-regulation) also correspond to the skills and dispositions found on other SEL checklists and surveys used in large scale research studies (Jones, Greenberg, & Crowley, 2015; Office of Planning, Research and Evaluation, 2014; U.S. Department of Health and Human Services, 2015).

For example, under Attachment/Relationships, DECA P2 behaviors include "Show affection for familiar adults;" "Appear happy when playing with others;" and "Seek help from children/adults when necessary." Initiative items include "Show confidence in his/her ability;" "Show an interest in learning new things;" "Try different ways to solve a problem;" and "Remember important information." Self-regulation indicators include "Handle frustration well;" "Accept another choice when his/her first

choice is not available;" "Listen to or respect others"; and "Cooperate with others" (LeBuffe & Naglieri, 2012).

Jones, Greenberg and Crowley (2015) conducted a longitudinal retrospective study comparing kindergarten teachers' ratings of 753 children's prosocial skills with key young adult outcomes of these children, 13-19 years later. The social skills measured by teachers corresponded with the DECA 2P. Examples of these skills included "cooperate with peers without prompting," "is helpful to others," "very good at understanding feelings," and "resolves problems on own" (Jones et al., 2015, p. 2286). Outcome domains included educational level attained, involvement with the criminal justice system, mental healh challenges and substance use disorder, controlled for gender, race, socioeconomic status, and other criteria. The data supported that the teacher-assessed social and emotional skills were strongly predictive of positive or negative adult outcomes, "independent of child, family and contextual factors that typically predict adult outcomes" (Jones et al., 2015, p. 2287).

Two large-scale program evaluations of early childhood curricula designed to target social and emotional development also assessed similar behaviors. *The Social Emotional Preschool Curriculum Consumer Report* (U.S. Department of Health and Human Services, 2015) examined seven published curricula to determine whether they addressed a comparable list of social-emotional and executive function objectives. Included in the evaluation were items such as "communicates with familiar adults and accepts or requests guidance," "cooperates with others," "resolves conflict with peers alone and/or with adult interventions," "shows confidence in a range of abilities and in

the capacity to accomplish tasks and take on new tasks," "handles impulses and behavior with minimal direction from adults," and "demonstrates eagerness to learn about and discuss a range of topics, ideas, and tasks" (U.S. Department of Health and Human Services, 2015, p. 6). These parallel competencies related to resilience.

In the *Impact Findings from the Head Start CARES Demonstration* (Office of Health and Human Services, 2014), the impact of three preschool curricula designed to promote the development of social and emotional and executive function skills was assessed. Over 2,000 children and their teachers in 104 Head Start classrooms were evaluated with multiple assessments, conducted by independent researchers as well as teachers and parents over the course of a year, and then again in kindergarten. Targeted skills included many that correspond to resilience including "cooperate with others," "assert self to solve problems with peers," "show respect for others feelingss" and "show flexibility in solving problems."

There is disagreement about the accuracy of assessment of social and emotional skills in young children, in part because of how intertwined these diverse skills are and how difficult they are to observe in isolation in a naturalistic early childhood environment (Clopet & Shearer, 2016). However, there is little disagreement in the academic community that SEL is critically important to children's academic success (Center on the Developing Child at Harvard University, 2016; Friedman-Krauss & Barnett, 2013; National Scientific Council on the Developing Child, 2008/2012). The overlapping of these skills with current models of resilience offers additional empirical support for their importance to early childhood educators. Further, social and emotional development in

early childhood is considered synonymous to early childhood mental health (National Scientific Council on the Developing Child, 2008/2012). Representative research on several individual protective factors follows, with a focus on studies that demonstrate the relationship of these factors to SUD. It is important to note that in both young children and the research, these protective factors are often interactive. Thus, while researchers may focus on the study of a particular cluster of behaviors in order to study one protective factor, they frequently note the intertwining of others.

Attachment has long been identified as a critical component of children's development (Bredekamp, 2014). Early research by Bowlby, Ainsworth, and others provided the early childhood field with the foundation for developmentally appropriate practice. In addition, these early scholars on attachment spawned myriad studies by researchers in multiple disciplines.

Attachment has been found to be problematic for young children living with SUD. In addition to the inconsistent and, at times, absent, parenting, parents with SUD are less likely to have the social network of support that buffers the normal stress of parenting infants and young children (Harper Browne, 2014). The added stress of parenting with SUD, whether under the influence of drugs or alcohol, or dealing with the cognitive and emotional impact of the disease, contributes to a reduction in opportunities to nurture healthy attachment relationships with young children (Lander et al., 2013). Further, when a parent is in treatment or incarcerated, or the child is placed in foster care due to parental negligence or abuse, attachment bonds may be damaged (Connors-Burrow et al., 2013; National Institute on Drug Abuse, 2016)

Burlew et al. (2013) analyzed parenting practices, parental stress and problem behaviors in 107 children and their substance abusing parents. They analyzed data from the subscale of The Parent-Child Dysfunctional Interaction administered to parents; this measures stress connected with a lack of a positive and supportive bond with the child. They found evidence of a relationship between scores on this subscale and both internalizing and externalizing behaviors in the children. They cited this as evidence that unfavorable parenting practices, which they defined as "inadequate monitoring and limited involvement in the child's life" (Burlew et al., 2013, p. 236) often resulted in negative interactions between parents with SUD and their children.

Eiden, Colder, Edwards, and Leonard (2009) conducted a longitudinal study that followed toddlers of parents with SUD through kindergarten. Key measures were parental warmth and sensitivity and child self-regulation skills as children developed. In addition to finding that fathers with an alcoholism diagnosis demonstrated less warmth and sensitivity to their children, data revealed that mothers who lived with alcoholic partners, but had no diagnosis, were also less warm and emotionally engaged with their toddlers during play periods. Lack of parental warmth, one expression of attachment, was found to be associated with lower self-regulation and social competence scores when the children entered kindergarten.

While a stable relationship with a primary caregiver in infancy is necessary for healthy social and emotional development, current resilience research has also investigated the importance of other kinds of child-adult and peer relationships throughout the lifespan (Masten, 2015; National Scientific Center on the Developing

Child, 2015). These, too, may be problematic for young children living with SUD. Many studies have examined teachers' attitudes towards children with behavior challenges (Liew et al., 2010; Liew, 2012).

Connors-Burrow et al. (2013) reported that the children living with SUD in their sample reported high rates of teacher-rated behavior challenges, with 55.7% of participant children receiving the scores in the *concern* range. This aligns with multiple other reports of lower self-regulation skills and more challenging behaviors, as well as higher incidences of depression, anxiety, in children living with SUD (Eiden et al., 2009; Lander et al., 2013; Solis et al., 2012). Research has also highlighted that many teachers do not feel prepared to address children's challenging behaviors (Onchwari, 2010; Waajid, Garner, & Owen, 2013). When combined with the stigma that children may face when their teachers know that a parent is addicted to drugs or alcohol (Connors-Burrow et al., 2012), it may be more difficult for children living with SUD to form healthy attachments with teachers than it is for their peers.

Peer relationships may also be problematic. While not extensively studied, many scholars of family SUD have noted that children living with SUD have more limited access to peer relationships in the home setting. This has been attributed to many factors, including parental shame, undesirable living conditions, and children's desire to protect the parents from outsiders (Moe, 2011).

Brown (2014) offered evidence that peer interactions were able to compensate for a severe lack of caring adult interaction in an orphanage in Romania. His case study involved work with 16 severely abused and neglected children who, at the outset of the

study, spent their days tied to cots. Through therapeutic playwork, the children began to develop first physically, and then, as language began to develop, made social and emotional gains that would not have been predicted from their severely adverse early experiences. Brown attributed the gains to the children's ability to form social connections with peers which allowed them to continue to interact when the playworkers were not present.

The impact of limited peer relationships extends beyond the social-emotional realm. Clopet & Bulotsky-Shearer (2016) conducted a study of 527 preschoolers in Head Start programs which compared measures of social competence, including peer interactions, with pre-academic skills in literacy and math. The study followed the children over the course of the school year, and included multiple measures of social interaction, included observations, teacher reports, and the use of several tools. Significant relationships were found between the ability to cooperatively play and oral language, alphabetic knowledge, and problem-solving skills. Similarly, Bulotsky-Shearer et al. (2012) reported on multiple studies which showed a positive relationship between peer play interactions and early pre-academic skills in African-American preschoolers from low-income households.

Self-Regulation

Self-regulation has been studied extensively in recent decades and has been identified as one of the factors most predictive of life and academic success (National Scientific Council on the Developing Child, 2016; Masten, 2015). A complex cluster of skills with a neurobiological base, self-regulation includes self-management of attention,

arousal, emotions and actions. Hammoudi, Murray, Sorenson, & Fontaine (2015) offered a comprehensive definition of self-regulation that highlights why it considered an important adaptive capacity throughout life. They defined self-regulation as "the act of managing cognition and emotion, which enables goal-directed actions such as organizing behavior, controlling impulses, and solving problems constructively" (Hammoudi et al., 2015, p. 9).

Hammoudi et al.'s (2015) definition was offered as part of a series of three reports on self-regulation and toxic stress conducted at Duke University's Center for Child and Family Policy, under contract with the federal Office of Planning, Research and Evaluation (Hammoudi et al., 2015; Murray, Rosanbalm, Christopoulos, & Hammoudi, 2015; Murray, Rosanbalm, & Christopoulos, 2016). The reports detailed theory, research and interventions related to the role that toxic stress plays in the development of the cluster of self-regulation skills.

Toxic stress, which occurs when chronic or severe adversity impact the individual (Center on the Developing Child at Harvard University, 2011; Murray et al., 2015), has been found to interrupt healthy brain architecture in young children, and affects those parts of the brain most directly responsible for emotional regulation and executive functions (Center on the Developing Child at Harvard University, 2011; Hammoudi et al., 2015; National Scientific Council on the Developing Child, 2005/2014; National Scientific Council on the Developing Child, 2016). Family SUD is often associated with a variety of conditions found to cause toxic stress in children, including physical and sexual abuse, neglect, family conflict and domestic violence (Gardner, 2014; Lander et

al., 2013; NIDA, 2015; Solis et al., 2013). Further, the development of self-regulation requires the attuned interaction with a caregiver *co-regulation* (Murray et al., 2015), and this is often absent when parents have SUD. Therefore, one would expect children living with SUD to be a higher-risk for challenges with self-regulation. It is also important to note that self-regulation, sometimes referred to as self-control, is one of the brain systems involved with the trajectory of SUD (Volkow et al., 2014)

Research supports the expectation that children who live in families impacted by SUD may face self-regulation challenges. The studies reviewed that looked at child behavioral outcomes of living with SUD reported statistically more occurrences of traits related to limited self-regulation in children living with SUD than in control groups. These included teacher-reported and parent-reported externalizing behaviors such as impulsivity as well as attention challenges (Lander et al., 2013)

Many studies have identified a relationship between self-regulation and academic success. Friedman-Krauss and Barnett (2013) of the National Institute for Early Education Research included the recommendation that all early childhood programs include a focus on social and emotional development, including self-regulation in a policy brief. Blair and Raver (2015) reviewed numerous studies on the relationship between self-regulation and school readiness in young children, spanning diverse socioeconomic, geographic and ethnic populations. They concluded that "an approach to the promotion of school readiness by fostering the development of self-regulation offers the potential to remake early education in a way that is effective for all children" (Blair & Raver, 2015, p. 724). Their review of the research points to strong evidence that this is

especially important to children living in adverse conditions, including poverty. They advocate for a *both/and* approach to self-regulation and pre-academics in preschool, based on evidence that when children are prepared with social and emotional skills, emergent literacy and math competencies become attainable.

Research continues to pinpoint specific examples of how self-regulation promotes academic achievement. Curby, Brown, Basset, and Denham (2015) assessed 91 preschool children on measures of self-regulation and emotion knowledge, a related skill. They found that competency in these areas was predictive of a child's alphabetic knowledge as well as print conventions and phonological awareness, when the variables of gender, age, maternal education, attentional abilities and the amount of emotional support in the classrooms (as measured by the Classroom Assessment Scoring System) were controlled for.

Tan and Dobbs-Oakes (2013) conducted a study of 61 preschoolers to determine whether there were correlations between emergent literacy scores on two measures of language and literacy and scores on two assessments of social and emotional development. They found significant relationships between almost all dimensions of SEL (interpersonal skills, attention, externalizing and internalizing behaviors, initiative, and self-control) and literacy scores. Initiative and self-control are of particular interest to this study. Both were found to be positively related to expressive language, receptive language, alphabet knowledge, and meaning construction from print, with p scores ranging from $p < .05$ to $p < .001$.

Research on self-regulation often overlaps with the research on executive functions. While there are distinctive characteristics of self-regulation as it is manifested in young children's social interactions, it is important to note this alignment, according to Liew (2012), who reviewed the literature on self-regulation, EF, and social-emotional competencies in relation to academic performance. He argued that while educators work with the whole child, researchers often focus their attention on examining self-regulation from either a behavioral, temperament-based perspective (where it is sometimes called *effortful control*), or a cognitive/neural systems approach, where it is studied as one of the executive functions. He advocates for bringing both bodies of research to the table when determining educational practice and policy, since the overlaps offer greater insight into how to support young children's learning, especially those who face adversity and are most at risk for academic failure. The National Scientific Council on the Developing Child concurred, and included EF with self-regulation in its most recent report on resilience (National Scientific Council on the Developing Child, 2015).

Executive Functions

Executive functions have been called the "air traffic control system of the brain" (Center on the Developing Child at Harvard University, 2011, p. 1). They are a cluster of functions based in the prefrontal cortex but also include circuits in the anterior cingulate, parietal cortex, and the hippocampus (Center on the Developing Child at Harvard University, 2011). Executive functions include attentional control, cognitive flexibility, inhibition, initiation, metacognition, organization, planning, response to feedback, self-regulation, shifting attention, and working memory (Cartwright, 2012).

Diamond, a leading researcher on EF in children, has identified three primary EFs. These lay the foundation for other higher-order thinking skills: inhibitory control, working memory, and cognitive flexibility (Diamond, 2012; 2014b; 2016; Diamond & Lee, 2011). These skills impact all areas of cognitive and social functioning (Diamond, 2014).

The development of EF takes place over the first two decades of a child's life (National Scientific Council for the Developing Child, 2015), but this development is highly susceptible to toxic stress, especially in young children (Center on the Developing Child, 2011). This is because of the interconnections between the areas of the brain where EF systems originate, and the "deeper brain structures that control the developing child's response to threat and stress" (Center on the Developing Child, 2011, p. 6). As with the related self-regulation skills, children living with SUD or other adversity may face impaired development in this area because of the amount of chronic and/or severe stress they experience (National Scientific Council on the Developing Child, 2005/2014). Current research in addiction studies is exploring the relationship between executive functions, self-regulation and SUD and data indicates a strong relationship, although causality has not been determined (Moffitt et al., 2011; Tang, Posner, Rothbart, & Volkow, 2015). Riggs, Spruijit-Metz, Chou, and Pentz's (2012) longitudinal study found that EF in fourth graders was predictive of their later use of substances and may provide evidence relevant to this paper.

Pentz, Riggs, and Warren (2016) examined a range of substance use prevention programs. They provided preliminary evidence that substance use prevention programs

which targeted executive functions, especially inhibitory control, may be a promising area of application of the EF research. While their project examined programs for middle school students, there may be relevance to younger children as well, especially those at risk.

One avenue of research has been to study the relationship of EFs to academic success. Another has been to study whether interventions can improve or foster the development of EF skills. Both bodies of research will be briefly reviewed, in the context of this study's focus.

Diamond (2014) cited a lengthy list of studies, conducted over the past two decades, that demonstrated that EFs are critical to school readiness, school success, positive adult outcomes and job success. Research in this promising area continues. Most relevant to early childhood are the studies that target emergent literacy and math skills. Fitzpatrick, McKinnon, Blair, and Willoughby (2014) conducted a study with 226 young children to determine if EF could account for the impact of poverty on school readiness. They found that EFs were more predictive of math, reading and vocabulary skills than general intelligence or speed of processing. Nesbitt, Baker-Ward, and Willoughby (2013) report similar findings in their study which looked at EF and expressive reading measures in kindergarten and analyzed their effect on academic achievement in first grade; EF were found to be more predictive of math achievement than reading in this study. Fuhs, Farran, Clark, and Turner (2015) looked at the predictive power of both direct assessments and teacher ratings of EF for academic gains in literacy and mathematics, and found both were predictive of gains in these areas, and accounted for the most

variance in math achievement. Similarly, Liew et al. (2010) found that the EF of effortful control operated with teacher-child relationships to contribute to early academic success of young disadvantaged children, and that self-regulatory skills were especially important to student success when a supportive teacher-child relationship was not present. Cartwright (2012) examined the parallel cognitive processes involved in EFs and early reading and found that EFs supported prereading skills, word reading and reading comprehension.

Given their importance, what evidence exists that EFs can be developed through specific interventions? One of Diamond's most recent publications (Diamond & Ling, 2016) critically examined 84 studies on interventions of EFs that met strict criteria for research methodology, including not being correlational. They concluded that in spite of the challenges in both defining and measuring EFs, there is abundant and dense evidence that EFs can, in fact, be developed, from infancy through old age. Further, Diamond stated:

> One of the most critical societal needs is to develop effective, scalable, sustainable, and affordable strategies for supporting children from the youngest age possible, their parents, and their early child-care providers to get children started with good EFs when they first enter school, thereby launching them on a promising, positive trajectory, improving their life prospects and preventing problems, rather than trying to treat problems after they have been allowed to develop. (Diamond, 2016, p. 26)

Pretend play and storytelling have both been identified as just such "effective, scalable, sustainable and affordable" (Diamond, 2016, p. 26) strategies by The Center on the Developing Child at Harvard University (2016) and Diamond (2014b). Both practices target all three of the EFs (cognitive flexibility, self-regulation, and working memory). In addition, both involve the use of language and symbolic representation by the young child, important factors in emergent literacy (Lillard, et al., 2013, Piaget, 1962).

Specific aspects of these overlapping relationships have been studied by many researchers. For example, Carlson, White, and Davis-Unger (2014) investigated the relationship between EFs and pretense, a form of symbolic representation that develops in early childhood and is characteristic of the way young children interact with the world. They administered multiple measures of EF and pretense representation to 104 preschool children and determined that EF significantly related to pretense, after controlling for variables:

> These results, although correlational, are consistent with the idea that prefrontal cortex and concomitant EF development play a role in helping children manage conflicting mental representations in pretense. Inhibitory control is suspected to be a crucial aspect of representation in pretense. To entertain fantasy scenarios in one's mind, prepotent reality-based cues must be suppressed. (Carlson et al., 2014, p. 11)

> These findings may offer an additional perspective on the role of EF in child development. There has been much debate about whether pretense, or pretend play, is a causal element for early language and literacy development (Bergen,

2013; Lillard et al., 2013; Nicolopoulou & Ilgaz, 2013). Questions have also been raised about whether EFs are a necessary component of pretend play (Lillard et al., 2013), and whether pretend play develops EF.

Research examining this relationship has often focused on *Tools of the Mind* (Bodrova & Leong, 2007), a preschool program based on the theory of Vygotsky. Vygotsky believed that for the child "in play it is as though he were a head taller than himself" (Vygotsky, 1978, p. 102). While Vygotsky's theory was developed long before EFs were studied, his ideas about the way pretend play supported the development of the child's self-regulation, planning, working memory, and cognitive flexibility aligned well with current research. *Tools of the Mind* purports to specifically target the development of these EFs (Bodrova, Germeroth & Leong, 2013; Leong & Bodrova, 2012).

Despite early research indicating that *Tools of the Mind* may be an effective intervention for developing EFs (Barnett, Jung, Yarosz, Hornbeck, Stechuk, & Burns, 2008; Diamond, 2012; Diamond & Lee, 2011), subsequent studies have raised questions about this (Farran & Wilson, 2014; Office of Planning, Research and Evaluation, 2014; Wilson & Farran, 2012). These large-scale studies, conducted in both Head Start classrooms (OPRE, 2014) and public school Pre-K classroom (Farran & Wilson, 2014; Wilson & Farran, 2012) failed to show the effects on specific EFs or academic achievement. As with earlier discussions (Barnett et al., 2008), researchers commented on the challenges of accurately measuring EFs in young children, as well as the complexity of *Tools* implementation as being potential factors. Farran and Wilson (2014) further observed that the strict implementation of the *Tools* curriculum left significantly

less time for child-directed free play than in the control classrooms. Because scholars from Piaget (1962) and Vygotsky (1978) through modern play theorists like Sutton-Smith (1997; 2017) and Singer and Singer (2013) have identified the importance of the child's own intrinsic motivation to the very nature of play, future research may determine whether reducing the child's own motivation, or initiative, in pretend play diminishes the developmental advantages, including the development of executive functions.

Other specific early childhood curricula have also been studied to determine their impact on EFs, including Montessori (Diamond & Lee, 2011). Lillard et al. (2013) conducted an exhaustive meta-analysis of research on pretend play, in order to determine whether claims of its unique causal relationship to such traits as intelligence, creativity, language development, emotion regulation, social skills, and EFs were empirically verifiable. While they did not find proof for a causal relationship between EFs and emotion regulation and pretend play, critics point to methodological weaknesses in U.S. play research, including the reliance on quantitative studies in contrived settings, instead of the rich, descriptive analyses of the pretend play of children in naturalistic settings that might yield results more in line with the many theoretical models that support such relationships (Bergen, 2013).

Nonetheless, Lillard et al., acknowledged the role that children's motivation to play might have in the development of many skills, including literacy: "What could be important here with regards to pretend play is motivation. If pretend play is a context that especially motivates engagement with literacy materials, then this is significant" (Lillard et al., 2013, p. 19).

Diamond summed up her views on successful interventions for the development of EFs: “I hypothesize that programs that will most successfully improve children’s EFs are those that require and directly challenge EFs continually and also bring children joy and pride, give them a feeling of social inclusion and belonging, and help their bodies to be strong, fit and healthy” (Diamond, 2012, p. 338).

Motivation Mastery/Initiative

Masten (2015) discussed in detail several major theoretical perspectives on what is called *mastery motivation*. Different persectives have variying labels for this; mastery motivataion is also known as *agency, self-efficacy,* and initiative. The term is used to describe the individual’s “powerful motivation system involved with learning and striving for adaptation and competence” (Masten, 2015, p. 161).

In young children, this includes skills and dispositions such as trying new activities, showing an interest in learning new things, using different ways to solve a problem, and showing confidence in his/her abilities (LeBuffe & Naglieri, 2012). While many of the behaviors that demonstrate initiative overlap with executive functions, Masten described the joy and satisfaction that young children experience when they make things happen in their environments as an essential part of this element of resilience. Further, this sense of mastery is enhanced by social context, though not by extrinsic motivators, according to Masten. Responsive caregivers who provide children with many opportunities to act on their environments, and gain new skills in a supported yet autonomous way are critical to the development of a child’s sense of self-efficacy: “Thus, self- efficacy arises from the experience of overcoming manageable challenges and a

robust sense of self-efficacy in turn forsters persisence in the face of adversity, which is more likely to lead to success than giving up" (Masten, 2015, p. 161).

Masten pointed to studies of children and teens who did not have the chance to develop this mastery, because of adversities, such as neglect and abuse, bullying, depression and discrimination. In such cases, working specifically on mastery motivation has been found to be a viable treatment approach. Hauser, Allen and Schulz (2012) discovered that in a longitudinal study which tracked adolescent psychiatric patients and a control group over 10 years, agency and an interest in relationships were the factors which distinguished the young adults who had overcome adversity in adolescence and gone on to lead lives characterized by "exceptional" (Hauser et al., 2012, p. 232) success.

Similar to this is the current research on *Playwork* and adventure playgrounds. This research has examined the need for children to take self-modulated and self-initiated risks (Brown & Patte, 2013). Often missing from 21st century childhoods because of safety concerns, regulations, and the reduced role of child-directed play from preschool through adolescence, they pointed to the absence of such risk as a loss of opportunity to develop the mastery and resilience that leads to mental, physical and emotional health.

While challenging to directly study, the intrinsic motivation of children to play, and the agency that they derive from it, has been observationally noted since scholars began to consider play in general, and pretend play, in particular. In an examination of play in society, sociologist Henricks (2015) described it in this way:

> To some extent play becomes play only when the participants declare it to be so. That spirit or zest may be the most identifable cause of the event. Most certainly,

> it guides and sustains the behaviors that follow… Considered from this perspective, play behaviors feature motivations different from those associated with the other things we do. Commonly, people start to play because they have a vision of what will happen in the moments ahead. (Hendricks, 2015, p. 28).

In summary, an ample research base supports the importance of resilience in all children, and especially for children at risk, including those living with SUD. There is evidence of how each protective factor (attachment, self-regulation/executive functions, and mastery/initiative) can develop through ordinary life experiences, such as play, as well as through structured interventions. Further, these protective factors have relevance to a child's academic success, as well as to early childhood mental health.

The National Scientific Council on the Developing Child (2015; 2016) recommended that early childhood education be viewed as an important component of societal efforts to promote resilience in all children. While educators cannot mediate the relationship that a parent may have with his or her children, they can provide children with supplemental adult and peer relationships as well as experiences that promote self-efficacy, self-regulation, and executive function skills. How the empirical support for the relationship between such practices and resilience can bolster efforts to provide a strong social-emotional foundation in preschool classrooms will be the focus of the following section.

Early Childhood Curriculum and Resilience

While the field of early childhood education has not focused on resilience as a concept, many scholars have noted the changes in early childhood programming over the

past several decades that may impact how resilience is supported in the classroom. Seminal works, such as *Crisis in the Kindergarten: Why Children Need Play in School* (Miller & Almon, 2009), and *A Mandate for Playful Learning in Preschool: Presenting the Evidence* (Hirsch-Pasek, Golinkoff, Berk, & Singer, 2009) have pointed to the false dichotomy between play and learning that has come about because of national trends towards early accountability and testing. They highlighted the body of research that supports the dynamic relationship between play, learning, and development across the domains, and contrasted this to the short- and long-term academic and developmental results found in programs that de-emphasize play.

Included in this body of research are the longitudinal studies conducted on participants of the High/Scope Perry Preschool Project in the 60s (Schweinhart et al., 2011). This exhaustive study of outcomes for these children through age 40 provided data on a variety of outcomes for children who participated in this program, and compared them to children who had participated in several other models of preschool education. While the short-term advantages in literacy and numeracy were significant but modest when compared with a traditional preschool program as well as a teacher-directed, skills-based model, it is the long-term differences that are most indicative of the importance of a program where teachers facilitate children's social and emotional development while scaffolding learning. High school graduation rates, incarceration rates, substance involvement, employment and economic security were among the long-term outcomes positively impacted by this program (Schweinhart, 2012; Schweinhart et al., 2011).

The recent shift towards didactic and academic early childhood programming has extended from policy to the attitudes of early childhood educators in the classroom. Bassock, Latham and Rorem (2016) compared the beliefs of kindergarten teachers in 1998 with those in 2011 on five dimensions. These included: their attitudes about school readiness; the amount of time they spent on academic and non-academic activities; organization of the classroom; approach to teaching; and their use of standardized tests. Using data collected in large scale national surveys, they compared the results of 2,500 public school kindergarten teachers in 1998, with 2,700 comparable teachers in 2011. They discovered that there had been a significant shift towards the importance of academic skills over social and emotional learning outcomes for school readiness. Teachers spent significantly more time engaged in teacher-directed literacy and math activities in 2011 and the reduction in usage of learning centers such as dramatic play, art, sand and water, and the science center was significant at the $p < .001$ level (Bassock, Latham, & Rorem, 2016).

This change in teacher beliefs and practices has been significant since the passage of No Child Left Behind (Bassock, Latham, & Rorem, 2016). Concern about achievement on standardized tests has replaced an interest in the data compiled from the Perry Preschool Project and other evidence supporting child-centered and play-based approaches that target social and emotional development. Many scholars believe that it is also contributing to the increase in early childhood mental health challenges (Brown & Patte, 2013; Gray 2011). In response to this increase in documented mental health challenges in young children, Early Childhood Mental Health (ECMH) systems have

been initiated in many states (Zero To Three, 2013). However, obstacles to such programs, such as inter-agency and interdisciplinary coordination, have diminished their potential impact on children (Zero To Three, 2013).

Early Childhood Programs Related to Resilience

While these systemic challenges are being addressed, early childhood teachers are left to meet the social, emotional and behavioral needs of the young children in their care. Specific curricula have been developed that support the social and emotional development of children, including those who have experienced ACES. The National Repository of Evidence-Based Program Practices is a database maintained by SAMHSA. Included are programs for infants through adults, who face a wide variety of mental health challenges, including substance use disorder. A search for programs for preschoolers that were administered in school/childcare settings and targeted social and emotional skills related to resilience revealed four curricula that had evidence supporting their effectiveness: Al's Pals, Incredible Years, PATHS, and Conscious Discipline (NREPP, 2016).

Several of these (Incredible Years, PATHS, and Conscious Discipline) were also included in large scale studies of their effectiveness in Head Start classrooms. While there was evidence that children did show some gains in the targeted social-emotional skills, the reports noted that the programs were not integrated throughout the day, and, not unexpectedly, had no significant impact on the academic skills of the children in the classroom, when compared to controls (OPRE, 2014; U.S. Department of Health and Human Services, 2015). These reports raised this as a concern, since the desired goal for

all early childhood curricula is to enhance both SEL and literacy and numeracy goals (U.S. Dept. of Health and Human Services, 2015).

The relationship between SEL and literacy has also been found to be significant. Curby, Brown, Bassett & Denham (2015), for example, examined this relationship in 91 low-income preschoolers. They found that specific social-emotional skills, such as emotion regulation and knowledge of emotions, more accurately predicted emergent literacy skills such as alphabetic knowledge and print and phonological awareness than a variety of other factors, including age, gender, attention span, educational level of the mother, and emotional climate of the classroom.

Paley's Pedagogy and Resilience: Research

One approach that has shown promise in supporting social and emotional development and literacy goals within the context of a child-centered, play-based curriculum is the ST/SA approach of V. G. Paley (Paley, 1981; 1992; 1997; 2002; 2005; 2006; 2009; 2010; 2011; 2016). Paley spent almost 50 years teaching preschool and kindergarten and developed a pedagogy that tapped into the pretend play and storytelling that she saw as most essential to young children's learning and development (Mardell, Boni, & Sachs, 2014). While built upon a solid foundation of developmentally appropriate practice, her technique of having children dictate stories and then act them out in the classroom community has distinguished her approach and intrigued teachers around the world. Wide scale adoption of her approach to early childhood curriculum has been implemented in Houston, Boston, and the United Kingdom (Mardell et al., 2014). In addition, a number of research studies have been conducted on the approach in early

childhood environments including Head Start (McNamee, 2015; Nicolopoulou et al., 2015). These studies identified a variety of early literacy competencies as well as social and emotional benefits that Paley's approach facilitates, when used by early childhood educators. In this section, this research will be reviewed. Following this, evidence of the specific alignment with Paley's own practices with the elements identified as contributing to resilience (attachment, initiative, and self-regulation) will be discussed, using her own examples and ethnographic classroom research.

Nicolopoulou et al. (2015) conducted a two-year quantitative study of low-income preschoolers. One hundred and forty-nine children were compared on 11 measures of literacy and social-emotional skills, including self-regulation. Six classrooms were experimental, and used Paley's ST/SA approach twice weekly to augment the curriculum throughout the year; the seven control classrooms used the same curriculum model (Creative Curriculum) but without an ST/SA component. While the study did not demonstrate significant differences between the experimental and control group in all areas, there were significant differences in the literacy assessments of narrative comprehension, print and word awareness, beginning sound awareness, and pretend abilities, with the experimental group showing more improvement in these areas between pre- and post-tests.

In the social domain, peer play disruption was found to decrease in the experimental group, but not at a significant level when compared to the control group. However, self-inhibition, a function of both self-regulation and executive function, increased for the experimental group while decreasing for the control group, with a

moderate to strong effect size. Nicolopoulou et al. (2015) also found that there was a significant relationship between the skill development in individual children and the number of stories that they had dictated over the course of the year.

While this study is the largest quantitative study that addressed both literacy skills and social-emotional components in classrooms using Paley's ST/SA approach, other studies have supported various elements of the findings. Heppner (2016), for example, examined the impact of ST/SA on a variety of literacy elements including narrative skills, language structure, story structure, psychological structure (characters' intentions and emotions), print conventions, and alphabetic knowledge in a Canadian preschool. After 10 ST/SA sessions, qualitative data analysis of the dictated stories and transcripts of the dictation process revealed development in most literacy categories. Cooper et al. (2007) compared the standardized test scores of children who had been in preschool and kindergarten classrooms that used ST/SA with those who had not. While the study is dated, pre- and post-test results on *Peabody Picture Vocabulary Test* (PPVT), the *Expressive Vocabulary Test* (EVT), and the *Get Ready to Read* (GRTR) kindergarten readiness screening tool revealed that children in the ST/SA (treatment) classrooms improved more than the children in the control classrooms on all three measures, with the difference statistically significant on both the PPVT and the GRTR.

Other researchers have examined constructs related to the elements of the ST/SA approach. Gardner-Neblett, and Iruka (2015) examined national longitudinal data of African-American children and found a relationship between early language development and oral narrative skills at age four and emergent literacy outcomes of 5 year olds.

Weisberg et al. (2015) examined the role of both realistic and fantastical books and play themes on the development of children's vocabulary. They found that while both conditions contributed to strong vocabulary development, the groups who were exposed to fantastical themes were more engaged and showed stronger gains in vocabulary productions, though not in the meaningful acquisition of the targeted vocabulary words.

Wright, Diener, and Kemp (2013) evaluated the impact of ST/SA on various elements of social and emotional development. They conducted a qualitative study of 20 videotaped ST/SA sessions in a preschool classroom. Four themes related to community building emerged from the analysis of the data: children's ability to flexibly take on multiple roles and perspectives within the group context, group membership, inclusion, and relationship building.

The cognitive flexibility exhibited extended to the children's willingness over time to take on roles of characters of the opposite gender (e.g., boys being sister or mother). This is a challenge for preschoolers, who usually maintain rigid gender role boundaries (Feldman, 2016). Of importance to this project were the thick, rich descriptions of themes related to resilience and executive function, including initiative, self-regulation and attachment, which were reported. For example, Wright et al. reported that "Storytelling dramas provided opportunities for children to practice self-regulation skills and be a responsive member of a group by participating as an audience member" (Wright et al., 2013, p. 201). They gave many examples of how the activity, the teacher and the other children interacted to support self-regulation in all participants.

Initiative is at the core of ST/SA. It is the children's own stories which are told and then acted out by the children themselves, along with their classmates. Wright et al. commented "The activity provided each child with the opportunity to utilize their strengths, feel competent in their abilities and then, in turn feel a valued member of the group" (p. 204).

Numerous examples of attachment were also offered. Children formed a variety of relationships with each other in the context of told and acted stories. This included reaching out to children with special needs, choosing to write with friends who were exploring similar themes in stories, and creating a classroom culture of humor based on motifs in stories that the children found funnier than the adults did, such as walking heads and eyeballs (Wright et al., 2013).

The rich descriptions of a classroom culture that revolves around shared stories characterizes Paley's own research about her preschool and kindergarten classes. Paley's 12 books and many articles contained countless examples of how attachment/relationships, initiative and self-regulation were developed in the context of play and storytelling. While she mused for decades about how children constructed an understanding of rules and friendship, along with literacy and numeracy, she never strayed from her core belief that children's learning stemmed from their rich stories, whether played or told or acted out. In the foreword to Lee's book on the ST/SA method, *Princesses, Dragons and Helicopter Stories: Storytelling and Story Acting in the Early Years*, Paley stated:

> We humans are born knowing how to place our thoughts and images into stories...How fortunate that an early childhood classroom is populated by such a variety of characters, enough different types to satisfy all of our dreams. Our superheroes and baby bears, our mommies, dinosaurs and runaway kittens are just waiting to be invited to step on the stage. (Paley, 2016, p. ix)

With the strong evidence that Paley's pedagogy is a viable way to support both literacy and resilience in young children, ST/SA may be a method that preservice early childhood teachers could learn from. In the next section, the research on the general use of stories in the promotion of early childhood SEL will be reviewed.

The Role of Stories in Promoting Early Childhood SEL

Children's literature is a fundamental part of most early childhood teacher preparation programs. Preservice teachers are expected to be able to identify a wide range of books by genre and to write lesson plans that use books to promote literacy in children. However, scholars such as Dyson (1993, 2013; Dyson & Genishi, 1994; Genishi & Dyson, 2009) and Egan (1986; 2012) and have long advocated for a focus not just on literature, but on the broader concept of story.

In their seminal book, *The Need for Story*: *Cultural Diversity in Classroom and Community*, Dyson and Genishi (1994) edited a collection of research studies and essays that highlighted the importance of stories in the lives of young children. They said:

> We all have a basic need for story, for organizing our experiences into tales of important happenings. Stories, these ubiquitous discourse forms, are of great interest in language and literacy education, particularly in light of the increasing

> sociocultural diversity of students in our classrooms. Through stories, teachers learn of their children's cultures, or their diverse experiences, and of their connections to family and friends. Moreover, through sharing stories-both children's own stories and those of professional authors-teacher and children create the potential for new connections that link them together inside a new tale. (Dyson & Genishi, 1994, p. 2)

In this section, the role of stories in promoting SEL will be examined. Specifically, research that looks at how storytelling and children literature can be used to target particular SEL challenges, such as addiction, abuse, chronic illness and the death of a family member will be reviewed. Then, an overview of how books and storytelling have been used to promote resilience will be presented. Finally, Paley's use of story in her classrooms will be discussed.

Use of Story to Address "Sensitive Issues"

Children's literature is one of the tools that classroom teachers can effectively use to help children address the challenges in their lives, according to Mankiw and Strasser (2013). Whether young children are experiencing homelessness, deployment of a parent, racism or divorce, there are books that can offer them the opportunity to examine their experiences and feelings through the characters in a story. Mankiv and Strasser stated, "It is important to view tender topics not as problems, but as subjects that are part of the everyday lives of children and families" (Mankiw & Strasser, 2013, p. 85). They went on to describe the importance of including such subjects in the early childhood curriculum.

Through a process of critical literacy, where books are carefully selected and discussions are facilitated to promote meaningful connections, these books can be used as a routine part of the classroom story time, with positive effects for all children. However, Roberts and Crawford (2008) warned that many books on sensitive topics are "instructional in tone rather than literary, since they are primarily teaching tools and not written as literature. While these types of texts may play some role, thoughtful practitioners will want to look beyond them to consider literature that is more inviting and less didactic (Roberts & Crawford, 2008, p. 2). They concurred with Mankiw and Strasser that careful selection of stories with characters and plots with which children could identify and engage was important, along with the depiction of different ways to resolve problems.

Both articles, appearing in the widely-read journal, *Young Children*, provided topical lists of many children's books which met these criteria. Included in the topics were adoption, angry feelings, divorce, developmental differences, death, illness, incarceration, loss, deployment, moving, homelessness, gender, family structure, socioeconomic difference, bullying, race, tragedy, and disaster, as well as topics such as new baby, making friends, and starting school. Missing was mention of family substance use disorder.

This is consistent with the research on literature that supports children coping with a wide range of problems. While in-depth research has been conducted on other topics, little has been written on stories and SUD. Poling and Hupp (2008) evaluated a selection of picture books, as well as books for older children, about death. They reported

that these included both instructional and literary examples and analyzed how three dimensions of death were portrayed, as well as how they addressed the emotional aspects of grieving. At the time of publication, there were over 200 children's books about death available. Wiseman (2013) focused her analysis on picture books related to death and identified 89 picture books that had been published over the past 10 years. She chose just three of these for her in-depth analysis of the way that the artwork in each text supported the meaning; her choices were based on both topical and artistic merit. She noted that Poling and Hupp's study remained one of the only comprehensive looks at the topic of children's books about death.

Lampert and Walsh (2010) conducted a similar analysis of books on sexual abuse, targeted at young children (ages 3-8 years). From the 58 picture books they identified, 15 were randomly selected and the focus of their analysis. They pointed out that the majority of these books were written by pediatricians, social workers or psychologists, and lacked the aesthetic and literary value of quality children's literature. Further, they stated, many of these would be best used in a classroom situation if the teacher had in-depth knowledge of childhood sexual abuse and its impact on young survivors. Nonetheless, they were surprised to find so many books that met their criteria, and saw this as an indication of the growing awareness of this traumatic issue.

Swan (1992) and Manning (1987) addressed the issue of children's literature and alcoholism. Swan wrote about it from the perspective of the classroom teacher, while Manning's research was targeted to social workers. While dated, these articles appeared

during the time period that NAEYC's journal, *Young Children*, published the only three articles specifically addressing substance use disorder in the history of the publication.

In her discussion of the topic, Swan brought up incidental references to alcoholism in children's literature, as well as books specifically written for children living with SUD. Swan used as an example an excerpt from the popular children's rhyming book, *The Jolly Postman*, in which the postman is described as drinking champagne and then "wobbled off on his rounds again (and again and again –Oops!)" (Ahlberg & Ahlberg, 1986, unpaged). Swan described children's varied responses to this and similar passages, depending on their personal experiences with family alcoholism. Swan also made the point that educators and scholars had not studied this area of children's literature: "The presence of sex-role or age stereotyping in stories is a concern that receives frequent attention. But the inclusion of incidental references to alcohol and the appropriateness of the references for the intended audience are areas that have received little scrutiny" (Swan, 1992, p. 10).

This has not changed in the several decades since Swan's article appeared. In 2016, I conducted a search of 11 databases for references related to SUD and children's books. The search terms of *children's literature* or *picture books* as one parameter were combined with *alcoholism*, *addiction*, *substance use*, or *substance use disorder* as the second parameter. No additional contributions to the field were discovered (Walden Library search, 2016).

It is also notable that most of the books for young children listed on the websites of the National Association for Children of Alcoholics (2016), and the Hazelden/Betty

Ford Foundation (2016), have publication dates prior to 2000. The majority of these were mentioned in Swan's (1992) and Manning's (1987) articles. Further, a review of these books revealed that the majority, like those about childhood sexual abuse analyzed by Lampert and Walsh (2010), were written by clinicians in the drug and alcohol field, rather than by children's book authors skilled in storytelling.

Research has also been conducted on the use of storytelling to help children cope with various traumatic experiences, though, again, not with the impact of SUD. Bentley (2015) conducted qualitative teacher research on how she and her preschoolers used storytelling in the context of play, circle time, and shared narratives to grapple with the aftermath of the Boston Marathon bombings. Margherita, Martin, Recano, and Camera (2014) researched the impact of group fairytale construction on children suffering from potentially terminal blood cancers. Adamo et al. (2008) researched fairy tale workshops which included the telling, dramatization and drawing of fairytales with children in pediatric oncological wards. In all cases, researchers noted that the use of storytelling reduced anxiety and fear in the participants, and increased reported and observed coping skills and self-efficacy. These are skills related to resilience, which will be discussed below.

Use of Story to Build Resilience

As research on resilience has focused more on protective factors in early childhood (Masten, 2015), scholars have turned their attention to how parents and teachers of young children can promote these protective factors through the use of children's literature. Harper (2016); Lacina, Bauml, and Taylor (2016); Leonard (2014);

and Petty (2012) are among those who have written about using picture books to develop the cluster of social and emotional skills related to resilience. All focused on the use of books with preschoolers, and emphasized the importance of building resilience by offering children the chance to empathize with characters solving problems in flexible and developmentally appropriate ways. Challenges that are common to all young children, such as conflicts with peers, making friends, learning to accept rules and responsibilities, recognizing and expressing emotions, being patient, and decision-making can be found in many examples of high quality children's literature (Harper, 2016; Lacina, Bauml, & Taylor, 2015; Petty, 2012). Teachers and parents can use these to scaffold children's development of resilience-related protective factors such as initiative, attachment/relationships, self-regulation, and cognitive flexibility through meaningful discussions and related activities (Harper, 2016; Leonard, 2014). In addition, the use of interesting literature is already a practice in all early childhood classrooms, and promotes emergent literacy skills and vocabulary development (Harper, 2016).

Other researchers have examined the use of stories to build resilience with specific populations, or to target self-regulation, one of the protective factors that was first identified to be predictive of school success (Masten, 2015). Wood, Theron, and Mayaba (2012) conducted empirical research on the use of folktales with children orphaned by AIDS in South Africa. Implementing a pre-test/post-test qualitative methodology, they used the telling of 22 culturally relevant traditional stories as their intervention. Stories represented the Xhosa background of the children, and were chosen for their representation of themes related to Masten's model of resilience (Wood et al.,

2012). One story was told each week; researchers did not interact with the children after the telling, in order to control for the effect of external relationship-building.

Themes that emerged were evidence of increased self-efficacy and stronger emotional relationships with others among the participants. While the researchers acknowledged that the complexity of resilience did not allow for straight-forward causal conclusions about these changes, they noted that the children's spontaneous acting-out of the stories after the researchers had left the orphanage added to the credence of their findings, since this was additional evidence of the children's sense of agency, and their growing cohesion as a group.

Other researchers, such Norel and Popa (2014), Zambo (2007), and Cooper (2007) have focused on the specific protective factor of self-regulation and how this can be promoted through stories. Norel and Popa conducted a qualitative case study to examine both the language development and the emotional-regulation skills in young children during a unit focused on a traditional Romanian folktale. The story was presented through multiple modalities and activities over the course of 6 months. They concluded that there was growth that exceeded typical developmental expectations in vocabulary, communication skills, and emotional and behavioral-regulation.

Zambo (2007) looked at how picture books could be used to help children with special needs learn about emotions and emotional regulation. She identified the specific challenges many children with disabilities such as ADHD and certain emotional disturbances have with inhibiting emotional and behavioral responses, and described how teachers could effectively use authentic children's literature to support emotional literacy

in an inclusive setting: “Well-chosen picture books give students a behind-the-scenes glimpse into the lives of characters, who also face challenges regulation their emotions” (Zambo, 2007, p. 38).

Cooper (2007) also examined how picture books could be used to support children’s self-regulation in a case study comparing the classic *Where the Wild Things Are* (Sendak, 1963), with a book from another popular children’s author, *No, David!* (Shannon, 1998), whose main character continually breaks rules and is scolded by his off-page mother. While both Sendak’s Max and Shannon’s David were mischievous boys who get themselves into trouble, Cooper’s analysis was that they offered conflicting views of childhood initiative and supportive relationships as they relate to the development of self-regulation.

Cooper stated that the article was a response to concerns about the increasingly didactic nature of children’s story time in preschool. Stories were now being selected for their value in teaching “literacy sub-skills, from letter sounds, to vocabulary, to comprehension” (Cooper, 2007, p. 316). There was concern that this diminished understanding of the importance of social-emotional development in the early childhood curriculum had spilled into the criteria teachers used to choose books.

Quality children’s literature and storytelling offer a wealth of learning opportunities for both children and adults. It is therefore not surprising that master teachers such as Paley have longed placed story at the center of their curricula. In the following section, Paley’s uses of reading and telling children stories will be described.

Paley's Use of Story

Paley frequently addressed the role of stories, both the ones she shared with the children and the ones they told, as forming the foundation of the culture of each classroom (Paley, 1990, 1992, 1997). This shared cultural context is one of the four elements contributing to resilience (National Scientific Center on the Developing Child, 2015; Masten, 2015). Paley offered evidence that this supported the children's self-regulation as they came to terms with having to do things they did not like.

In *You Can't Say You Can't Play*, for example, Paley told the seriated story of Magpie. The story explored the themes the children raised throughout the year as the class examined their thoughts and feelings about whether the proposed new rule was fair, equitable, and viable, and how it would impact their classroom community. The descriptions of this provided rich, thick data on how story supports children's social-emotional development and resilience.

McNamee (2015) also found this use of characters and themes from teachers' told and read literature experiences in the children's stories that she recorded in Head Start classrooms using Paley's model:

> Their dictated stories during free playtime contain imagery derived from school experiences without any prompting from us for those references. They were thinking about the read-aloud, "The Three Little Pigs," and the nursery rhyme "Twinkle, Twinkle, Little Star," weaving threads from those narratives into their own unfolding imaginings. (McNamee, 2015, p. 45)

Nwokah (2016) shared a similar insight about the intersection of children's play and the stories that they hear:

> Pretend play knows no limits. But what is the source of that play? Where does (*sic*) the information and the images come from that can be transformed? It is the transformation of everything we have heard of and seen – our folklore, imaginative characters on movies and TV, family stories, story books, tales told on moonlight nights, the content of poems and songs. It might be mystical and otherwise, dinosaurs, unicorns, pirates, ghosts and fairies. (Nwokah, 2016, p. 3)

This shared cultural context is where Paley believed all learning takes place. As Nwokah (2016) suggests, fairytales as a genre of literature are also representative of this shared experience. Folklorists such as Zipes, (2012) and Tatar (2009) have also studied the topic. Paley drew on fairytale archetypes, such as princesses, witches and talking animals, for the stories created and told to the children in the classroom. The children were also told traditional fairytales as part of the ST/SA curriculum, as have others who have replicated these strategies, including the teachers of the Boston Public Schools (Mardell et al., 2013).

Paley reflected extensively about fairytales in *The Boy Who Would Be a Helicopter: The Uses of Storytelling in the Classroom* (Paley, 1990). In the recorded discussions with colleagues, concerns were shared and discussed. In addition, the perceived strengths of the genre for young children were debated as the teachers deepened their understanding of the stories.

Paley shared the concerns of many parents about the potential for fairytales to frighten children (Paley, 1990). The children in the classroom often expressed that they didn't want to hear fairytales the "real way" (p. 132), which is the way they had seen the stories told in books and, more frequently, in cartoons or movies. However, Paley's ambivalence was repeatedly diminished as the children worked through their fears and analyzed the tales they heard: "Even so, the discussions afterward tend to be quite remarkable. By the time most children are four they can identify and debate many of the issues hidden in these age-old plots" (Paley, 1990, p. 132).

Paley chose to tell the stories, rather than read them because this allowed children to give input along the way, and as participants, they guided the storyteller to plot twists and resolutions that they could then have control over and reflect upon. Often, the children's own imaginings were far more frightening than the original stories. One example was a child who had asked not to be told Jack and the Beanstalk "the real way", but had then suggested that perhaps the giant had eaten his first child by mistake, when Paley and the children discussed why the giant's wife had hidden Jack and wondered about whether the giant's wife has a little boy of her own (Paley, 1990). Paley reflected:

> If given enough time, the children will take my questions, good and bad, to the same place: the fate of a vulnerable child surrounded by uncertainty and danger. They caution me about fairy tales, but there is an avalanche of excited responses whenever we discuss them- as if the children have been waiting for someone to unlock the gates to their dreams. (Paley, 1990, p. 155)

The children's focus on this vulnerability had its roots, Paley believed, in the children's insecurities about attachment. "The fairy tales, in one way or another, hit squarely at the single most important issue for any child: Will I be abandoned?" (Paley, 1990, p. 157). Even with simple folktales like *The Three Little Pigs*, children wondered about why the Mother would send her three children off into the world. Paley offered transcripts of their heated debates about Mother Pig's intentions as evidence that children understood that good parents would only do something like this under trying circumstances, such as losing, or having had all of their money stolen, or, one child suggested, because "she wanted the boys to get away before the wolf came so she could trick him and she could stick him with a stick" (Paley, 1990, p. 133).

After much debate, Paley concluded that the value of fairytales to children's social and emotional development outweighed the challenges that their use in a classroom posed:

> Putting aside the fact that fairy tales cannot be avoided, why are they needed? Perhaps because they are such good stories. They represent the adult version of childhood fantasy, presented in a cohesive, theatrical style that is perfectly suited to the endemic thinking of children. Not the least of the fairy tale's superior power lies in its obvious connection to mankind's original fantasies as represented in the play of children" (Paley, 1990, p. 163).

In the following section, the folkloristic study of fairytales will be presented. This will lay the foundation for the place of fairytales as a genre of children's literature. In

addition, psychological studies of fairytales' role in promoting resilience will be examined.

Fairytales and Resilience

In order to understand the nature of resilience in the context of fairytales, it is important to understand the history of fairytales. While much of this history is speculation, there is abundant research on how they came to hold such a dominant place in popular culture. It is also important to view fairytales from the perspectives of the various traditions scholarly research that have given credibility to the stories as important vehicles for cultural and personal transformation.

Folkloristic Study of Fairytales

The folkloristic study of fairytales began in the 1800s, during a period of rising European nationalism, and growing interest in the *folk* traditions (Norton & Norton, 2010; Zipes, 2012). As writers and linguists such as the Grimms, Lang, and Perrault began to publish collections of stories that had roots in the oral traditions, the emerging field of folklore scholarship began to add these stories to existing studies of traditional music and craft. The study of folktales and fairytales has continued into the 21st century, although it has ebbed and flowed with sociopolitical tides (Zipes, 2012). As it has developed, scholarly research has drawn from the fields of anthropology, psychology, sociology, linguistics, literature and history for both its methodology and its conceptual and theoretical frameworks.

The universality of fairytales, often called "Tales of Magic," or "Wonder Tales" by scholars, has been one of the most intriguing impetuses for the continued study of the

genre. Similar plots, themes and motifs are found in stories told in diverse cultures around the world. For example, there have been over 900 recorded variants of Cinderella, told in cultures from Egypt to China to Native Americans, in addition to multiple European versions, which predate the popular Disney film by more than a century (Heuscher, 1963; Norton & Norton, 2010).

There are three hypotheses about the source of these similarities: Diffusion, inheritance, and independent evolution (Heuscher, 1963; Zipes, 2012). Diffusion refers to the theory that the stories were carried by merchants, immigrants, and explorers to other lands and shared with the local population, who then adapted the stories to their own cultural traditions. Inheritance refers to the model whereby the stories were created within a common ancestry and disseminated as peoples migrated en masse to new territory. Those who propose independent evolution as the source of universality hold that fairytales were invented by each culture separately and reflect universal concerns.

The discussion about this continues into the present, with active debate about these hypotheses and their variations holding center-stage at international folklore conferences and online scholarly forums (Zipes, 2012; Zipes, 2016). The renowned linguist and author Tolkien summarized the ongoing debate more than 50 years ago: “All three things: independent invention, inheritance, and diffusion, have evidently played their part in producing the intricate web of Story. It is now beyond all skill but that of the elves to unravel it” (Tolkien, 1965, p. 20). However, many of the theorists discussed in this paper focused on children’s relationship to the stories. They offered evidence that regardless of the origins of fairytales, their continued appeal seems to be connected with

their alignment with universal concerns and experiences (Bettelheim, 1977; Favat, 1977; Heuscher, 1963; Tatar, 2009; Templin, 1986; Tippett, 2014).

The nature of the commonalities found in fairytales around the world has been studied as much as their origins. Finnish folklorist Aarne constructed a classification system of Scandinavian and European folklore in the early part of the 20th century. This work was expanded and refined by American folklorist Thompson, and became the Aarne-Thompson Tale Type Index (Kinnes, 2015). By identifying common themes, or motifs, their typology classified thousands of narratives into a system that formed the foundation for a century of folklore research (Zipes, 2016). In the early part of this century Üther (2004/2011) revisited the system and expanded it to make it explicitly inclusive of folktales from a wider geographic region, including Africa, India, and Native American tribal territories.

The ATÜ system, as it is now known, classifies all varieties of folk literature stemming from the oral tradition. This includes animal tales, religious tales, "tales of the stupid ogre," realistic tales (including legends), cumulative tales, anecdotes, and jokes. However, it is the "Tales of Magic" and its subcategories (Tale Types 300-749) that have most interested scholars and are the focus of this paper.

Russian folklorist Propp (1968) studied Russian fairytales. First published in 1928, *Morphology of the Folktale* drew from the structuralist tradition. Propp analyzed the actions found in 100 Russian fairytales, and discovered that the stories could all be broken down into formulaic plot sequences. Thirty-one specific actions, or functions, were identified that were characteristic of these sequences. While not all fairytales

studied had all 31 functions in fully developed form, the sequence in which these actions occurred was identical (Propp, 1968).

Propp further categorized the many characters found in fairytales into seven distinct *dramatis personae*: the hero, the dispatcher, the princess (or sought-after person) and/or her father, the villain, the donor or provider, the magical helper, and the false hero. While, again, not every character occurs in every fairytale, Propp found that "only seven characters are available to fairy-tale tellers" (Aguirre, 2011, p. 3), and much of the variation in fairytales came from how each character performed the designated functions to further the plot sequence. This construct of a finite "cast" of specific characters compares with Jung's work on the archetypes that occur in fairytales and dreams (Jung et al., 1964).

While Propp focused on Russian fairytales, the morphology has been applied to fairytales from around the world, and found to be a useful tool for analysis (Murphy, 2015). Computer-based story generation programs, such as those used by those in the virtual reality and gaming fields are often based on Propp's morphology (Thompson, Battle, & Padget, 2015). Auguirre (2011) proposed that scholars examine Gothic literature from within the context of Propp's functions. Andonovska-Trajkovska (2012) used the morphology to study 957 elementary school-aged children's understanding of story structure. She discovered that even without explicit instruction on the model, they were able to identify many of the major functions as they analyzed stories, and that the functions identified were related to the children's developmental level.

Propp's work also continues to be cited and debated in scholarly folkloristic research through the present (Aguirre, 2011; Murphy, 2015; Zipes, 2016). There is debate about whether 31 is the accurate number of functions, or whether there is equal evidence for subgenres which have 25 or 29 (Murphy, 2015). Zipes (1999) proposed that the 31 functions could be condensed to eight. Nonetheless, almost 90 years after his text was first published in Russia, Propp's landmark structural study of fairytales offers insight into the universality of the genre.

German folklorist Lüthi (1970, 1982) was familiar with Propp's and Aarne-Thompson's work, but proposed a different tool for analysis. Lüthi examined characteristics of the narrative style of fairytales in order to determine which of these made them fairytales (Ben-Amos, 1982). A number of common stylistic elements were identified; these have continued to inform the folkloristic study of fairytales (Tatar, 2009). The elements include one-dimensionality, depthlessness, abstraction, and universal connectedness. While it is beyond the scope of this paper to elaborate on these constructs, it is important to briefly define what Lüthi meant by them. Not only do they provide further evidence for the universality of the tales, but they also overlap with many of the characteristics of young children's thinking identified by Piaget (Templin, 1986).

One-dimensionality, according to Lüthi (1982), referred to the supernatural and the typical co-existing on one dimension in fairytales. While magical and otherworldly characters and events are found throughout other forms of folk literature, such as myths and legends, these are not regarded with surprise or fear in fairytales, as they are in other kinds of literature:

> In legends, if a person sees a white woman (ghost) sitting in a meadow, or hears of a farmer at the plough who is given an inexhaustible supply of bread by underworld beings, he broods over these strange events. He is more concerned with their mystery than their practical effects. But the folktale hero sees and experiences things far more fantastic than these and never bats an eye. As an actor, not a spectator, he approaches the twelve-headed dragon who, when pressed, turns into a rabbit and then a dove. He is able to overcome the creature because a lion once gave him a single hair and said: "If you are even in trouble, bend this hair and you will turn into a lion three times stronger than I." The hunter said, "Thank you," and went on his way-this is all the tale says. The hero shows neither astonishment nor doubt. (Lüthi, 1982, p. 6-7, parentheses added)

This acceptance of the magical world is related to Lüthi's concepts of depthlessness and universal interconnectedness. In fairytales, characters were both anonymous, and without psychological or emotional depth. They rarely expressed emotions, unless it was to move the plot, or action, forward. Action, rather than sentiment or thoughtfulness, were the hallmarks of the fairytale characters, according to Lüthi. Events occurred and seemingly isolated characters interacted with each other outside of the framework of linear time, and there was never reflection or surprise. Nothing happened by chance in the many fairytales that formed the dataset from which Lüthi drew his conclusions. The detailed examples of these and other narrative characteristics of fairytales offered folklorists an additional lens through which to examine the universality

of stories, and complemented both Propp's structuralism and the Aarne-Thompson typology.

Fairytales as a Genre of Children's Literature

Fairytales are a genre of literature that have captured the imagination of cultures throughout the world for millennia (Zipes, 1999). While not necessarily about fairies, the stories are characterized by magic (Norton & Norton, 2010), which can take many different forms. In addition to magic, traditional fairytales, which were passed down through oral transmission, have a distinctive plot structure. This formulaic structure evolved, it is thought, because it was easier for storytellers to remember the stories that they shared, and that they heard from others (Zipes, 1995). By freeing the storyteller from relearning basic storylines every time s/he heard a new story, the plot structure offered storytellers the chance to focus on details that could best be matched to the audience's interest.

This structure differs from the narrative structure that is employed by individual authors, such as Anderson or Barrie, when writing fantasies or literary fairytales (Norton & Norton, 2010). These stories tend to be more detailed in their descriptions, and both the plot and the characters are more complex. The predictable plot structures and one-dimensional characters are reasons that a number of scholars have seen traditional *tales of magic*, as they are called in folkloristic circles (Tatar, 2009), as ideally suited for young children.

One scholar who studied this relationship between fairytales and young children's developmental characteristics is Favat (1977). A professor of education at Northeastern

University, Favat's monograph was published shortly after an untimely death at the age of 38 (Northeastern University, 1979). While the work is not well-known in education circles, Favat's meticulous study of fairytales laid the foundation for future scholarly research on children's interest in various genres of literature (Gates, Steffel & Molson, 2003).

Favat started with the question about why children in the primary grades seemed to be so interested in these ancient stories, and often preferred them to modern stories. To discover the answer, he analyzed the structure and content of fairytales, drawing on the work of well-respected folklorists like Propp (1968). He then juxtaposed these with Piaget's conception of the young child's thinking. Identifying elements of "magical thinking" such as egocentrism, animism, and finalism, Favat made the case that these aligned well with the characteristics of fairytales. While Lüthi's work is not mentioned in Favat's bibliography, Favat's descriptions of the nature of fairytale characters and their unquestioned acceptance of magic overlapped with Lüthi's.

Further, Favat drew on Piaget's work on cognitive development (Piaget, 1962) and moral judgment (Piaget, 1965), and found parallels between the characteristics of children's sociomoral thinking and the fairytale justice that was meted out in these traditional tales:

> The comparisons here of the characteristics of the child and the characteristics of the fairy tale permit a fairly clear observation: just as magic and animism suffuse the world of the fairy tale, so do they suffuse the world of the child; just as a morality of constraint prevails in the fairy tale, so does it prevail in the moral

> system of the child; just as the fairy tale world and its hero become one in achieving his ends, so do children believe their world is one with them; and just as causal relations remain unexpressed in the fairy tale, so do they remain unexpressed in the child's communication. (Favat, 1977, p. 38)

Favat's conclusions were echoed by Bettelheim, although Bettelheim came to this understanding, not through a constructivist perspective, but from that of psychoanalysis. In the seminal book *The Uses of Enchantment: The Meaning and Importance of Fairy Tales,* **(**Bettelheim, 1977) analyzed fairytales from a Freudian perspective. Like Favat, Bettelheim drew on folkloristic research on the universality of the stories, but his focus was on children's emotional development, rather than their cognitive development. Using psychoanalytic constructs such as attachment, separation, abandonment, Bettelheim made the case for the parallels between the messages in fairytales and children's inner lives, and wrote that these parallels explained children's fascination with the stories: "Whatever our age, only a story conforming to the principles underlying our thought processes carries conviction for us" (Bettelheim, 1977, p. 45).

There have been criticisms of Bettelheim's ideas and methodology (Dundes, 1991). These criticisms include Bettelheim's obvious plagiarism of Heuscher's (1963) earlier psychoanalytic study of fairytales. However, even the critics concede that Bettelheim engaged the public in an active discussion on the meaning that fairytales had in children's lives and development. Bettelheim's specific references to themes related to resilience will be discussed in more detail below.

Fairytales and Resilience

By definition, fairytales are stories about overcoming adversity (Norton & Norton, 2010; Schneider, 2016; Tatar, 2009; Zipes, 2013). Resilience researcher Dr. Masten introduced the book, *Ordinary Magic: Resilience in Development* (Masten, 2015) with the following quote:

> Probably as long as humans have told stories to one another, there have been tales of individuals who overcame difficulties to succeed in life. Traditional folktales and fairytales portray themes of struggle and transformation, persistence and heroic deeds in the face of adversity, and young people of humble origins who rise in life through their wits and actions, sometimes assisted by a guide or magical figure…In the 21st century, when it is possible to share stories in many different ways- through social media, in books or newspapers, in films or television shows, through e-mails or blogs, on various digital communication devices- people remain intrigued with stories of youth who face grave danger or grow up in poverty and nonetheless turn out well. (Masten, 2015, p. 3)

Many current proponents of fairytales cited the role of these stories in allowing children to face their fears and learn to solve problems within the safe confines of literature. Zehetner (2013) described their importance in allowing children to reflect on moral choices in a way that stories such as fables, with their predetermined message do not. Zehetner specifically raised concerns about the many children who are living under adverse circumstances such as family SUD, and their need for models for problem-solving.

Nwokah (2016) discussed the persistence and great popularity of fairytale themes in the ongoing British cultural tradition of pantomime performances, despite concerns of the slapstick violence they portrayed. Taylor's (2012) response to media reports of a survey of 2,000 parents was cited as further evidence for fairytales' continued relevance. The survey, which was conducted by a British television station, revealed that 25% of parents surveyed would not share fairytales with young children, and identified specific classic tales that large numbers parents believed had themes too frightening and immoral for modern children (e.g., *The Three Bears* teaches about breaking and entering and theft; *Rumpelstiltskin* advocates kidnapping and execution). Taylor countered the criticisms with a list of the characteristics of fairytales that were not consistently replicated in other forms of children's literature, including the stories' ability to build emotional literacy:

> Fairy tales show real life issues in a fantastical scenario where most often the hero triumphs…Children need to discover in a safe environment that bad things happen to everyone. Because guess what? No one in life is immune from challenges- so we need to build capacity in our children. Do we build emotional muscles so our children hang on during tough times or do we shelter our kids, protecting them, leaving them so weak they can't handle anything requiring strength? (Taylor, 2012, para. 4)

Tsitsani et al. (2012) conducted a qualitative semi-structured interview study of 470 Greek parents and their children to examine whether the Greek parents had similar concerns about the value of fairytales. In contrast to the survey mentioned above, Tsitsani et al. found that the parents who participated in this study believed that the telling and

reading of fairytales still held an important place in their family routines, and thought that they offered an important avenue for children to learn values like empathy and persistence, as well as to address anxieties related to attachment and separation. The children in their survey preferred traditional tales over modern retellings, and reported that they were not upset or scared when the villains were punished, although a small percentage of parents reported otherwise of their children.

In an interview with Tippett (2014), Dr. Tatar of Harvard University elaborated on the value of fairytales in addressing fears and anxieties, not only for children but also for adults. In discussing the resurgence in popularity in fairytale TV shows and movies made for adults, Tatar linked the unsettling world events in the 21st century with the challenges of the unknown that young children face daily:

> Once upon a time is a safe space for all of us. And especially for children who might not have the words to talk about, abstract words or words that … capture feelings. But who understand a story and will be drawn into a story. And again, … as I said, they [fairytales] get us, I hate to sound like a broken record, but they get us to talk about things. And…, and in just mysterious ways you come to an understanding or a resolution. (Tippett, 2014, para. 113, parentheses and ellipses added)

Bettelheim (1977), as has been discussed, wrote about the importance of fairytales for children's emotional development in the 1970s. An examination of this work for themes related to the model of resilience discussed earlier in this chapter, revealed that he explicitly addressed each of the three protective factors for resilience: attachment,

initiative, and self-regulation. The examples below are illustrative; Bettelheim's work encompassed the topics in far greater depth than is relevant for this project.

Fairytales and attachment. As a psychoanalyst, much of Bettelheim's work focused on the importance of the parent/child relationship, or attachment. The psychoanalytic tradition delved into the conflicts inherent in primal relationships (Feldman, 2016), because they were believed to be the source for all neuroses and psychoses in later life. Bettelheim pointed to the dichotomous nature of fairytale characters as evidence that they could help children work through these conflicts. While the mother/stepmother paradox was frequently discussed as one way children accessed complicated emotions about attachment and abandonment in the stories, Bettelheim also believed that the very nature of fairytale characters lent itself to subconscious interpretation in this way. It may be notable that this same dichotomy is often described as the way young children perceive their afflicted parents in the literature addressing children living with SUD (NIDA, 2016; Sher, 1997):

> This is also how the fairy tale depicts the world: figures are ferocity incarnate or unselfish benevolence. An animal is either all-devouring or all-helpful. Every figure is essentially one-dimensional, enabling the child to comprehend its actions and reactions easily. Through simple and direct images, the fairy story helps the child sort out his complex and ambivalent feelings so that these begin to fall each one into a separate place, rather than being all one big muddle. (Bettelheim, 1977, p. 74)

Fairytales and initiative. Bettelheim also made explicit reference to initiative.

He believed that fairytales offered children a way to understand initiative as something that was attainable, even when they were very young:

> A small child can do little on his own, and this is disappointing to him-so much so that he may give up in despair. The fairy story prevents this by giving extraordinary dignity to the smallest achievement, and suggesting that the most wonderful consequences may grow out of it. Finding a jar or bottle (as in the Brothers Grimm's story "The Spirit in the Bottle"), befriending an animal or being befriended by it ("Puss in Boots"), sharing a piece of bread with a stranger ("The Golden Goose," another of the Brothers Grimm's stories)-such little everyday events lead to great things. So the fairy tale encourages the child to trust that his small real achievements are important, though he may not realize it at the moment. (Bettelheim, 1977, p. 73)

Fairytales and self-regulation. As a psychiatrist, Bettelheim had an in-depth understanding of the development of self-regulation over emotions. It was described in the following way:

> Action takes the place of understanding for a child, and this becomes increasingly true the more strongly he feels. A child may have learned to *say* otherwise under adult guidance, but as he really sees it, people do not cry because they are sad; they just cry. People do not hit out and destroy, or stop talking because they are angry; they just do these things. (Bettelheim, 1977, p. 31)

Bettelheim saw the depthlessness of characters in fairytales as aligning with young children's understanding of inner emotional states, both their own, and others'. As

with other aspects of emotional development, Bettelheim believed that when children heard a wide variety of fairytales, they would subconsciously deepen their understanding of their own feelings and drives in a developmentally appropriate way. This could be enhanced by the parent in supportive conversations about the child's feelings, should the child bring these up.

Bettelheim's focus on the unconscious and subconscious has made it a challenge to articulate a model based on his ideas outside of the psychoanalytic tradition. Fleer and Hammer (2013), however, articulated an alternative model of how fairytales promote emotional regulation in young children that was more specifically geared to teacher. This model is based on Vygotsky's social-cultural theory of emotional regulation.

Fleer and Hammer (2013) started with the premise that there are two major challenges facing early childhood education today. These are: (a) the artificial split between cognitive and affective development in early care and education because of the increased emphasis on early academics; and (b) the historical transfer of supporting young children's emotional regulation from parents to teachers because of the increase in number of children who are in group care and education from an early age. Both challenges, they stated, can best be addressed with a socio-cultural perspective on how young children learn to recognize and identify physically-felt emotions, and articulate feelings, the cognitive and cultural aspects of these emotions.

Fleer and Hammer (2013) acknowledged that there are many ways teachers can approach this but advocated for the inclusion of fairytales as an intentional part of a curriculum that promotes emotional regulation. They provided an in-depth theoretical

explanation for why the telling, reading, and acting out of fairytales offer this, drawing not only from Vygotsky, but from many post-Vygotskian researchers as well. While it is beyond the scope of this paper to elaborate on the many facets of their explanation, there are several key points that have direct bearing on the research problem at hand. First, they focused on how a teacher and children can *collectively* promote emotional regulation as they explore fairytales through the intersection of play and storytelling. Their setting is the classroom, rather than the bedtime ritual of sharing a story with one's child. They described how the consciousness of emotions is a social activity:

> Exploring fairytales within group settings explicitly with teacher support, we believe, has the potential of raising the consciousness of emotions for children. Being more aware of an emotional state allows children in group care settings to more successfully self-regulate and hence interact more effectively with peers. (Fleer & Hammer, 2013, p. 246)

Fleer and Hammer's approach (2013) is similar to Paley's pedagogy. Paley actively facilitated frequent discussions about children's feelings related to the stories that were told and acted out. These discussions extended to the stories that the children played, as well as to other classroom activities.

Fleer and Hammer (2013) also discussed what they called the "doubleness" of children's emotional expression, which they experience in play, and when they are experiencing fairy tales. Drawing on Vygotsky's concept from *Mind in Society* (1978), they defined this as the child's ability to simultaneously feel happy because she is playing, but scared, in the context of that play, of the dragon about to breathe fire into her

castle. This provides the opportunity for the child to regulate both emotions, since both must be held in check if the story is to move forward in play. Fairytales, they explained, provide the ideal source of such "doubleness" because of the simultaneous familiarity and comfort of the magical world and relationships children can identify with, and the inevitable fear that the villain or daunting quest provides. They explained:

> But what is important here is that introducing fairytales to children *provides an imaginary and predictable genre that is emotionally charged and contained*, allowing the teacher to use an emotionally imaginative situation for helping children to become aware of their emotions and feeling states when engaged in the storytelling and reenactment of fairytales, potentially leading to the development of children's self-regulation of emotions. (Fleer & Hammer, 2013, p. 243)

While much of the evidence for the role that fairytales can play in developing resilience discussed so far relies on theoretical constructs, rather than empirical research, recent advances in neuroscience may support these ideas. Smith (2016) reported on the research done by the University of California at Berkeley's Greater Good Science Center. The goal of the research was not to understand how fairytales might promote young children's resilience, but rather, to examine the science behind how we respond physiologically to stories, as a way of better understanding the instinct to tell stories and how stories may shape our thinking and behavior.

The research focused on the stress response, which in humans may be precipitated by things other than actual physical threats. Smith describes the unlikelihood that we will

encounter real dragons, or even wild animals like lions. However, characters do face them in stories:

> We're attracted to stressful stories because we are always afraid that it could happen to us, whatever "it" is—and we want to imagine how we would deal with all the many kinds of dragons that could rear up in our lives, from family strife to layoffs to crime. (Smith, 2016, p. 2).

Neuroscientists have discovered that conflict or threat in stories raises cortisol levels, which engages the body and mind and stimulates problem-solving responses. Similarly, characters in stories with whom people empathize stimulate the production of oxytocin, even though they are in the imagination. This combination of cortisol (attention/slight anxiety) and oxytocin (care) results in the body responding to the story as though it was real, a phenomenon that researchers call *transportation*. Further, when the story has a happy ending, according to this research, the limbic system is triggered and dopamine is released, and a sense of optimism and hope may flood the body, as though the story was happening in real life. Smith connected this to the role that stories have played in human culture for recorded history:

> Why in the world would evolution grant us this ability? Why would nature actually make us crave stories and make transportation a pleasurable experience?
>
> I've already suggested part of the answer: We need to know about problems and how to solve them, which can enhance our survival as individuals and as a species. Without a problem for the characters to solve, there is no story.

> But there might be other reasons. Recent research suggests that this process of transportation in fiction actually increases our real-life empathic responses. (Smith, 2016, p. 4-5)

Smith focused in this report more on modern literature and media that draw inspiration from fairytales, such as Star Wars and Harry Potter, than on traditional fairytales. However, the description of the neurological processes at work overlap with the physiological components of both resilience and substance use disorder. As such, this research may offer another reason to study whether or not fairytales contain elements that explicitly align with the current model of resilience.

Summary and Conclusions

In Chapter 2, I described and discussed the research that supported my study: a descriptive deductive content analysis that determined whether specific evidence-based themes of resilience were found in a sample of fairytales. Beginning with a description of my literature search strategies, I laid out a conceptual framework for the study. This conceptual framework draws on several theoretical paradigms that have bearing on the research problem and questions, including Masten's model of resilience and the developmental theories of Piaget and Vygotsky.

I then examined current research on the disease of SUD. This included studies about its causes and trajectory, as they relate to its short- and long-term impact on young children living with the disease. Evidence was provided for the impact on children's behavioral, cognitive, social-emotional, physical, and academic development. Research on resilience as a protective factor against the negative impact of SUD on children was

also presented. This led into a presentation of current theory and research on resilience, including the identification of the key within-child protective factors: attachment/relationships; mastery/initiative; and self-regulation and executive functions.

Resilience and evidence-based strategies for promoting it in young children were then discussed within the context of the early childhood curriculum, with a focus on developmentally appropriate practices such as play and social and emotional learning. The ST/SA pedagogy of Paley was used as an example of an approach that has been found to promote both the specific skills and dispositions related to resilience, as well as emergent literacy skills. Research on the use of children's literature and storytelling to build resilience was then examined. Paley's use of storytelling and fairytales was discussed.

The literature review concluded with an examination of the research on fairytales from folkloristic, pedagogical, and psychological perspectives. Evidence for the alignment of fairytales with specific themes of resilience was presented from these theoretical perspectives. While this extensive review of the literature identified many parallels between the current research on resilience and the scholarship on fairytales, to date, there have been no studies that analyzed fairytales from this perspective.

There is a need for materials that can prepare preservice teachers with a deep understanding of both resilience and how to promote these protective factors within a child-centered, play-based curriculum. To this end, I conducted a research study that may help to fill this gap in practice as well as the gap in research on this topic. A descriptive deductive content analysis of a subset of multicultural fairytales that have been used by

preservice teachers in an early childhood education program to complete coursework in a required emergent literacy class was conducted. A researcher-constructed tool, based on existing analytic models for fairytales and resilience, was used to examine nine fairytales and their variants for the three key themes of resilience: attachment, initiative, and self-regulation. Chapter 3 provides details of the methodology of this study.

Chapter 3: Research Method

The purpose of this descriptive, deductive, qualitative content analysis was to identify specific examples of the protective factors for resilience (attachment/relationships, initiative, and self-regulation) in multicultural variants of fairytales. The core fairytales used were those chosen by college students for use in a learning unit they constructed for preschoolers while enrolled in a required emergent literacy class. While scholars have conducted content analyses of fairytales in the past (see Doyle & Doyle, 2001; Monoyiou & Symenondidou, 2016; Tsitsani et al, 2012), none of those reviewed referred to specific themes of resilience.

Chapter 3 will begin with a reiteration of the research questions and a brief discussion of why I chose a descriptive, deductive, qualitative content analysis for the methodology of this study. I will then discuss my role as the researcher, followed by a more detailed description of the research process. The chapter will conclude with a description of how trustworthiness was determined and a summary of the methodology.

Research Design and Rationale

I addressed the following research questions in this study:

1. How are the three elements of resilience (attachment, initiative, and self-regulation) represented in the actions of the protagonists within a sample of multicultural fairytales used in a community college early childhood teacher preparation program in a Mid-Atlantic state?
2. How are all three of these elements of resilience concurrently represented in any specific fairytale(s) included in the sample?

After considering a variety of methodological options, I identified a descriptive, deductive, qualitative content analysis as the best way to answer these research questions. Content analysis is a systematic and replicable research methodology that uses texts, images, recordings, and other media as data (Mayring, 2000, 2014). It is used by social scientists to study the latent meaning embedded in texts and other media within the context of their uses (Krippendorff, 2013).

Broadly, content analysis was a good match for this study because I looked for latent meaning in the texts of fairytales. Other qualitative methodologies which rely on interviews, surveys, or case studies were not appropriate because I was not trying to determine how individuals understand fairytales or what they think or feel about them. Fairytales were also not used as variables in an experimental design, nor were outcomes related to reading fairytales, listening to fairytales, writing fairytales, or using them in a classroom setting measured, and therefore, quantitative approaches were not appropriate.

Mayring (2014) identified four broad content analysis research designs, based on the kinds of research questions being asked: explorative, descriptive, relational, and causal. For this study, I chose what Mayring identified as the descriptive approach because the research questions required that specific theoretical constructs related to resilience be examined and described within the context of fairytales. Because a priori categories were established for the analysis, the study was further defined as falling within the deductive tradition (Mayring, 2014).

Deductive qualitative content analysis differs from the inductive tradition of qualitative research, where data are coded with descriptions which arise from the data

itself (Mayring, 2014). I considered deductive qualitative content analysis the most appropriate for this study because I was looking for meaning in the texts of fairytales that has not previously been explicitly examined using a priori categories. Further, the use of two disparate theoretical frameworks, Masten's (2015) model of resilience and Propp's (1968) structural morphology of fairytales, to formulate these a priori categories offered the opportunity to preserve the thick, rich descriptive features of these ancient narratives as I analyzed them through a 21st century neuroscientific lens. Hence, a descriptive, deductive, qualitative content analysis was considered the most useful methodology for addressing the research questions in this study.

The a priori categories I used in this study were operationalized descriptions of the elements of resilience related to attachment/relationships, initiative, and self-regulation based on Masten's (2015) short list of protective factors for resilience, presented in Table 1 in Chapter 2. These protective factors were juxtaposed with Zipes' (1995) condensed version of Propp's functions of the folktale (1968), which combined Propp's suggested 31 functions into eight more broad descriptions of the sequence of the protagonist's actions. These functions are the basic elements of a fairytale plot: The actions that occur to move the story forward in a step-by-step manner towards the eventual resolution of the presenting problem. The basic plot functions include: (a) the protagonist being confronted with a directive or prohibition, which is usually ignored or violated; (b) the protagonist is sent away from home and is either ordered to, or chooses to do some task related to the prohibition; (c) there is an encounter with some form of villain, and then a magical helper gives the protagonist empowering gifts; (d) the

protagonist is tested and succeeds in overcoming a challenge; (e) there is an additional challenge which looks as though it will cause the protagonist to fail; (f) the protagonist uses magical gifts, powers, or people to achieve the goal; (g) the villain is vanquished, often in a dramatic way; and (h) the protagonist succeeds and is rewarded by some combination of marriage, riches, or wisdom (Zipes, 1995).

Using Zipes' adaptation of Propp's morphology served several purposes within this study. Propp's work has been widely used by folklorists to analyze and define fairytales for almost 90 years; Zipes is regarded at present as the most prolific author and editor of fairytale and folklore studies (Heiner, 2016). Therefore, this structure provided a folkloristic foundation to the study, increasing chances of its generalizability.

Further, Zipes' eight functions of the protagonist served to unitize the elements of text analyzed. Krippendorff (2013) discussed the importance of specifically identifying the units of text that an individual will analyze. While the goal of this study was to record specific words or phrases that align with the protective factors for resilience, I used the preidentified functions of the protagonist was used to delineate *context units* which, according to Krippendorff, "are units of textual matter that set limits on the information to be considered in the description of recording units" (p. 101).

While Propp's 31 elements have been used by a variety of researchers for different research paradigms (see Andronovska-Trajkovska, 2012; Auguirre, 2011; Murphy, 2015; Thompson et al., 2015;), for this study, it made more sense to for me to use Zipes' summarized version. Masten's protective factors for resilience are based on broader constructs (e.g., relationships and self-efficacy) rather than the individual

microactivities of the characters identified by Propp. Further, Zipes' categories are more conducive to analyzing meaningful units of text (Krippendorff, 2013).

I employed the three-read method of analysis adapted by Ellefsen (2015) from the work of Madsen (2011) in this study. This strategy for analyzing texts draws on repeated readings of a text, with each reading having a specific and unique objective. These objectives are identified in the following paragraphs.

The first reading of each fairytale in the sample was to familiarize myself with the story, with no specific analytic framework in mind. While no specific analytic objectives were targeted, a general sense of the story arc and relationships between the characters assisted in subsequent readings and analysis. During the second reading, I specifically identified each of the eight plot functions identified by Propp/Zipes as they were described within the individual fairytale. I recorded a brief description of the corresponding passage of the fairytale directly underneath the description of Propp's function on the researcher-constructed chart for analysis (see Appendix A). The goal of the third reading was to identify specific short passages that may align with protective factors for resilience identified by Masten (2015). These, too, were recorded on the researcher-constructed chart in the column corresponding to the appropriate protective factor. Each chart, after it was filled in with specific data from a fairytale, provided a cross-walk of Propp's functions of fairytales (as adapted by Zipes) with Masten's protective factors for resilience as they related to the individual fairytale variant. After I completed this process for each fairytale in the sample, I examined and analyzed

occurrences of attachment, initiative, and self-regulation in the data. This helped to answer the research questions.

I identified the nine core stories used through the examination of retrospective data saved on my Blackboard sites for the Language, Literacy and Literature classes taught at the urban campus of a four-campus community college in a Mid-Atlantic state. Total enrollment of the college is currently around 14,000 students; the most recent data indicates that there are around 432 students in the Early Education and Child Development program. Students enrolled in this required class are pursuing their Associates degree in Early Education and Child Development.

Variants of these core stories were ones that could be found in the local public library system. If at least three variants that met geographic criteria could not be found in the public library's database, I used online transcriptions of fairytales. In this way, I both ensured that all texts were accessible to teachers.

Role of the Researcher

I brought experiences into this study that supported my in-depth analysis of fairytales. I have taught courses in children's literature and child development full-time at the community college level for the past 15 years. In my master's thesis, I examined the relationship between Piaget's theory of sociomoral development and fairytales (Templin, 1986). In addition, I have a background in storytelling research and performance, with the majority of my work focusing on folk and fairytales. I have also used fairytales and storytelling in my work as a children's librarian and as a classroom teacher in early childhood and middle school settings.

While these experiences allowed me to more deeply understand and analyze fairytales, they were also a source of bias. In my 40 years of working in the field of education, I have had many opportunities to see that children respond positively to fairytales. I would like to find additional ways that fairytales can support children's development, and as a professor of early childhood education at a community college, I would like to find new ways of supporting my preservice teachers' understanding of resilience.

In order to control for this potential bias, I designed my study so that I used a framework for analysis that was drawn from two very different scholarly traditions, folklore and neuropsychology. This allowed me to draw my operational definitions for each category of analysis directly from the work of highly-regarded scholars without relying upon my own ideas or biases. I transcribed exact quotations from the stories, so there were minimal opportunities for my interpretation.

I did not conduct my research in my work environment. I did not use human participants. I only used fairytales that were publicly accessible, rather than drawing on my own extensive collection.

Methodology

Participant Selection Logic

The units of analysis for this study were the selected fairytales and specifically, the actions of the primary protagonist within each story. The selection process had two stages: (a) the selection of seven to 10 core fairytales and (b) the selection of three multicultural variants of each of these fairytales that met specific research criteria. In

these two stages, I combined purposeful sampling strategies with convenience sampling strategies (see Creswell, 2012), which resulted in a collection of 24 fairytales that were analyzed.

I identified the final sample of nine core fairytales from the list of fairytales used by students in Language, Literacy and Literature classes between Fall 2011 and Spring 2016 (see Appendix B). A running list of the core stories chosen for use in a project assigned each semester was kept; names and other identifying information about students, such as student ID numbers or demographic information was not included in this list. I evaluated the list for the following criteria: (a) Did the story have a classification number that falls within the Tales of Magic category of the ATU Types of International Folklore (#300-745), thereby confirming that it was a genuine fairytale, according to scholars of folklore? and (b) Did the story have at least three variants that represented different geographic areas or cultural traditions?

Variants is the term used by folklorists to describe folktales that bear a strong resemblance to another story (Tatar, 2009). Variants usually have distinctive cultural referents, while sharing the same general motifs, or aspects of the story without which the story would no longer be the same story (e.g., Hansel and Gretel's abandonment in the woods by a parent). For this study, multicultural variants were used for several reasons, including the inclusion of multicultural literature in the objectives of teacher preparation programs, and the desire to investigate the universality of resilience as a construct in fairytales. Specific geo-cultural sources of the study's fairytale variants include: Northern European, including Scandinavia; Southern European, including Greece; African; Indo-

Asian; Native American; African-American; and the Appalachian and similar American folk traditions. A final list of core stories meeting these criteria was subjected to the next phase of the unit of analysis selection process.

During the first phase of the selection process, variants were identified and recorded for each story, using a combination of the ATÜ tale typology (Üther, 2004/2011); SurLaLune fairytale website (Heiner, 2016); and the local public library system database. Using the local public library database ensured that stories will be accessible to both the researcher and future students in the program. This is an example of convenience sampling.

A table was constructed of the core fairytales and their variants by geographic area and cultural tradition (Appendix C). This list was analyzed for geographic and cultural diversity. The goal was to attain approximately equal numbers of variants from European and non-European cultures, with variations within each category, according to the geographic categories listed above. The final selection of stories used was determined by this process of sampling. In cases when there were more stories that met this diversity requirement than were needed for the study, a systematic use of alphabetization was used to identify the final sample of fairytales and variants.

Instrumentation: Fairytale Content Analysis Coding Protocol

This descriptive deductive content analysis of multicultural fairytale variants was guided by a researcher-constructed tool (see Appendix A). The tool addresses and cross-walks two theories relevant to this study: the morphology of fairytale functions first proposed by Propp (1968), and the protective factors for resilience, which were advanced

by Masten (2015) and used as a foundation for Harvard University's National Scientific Council on the Developing Child's Working Paper on Resilience (2015). The decision to use two well-researched and widely-accepted frameworks from disparate research traditions was made in order to provide a strong theoretical and empirical basis for this analysis.

There is currently not a tool for the analysis of resilience that would be applicable for my study of fairytales. I examined and discussed two established instruments for measuring resilience with my committee (LeBuffe & Naglieri, 2012; Mackrain & Cairone, 2012). While these both aligned with Masten's model of resilience (2015), the descriptors were too specific to children's and teachers' classroom activities to be useful for this analysis.

Propp's work defined the structural components of the sequence of plot actions in fairytales, and so could be used to unitize the texts being analyzed (Krippendorff, 2013). For this study, Zipes' condensation of Propp's 31 fairytale functions into eight plot units was used (Zipes, 1995). In addition, I added a category of *Introduction/Setting* to Zipes' categories. This was done because the focus of this analysis was only on the actions of the protagonist. In many fairytale plots, the protagonist does not make an appearance until after the core premises of the story or setting have been introduced. Information presented in the introductory paragraphs, however, may be relevant to the determination of factors related to resilience for the protagonist, even if s/he does not directly appear.

Data Collection

The instrument described in the previous section was created in a Google Sheets spreadsheet. Copies of the instrument were titled with the fairytale variants being used. Each individual fairytale variant was coded on a unique spreadsheet chart. The instrument was used to analyze the content of each story with the three-read method adapted by Ellefsen (2015) from the work of Madsen (2011). Directions for the three-read method are described in detail in Appendix A, as well as outlined above in the Research Design and Rationale section, and below.

The first read-through of each variant was to gain an appreciation for the story, with no specific goal in mind. The second read-through was to identify the relevant introductory matter and the specific passages that aligned with the eight functions from Propp's morphology. These were sequentially recorded in the identified row on the spreadsheet, aligned with *Propp's Functions*.

During the third-read through, examples of Masten's protective factors for resilience were identified. Only those factors directly involving the primary protagonist were recorded. Short passages were either paraphrased or quoted in the relevant columns for protective factors, in the row matching the plot function/action that is taking place. This process was repeated for each variant. Variants were alphabetized after being identified, and data were collected for each one in alphabetic order, rather than by story or geographic/cultural identity.

Data Analysis Plan

After completing the data collection on multicultural variants of the nine core fairytales, the spreadsheets were reorganized according to the core story. They were

examined in multiple ways: individually, by core story, and then as a group. Patterns that emerged in the data were highlighted and coded. These included the prevalence of certain kinds of attachment/relationship, varieties of self-efficacy, and examples of self-regulation.

I reviewed, examined, and coded examples of the protective factors, both for each individual variant and each core story. These data were organized into a table that allowed me to identify the frequency with which various protective factors of resilience occurred in the collection of stories, as well as in individual stories, in order to directly answer my research questions. In addition, I analyzed specific trends that may exist by story, geographic region or cultural tradition, and looked for patterns of occurrence within the context of the meaning of the stories. Both of these processes are integral to the coding process in the content analysis methodology, according to Krippendorff (2013).

Issues of Trustworthiness

As with all research, descriptive deductive content analysis holds to strict guidelines for validity and reliability. I took several precautions to ensure that my research measured what it was supposed to measure (see Creswell, 2012), and did so in a way that maximized the key elements of reliability and validity in content analyses, according to Krippendorff (2013). These elements parallel the constructs of credibility, transferability, dependability, and confirmability that are usually discussed in relation to qualitative research (Creswell, 2012).

I chose to use Krippendorff's descriptors because they are specific to descriptive deductive qualitative content analysis, and these terms more accurately align with my research methodology. Krippendorff (2013) identified accuracy, stability, and replicability as the relevant measures of reliability in content analysis. Sampling validity and semantic validity are significant to the validity of content analysis studies.

According to Creswell (2012), measures of reliability predict that data gathered from a specific instrument will be the same upon repeated use of the instrument. Thus, they demonstrate that measurement error is kept to a minimum. In content analysis, tests of accuracy, stability, and replicability are applied (Krippendorff, 2013).

Accuracy measures "the extent to which a data-making instrument produces data that are accurate according to a given standard" (Krippendorff, 2013, p. 380). While I constructed the coding instrument I used, I chose two sets of standards that are well-respected in their respective fields as the basis for this coding instrument. The detailed descriptions of Propp's plot functions have been used to analyze thousands of fairytales by numerous scholars; they have been found to be consistent with remarkably few suggestions for revisions (Murphy, 2015). Propp's 31 plot functions have been consolidated into eight functions by Zipes (1995). These basic plot functions include: (a) the protagonist being confronted with a directive or prohibition, which is usually ignored or violated; (b) the protagonist is sent away from home and is either ordered to, or chooses to do, some task related to the prohibition; (c) there is an encounter with some form of villain and then a magical helper gives the protagonist empowering gifts; (d) the protagonist is tested and succeeds in overcoming a challenge; (e) there is an additional

challenge which looks as though it will cause the protagonist to fail; (f) the protagonist uses magical gifts, powers or people to achieve the goal; (g) the villain is vanquished, often in a dramatic way; (h) the protagonist succeeds and is rewarded by some combination of marriage, riches, or wisdom.

Researchers have determined that fairytales from a wide variety of cultures align with these plot functions (Murphy, 2015; Tatar, 2009; Zipes, 1995). Thus, by following the specific sequence of these functions while reading a fairytale, this aspect of the chart had a strong likelihood of being an accurate description of the genre of fairytales as a whole. This measure of accuracy also allowed for cross-cultural comparisons.

Accuracy in identifying examples of the protective factors for resilience was ensured by providing definitions of each factor that drew on the research bases of multiple researchers on the topic. These protective factors are grounded in common behaviors and practices of children and adults, according to Masten (2015). For example, Masten discussed measures of resilience that identify social interactional factors such as parents offering comfort to a child who is upset; a child seeking help from a trusted adult; a child sharing with peers, and a child generating alternative solutions to a problem, etc. It is anticipated that anyone using this chart to analyze fairytales for themes of resilience will have a foundation in basic child development and that this will support the accuracy of the instrument.

Stability measures the extent to which a researcher or instrument generates the same data from the same sample during repeated trials. Krippendorff (2013) noted that this is a challenge since researchers bring into the research process a set of

understandings, biases, and assumptions, and that these may be replicated each time an instrument is used. While this cannot be completely controlled for, I repeated the exploratory analyses of the same stories (*The Golden Goose* and *The Six Swans*) first analyzed in October, as described below, after receiving approval of my proposal from the Institutional Review Board (IRB) at Walden University. This gave me insight into how stable the instrument was before I proceeded with the next step of determining reliability: replicability.

Replicability is a stronger measure of reliability, according to Krippendorff (2013). Replicability measures the extent to which an instrument can be counted on to produce the same data from the same sample in other situations. This includes when the instrument is being used by other coders working independently.

I addressed replicability in my study in two ways. The first was by doing a preproposal check of the instrument in October with a professor of education with strong research interests in child development, emergent literacy, and children's literature. We both used the chart I created to independently analyze the same two fairytales, *The Golden Goose* and *The Six Swans*. These are fairytales that were not included in the study since neither was identified in the retrospective data set of fairytales used by the previously identified community college students between 2011 and 2016. After we both completed the analysis, we compared our results to look for consistencies and inconsistencies in the data collected. Minor adjustments were made to the instrument and the directions for its use in order to clarify both the operational definitions of the protective factors for resilience, and elements of the three-read method.

The second thing done to ensure replicability was to conduct an additional exploratory study of the instrument. This took place after approval of the proposal by IRB and before I conducted the content analysis of identified fairytales and their variants. Two peer reviewers with a strong interest in fairytales and a background in early childhood education were asked to use the chart to analyze three fairytales that were not included in the study. I independently analyzed the same three fairytales, two of which were the same ones used in the pre-proposal exploratory study.

While intercoder reliability is not a universal prerequisite for descriptive deductive qualitative content analysis (Krippendorff, 2013), it was considered applicable for this study since the tool being used was one that the researcher had developed. The data generated on the charts by the researcher and the peer reviewers were compared. Inter-coder reliability was defined as 70% similarity in the charts of the three fairytales. This was met. This is considered an adequate measure for qualitative content analysis coding correspondence for studies that rely on an understanding of the latent content of texts (Lombard, Snyder-Duch & Bracken, 2010). Differences between the researcher and the peer-reviewers were discussed and clarified before the study proceeded.

Validity, according to Creswell, is "the development of sound evidence to demonstrate that the intended test interpretation matches the proposed purpose of the test" (Creswell, 2012, p. 630). In content analysis, two measures of validity are used: sampling validity, and semantic validity (Krippendorff, 2013). Both of these measures of validity were considered in this study.

Sampling validity refers to the assurance that a sample is large enough to represent the population being studied (Krippendorff, 2013). I addressed sampling validity in two ways. The first was by using only fairytales that met the criteria of the ATÜ typology of Tales of Magic, categories 300-745 (Üther, 2004). This internationally-recognized tool for the identification and categorization of folklore ensured the generalizability of the sample I am using to the vast population of fairytales from around the world. I used the scholarly fairytale website SurLaLune (Heiner, 2016) to cross-reference tale type numbers and variants.

The second measure used to address sampling validity was to identify variants from a variety of specified geographic areas and cultural traditions. This supported the alignment of the sample with the universality of fairytales. While not all continents were represented, 22 cultural traditions were included in the sample.

Semantic validity is, according to Krippendorff (2013), a criterion specific to content analysis. It measures "the degree to which analytical categories accurately describe meanings and uses in the chosen context" (Krippendorff, 2013, p. 334). The use of Propp's functions as the method for unitizing each data source supported the semantic validity of the chart for analyzing fairytales. This study did not look at children's literature in general, or at picture books, or at modern fantasies. It targeted the context of those stories that include magic and are drawn from the oral tradition. Semantic validity was enhanced by using categories drawn from the study of this specific genre of story.

The examples given on the chart for each of Masten's resilience categories were drawn from child development research. This addressed the context of the research focus

and of other researchers who may use the chart. It was not designed for folklorists or feminists or psychoanalysts who are interested in the content analysis of fairytales. Instead, this analysis was used in the context of understanding resilience in children in a classroom or family setting, and the categories aligned with those used by individuals working in such settings.

Ethical Procedures

This study conformed to ethical guidelines. There were no human subjects in this study. The fairytales used were all available in public libraries or from open access online sources. Fairytale selection was made from a list of stories chosen by past students for use in a community college project required in my classes. No student names or other identifiers were included on this list.

I was the sole researcher in this study. While I profess a strong bias towards believing that traditional fairytales have a place in the early childhood classroom, as well as in teacher preparation course work, I did not have a preference for either specific fairytales or particular geographic areas or cultural traditions from which the stories were drawn. Fairytales used in the prepilot and pilot validity and reliability checks of the instrument were not used in the study. The prepilot checks were done prior to IRB approval at the suggestion of my committee.

I submitted an application to the IRB of Walden University after my proposal had been approved by my committee and the University Research Review (URR). The study was approved to be conducted as designed. The IRB approval number is 03-30-17-0429855.

Summary

In this chapter, I provided a rationale for my choice of a descriptive, deductive, qualitative content analysis as the methodology for studying themes of resilience in fairytales. I described how I chose my sample. I discussed how I constructed, piloted, and used my instrument to analyze a representative sample of fairytales and their cross-cultural variants for specific protective factors for resilience. I reiterated the theoretical bases for this research in the context of describing how my instrument aligned with measures of reliability and validity. I addressed my awareness of ethical concerns.

In the following chapters, the results of this study will be presented, discussed, and analyzed. Specific examples of themes of resilience in fairytales will be examined. In addition, suggestions for possible uses of the information obtained from this content analysis in the context of early childhood teacher preparation will be shared.

Chapter 4: Results

The purpose of this qualitative, deductive, descriptive content analysis was to determine whether traditional multicultural fairytales contained specific references to the protective factors for resilience identified by Masten (2015). I developed two research questions to guide this study:

1. How are the three elements of resilience (attachment, initiative, and self-regulation) represented in the actions of the protagonists within a sample of multicultural fairytales used in a community college early childhood teacher preparation program in a Mid-Atlantic state?
2. How are all three of these elements of resilience concurrently represented in any specific fairytale(s) included in the sample?

In this chapter, I will briefly describe the preservice student population who originally selected the core fairytales used as the foundation for this study. A description of sampling, data collection, and data analysis strategies will follow. I will also provide evidence of trustworthiness, as previously discussed in Chapter 3. Results of the study will then be discussed, and the chapter will conclude with a summary and transition to Chapter 5.

Setting of Study

The core fairytales I used as the foundation for this study were selected by preservice teachers attending a Language, Literacy and Literature class at a community college with approximately 13,000 students in a Mid-Atlantic state. The college has four campuses and five centers; this upper-level class is taught at all four campuses. The

fairytales included in this sample were selected by students at the most urban of the four campuses, located near the downtown area of a city of just over 300,000 people.

One requirement of the semester-long required course is for students to identify a folktale or fairytale, locate four variants of that folktale or fairytale, and then create a learning standards-based curriculum unit for young children, based on the story. All stories selected must have roots in the oral tradition, but variants may be modern or literary versions of the story. Versions of the story published in association with Disney or other video productions are not permitted.

Archived lists of stories selected between Fall 2011 and Spring 2016 did not contain identifying information about the students who selected the stories. Therefore, specific demographic information was not available. However, the Early Education and Child Development program's most recent 5-year review indicated that between 88% and 95% of the student population in the programs that require this class are female; between 23% and 29% of the students are non-White. Although the information was not provided in this report, students in this class have ranged in age from 18 to 88 years during the targeted time period, with the average age of students at the college identified as 28 years. Every semester, between one and four international students enroll in this specific class; students have come from Liberia, Kenya, China, Thailand, Syria, Turkey, Russia, Venezuela, Egypt, and Colombia during this time period.

Data Collection

Sampling

The archived lists of stories selected by students between Fall 2011 and Spring 2016 may be found in Appendix B. To begin the sampling process, I compiled a list of the stories used and noted how many times each core story had been selected. The Tale Type number of each story was then identified, using both Üther (2004/2011) and the SurLaLune website (www.surlalunefairytales.com).

Because the sample for this study was limited to Tales of Magic (Tale Types 300–745), I eliminated a number of the selected stories, including popular stories like *The Three Little Pigs*, *The Three Bears*, *The Gingerbread Boy*, and *Little Red Riding Hood*. These stories, while permitted for the project, fell outside the parameters of this study. Similarly, several stories written by Danish author Anderson were eliminated: *The Little Mermaid*, *Thumbelina*, and *The Princess and the Pea*. While students had been able to identify at least one variant from the oral tradition thematically-related each of these famous stories, for this study, the core stories themselves had to meet the criterion of coming from the oral tradition. One story, *Maui*, an origin myth from Hawai'i, could not be found in either of the sources used. Of the 18 stories selected, 10 met the criterion of falling within the Tales of Magic parameter.

In order to limit the number of possible variants to choose from, I used the extensive lists provided for each story on the SurLaLune website, in the "Similar Tales Across Cultures" section. This methodological decision was made for logistical reasons, since there are hundreds of variants for each of the stories and the process of randomly

selecting from these variants would be very time-consuming. In addition, the SurLaLune website is a free and accessible resource recommended to the students in the class. It offers both scholarly research about each story and links to online versions, when available.

One of the 10 identified stories, *Fool of the World in the Flying Ship*, was not included on the SurLaLune website. Therefore, I eliminated this story from the sample. The nine remaining stories were used for this study.

The next step in the sampling process was to compile a list of the variants for each of the nine stories. I copied and pasted this information from the "Similar Tales Across Cultures" section for each story on the SurLaLune website. Story names were listed in alphabetical order. Each list was then cross-referenced with the online database of books available through the public library system which served the county where the college is located. A final list of variants for each of the nine stories was compiled, identifying both the books that were available to check out from the libraries in the system and the variants which were accessible via free and open-access online sources, in alphabetical order by story name.

I constructed a Preliminary Sampling Protocol for Geographic Distribution to assist with the purposive but random sampling of the available variants. The nine core stories were listed alphabetically, and a chart was constructed identifying the major geographic regions targeted in this study: Northern European (e.g., Great Britain, Germany, and Finland); Southern European (e.g., Italy and France); Middle Eastern, African, Asian and Indo-Asian; South/Central American; Native American; and Other

American (see Appendix C). Identifying marks (Xs) were placed in a specific pattern on the chart, indicating the geographic regions from which a variant for each story would be selected, as available. Because there were more European variants listed on the SurLaLune webpage, Northern European and Southern European were alternated in the pattern. The other regions were grouped as Non-European/Non-American (Middle Eastern, African, Asian, and Indo-Asian) and Non-European/Americas (Central and South America, Native American, and Other American, which included African-American and Mountain variants). I placed the Xs in a sequential pattern for each broad grouping, with the first X for a story placed in the first geographic category of each of the two broad regions, the X for the next story in the second geographic category, and so on.

After this was completed, I selected the specific variants for the sample. The countries of origin in each geographic category for each story were noted in alphabetical order, if there was more than one variant in the geographic category. For the first story targeted for a specific geographic region, I chose the first variant on the alphabetical list of countries from which variants came; for the next, the second variant on the alphabetical list, and so on. For example, the first story with an X in the Northern European column was *Beauty and the Beast*. The Northern European countries of origin for this story were: Austria, England, Germany, Russia, and Switzerland. Because the first country alphabetically was Austria, this was the variant chosen for the sample. The second story with an X in the Northern European category was *The Frog Prince*. Northern European variants for this story came from Britain, England, Germany, and Scotland. Because England was the second country listed, and this was the second story

needing a Northern European variant, the variant from England was included in the sample. Countries of origin were identified by the names listed on the SurLaLune website.

I repeated this process for each of the broad geographic regions. In the event that there were no variants from the specific geographic subregion identified for a story, a variant from another subregion in the same broad geographic region was identified. If a variant existed in a non-European category and was listed in a book that was not available through the public library system, I conducted a Google search to determine whether there was another version available through the library system or another online source, such as Google books. This process resulted in one addition to the sample; a West Indian variant of *Rumpelstiltskin* was available in picture book form (Hamilton, 2000), in addition to being found in an anthology not available locally.

If no variants were available for a broad geographic region, I did not use one. This was the case for three of the nine stories: Neither *Jack and the Beanstalk* or *Rumpelstiltksin* had variants that met all other criteria from the Non-European/Non-Americas category; *Rapunzel* did not have a variant from the Americas. It should be noted that references to variants for these stories from the "missing" geographic regions are made in Üther (2004/2011). However, because they were not listed on the SurLaLune website and came primarily from scholarly folklore collections, they were not included.

This process resulted in a sample of 24 variants, which was within the range originally identified as the number recommended for descriptive deductive content analysis studies (20–30; see Krippendorf, 2013). I replaced one variant, a Swiss version

of *Snow White and the Seven Dwarves*, after reading the story. Although it met the above criteria, it was not appropriate for children, nor for use in a college education class because of language (use of the word "slut" to describe Snow White). Further, its lack of coherent story line would make it difficult to use the Proppian analysis instrument. This story was replaced by the variant immediately preceding it in the alphabetical list, from Germany, since there was not a variant that came after it.

The final list of variants included five stories from Northern Europe, four from Southern Europe, two from the Middle East, three from Africa, two from Asia/Indo-Asia, three from South/Central America, two from Native American tribes, and three from other cultural traditions in the Americas. A total of 22 different cultural traditions were represented in the sample. A table of the Final Sampling for Geographic Distribution, including core story names, may be found in Appendix D.

After I selected the final sample through the process I outlined in this section, the variants were either checked out of the library or accessed from the online sources. In a number of cases, I already owned the books that were available through the library system. In these cases, I used my own copies for the analyses instead.

Testing of the Research Instrument

I constructed the research instrument used for this qualitative descriptive deductive content analysis in Google Sheets, an open access spreadsheet application, in a process described in Chapter 3. An APA style version of the instrument was also created and can be found in Appendix A. To test the instrument, I selected three fairytales that met the criteria for inclusion in the study (categorized as "Tales of Magic," listed on the

SurLaLune website, and available through public library or online sources), but were not on the archived list of fairytales chosen by students, and so would not be included in the study. Because the stories were to be used to test the instrument by multiple individuals, online versions were selected.

Two of these stories had been used during the early development of the instrument. A professor of education with a specialization in children's literature had analyzed the same two stories as I had, and the results were compared and discussed. This process resulted in fine-tuning the instrument, including the addition of definitions of the protective factors for resilience.

The three-read method described in Chapter 3 was used to analyze each of the three stories, *The Golden Goose, The Six Swans, and The Elves and the Shoemaker*. During the first reading, each story was read from beginning to end to gain an understanding of the story arc. During the second reading, the events of the story were recorded sequentially, to parallel the Proppian plot functions listed on the chart. During the third reading, specific examples of actions related to the protective factors related to resilience were recorded.

After the analysis for all three stories was complete, two reviewers used the instrument on the same three stories. The first reviewer (Reviewer #1) has a master's degree and teaching certification in early childhood education and a strong interest in fairytales. She is currently teaching kindergarten in a private school. The second reviewer (Reviewer #2) graduated several years ago with an associate degree from a community college in a Mid-Atlantic state, and is currently completing a bachelor's degree in early

education and child development at a university. She has a strong interest in both fairytales and resilience.

I had not originally planned to have two reviewers. Reviewer #2 was asked if she would participate when the Reviewer #1, who had agreed to participate in Fall 2016, did not respond to e-mails after the proposal was approved in Spring 2017. After Reviewer #2 agreed, Reviewer #1 responded, and said she was interested in participating. I decided to use both reviewers since they represented two groups of educators who might be using the instrument: in-service early childhood teachers and preservice early childhood teachers.

Each of the reviewers received the directions for the three-read method (Appendix A), links to the three stories and a copy of the instrument in APA format via e-mail. Both contacted me and said that they found the APA-formatted table challenging to use. Reviewer #1 sent a Word document for the Golden Goose that had analysis on it, but expressed confusion about the three-read method and how it tied into the instrument.

At this point, both reviewers were sent individual links to the instrument on Google Sheets for each story. Each also received a pdf of a completed Google Sheets spreadsheet for the first story she had completed. Because a preferred order to analyze the stories had not been specified, Reviewer #1 had analyzed *The Golden Goose* first, while Reviewer #2 had analyzed *The Six Swans* first. The reviewers were asked not to redo what they had done, but were offered the chart as an example of how to use the instrument.

Reviewer #1 commented that this made the process clearer, and she analyzed the other two stories in the Google Sheets format. Reviewer #2 said that she had understood the process, but copied and pasted her analysis for the first story on to the Google Sheets template because the formatting looked better. She then analyzed the other two stories in the same format.

When I had received all of the analyses, I compared the reviewers' analyses to my own for each story. An inter-rater similarity of 70% is considered an adequate measure for qualitative content analysis coding correspondence for studies that rely on an understanding of the latent content of texts (Lombard, Snyder-Duch, & Bracken, 2010). This criterion was met overall. However, there were some differences in the way the instrument was used, as well as in the reviewers' understanding of the protective factors for resilience. These impacted the interrater similarity. Minor modifications were made in how the instrument was used in the final study, based on these comparisons.

Reviewer #1 did not complete the Proppian plot function column in second and third stories she analyzed. When asked about this, she said she had been in a hurry and forgotten. While I found that the Propp functions were sometimes awkward to match to the plots, depending on the story, they did offer a certain framework for understanding the flow of each story, and a consistency for analyzing specific characteristics of resilience. It could not be determined whether or not this impacted her identification of protective factors for resilience. However, it did mean that inter-rater similarity of the Proppian functions could not be determined.

There were several other discrepancies, as well. Reviewer #1 holds a master's in early childhood, while Reviewer #2 is a rising senior working on her bachelor's degree. Nonetheless, Reviewer #2's responses on the resilience themes were more aligned with mine than Reviewer #1's. This may have to do with the fact that Reviewer #2 took several child development classes from me in 2014-2015, after I began researching resilience at Walden, although I did not incorporate this information in reference to fairytales.

There was some inconsistency in how certain characteristics of resilience were interpreted. There were most notably often overlaps between intelligence/problem-solving and motivation to succeed, with the same passage being identified as intelligence/problem-solving by one or two of us, and as motivation to succeed by the other(s). Noting this, I decided in future analyses for the study, to focus on *persistence* as the key characteristic looked for in motivation to succeed. This helped to better define the difference for myself.

Both readers specifically mentioned that *The Elves in the Shoemaker* was hardest to fit into the model. I agree: Of the three pilot stories, this one was hardest to both match the Propp functions to, and in which to find evidence of resilience. It may be important to research this story to see if there are clues to why this is so from its origins, as this may have implications for the generalizability of this study.

It was interesting to note that individual experiences may have played into the analyses. For example, Reviewer #1 was a single mother for six years, although she has now married for the first time. She identified "living happily ever after" (Reviewer #1,

Google Sheets data, May 18, 2017) as an example of motivation to succeed. She also did not focus much on the sibling relationship in *The Six Swans*; she is a single child, as is her daughter, while Reviewer #2 has two siblings.

Reviewer #1 identified more examples of self-efficacy than Reviewer #2, whereas Reviewer #2 identified more examples of self-regulation. One possible reason for this may be difference in educational experiences. Self-efficacy is a term that was probably used more in graduate level education classes, while self-regulation is one Reviewer # 2 frequently heard in her classes with me, and one that is more likely to be discussed in the context of classroom management in undergraduate courses.

Such differences may have implications for future research using this instrument. However, it was determined that there was enough consistency to move forward with the analysis, using the insights highlighted above to refine my definitions of the terms and related analyses. The instrument was used as designed.

Data Analysis of Sample of 24 Multicultural Fairytale Variants

Once the sample of 24 variants had been identified, a list of the stories in alphabetical order by variant title was constructed. The words "The," "A," and "An" were omitted from the titles (Appendix E). This was done so that the order of analyses would be random, and there would be minimal chance of analyzing two variants of the same story back to back.

Beginning with the first variant, *Blanca Rosa and the Forty Thieves* (Pino-Saavedra, 1967), the three-read method was used to analyze each fairytale. Each analysis was recorded on a Google Sheets spreadsheet, named with the story's title. The first

reading was to familiarize myself with the general arc of each story. The second reading was to record the events that aligned with the Proppian plot elements, listed in the column marked *Proppian Plot Functions*. The third reading was to record specific examples of the various protective factors for resilience that various plot elements represented. Examples were recorded as either brief summaries of events, or direct quotes from the story. Summaries were used more frequently to record plot elements, while direct quotes were used more frequently when identifying examples of resilience.

This process was repeated for each of the 24 variants. In all cases, the three readings were performed successively on the same day. At the conclusion of the data collection, each spreadsheet was saved as a pdf file and downloaded to my computer to ensure that the data would not be lost in the event of a breach in the Google system.

The chart for each variant was then printed and the variants were organized by core story. Each group was identified by the ATÜ code for the core story. The groups of variant charts were then placed in numeric order by ATÜ code.

Beginning with the first ATÜ code, #310, The Maiden in the Tower, the variants for each story were analyzed in numeric order. First, the plot functions of each variant were reviewed to refresh my memory of each story. Then, the specific examples of each protective factor identified were revisited, to ensure that I still thought it was representative of the working definition of that protective factor. I made notes of questions that I had, and also returned to the text of the story to gain clarification, as necessary.

Multiple examples within the same passage were also numbered, if this had not been done during initial coding. Because a record of the total number of examples of each protective factor in each story was needed to answer the research questions, examples that occurred in the same plot function were recorded as separate incidences. For example, in *Jack in the Giants' Newground* (Chase, 1943), a Jack and the Beanstalk variant from the Southern United States, Jack used a series of tricks to fool the first giant he encountered as he was clearing the farmland for his boss. These were numbered as three separate examples of *Intelligence, ingenuity, and problem-solving skills*, although all occurred in the *Endowed protagonist tests and move on to battle and conquer villain* row of the analysis chart, and are found on the same page of the story: (a) Jack climbed tree to start clearing so he won't be caught by giants; (b) Told giant he can squeeze milk out of flint rock, then used milk he poured into his leather apron to trick him; (c) Cut leather apron and sewed it back up with string: "I can cut myself wide open and sew it back up. And it won't hurt me none" (Chase, 1943, p. 6). Giant then imitated Jack's actions and died.

After completing the process, the number of occurrences of each of the examples of the eight factors were tallied on a blank copy of the coding chart. Positive examples of *Effective Parenting*, were tallied in green pen; a red pen was used to tally negative examples. Tallies for all variants for a specific story were recorded on the same chart.

Negative examples of both other kinds of relationships (with capable adult, and peer/sibling/romantic partner), and self-regulation were also tallied in red pen. However, these were not included in the final tallies, nor were they recorded on any data charts.

While they are interesting and may have relevance moving forward, I chose not to include this data in the tallies because they do not have bearing on the research questions.

This process was completed with hard copies of the charts. The charts were printed on paper, rather than analyzed on the computer screen as either electronic pdfs or as Google Sheets spreadsheets. This was to logistically facilitate multiple sorts of the data, such as by individual variant, tale type, and geographic region.

I recorded reflections about each story. I also noted how the data connected to my understanding of resilience after I completed analysis of each variant. This was done to capture some of the more descriptive patterns that I saw, as well as to keep a record of my immediate subjective thoughts, to control for how they may have influenced subsequent interpretations.

This process was conducted with all 24 variants. After this, I made a series of graphs and tables to help to identify patterns. Those that are relevant will be discussed in the next section.

Results of Content Analyses of Fairytale Sample

This study explored two research questions:

1. How are the three elements of resilience (attachment, initiative, and self-regulation) represented in the actions of the protagonists within a sample of multicultural fairytales used in a community college early childhood teacher preparation program in a Mid-Atlantic state?
2. How are all three of these elements of resilience concurrently represented in any specific fairytale(s) included in the sample?

The results will be reported in several ways. It is important, first, to examine the degree to which the elements of resilience, and their sub-component protective factors, occurred in the sample and to examine patterns of occurrence that may be significant. While this is a qualitative, deductive, descriptive content analysis, there is not an empirical foundation for the assumption that specific themes of resilience do, in fact, occur in fairytales around the world. Therefore, it is important to quantify the occurrence in this sample. Following this, each protective factor will be discussed, with examples of how they were represented in different variants. Finally, specific fairytales that may be seen as exemplars because they contain rich, thick descriptions of all three of the elements of resilience will be discussed.

Evidence of Protective Factors for Resilience in Fairytale Sample

All 24 of the variants in the sample contained examples of multiple protective factors for resilience. Nine of the 24 contained all seven factors identified by Masten (2015): effective parenting; positive relationship with another competent adult; positive relationship with friends, romantic partners or siblings; intelligence, ingenuity, and problem-solving skills; motivation to succeed; self-efficacy/agency; and self-regulation. Nine of the 24 had representations of six of the seven factors, and five of the 24 included examples of five of the seven factors, giving a total 23 of 24 of the variants, or 96%, which used at least five of the seven factors for resilience to propel the protagonists towards their happy ever after. Table 2 gives an overview of occurrence, broken down by the seven protective factors. Appendix F displays the exact breakdown of occurrence of protective factor by variant and geographic region.

Table 2

Occurrence of Protective Factors for Resilience in Fairytale Sample, by Ratio and Percentage

Effective parenting	Positive relationship with other capable adults	Positive relationships with friends, romantic partner or siblings	Intelligence, ingenuity and problem-solving skills	Motivation to succeed	Self-efficacy	Self-control, emotion regulation, planfulness
20/24	17/24	24/24	21/24	18/24	21/24	23/24
83%	71%	100%	88%	75%	88%	96%

When the seven protective factors were combined into the three elements identified in the research questions (attachment/relationship; initiative; self-regulation), 23 of the 24 variants have examples of each element. One variant does not. *Juan and Clotilde*, a Rapunzel variant from the Philippines, lacked examples of the protagonist demonstrating self-regulation.

Further, only one of the variants does not have at least two of the three protective factors for attachment/relationship, *The Deserted Children*, from the Gros Ventre, the Hansel and Gretel variant. Similarly, only one variant does not have at least two of the three protective factors for initiative, *Cinderella*, from Armenia. It is possible that the transcriber/collector of the stories missed cultural nuances, or that I missed cultural nuances that may have referred to examples of relationship or initiative. Further research into the cultures involved would be necessary to determine if this is the case.

While no statistical analysis was performed to determine significance of the difference in cultural variation, broad geographic regions did have variation in the extent to which each protective factor figured in the plot. Table 3 gives an overview of the

protective factors and their occurrence by geographic region (Europe, Northern and Southern; Non-European/Non-American (Middle East, Africa, Asia); American (South/Central American; Native American; Other American). It is interesting to note that the three protective factors related to initiative, often considered a cornerstone of the American ethos, dominated those variants that came from this continent.

Table 3

Occurrence of Protective Factors for Resilience in Fairytale Sample by Broad Geographic Region

	Effective parenting	Positive relationship with other capable adults	Positive relationship with friends, romantic partner or siblings	Intelligence, ingenuity and problem-solving skills	Motivation to succeed	Self-efficacy	Self-control, emotion regulation, planfulness
Europe	89%	78%	100%	78%	89%	78%	100%
Africa/Asia	86%	71%	100%	86%	71%	86%	86%
Americas	75%	75%	100%	100%	63%	100%	100%

Examples of Attachment/Relationship

All fairytales in the sample explored various relationships between the protagonist and the human and non-human characters with whom s/he interacted. At times, it was a challenge to determine who the protagonist was, since there was often more than one sympathetic character. In Propp's (1968) identification of the dramatis personnae, or characters, found in fairytales, he distinguished between the hero and the princess, or sought after person. For the purposes of this study, the sympathetic main character(s) was

identified as the protagonist(s), since there were many stories in which the sought-after princess demonstrated as many or more of the traits of resilience as the designated hero.

Effective parenting: Positive and negative examples. According to Masten (2015), effective parenting is characterized by actions which encourage, comfort, or protect the child. While effective parenting is the basis for attachment and a primary protective factor for resilience (Masten, 2015), in this study, both positive and negative examples of effective parenting were identified. This was done for two reasons. First, because the archetype of the wicked stepmother is a dominant character in many popular fairytales. In addition, the children for whom this study may be most relevant, those living with familial substance use disorder, may experience parenting that is not effective. Since fairytale heroes often overcome adversity, including poor parenting, before they get to the happy ending, I was curious about how frequently poor parenting was part of the narrative.

Eighty-three percent of the stories analyzed contained one or more examples of effective parenting. These included both the parenting of the protagonist by a mother and/or father, and the parenting that the protagonist(s) exhibited if s/he had children in the story. This was the case in, for example, two variants of Sleeping Beauty (*Sleeping Beauty in the Wood*, (Perrault, 1889) from France, and *Sleeping Beauty* (Pino-Saavedra, 1967)(from Chile) and a Rumpelstiltskin variant from Slovenia, *The Golden Spinster* (Wratislaw, 1890).

Examples ranged from parents taking extreme measures to protect their children, to more basic parenting strategies, such as expressing love or providing guidance. In

Sleeping Beauty in the Wood (Perrault, 1890), for example, the King/Father orders that all spindles and distaffs in the kingdom be destroyed, after he learns that his daughter will prick her finger while spinning when she is 16. In *Juan and Clotilde* (Fansler, 1921), a Rapunzel variant from the Philippines, the King offers great rewards to anyone who can free his daughter from the tower where a wizard has locked her. In the Armenian version of *Cinderella* (Villa, 1966), the mother tells her children that they may kill her and eat her, in order to prevent them from starving. When it becomes clear that the older two sisters plan to do just this, the mother tells the youngest to bury her bones in the backyard, where they be able to grant her any wish.

In the *Ninth Captain's Tale* (Mathers, 1964), a Sleeping Beauty variant from Egypt, the mother initially refuses to take her daughter to learn to spin flax, as the girl requests: "'Do not say such a thing!" cried the woman. "Flax is a danger to you. Its smell is fatal to your breast, a touch of it will kill you" (Mathers, 1964 para. 13). In the end, she gives in to her daughter's pleas and the girl falls into a death-like sleep. Her parents, thinking her dead, built her "a pavilion of marble," surrounded by gardens, and "set the girl upon an ivory bed, and came there many times to weep" (Mathers, 1964, para. 19).

The parents of Jack, in *Jack in the Giants' Newground*, were similarly frustrated by their son's stubbornness, but they encouraged him: "Jack was awful lazy sometimes, just wouldn't do any lick of work. His mother and his daddy kept tryin' to get him to help, but they couldn't do a thing with him when he took a lazy spell" (Chase, 1943, p. 1). Nonetheless, when Jack set off to seek his fortune elsewhere, his mother "fixed him up a little snack of dinner" (p. 1) and he departed.

In contrast, half of the stories in this sample contained examples of what was recorded as "bad parenting," (negative examples of effective parenting). The most extreme examples came from the three variants of Snow White and the Seven Dwarves. In variants from Germany, Mozambique and Chile, the jealous stepmothers all sent the protagonist away, and ordered a servant to kill the daughter and bring back various body parts as proof that she was dead.

Other examples of negative parenting identified include both punishing the child without cause, and trying to thwart the child's success. In *Little Burnt Face*, a Cinderella variant told by the Micmac Nation, of Maine (Alcott, 1917), the father scolded the youngest daughter "until she crept away crying to bed," after the older sisters beat and burnt her and told their father that she had fallen into the fire. Another set of parents tried to poison their youngest son, Juan, when he set off to try to rescue the Filipino Rapunzel (Fansler, 1921), "actuated partly by a sense of shame if he should fail, and partly by a deep-seated hatred" (Fansler, 1921, para. 6).

The parents of the protagonists in *The Deserted Children* (Cole, 1982), a Hansel and Gretel variant told by the Gros Ventre tribe of Montana, not only desert their children, but deny that they know them when the children call after them:

> One day, a little boy and his sister, returning from play, found only smoldering campfires where their village had been. Deep in the distance the people could be seen, traveling farther and farther away. As they hurried to catch up, the children found a tepee pole that had been dropped by their parents. "Mother!" they shouted. "Here is one of your poles!" But the parents were moving to a new camp

> and had left the children on purpose, not caring for them, and from far away came a faint answer, "Never mind, you are not my child." (Cole, 1982, p. 697)

Not all examples of parenting in the fairytale sample are as clear-cut. A number of examples of parenting behaviors seemed to be negative examples, but were, in fact, explained as positive. In *Chick*, the Italian Hansel and Gretel variant (Calvino, 1980), the parents sent their children off into the woods during a famine because "It breaks my heart to see our little ones starving" (Calvino, 1980, p.449). When they returned, the mother sold everything they had in the house in order to buy seven loaves of bread, one for each of the children, before sending them off into the woods again the next day.

Similarly, the mothers in both versions of Rumpelstiltskin lied about their daughters' ability to spin straw into gold in order to protect them. In *The Golden Spinster* (Wratislaw, 1890), the Slovenian mother defends her youngest daughter's laziness to the visiting prince by explaining,

> She is such a spinster, that by herself she would by morning spin up not only all our spinning materials, but all the thatch from the roof, and that into golden threads; nay, at last she would betake herself to my gray hairs; I am obliged, therefore, to give her a holiday. (Wratislaw, 1890, para. 1)

The king who passed by in the West Indian variant, *The Girl Who Spun Gold* (Hamilton, 2000) was disturbed and angered by the loud talking and laughing of the daughter and mother as they sat by the roadside spinning. The mother explained, "Oh, great Big King, my daughter is spinning a whole field of finest golden thread to make

cloth for his Highest. And we are so happy, we are rejoicing about it, don't cha know?" (Hamilton, 2000, unpaged).

In both of these variants, the consequences of the mothers' explanations were dire. The daughters are threatened with death if they do not spin gold. However, through initiative and luck, both girls achieved with their happy endings.

Relationship with another competent adult. While the child's relationship with her primary caregivers is paramount, Masten (2015) and others have pointed to the importance of children having positive relationships with other competent adults in their lives. Gray (2013) describes such relationships from an evolutionary perspective. This perspective harkens back to a time when groups such as clans or tribes provided more communal support of children than is typical today. In these cultures, parents were more likely to meet untimely deaths and the continuity of the tribe was dependent upon the survival of its children.

In this sample of fairytales, there is evidence of the importance of this relationship. Although there are not as many examples as there are of effective parenting or positive relationships with friends, romantic partners or siblings, the relationships are often critical to the eventual success of the protagonist. Some of these competent adults offer the protagonist magical means to solve problems, after s/he has shown kindness, bravery or other positive qualities. In *Sleeping Beauty in the Wood* (Perrault, 1889), it is a fairy who hid behind the curtains until all of the other fairies had given the princess their gifts, including the angry fairy who cursed the child to an early death. When the fairy came out of hiding, she transformed the curse into one where the child will sleep for 100

years after pricking her finger. Further, when the day came that the curse was enacted, this fairy returned to the castle "in a fiery chariot drawn by dragons," and cast a spell over the other inhabitants so that they would also sleep for 100 years, "that they might not awake before their mistress and that they might be ready to wait upon her when she wanted them"(Perrault, 1889, para. 18). After this, the fairy grew a dense and thorny hedge around the castle, so that no one could disturb the sleeping princess.

In two Hansel and Gretel variants, *The Story of the Bird That Made Milk* (South Africa) (Theal, 1886) and *The Deserted Children* (Micmac) (Cole, 1982), the function of a competent adult was handled by an animal. In the South African version, a crocodile appeared to the siblings, who had escaped from the cage their parents hung them in. The crocodile asked the brother not to kill him, and when the boy complied, he gave the boy "10 cows and 10 baskets of millet," as well as his daughter for a bride. The sister in *The Deserted Children* had her brother stare down buffalo, who provided food, clothing, and shelter for them after they had been abandoned.

Because these helpers were animals, and because the ages of the characters in fairytales are generally vague, it was difficult to determine whether these helpers should be placed in the competent adult category, or the friends category. I determined that in unclear cases, characters who helped the protagonists in ways that aligned with the way parents would help their children be categorized as competent adults. Examples of this are providing food, shelter, and advice.

Not all competent adults possessed magic or took the form of magical creatures, however. The men with whom Snow White and her fellow refugees from murderous

stepmothers resided were not portrayed as magical, although dwarves have been lumped together with other small, magical people in modern culture. The dwarves were hard-working miners; both the Girl with the Star on Her Forehead (Mozambique; Gunderson, 2015) and Blanca Rosa (Chile; Pino-Saavedra, 1967) moved in with bands of good-hearted thieves after escaping their stepmothers' assassins. All offered not only food and shelter, but wise advice on how to stay safe to their young houseguests.

There are also many examples of adults who protected children who were not their own. In all three Snow White variants, the person who was asked by the stepmother to kill her daughter let the girl go. Instead, he killed an animal so he could take the heart, eyes, etc. to the stepmother as proof that her beautiful stepdaughter was dead. Similarly, in the both the French (Perrault, 1889) and the Chilean versions of *Sleeping Beauty* (Pino-Saavedra, 1967), the Queen discovered Sleeping Beauty's children, and demanded for them to be killed and served as dinner to their father, who was her secretive son (in the French version) or her philandering husband (in Chilean version). In both cases, the cook hid the children to protect them, and prepared lamb instead.

In *Jack in the Giants' Newground* (Chase, 1943), Jack encountered a competent adult who managed to get him to do what his parents had not been able to: work hard. "The King" offered to pay Jack if he could both clear the new ground and get rid of the giants. In addition to rewarding him for his work, the King offered Jack advice on the kind of tools he might need for the job, and provided food and conversation.

Relationship with friends, siblings or romantic partners. All of the 24 variants in this sample contained evidence of relationships with friends, siblings, or romantic

partners. While this is in part because of the prevalence of the *happy ever after* marriage at the end of many fairytales, the other forms of peer relationships, especially with siblings, were also significant to the stories' plots and the eventual success of the protagonists. I did not code these three variations of peer relationships separately, but in this sample, there were few examples of friends, who were not also either siblings or romantic partners. Because I believe that young children would be more likely to identify with the actions of siblings, I have chosen to report on those, rather than on the actions of romantic partners, in this section of the study.

The Hansel and Gretel variants from all three cultures (Italy, South Africa, and Gros Ventre) offered strong exemplars of the strength of sibling relationships. In each case, it was the siblings who were left to take care of each other, and they were successful. In *Chick* (Italy; Calvino, 1980), the youngest brother overheard the parents planning to leave the children in the forest, and it was he who managed to keep a clear head and not only fed his siblings, but also saved them from being eaten by the ogre. In *The Story of the Bird That Made Milk* (Theal, 1886), the children worked together to learn why their parents were thriving while they remained skinny, When they were punished for their actions, the brother saved his sister by releasing her from the cage in which she was hanging and together they survived.

Another interesting example of positive sibling relationships was found in *How the Stalos Were Tricked,* a Jack and the Beanstalk variant from Lapland (Lang, 1968). The three brothers lived with their sister and when they returned home and discovered that she was gone, they immediately set out to follow the string that she had left as a clue.

When they learned that she was being held captive by giants, they worked together and enlisted her help to defeat the giants and became the richest family in Lapland.

There were also a number of examples of negative relationships with siblings in the sample. I recorded these and coded them as negative examples. However, I did not count them when I tallied the protective factors found in each variant.

Examples of Initiative

The broad category of initiative has also been described as one's ability to use resources to adapt to the environment (National Scientific Council on the Developing Child, 2015). Masten breaks this down into separate sub-categories related to problem-solving, motivation to succeed (perseverence), and self-efficacy. In this sample, 88% of the variants had examples of at least two of the three of these protective factors.

There were times when it was difficult to discriminate between these three factors, since they were often used simultaneously by the protagonist to move the plot forward. If the case could be made for a specific action being an example of two of them (most often, motivation to succeed and self-efficacy), it was recorded in both columns, and counted it as such during tallying. Selected examples of each are discussed in the following section.

Intelligence, ingenuity, problem-solving. There are many examples of the protagonist solving challenging problems through the use of his/her wits in the sample of fairytales analyzed. Both variants of Jack and the Beanstalk have multiple examples of the heroes outwitting the giants, who are consistently portrayed as slow and not very bright. The Jack from the southern United States (Chase, 1943) hid in a hollow log, for

example, and sporadically tossed rocks at the heads of the two giants who picked up the log to carry it home. When this happened, the giant who had been hit believed it was his brother, and argued with him. After the third time, the giants got into a fight, and "fit and scratched and scratched and fit till they couldn't stand up no more" (Chase, 1943, p. 10). Jack then chopped off their heads and took them to the King, who rewarded him.

The brothers in Lapland also tricked the giants into falling into their trap, but they used a more culturally-appropriate strategy (Lang, 1968). They waited until the giants had gone to bed, and then hooked the antlers of their reindeer together so that the animals sounded as though they were fighting. One after another giant came out to stop the fight; when they did, the brothers hit each giant over the head.

It was not just the men who employed ingenuity in the sample. When the giants kidnapped the sister from the Lapland Jack variant, she quickly tied a string to the front door handle and carried the ball of twine with her as she was being dragged off to their lair. It was in this way that her brothers were able to track her.

When her jealous mother mortally wounded her canary lover in the Italian version of Rapunzel, *The Canary Prince* (Calvino, 1980), the princess employed a wide variety of strategies to find him, save him, and convince him that she loved him. She escaped from the tower by cutting her sheets into thin strips and "tied one to the other in a long, long rope" (Calvino, 1980, p. 55). When she heard witches describing the only cure for the prince, she disguised herself as a doctor, and went to the castle. After gaining entrance to the prince's room and finding the phial with the cure, she cured him. The king offered the doctor any reward in the kingdom for saving his son; she asked for the

prince's shield, his standard, and his yellow vest stained with blood: she later used these to prove to the prince that it was she who had saved his life, and they are married.

Similarly, the protagonist Two Eyes was deserted by her injured prince (also a bird) in the Spanish-American version of Beauty and the Beast, *The Enchanted Prince* (Espinosa, 1985). She, too, set out on a quest. She followed the royal carriage, discovered what could heal the prince's wounds, used a bottle she had with her to fill with the bird blood required, snuck into the castle and saved the prince. When she heard he was going to marry another, she dressed in the gifts he had given her so that he would recognize her at his wedding.

Motivation to succeed. The protagonists' use of quick thinking and sophisticated solutions to complex problems are all indications of their motivation to succeed. However, this factor was coded separately, since perseverance can be a distinct protective factor from ingenuity. Examples were coded as motivation to succeed only when there was specific language to indicate the there was significant effort over time.

For example, in *The Enchanted Prince* (Espinosa, 1985), Two Eyes "traveled and traveled" (p. 112) in her efforts to find the injured prince. After "searching and searching," (p. 113) she goes to the Moon, the Sun, and the Wind to see if they can help her find him. Finally, the Wind blows her there.

In a Middle Eastern variant of Cinderella, *The Persian Cinderella* (Climo, 1999), the prince "looks everywhere" (unpaged) for his love after her stepsisters turn her into a bird on the eve of their wedding. Another distraught prince, in *The Golden Spinster* (Wratislaw, 1890), had offered a reward if anyone could tell him the name of the man

who had taught his wife to spin and would be returning for her and their child. When no one could help, he went out hunting and got caught in a storm. He searched everywhere for shelter and "finally, when they had almost strained their eyes out of the sockets, they saw where, out of the hole in the side shaft of a mine, puffs of smoke were rolling, as from a limekiln" (Wratislaw, 1890, para. 5). It was here that he found the little man and learned his name.

The Frog Who Became an Emperor is a Chinese variant of the Frog Prince (Ashliman, 1999). In this variant, the frog was tasked with saving the kingdom: "The frog sat before the fire devouring the flames by the mouthful for three days and three nights. He ate til his belly was as big and round as a bladder full of fat" (Ashliman, 1999, para. 28).

Other examples of perseverance are found in the protagonists' escape tactics. The Girl with the Star on her Forehead (Gunderson, 2015) runs "far away" (unpaged) to escape from her stepmother. Blanca Rose (Pino-Saavedra), "frantically tries to hide and eventually arrived, breathless, at the house of an old cobbler" (p. 148) after she decides to run away from the prince. Snow White (Grimm,1890), too, persevered, after the huntsman spared her life in the woods: "Then she began to run, and ran over sharp stones and through thorns, and the wild beasts ran past her, but did her no harm. She ran as long as her feet would go until it was almost evening" (Grimm, 1890, para.15).

Self-efficacy/agency. Masten (2015) discussed self-efficacy as personal agency, or confidence that one can effect change and exert control over circumstances. All protagonists who went on quests or who tackled challenges demonstrated self-efficacy.

When coding examples, however, I looked specifically for language that demonstrated a self-awareness of this trait. Although it is outside the scope of this study, I was also interested in whether there were unique examples of self-efficacy displayed by female protagonists that went outside of traditional female roles and expectations.

The Southern U.S. Jack exemplified self-efficacy throughout the story (Chase, 1943). For example, in one exchange with the King about the giants, the King asked him if he felt "uneasy." Jack responded: " Why, no, bedads!" says Jack. "Why, I may be the very giantkiller you been lookin' for. I may not kill all of 'em today, I'll try to get a start anyhow" (p. 4).

Other protagonists demonstrated their self-efficacy in similar ways. The youngest daughter in *A Bunch of Laurel Blooms for a Present* (a Frog Prince variant from Kentucky; Campbell, 1993) ran off to the witch's house in the middle of the night to take her father's place as the witch's captive. The princess in *The Canary Prince* (Calvino, 1980) escaped her tower and braved witches, wild animals, and a hostile prince in order to save her love and make him recognize her. The princess in *The Singing Rose* left home and after days, knocked on the door of a strange castle and said, "I would like a singing rose. Do you have such a thing in your garden?" She then asked "What will you take for it, if I could get it from you?" (Zingerle & Zingerle, 1998, para. 7). Chick, the protagonist in the Italian Hansel and Gretel (Calvino, 1980), began to plan for a way to save himself and his siblings as soon as he overheard his parents' plan to leave them in the woods, even though he was "the smallest of the seven children," and a hunchback (p. 449).

The Chilean Snow White also demonstrated agency in a number of ways. A hungry Blanca Rosa crept into the den of the 40 thieves and "eats to her heart's content" before going back to her hiding place at the top of a tree (Pino-Saavedra, 1967, p. 146). When she is caught descending a few days later, the thieves decided she was the Virgin Mary coming down from heaven. She refused to participate in the charade and told them that she was just a poor orphan girl who was hungry and wanted food (Pino-Saavedra, 1967, p.146). Later in the story, when she awoke from her curse and found herself in the opulent bedroom of the prince, she demanded that she be released immediately so that she could find her friends, the thieves. The confidence that she had in both herself and others to do the right thing may be seen as self-efficacy, as well.

This self-efficacy to stay true to oneself even in the face of challenge is also demonstrated in multiple stories. Little Burnt Face (Alcott, 1917) walked through her village to try her luck to see the invisible Great Chief. She wore cast-off moccasins and a birch bark dress that she made to try to cover her scars; the other children taunted her. When she got to the riverbank where the Great Chief was expected, her sisters chided her and told her to go home. She refused. As she told the Great Chief's sister that his bow-string was made of the Milky Way, the others laughed, for it was not possible. However, she continued to tell her truth, and became the bride of the Great Chief.

Similarly, her Armenian Cinderella counterpart (Villa,1966), repeatedly refused to go to the feast with her sisters, saying, "Why should I go with you? You killed my mother and ate her" (p. 241). Her sisters responded each time by beating her, but she did not change her stance.

Quashiba, the West Indian queen whose husband demanded after a year of marriage that she spin gold for him (Hamilton, 2000), became angry after he had padlocked her into a room the third time. When she guessed the name of her helper, and he exploded, "Queeen Quashiba would not talk to Big King for three long years and three long fields full of him saying, "Forgive me, my Queen Quashiba! I was so greedy to ask for golden things. I have buried every padlock in our kingdom" (unpaged).

Examples of self-efficacy like this seem to rely on both agency and self-regulation. While protective factors for resilience are often intertwined, they are not always. In the next section, self-regulation in the fairytale sample will be discussed.

Examples of Self-Regulation

Masten (2015) used the terms self-control, emotion regulation, and planfulness to delineate aspects of what is commonly called self-regulation. Defined for this study as actions related to management of attention, emotions, and actions, self-regulation has been identified by many researchers, including those at Harvard's Center on the Developing Child, as pivotal for resilience, executive functions, and success in school and life. Examples of self-regulation were identified in 95% of the variants in this sample.

It is notable that although protagonists usually exhibited self-regulation, there were also negative examples of this, in both protagonists, and in the villians. For example, in *Little Snow White* (Grimm & Grimm, 1890), Snow White was told repeatedly by the dwarves not to let any strangers in. Her desire for the wares of the witch overpowered her self-regulation each time, and this resulted in her downfall.

Villians were more typically lacking in self-regulation. When Queen Quashiba guessed his name, “Lit’mahn gave out a screech so loud, it turned the moon around. The hat jumped off his head. His ears fell off! POO-OP he goes, in million bitty flecks of gold that flowed into the night and disappeared” (Hamilton, 2000, unpaged).

Negative examples of self-regulation were recorded. However, only the positive examples, exhibited by protagonists, were tabulated. This is consistent with the deductive coding protocol and research questions. Similarly, specific examples of management of (a) attention, (b) emotions, and (c) actions were not identified separately. However, it may be informative to look at them in this way, since each aligns with different behaviors required of children.

Jack and the Beanstalk variants provided two examples that fall into the *management of attention* category. After Jack was discovered in the Newground, he was brought to the giant’s house, and the giant went in to tell his wife about their visitor. Jack listened at the keyhole when “(d)irectly Jack heard him a-comin’ to the door rattlin’ buckets. So he stepped back from the house and made like he was just comin’ up” (Chase, 1943, p. 12).

In the Lapp variant, when the brothers found their sister, they instructed her: “Be careful-take no notice, fill your buckets, but listen carefully all the while, and we will tell you what to do so that you may escape yourself and set free the reindeer also. So Lyman bent over the well lower than before, and seemed busier than ever” (Lang, 1968, para. 23).

Several of the Cinderella variants also relied on the protagonist paying attention to the time as part of the plot function. In the Persian variant (Climo, 1999), the maiden noticed that the rushlights had burned low: "How could the time fly so?' cried Settareh, dismayed. She would pay a dear price if her stepmother returned and found her bed empty" (Climo, 1999, unpaged).

Similarly, her Armenian counterpart (Villa, 1966) repeatedly had to pay attention to the time so that she could leave the festivities in a timely fashion: "When the youngest girl saw that it was getting late, she slipped out unnoticed and returned home. She changed her clothers and hid the dress as she had been told to do" (p. 241).

These examples bridge the management of attention with the management of emotions and actions. Each Cinderella had to simulataneously notice the time, modulate her desire to stay and have a good time, and act, by physically removing herself from the festivities without delay. The hasty exit in each case highlighted the challenge of such regulation for the young girls, as well as moved the plot forward.

There were many examples of *emotion regulation* in the stories as well. A number of them refered to the protagonist tamping down fear or other negative emotions in order to accomplish the goal. *Chick* (Calvino, 1980) "trembled like a leaf" (p. 450) as the ogre ate his own children in the bed where Chick lay, but stayed silent. When the prince gained entrance into *Sleeping Beauty*'s castle (Perrault, 1889), "he came into a spacious outward court, where everything he saw might have frozen the most fearless person with horror" (para. 31) but he continued to explore the palace.

The princess in *The Canary Prince* (Calvino, 1980) managed both positive and negative emotions on her quest. After she overheard the witches discussing the remedy for her prince's wounds, "it was all the princess inside the tree could do not to scream for joy" (p. 56). When she got to the prince's room "finding her lover groaning and unconscious in his sickbed, the princess felt like weeping and smothering him with kisses. But she restrained herself because of the urgency of carrying out the witch's directions" (p. 56).

Sometimes self-regulation was put to the test when a promise had been made. A number of Beauty and the Beast and Frog Prince variants contained examples of this. The daughter in *The Maiden and the Frog* was "alarmed" when the frog showed up at the door, but let him in anyway, because she had promised (Halliwell-Phillips, n.d.). The princess in *The Princess and the Pig*, who had been taken away to live with a pig, "was a good-tempered girl, and this was not exactly what she was used to. Still, she munched away at the corn, and early in the evening, she curled herself up to sleep in the straw. But once the pig was snoring away, the princess wept salt tears for sorrow" (Hearne, 1993. P. 21).

A number of actions performed by protagonists fell under this self-regulatory category as well. Sometimes, these actions involved telling the truth, even when there would be consequences. The maiden who broke the pitcher in *The Maiden and the Frog* (Halliwell-Phillips, n.d.) was afraid to tell her mother because of the woman's bad temper. When she told her mother, the girl was given an impossible task to perform as punishment, but when she went to attempt it, the frog prince appeared and solved her

problem. *The Golden Spinster* had never told her husband that the little man who taught her to spin straw into gold would come back after a year and marry her if she didn't guess his name. When the year passed, she was terrified. "At last she managed to overcome herself, and revealed everything to her husband as it had occurred to her on that first night" (Wratislaw, 1890, p. 5). Her husband was the one who discovered the little man's name.

Hiding or other activities requiring stealth were also common actions that required self-regulation. In the Egyptian Sleeping Beauty variant, *Ninth Captain's Tale*, the princess was curious about where the prince who has been visiting her went. She "hid behind the door which gave on the garden to see what she might see" (Mathers, 1964, para. 32).

The girl who was living with a frog who turned into a man at night woke and discovered his skin hanging on the bedpost: "She eases out of bed, got the warty old frog skin in her hands and tiptoed downstairs" (Campbell, 1993, p. 24). The girl who was born with a star on her forehead in the Persian Cinderella (Climo, 1999) attended the festival, but "she kept her head bent and her star mark hidden" so that no one would recognize her (unpaged).

There were also examples of having to keep silent in order to accomplish a goal. The beast who is keeping the princess in *The Singing Rose* (Zingerle & Zingerle, 1998) allowed her to go to attend her sisters' weddings if she did not laugh at the first one, and did not speak at the second. Two Eyes's husband in *The Enchanted Prince* (Espinosa, 1985) told her that she must never answer her sisters' questions about him when they

visited, and must always put them to sleep before nightfall. If she failed to do this, he would leave and never be seen again. In such cases, the protagonist demonstrated repeatedly that s/he was capable of self-regulation, although in each case, s/he failed just once, and the story's plot moved forward to another challenge.

As the preceding examples demonstrate, the fairytales in this sample contained multiple references to the protective factors for resilience. These examples range from the mundane to the fantastic, and occur across all cultural traditions. In order to answer the second research question, the possibility of using one or more of these variants as an exemplar will now be discussed.

Examination of Exemplars of Resilience in Fairytales

As stated in the introduction to this chapter, nine out of the 24 variants in my sample contained examples of all seven protective factors for resilience, and another nine variants contained six out of seven. As the preceding discussion indicated, there is also quite a bit of overlap between the protective factors, so additional examples in some categories may have been possible. Further, almost all of the variants analyzed had examples from the three broad categories of protective factor: attachment/relationships, initiative, and self-regulation. Therefore, there is support for the existence of exemplars for resilience in the sample of fairytales examined in this study.

One strategy for selecting exemplars would be to select the story or stories which contained the most examples. Table 4 shows the number of examples of each of the protective factors in the nine variants which have examples in all seven categories. However, when identifying possible exemplars, it is also important to consider the quality of the story itself, the quality of the examples found in the variant, and both the purpose and the audience the exemplar will serve.

Table 4

Number of Examples of Protective Factors for Resilience in Possible "Full" Exemplars

	Protective Factors for Resilience						
Name of Variant and total # of examples	Effective parenting	Positive relationship with other capable adults	Positive relationship with friends, romantic partner or siblings	Intelligence, ingenuity and problem-solving skills	Motivation to succeed	Self-efficacy	Self-control, emotion regulation, planfulness
The Canary Prince (25)	4	1	3	7	3	4	3
Chick (21)	3	1	4	4	2	6	1
Jack/ Giants' Newground (21)	2	2	1	9	2	4	1
Sleeping Beauty (22)	6	3	3	4	1	3	2
9th Captain's Tale (19)	3	3	3	3	2	4	1
Singing Rose (18)	3	1	1	2	2	6	3
Golden Spinster (16)	2	1	4	5	1	1	2
Persian Cinderella (26)	2	5	6	3	2	4	4
Blanca Rosa (16)	2	5	1	2	2	3	1

There are several of the variants in the sample which had evidence of all seven protective factors that would not be recommended teachers' use. For example, *The*

Singing Rose (Zingerle & Zingerle, 1998), a Beauty and the Beast narrative from Austria, did not have a sympathetic protagonist. She never tried to bond with the beast, she whined and wept her way through her captivity, and when he told her to chop off his head, she did so. Instead of a transformed beast, a key that opened all the doors in the castle fell out of his severed head. The princess opened each door and "there the princess found many, many precious things, and she was rich and free forever" (Zingerle & Zingerle, 1998, para. 29). Although most of the story described her as homesick for her family, no mention was made of a return to them. While resilience was in evidence, a strong and satisfying resolution to the plot was not.

Another variant from the table that looks like a good exemplar, but would not be recommended, is *The Ninth Captain's Tale* (Mathers, 1964), a Sleeping Beauty variant from Egypt. While it is a powerful exemplar of the self-efficacy of the female protagonist, in particular, there is no reason given for the prince suddenly deserting the sleeping beauty he has awoken and fallen in love with. Fairytales, by their nature, require a suspension of disbelief. However, such gaps in logic make certain stories, for me, a challenge to share with either teachers learning about resilience and literacy, or children.

The two variants with the most recorded examples of resilience are *The Magic Jar* (as told in *The Persian Cinderella*) (Climo, 1999) with 26, and *The Canary Prince (*Calvino, 1980*)*, a Rapunzel variant, with 25. *The Persian Cinderella* is a picture book, and so might be a good exemplar to use with children. The book could be read during a traditional circle time, and would not require the teacher to learn to tell the tale from memory, as is the case for most of the stories in the sample.

However, since the stated goal of this study was to find materials to use with preservice teachers to facilitate their understanding of resilience while developing their storytelling skills and confidence, *The Canary Prince* might be a better exemplar. It could be printed and distributed to preservice teachers, with instructions of how to both learn to tell it, and how to analyze it for protective factors for resilience. This will be discussed further in Chapter 5.

In *The Canary Prince* (Calvino, 1980), a jealous stepmother demanded that her stepdaughter be sent away. Her husband, the king, agreed, and the daughter was placed in a high tower, with servants and food, but without the freedom to go outside. One day, a prince came by and saw her in the window. He met a witch, who offered to help. The witch took a magic book to the tower and asked that it be given as a gift to the princess. When the princess turned the pages forward, the prince turned into a canary and could fly up to visit her. When she turned the pages backward, he resumed his human form. The stepmother discovered this, and placed broken glass on the windowsill, which mortally wounded the canary/prince when he came to visit. The prince was taken back to his castle, and the princess came after him to heal and rescue him. They marry, and the wicked stepmother is punished.

The clear plot structure and the sympathetic protagonists would make this a story that is easy to learn to tell (Zipes, 1995), as well as one that both preservice teachers and children would enjoy. Further, it has a strong and active princess; Ellefsen (2015) and others have pointed to the lack of such strong female protagonists in stories shared with preschoolers. Representative examples from *The Canary Prince* for each protective factor

of resilience may be found in Table 5. The full coding protocol for the story is included in Appendix G.

Table 5

Representative Example of Each Protective Factor for Resilience in the Exemplar, The Canary Prince (Calvino,1980)

Protective Factor For Resilience	**Examples from The Canary Prince**
Effective parenting: *Actions related to sharing with, supporting, helping or mentoring hero*	Although the King "loves his daughter," he gives in to the stepmother and has his daughter sent away "but to some place where she would be comfortable, for he would never allow her to be mistreated." King asks about daughter "every now and then." (pp. 52-53)
Positive relationship with other capable adults: *Actions related to sharing with, supporting, helping or mentoring hero*	The Prince meets a witch: "I like you both, said the witch, and I'll help you." Witch goes to the tower and gives a magic book to ladies-in- waiting as gift to the daughter. (p. 53)
Positive relationships with friends, siblings & romantic partners: *Actions related to sharing, helping, collaborating with or showing commitment to each other*	Daughter turns the prince into canary every time he comes so that they can visit. This continues for days. "Never in their whole life had the two young people known such happiness." (p. 54)
Intelligence, ingenuity and problem-solving skills: *Actions related to using wits to resolve problems or adapt to environment*	"She cut her sheets into thin strips which she tied one to the other in a long, long rope. Then one night, she let herself down from the high tower and set out on the hunters' trail. But because of the thick darkness and the howls of wolves, she decided to wait for daylight. Finding an old oak with a hollow trunk, she nestled inside." (p. 55)
Motivation to succeed: *Actions related to hero's perseverance when working towards a goal*	"She paced up and down the room until she stepped on a loose tile, which she raised and discovered a phial of ointment." (p. 56).
Self- efficacy: *Actions related to hero's confidence that s/he can effect change and exert control over circumstances*	At wedding, both fathers are surprised that the bride is the princess. Daughter asked why she did not tell them: "Because, explained the bride, I no longer consider myself the daughter of a man who let my stepmother imprison me. And she pointed at the queen." (p. 57)
Self-control, emotion regulation, planfulness: *Actions related to management of attention, emotions, and actions*	"The frightened princess, not yet fully aware of what had happened, quickly turned the pages back in the hope there would be no wounds when he regained his human form." (p. 55)

Evidence of Trustworthiness

The guidelines for validity and reliability set out by Krippendorff (2013) were adhered to in this qualitative, descriptive, deductive content analysis. These measures parallel the constructs of credibility, transferability, dependability, and confirmability that Creswell (2012) and others identify as critical for other qualitative methodologies. I have chosen to use Krippendorff's descriptors because they are specific to descriptive, deductive, qualitative content analysis, and these terms more accurately align with my research methodology.

According to Creswell (2012), measures of reliability predict that data gathered from a specific instrument will be the same upon repeated use of the instrument, and demonstrate that measurement error is kept to a minimum. In content analysis, tests of accuracy, stability, and replicability are applied (Krippendorff, 2013). Krippendorff (2013) identified accuracy, stability, and replicability as the relevant measures of reliability in content analysis. Sampling validity and semantic validity are significant to the validity of content analysis studies.

Accuracy measures "the extent to which a data-making instrument produces data that are accurate according to a given standard" (Krippendorff, 2013, p. 380). Two established frameworks from relevant scholarly sources were used to develop the coding protocol: the sequence of plot functions in fairytales identified by Propp (1968) and the protective factors for resilience identified by Masten (2015). These frameworks guided the inquiry and helped to ensure that the examples identified in fairytales were accurate

and credible to the standards of the discipline of folklore and current research on resilience in child development.

Stability measures the extent to which a researcher or instrument generates the same data from the same sample during repeated trials. Krippendorff (2013) noted that this is a challenge. Researchers bring into the research process a set of understandings, biases, and assumptions, and that these may be replicated each time an instrument is used.

There were few differences between the analyses I had conducted of the sample fairytales prior to the approval of my proposal, and the analyses of same fairytales during the instrument testing phase after IRB approval. However, as my understanding of both the protective factors and the plot functions deepened through repeated use of the coding protocol, I became more sensitive to subtleties in the data. As this happened, I recorded my reflections and thoughts in a journal. In several cases, I returned to previous stories and coded them differently. This is an example of what Krippendorff (2013) refered to the iterative process involved in content analysis coding, and does not detract from the reliability of the data.

Replicability is a stronger measure of reliability, according to Krippendorff (2013). Replicability measures the extent to which an instrument can be counted on to produce the same data from the same sample in other situations. This includes when being used by other coders working independently.

Replicability was addressed by conducting an initial exploratory study of the instrument prior to the approval of my proposal and a second exploratory study after my

proposal had been approved by IRB, but before data were collected. During this second exploratory study, two individuals with a background in early childhood development and a strong interest in fairytales used the coding protocol to analyze three fairytales that were not included in the sample. I independently analyzed the same three fairytales, two of which were the same ones used in the preproposal exploratory study.

While intercoder reliability is not a universal prerequisite for descriptive deductive qualitative content analysis (Krippendorff, 2013), it was considered applicable for this study since the tool being used is one that the researcher had developed. The data I generated on the charts were compared with that generated by the peer reviewers. Intercoder reliability was defined as 70% similarity in the charts of the three fairytales. This is considered an adequate measure for qualitative content analysis coding correspondence for studies that rely on an understanding of the latent content of texts (Lombard et al., 2010). This criterion was met.

Validity, according to Creswell, is "the development of sound evidence to demonstrate that the intended test interpretation matches the proposed purpose of the test" (Creswell, 2012, p. 630). In content analysis, two measures of validity are used. These are sampling validity and semantic validity (Krippendorff, 2013).

Sampling validity refers to the assurance that a sample is large enough to represent the population being studied (Krippendorff, 2013). Sampling validity was addressed in two ways. First, only fairytales that met the criteria of the ATÜ typology of Tales of Magic, categories 300-745 (Üther, 2004/2011) were used. This internationally-recognized tool for the identification and categorization of folklore ensured the

generalizability of the sample used to the vast population of fairytales from around the world. The scholarly fairytale website SurLaLune (Diener, 2016) was used to cross-reference tale type numbers and variants. The second measure taken to address sampling validity was to use variants from a variety of specified geographic areas and cultural traditions. This supported the alignment of my sample with the universality of fairytales.

In addition, a combination of alphabetical and numerical sorting strategies was used to further randomize both the fairytales in the sample, and the order in which they were analyzed. These strategies are described in detail in the section on data collection, and contributed to the sampling validity. In addition, the detailed descriptions enhance the dependability of this study, and provide a way for future researchers to try to replicate or vary the study, should they find a reason to.

Semantic validity is, according to Krippendorff (2013), a criterion specific to content analysis. It measures "the degree to which analytical categories accurately describe meanings and uses in the chosen context" (p. 334). The use of Propp's functions as the method for unitizing each data source supported the semantic validity of the chart for analyzing fairytales. This study did not look at children's literature in general, or at picture books, or at modern fantasies. It targeted only fairytales that included magic and were drawn from the oral tradition. Semantic validity was enhanced by using categories drawn from the study of this specific genre of story.

The definitions used for coding each of Masten's protective factors for resilience are drawn from child development research. This addressed the context of the research focus, as well as of other researchers who may use the chart. The coding protocol was not

designed for folklorists or feminists or psychoanalysts who are interested in the content analysis of fairytales. Instead, this analysis was used in the context of understanding resilience in children in a classroom or family setting, and the categories aligned with the knowledge base of those working in such settings.

Summary

The purpose of this qualitative deductive descriptive content analysis was to determine whether or not traditional multicultural fairytales contained specific references to the protective factors for resilience identified by Masten (2015). Two questions were examined:

1. How are the three elements of resilience (attachment, initiative, and self-regulation) represented in the actions of the protagonists within a sample of multicultural fairytales used in a community college early childhood teacher preparation program in a Mid-Atlantic state?
2. How are all three of these elements of resilience concurrently represented in any specific fairytale(s) included in the sample?

This content analysis gave strong evidence that the three elements of resilience were represented in multicultural variants of fairytales used for this study. In the sample of 24 randomly and purposively selected variants, I identified examples of all three elements of resilience in all but one of the stories. This story did not have clear examples of self-regulation in the actions of the protagonist, but had multiple examples of the other protective factors.

When the three elements were broken down into seven discrete protective factors, nine of the variants had examples of all seven factors. An additional nine variants had multiple examples of six of the seven protective factors. These potential exemplars were discussed, and several variants were examined specifically.

In Chapter 5, I will discuss these results within the context of the literature reviewed in Chapter 2 as well as the conceptual framework underlying this study. Limitations of the study will be identified, and recommendations for further research will be made. Most importantly, the implications of this study for early childhood teacher education and its potential for social change in the lives of young children living with family substance use disorder will be suggested.

Chapter 5: Discussion, Conclusions, and Recommendations

I conducted this study to determine how the protective factors for resilience--attachment/relationships, initiative, and self-regulation--were represented in a sample of multicultural variants of fairytales. My second focus was to determine whether one or more of the fairytales analyzed could be used as an exemplar, with all of the protective factors for resilience present. The protective factors for resilience were taken from the evidence-based model of Masten (2015), whose work has been used as a foundation for Harvard University's Center on the Developing Child's resources on resilience in childhood (National Scientific Council on the Developing Child, 2015). Research has shown that children living in families impacted by the disease of alcoholism/addiction, (i.e., SUD), have a better chance of avoiding the development of the disease as adolescents or adults when they demonstrate the traits of resilience (American Academy of Pediatrics, 2014; Chassin et al., 2013; Ronel & Levy-Cahana, 2011).

More than 1 in 4 children are impacted by SUD (American Academy of Pediatrics, 2014). In spite of this, there are few preservice or inservice professional development opportunities for early childhood educators to learn about either SUD or the protective factors of resilience. I conducted this study to address this gap in practice by examining whether fairytales contain elements that align with the protective factors for resilience.

I identified fairytales as a valid focus of this study for a number of reasons. The teacher education guidelines for early childhood educators in a Mid-Atlantic state identify fairytales as a required topic of study for preservice teachers. This is in contrast

to resilience, trauma, and familial SUD, which are not required topics of study. If resilience can be specifically identified in materials already required in the early childhood teacher education curriculum, it might be possible to deepen preservice teachers' understanding of resilience and related content within the parameters of existing curriculum guidelines.

Fairytales are also used within the context of Paley's ST/SA pedagogy. This approach has been shown to simultaneously develop emergent literacy skills and social-emotional competence, including self-regulation in young children (Nicolopoulu et al. 2015). In addition, the plots of fairytales almost always have the protagonists overcoming adversity in order to get to the happy ending. This is the essence of how resilience is defined. To date, however, no other study that examined specific protective factors for resilience in fairytales has been identified during an ongoing review of the literature.

I conducted this qualitative, descriptive, deductive content analysis in order to identify a priori themes of resilience, based on Masten's model, in a sample of popular fairytales and their multicultural variants. The selection of the variants and the structure of the content analysis relied on the scholarly traditions of folklorists, including Propp's (1968) morphology of fairytale plot structure and the ATÜ typology of tales of magic (Üther, 2004/2011). With this content analysis, I determined that all of the multicultural fairytales in the purposively and randomly selected sample contained multiple examples of the protective factors for resilience. In this chapter, I will provide an interpretation of these findings as well as a discussion of the limitations of the study. Recommendations

for future research will be made, and implications for teacher education, early childhood education, and social change will be highlighted.

Interpretation of the Findings

The results of this study indicated that fairytales may offer early childhood educators, as well as children, a useful resource for understanding an evidence-based model of resilience. The identification of multiple examples of each of the protective factors of resilience in randomly selected fairytales from 22 different cultures across the globe aligns with research on the universal importance of resilience in human development. Ninety-six percent of the variants in the sample had examples from all three major categories of protective factors: attachment/relationships, initiative, and self-regulation. Nine variants in the sample had examples of all seven of the specific protective factors which Masten identified within the three broader categories: relationships with parents; relationships with other competent adults; relationships with friends, siblings, or romantic partners; ingenuity/problem-solving; motivation to succeed; self-efficacy/agency; and self-regulation.

As I have previously discussed, research supports the importance of attachment, initiative, and executive function skills, including self-regulation, to children's development and success in learning (Bernier, Carlson, & Whipple, 2010; Blair & Raver, 2015; Blasco, Saxton, & Gerrie, 2014; Brook et al, 2010; Bulotsky-Shearer et. al, 2012; Denham et. al, 2012; Diamond, 2010). This is especially true for children at risk of familial SUD and other trauma (Center on the Developing Child at Harvard University, 2016; Friedman-Krauss & Barnett, 2013; National Scientific Council on the Developing

Child, 2015). I will discuss examples of each of these protective factors in fairytales in the following subsections and contextualize them within the body of relevant literature and theory.

Attachment/Relationships in Fairytales

All of the fairytales I analyzed contained many examples of the relationship between the protagonist and other characters. Masten (2015) divided the protective factor of attachment/relationships into three subcategories: effective caregiving and parenting quality; close relationships with other capable adults; and peer relationships with close friends, siblings, and romantic partners. While effective parenting is generally seen as imperative for healthy development, Masten and others have pointed out that resilience can also be nurtured through the other two kinds of relationships: with other caring, competent adults, such as other relatives or teachers, and with peers, including siblings (Masten, 2015; National Scientific Center on the Developing Child, 2015).

The most common category of attachment/relationship identified in the sample was that of peers (100%). This was followed by effective parenting (83%), and relationship with another competent adult (71%). Negative examples of effective parenting were also identified in 50% of the stories in the sample.

Masten (2015) characterized effective caregiving as actions that encourage, comfort or protect the child. Fairytale parents exhibited this in both fantastic and typical ways. For example, the King/Father in *Sleeping Beauty in the Wood* (Perrault, 1889) ordered all spindles and distaffs in the kingdom destroyed to protect his daughter from a curse; no small feat in a fairytale world where all cloth must be spun. In *The Princess and*

the Pig, the father looked far and wide for his youngest daughter's heart's desire: "grapes that speak, apples that smile, and apricots that tinkle in the breeze" (Walker, 1993, p. 19). The father in *A Bunch of Laurel Blooms for a Present* refused to accept the witch's offer to exchange his daughter for himself when he is caught picking the evil woman's flowers (Campbell, 1993). The mother in the Armenian Cinderella tells her daughters that she would rather that they kill her and eat her than to go out and "do whatever we must do" to get money for food (Villa, 1966). Yet, Jack's mother in *Jack in the Giants' Newground* (Chase, 1943) more mundanely "fixed him up a little snack for dinner" (p. 1) when he set off to find his fortune.

Similarly, the negative examples of effective parenting identified ranged from the most macabre to ones many children can identify with. All of the jealous stepmothers in *Snow White* variants ordered servants to kill their daughters and bring back various body parts as evidence that they had completed their task (Grimm & Grimm, 1890; Gunderson, 2015; Pino-Saavedra, 1967). The mother in *The Canary Prince* put broken glass onto the window sill where the canary perched before her daughter transformed him into her prince in order to kill the prince and take away her daughter's happiness (Calvino, 1980). The parents in *The Deserted Children* pulled up their tipi poles and left while the children were out playing, and then denied that they ever knew them (Cole, 1982). But the father in *Little Burnt Face* wrongly chastised his daughter because her older sisters had lied to him that her burns came from clumsily tripping into the fire, something that most children with siblings may be able to relate to (Alcott, 1917).

There were also instances of parents doing things that seemed to be negative examples but were explained as positive. For instance, the mother in *Chick* (Calvino, 1980), lamented having to send her seven children off into the woods, but said she could not bear to watch them die slowly of starvation. The mothers in two versions of Rumpelstiltskin (Hamilton, 2000; Wratislaw, 1890) lied about their daughters to passing noblemen, who inquired about the girls' behavior. Lying is considered a negative attribute. Indeed, in these stories, the mothers' lying resulted in both girls being taken off to do an impossible task, under punishment of death.

However, in both instances, the mothers were trying to protect their daughters. Examples like these may be contextualized by an article by Swick and Williams (2006) which discussed, from Bronfenbrenner's bioecological perspective, similar dilemmas faced by families under stress. The authors gave multiple examples of actions seen by outsiders as being harmful to the children but which parents living with stressors, such as SUD or domestic violence, saw as in their children's best interest.

Bettelheim (1977) discussed the ways these fairytale dichotomies in caregivers supported a child in sorting out complex and often ambivalent feelings related to attachment and abandonment. Whether through the mother/stepmother character, or through the extreme actions of parental figures, Bettelheim saw fairytales as offering children the opportunity to reflect on the sometimes conflicting emotions raised by their evolving relationships with their parents. Further, because fairytale heroes and heroines always have happy endings, children are offered the hope that they will thrive, in spite of, if not because of, the parenting they receive. It may be important to note that while

Bettelheim believed that this was important for all children, studies of children living with SUD have shown that these children often perceive their afflicted parents in the same dichotomous way (NIDA, 2016; Sher, 1997).

Paley (1990) also discussed the way that fairytales gave children the opportunity to wrestle with their feelings about attachment and abandonment. Paley offered detailed transcripts of children's discussions of stories such as *Jack and the Beanstalk* and *The Three Little Pigs*. The discussions focused on children's questions, concerns and ideas about "the fate of a vulnerable child surrounded by uncertainty and danger" (p. 155), and how the parents, whether human, animal, or magical, handled these issues.

Paley wrote about her own concerns about whether such topics in fairytales were too frightening for children to handle. However, Paley found children consistently asking for such stories to be told and noticed that similar themes emerged in the stories that the children both played and dictated. Other researchers of young children's storytelling have observed this same phenomenon (Cooper, 2017; Dyson, 2013; McNamee, 2015; Schneider, 2016).

Masten (2015) and others have pointed to the role of competent adults beyond children's primary caregivers in the development of resilience (Moe, 2011; Nolan, Taket, & Stagnitti, 2014; Ronel & Levy-Cabana, 2011). Psychologist Gray (2013) described such relationships from an evolutionary perspective, harkening back to a time when groups such as clans or tribes provided more communal support of children, whose parents were more likely to meet untimely deaths than children today.

Accordingly, 73% of the fairytales in this sample included an older character that was not related to the protagonist, but who offered support, advice, or help. Sometimes these characters were portrayed by magical beings, such as the fairy in *Sleeping Beauty in the Wood*, who hid behind the curtains so she could use her wish to reverse the curse that the evil fairy was sure to cast on the baby (Perrault, 1889). Sometimes it is an animal, such as the crocodile who appeared to the siblings abandoned by their parents in *The Story of the Bird That Made Milk* (Theal, 1886). The crocodile asked the youths not to kill him and when they complied, he gave the protagonist cows, millet, and his daughter as a wife, so that the siblings could start a new life. Sometimes, as in the case of the *Snow White* variants, it is a group of adults who provided food, shelter, and solace to a vulnerable child.

In almost all cases, the competent adult provided the child/protagonist with something that is critical to their eventual success. In many cases, this comes as the result of kindess or bravery on the part of the protagonist. Sometimes, however, the help is provided because of the character has a moral compass, as in the case of the various servants who refused to kill Snow White and her multicultural cousins after being so ordered by the Queen (Grimm & Grimm, 1890; Gunderson, 2015; Pino-Saavedra, 1967).

Many studies of children living with SUD and other forms of trauma have identified the relationship with a competent adult as being important to the eventual success of these individuals (National Scientific Center on the Developing Child, 2015; Ronel & Levy-Cahana, 2011; Zolkoski & Bullock, 2012). Children and adolescents interviewed have mentioned the significance of teachers, coaches, and religious or

community leaders (Bröning et al., 2012; Lander et al., 2013; Moe, 2007). Like the 40 thieves and the seven dwarves who sheltered Blanco Rosa and Snow White, these individuals have offered the guidance, friendship, and even food and shelter that many of their parents could not.

Numerous scholars have identified the relationship that a child has with her peers as critical to development, including seminal constructivist works by Damon (1977), Youniss (1980), and DeVries and Zan (1994). Paley (1988; 1992) discussed the cruelest insults that a preschooler could hurl. Statements of relational aggression, such as *You can't come to my birthday party* and *You can't play with me* are examples of the power that peer relationships have in the life of even the youngest children.

These are lessons that fairytale heroes have learned as well. All variants in this sample contained multiple examples of peer relationships, with the majority being relationships between siblings or a romantic partner. Unlike the relationships between caregivers or other competent adult figures, the relationships of peers in fairytales included much more give and take, paralleling the relationships with peers that young children have. Chick (Calvino, 1980) was the youngest of seven children, and a hunchback at that, but he cunningly saved his siblings from both starvation and ogres after their parents left them to die in the forest. However, like real-life siblings, he was not beyond criticizing his peers. When they begin to scream in fear, he chastises them in disgust: "What you afraid of, you silly children? I'm going to lead the way and we'll go back home" (Calvino, 1980, p. 449).

The sister in *The Deserted Children* (Cole, 1982) took care of her brother "for many summers" after they are abandoned. But on multiple occasions, when her brother "peevishly" refused to do something she had asked, she "insisted"(p. 697) and "commanded" (p. 698) until he reluctantly complied. The fact that she had him stare down buffalo so that they dropped dead and she could skin them, for example, does not diminish the similarity of this interaction to ones that most young children have experienced with bossy peers and siblings.

Much has been made by both scholars and parents about the "passive princesses" in fairytales. But the princesses in many variants of this random sample were actively engaged with their princes, often having adventures and skirmishes with them before the happy--ever--after ending of the story when they settle into wedded bliss. Like other peer relationships in the sample, romantic partnerships often involved a good deal of give and take.

The princess in *The Ninth Captain's Tale* was so irritated by the sultan's son deserting her after he woke her, that she asked a witch to make her look like another woman, and used his mother to manipulate him into marrying her. Even after the prince faked his own death, at her request, she still teased and tormented him about his earlier deeds (Mathers, 1964). The princess in *The Canary Prince* established a strong relationship with the prince before they ever spoke of marrying, and went through many dangerous challenges to both save his life and demonstrate her love before their wedding (Calvino, 1980). *The Girl Who Spun Gold* refused to speak to her husband for three years after he forced her to spin just one more room full of gold (Hamilton, 2000).

These realistic contrasts of loyalty and conflict in peer relationships reflect the interactions that help children to discover the perspectives of others and develop empathy, even though they take place in fantastical settings. They offer models of how conflicts can be resolved, as well. In fairytales, the majority of peer relationships between sympathetic characters end with success and resolution.

Initiative in Fairytales

Masten (2015) identified three kinds of protective factors for resilience under the broad umbrella of initiative: problem-solving/ingenuity, motivation to succeed, and self-efficacy/agency. Examples of each individual factor were plentiful in the fairytale sample. They will be considered as one category for this discussion because there are there so many similarities in how the three are enacted in the actions of young children.

Like the fairytale relationships discussed above, problems solved by characters in this sample ranged from the mystical to the ordinary, as did the means chosen to do so. The Lapp brothers in the Sàmi variant of *Jack and the Beanstalk* (Lang, 1968) had to track the fierce ogres who had kidnapped their sister across the tundra; the sister tied a ball of twine around a door knob as she was being hauled away so that they could follow her. The Chinese *Frog Prince* volunteered to help the Emperor defeat the invading armies; he did so by swallowing up a huge fire over the course of three days, and then spitting it at the enemy (Ashliman, 1999). The princess in the tower in *The Canary Prince* immediately turns the pages of the magical book when she sees her beloved canary has been mortally wounded, so that he will turn back into a man and can be helped by a doctor (Calvino, 1980). But to get down from her tower to go find him, she cut her

sheets into strips and made a rope: a solution many non-magical teens have used to get around curfews.

Bettelheim (1977) discussed initiative in fairytales at length. From a psychoanalytic perspective, the stories offer hope to very young children, who often feel as though they are powerless to do the many things adults can do. Many examples were cited of seemingly insignificant but accessible actions by fairytale characters, such as picking up a bottle hidden in the weeds, or befriending an animal: In fairytales, these result in great and magical achievements.

Smith (2016) reported on recent research in neuroscience that studied the physiological response to the kinds of problem-solving posed in fairytales and similar fantasy stories. The research measured a rise in cortisol levels when an individual encounters a problem to be solved, whether it be a dragon to slay, or a giant to outwit. This stimulates problem-solving responses in the imagination. In addition, when individuals empathize with characters in stories, as has been discussed above, oxytocin is produced. This combination of cortisol (attention/slight anxiety) and oxytocin (care) results in the body responding to the story as though it was real, a phenomenon that researchers call *transportation*. Further, when the story has a happy ending, according to this research, the limbic system is triggered and dopamine is released, and a sense of optimism and hope may flood the body, as though the story was happening in real life.

Research such as this offers further support for the role that the courage and cunning of fairytale characters may play in the development of resilience in children. Smith (2016) concluded the report with musings about whether our persistent craving for

such stories may actually have served an evolutionary purpose. The tales seem to prepare us to solve problems we encounter, and to experience empathy, both important tools for survival.

Self-Regulation in Fairytales

Few traits have as much impact on a child's behavior and success as self-regulation, defined as the ability to regulate both actions and emotions. Self-regulation intersects resilience and executive function skills (National Scientific Center on the Developing Child, 2015) and is both developmental and physiological. While an important trait for all children, it is critical for children living with SUD to be given the opportunity for healthy experiences that promote self-regulation. Inconsistent parenting, the impact of toxic stress on brain development and a genetic predisposition to the compulsive and impulsive symptoms of SUD combine to make self-regulation especially challenging for these children (Brook et. al, 2010; Conners-Burrow et al., 2013; National Institute on Drug Abuse, 2016; Ronel & Levy-Cahana, 2011; Solis et al., 2012; Webster-Stratton & Taylor, 2001).

Ninety-six percent of the fairytales of this sample contained multiple examples of a protagonist demonstrating self-regulation. As with attachment/relationships and initiative, self-regulation was often a blend of ordinary actions in extraordinary circumstances. The maiden in *A Bunch of Laurel Blooms for a Present* (Campbell, 1993) noticed that the frog who she had grown attached to turned into a handsome man one night and had hung his frog skin on the bedpost. She "eased out of bed, got the warty old frog skin in her hands, and tiptoed downstairs" (Campbell, 1993, p. 24) and then flung

the skin into the fire. The spinster who had promised to marry the little dwarf who taught her to spin straw into gold if she couldn't guess his name in a year, "all but dashed herself against the walls in excessive agony. At last she managed to overcome herself and revealed everything to her husband as it had occurred to her that first night" (Wratislaw, 1890, para. 5). The princess in *The Singing Rose* (Zingerle & Zingerle, 1998) spoke not one word at her sister's wedding, since this was the beast's condition that she had agreed to.

There are multiple examples of characters staying quiet and still in order to hear witches/birds/giants reveal information they need. Other characters follow directions that seem arbitrary and strange without question. But in addition to these positive examples of self-regulation, fairytale characters also show how difficult it is to always be in control of ones' feelings and actions. Snow White repeatedly failed to heed the dwarves' warnings about not speaking to anyone who came to the door when she saw what lovely things the evil witch had to offer (Grimm & Grimm, 1890). On each occasion, she tried to heed their advice, and told the witch to leave, but then succumbed to temptation. This is similar to the experience of many young children who resist reaching for the cookie, or yelling out at circle time, until they just can't anymore.

Like real children, fairytale characters who exhibit self-regulation are rewarded: with information leading to the solution of a problem, or avoidance of certain death when they escape a ferocious giant, or some variation of happily ever after. Those that do not successfully self-regulate often have a temporary setback: The first two times Snow

White allows the witch in, the dwarves are able to revive the girl but the third time the poisoned apple sends her into a deep sleep, which only the kiss of true love can break.

A number of researchers have studied the connection between self-regulation and fairytales. Norel and Popa (2014), for example, did research in a classroom that participated in a 6-month unit revolving around a traditional Romanian folktale. There was evidence that growth occurred in emotional and behavioral-regulation, vocabulary, and communication skills that exceeded typical developmental expectations.

Fleer and Hammer (2013) have written about fairytales from the perspective of Vygotsky's social-cultural theory of emotional regulation. They discussed cultural changes in early childhood, such as the emphasis on academic skills and the changing role of teachers in children's emotional development because of the increased reliance on childcare. These are cited as reasons to revisit Vygotsky's theory and to explore the use of fairytales in group settings.

Like Paley (1990; 1992), Fleer and Hammer (2013) believed that fairytales were best explored through the intersection of play and storytelling. When teachers are actively engaged with observing and even facilitating children's acting out of fairytale themes, and then discussing emergent issues in a group setting, they can promote a deeper understanding of emotions, and emotion regulation in children. They based their ideas on Vygotsky's construct of *doubleness*. They defined this as the child's ability to simultaneously feel happy because she is playing, but scared, in the context of that play, of the dragon about to breathe fire into her castle. This provides the opportunity for the child to regulate both emotions, since both must be held in check if the story is to move

forward in play. Fairytales, they explained, provide the ideal source of such *doubleness* because of the simultaneous familiarity and comfort of the magical world and relationships children can identify with, and the inevitable fear that the villain or daunting quest provides.

Conclusion to Interpretation Section

Researchers, educators and scholars around the world have continued to study and remark on children's fascination with fairytales, even in our highly sophisticated and technologically-driven times (Cooper, 2017; Faulkner, 2017; Nwokah, 2016; MacDonald, et al., 2013; Tatar, 2009; Tippet, 2014; Zipes, 2012). Scholars like Favat (1977) attributed this continued fascination to the way fairytales parallel the *magical thinking* that Piaget (1962) said characterized the logical development of young children. Preschoolers' egocentrism allows them to engage in animistic interactions and one-dimensional explanations for causation and scientific phenomena. Their belief in talking animals, and magic rocks, and clouds that can decide when to rain mirrors the magical world of fairytales. This may be why young children persist in bringing the world of superhuman feats, princesses and fairies, and the power of wishing into their 21st century pretend play, despite the valiant attempts of adults to promote more realistic themes. (Cooper, 2017; Nwokah, 2016; Sutton-Smith, 2017).

My research showed that these fanciful storylines grow from a solid foundation of the very real protective factors for resilience. In the following sections, limitations of the study, as well as future avenues for research will be presented. These may serve to refine and extend the findings of this research. In addition, implications for how a new

perspective on these ancient tales of magic may offer teachers an important strength-based tool for promoting resilience in the most vulnerable children will be discussed.

Limitations of the Study

The sampling strategies I selected ensured that a random but meaningful sample of the thousands of multicultural fairytale variants was used for this study. However, these sampling strategies were also a source of a number of limitations. The impact of methodological choices on my results will be explained below.

The first choice made was to target fairytales that had been chosen as *core stories* by preservice teachers for use in an integrated curriculum unit they prepared for young children. This automatically limited the stories selected to those that community college students were familiar with. Analysis of these selections, as well as anecdotal reports of the students about their selections, revealed that almost all were ones that students had seen as movies, videos, or on TV as children; they were rarely ones discovered through reading.

The assignment required that they use print resources from a variety of cultures; books published by Disney or other media conglomerates were not permitted. However, the stories selected had been, in essence, pre-selected by American businesses for specific profit goals and so may have been aligned with Western Judeo-Christian values. While this study used randomly selected variants of these stories from scholarly sources, it is not known how this preliminary biased sample impacted the results of the study.

The decision to use scholarly sources to identify the variants led to another limitation. Of the 24 fairytales in the final sample, only three were picture books. While

fairytales in anthologies may be better choices for preservice teachers to learn to tell, as opposed to read, to young children, this eliminated many variants that may be more useful and accessible to early childhood educators.

The ATÜ category *Tales of Magic* also precluded many stories used in early childhood classrooms. Common folktales like *The Three Bears*, *The Three Little Pigs*, and *Little Red Riding Hood* come from the folk tradition and have strong appeal for young children. However, they are not considered Tales of Magic, in spite of their talking animals.

Almon (n.d.) suggested that such stories be used with 3 and 4 year olds. The more complex story structures of Tales of Magic make them more appropriate for children closer to 5 years old and above. Further research may determine whether these simpler folktales contain the same elements of resilience as their more magical cousins.

The methodological decisions to (a) use the fairytale website SurLaLune and (b) restrict the sample to fairytales accessible from online sources or local public libraries also limited the breadth of the potential sample. The author of the website SurLaLune has collected hundreds of variants from around the world. However, I discovered that many of those collected were only available through obscure scholarly sources, or, in the collection of anthologies which had written and edited by this author (Heiner, 2016). These anthologies were available through Amazon, but were not included in the local public libraries' collections.

While the sample of fairytales used for this study was diverse and multicultural, there were, for example, no stories from the African-American oral tradition.

Examination of Üther's *Types of International Folktales* (2004/2011), confirmed that these variants do exist, although often in scholarly sources that are held in folklore collections at universities. Using different sampling criteria may have yielded variants that would be even more culturally relevant to teachers and children.

Recommendations

The protective factors for resilience can be identified in fairytales from around the world using the tool for content analysis presented in this paper. The tool allowed me to map these protective factors, using a grid that combined the a priori categories derived from Masten (2015) with the structural analysis of the plot functions of fairytales, first developed by Propp (1968) and adapted by Zipes (1995). The strong evidence of all protective factors for resilience in this sample of fairytales may inspire other researchers to conduct similar analyses.

A larger sample of fairytales would offer deeper insight into how widespread the occurrence of resilience is in fairytales. Within- and between-cultural analyses might also be a worthwhile topic to explore. In addition, the tool could also be used to examine samples of stories which were not included in this study, such those identified in the limitations section above. Picture book variants of fairytales, and fairytales selected from the many multicultural anthologies would offer a rich field of study.

Further, the tool could be used to focus on just one specific protective factor that especially interested researchers. Self-regulation, for example, could be broken down into sub-elements, such as attention, planfulness, regulation of emotion, and regulation of activity. Relationships with peers could be sub-analyzed to determine if there were

qualitative differences between the kinds of interactions siblings experienced in fairytales, and the kinds of interactions portrayed between partners or lovers. It would also be interesting to further investigate whether peer friendship occurred in a broader sample.

Simpler folktales, identified by the ATÜ typology as "Animal Tales (such *The Three Billy Goats Gruff)*, could also be analyzed. However, this would require a modification of the tool for analysis. Propp's morphology of plot structures applies specifically to fairytales and it is not known how closely it parallels the plot structures of other categories of folktales.

If a more basic story structure sequence could be identified, researchers could not only use content analysis to examine a wider range of folklore relevant to younger children, but could also apply this analysis to other genres of children's literature as well. As mentioned in Chapter 2, there are a number of scholars who have written about using picture books to develop the cluster of social and emotional skills related to resilience in preschoolers (Harper; 2016; Lacina, et al, 2016; Leonard, 2014; Petty, 2012, 2014). However, these articles did not mention an evidence-based model of resilience, such as Masten's (2015), nor did they provide an empirical basis for their identification of the picture books. Using an adapted version of this tool for analysis might offer an additional means for refining and expanding their work.

Implications

In *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation,* a joint publication of the Institute of Medicine and the National Research

Council of the National Academies (Allen & Kelly, 2015), the need for teachers highly trained to work with children impacted by toxic stress is articulated:

> It is important for educators to have the knowledge needed to interpret young children's anxiety, difficulties in paying attention and following instructions, impulsivity, and problems with emotion regulation as arising, in part, from the effects of chronic stress on developing brain systems instead of attributing these characteristics, as adults often do, to uncooperativeness, defiance, or disinterest in learning. (Allen & Kelly, 2015, p. 271)

There is, however, a disconnect between the importance of these skills and the weight preservice teacher education and professional development place on them (Allen & Kelly, 2015; Hemmeter, Santos, & Ostrosky, 2008; Willis, Dinehart & Bliss, 2014). This is true both nationally, and in this Mid-Atlantic state's guidelines for preparing early childhood educators. *The Framework for Grades PreK-4 Program Guidelines* is the document used by all teacher certification programs in the state to align their PreK-4 programs. While resilience, EFs, and self-regulation are all mentioned in the document, each is mentioned only twice. Trauma, toxic stress, and mental health are not mentioned at all. The specific requirement related to these skills for teacher candidates in the state studied refers to a general understanding of social-emotional development that includes self-regulation, self-concept, self-awareness, resilience and stress.

Not surprisingly, the articulated associate degree programs in early childhood education have similar learning outcomes. Outcomes related to resilience and mental health are completely absent in the required coursework at one community college in a

Mid-Atlantic state. Like the state competencies, there are several outcomes related to the understanding of general parameters of the social and emotional development of young children.

In contrast are the early childhood learning standards, which guide curriculum in early care and education settings. These contain multiple specific references to self-regulation, initiative, attachment, and EFs, such as working memory, cognitive flexibility, and regulation. Both the state certification *Framework for Grades PreK-4* and learning outcomes for required coursework at the community college level refer to the early learning standards, usually in the context of academic content areas such as literacy, numeracy, and science.

Preservice teachers are expected to gain competence in understanding and facilitating the social and emotional development of children, including skills and dispositions related to resilience. However, there are few specific guidelines about how this is to be done in teacher preparation programs. This is in marked contrast to the specificity with which content area instruction such as literacy, math, science and social studies are addressed.

Recent studies on early educators' preparedness to support resilience were found from Australia (Nolan, Taket, & Stagnitti, 2014), Israel (Shacham, 2015), Sweden (Kimber, Skoog, & Sandell, 2013), and Croatia (Bouillet, Ivanec, & Miljević-Riđički, 2014). In each of these studies, preservice and in-service early educators demonstrated that they had the skills and competencies to implement strategies that supported

children's resilience. There was evidence that they had benefitted from targeted teacher preparation in this area.

For example, teachers in Australia identified evidence-based practices such as fostering a sense of belonging, helping children to learn from mistakes, and using play to promote self-regulation as part of their teaching strategy "tool-kit" for developing resilience (Nolan et al., 2014). An analysis of the diaries of Swedish preservice teachers provided evidence that they were actively learning and using skills related to resilience, such as helping children to cope with strong emotions, promoting self-awareness, and examining learning activities for their possible impact on vulnerable children (Kimber et al., 2013). Israeli teachers used the arts, movement, talking, and storytelling to help their students cope with the effects of war and promote resilience after the teachers participated in an intervention program. Half of the teachers interviewed mentioned that the program had encouraged them to research the relationship between trauma and resilience, which they had not explored deeply in their teacher education programs (Shacham, 2015).

This is in contrast to a recent study on teachers' knowledge of specific aspects of resilience and classroom strategies to promote them in this country. In a study of urban childcare teachers' understanding of self-regulation, for example, Willis et al. (2014) found that more than half of the teachers indicated that they had never heard the term "self-regulation" before, and more than two-thirds said that they had never had any classwork or inservice training on the topic or on strategies to promote this cluster of

skills in the classroom. There was no effect for educational level, which ranged from college student to master's degree, or any other demographic criteria.

Presentation of concepts like resilience and self-regulation outside of a meaningful context may not contribute to the deep understanding of how to integrate them into the early childhood curriculum. Waajid et al. (2013) reviewed a number of teacher education programs. They found the programs to be dense with academic and theoretical content but lacking in specific coursework on SEL, in spite of the research that supports its importance.

They conducted a qualitative case study to examine the impact on preservice teachers when SEL outcomes were integrated into an existing curriculum course (Waajid et al., 2013). Both content that addressed SEL in children, and collaborative instructional strategies that engaged preservice teachers in their own social and emotional learning experiences were emphasized in the restructured class. Participants remarked on the connections they made between academic learning and SEL, and there was a strong shift from teacher-centered to learner-centered approaches to classroom management and curriculum development. Many preservice teachers noted that they had never thought much about SEL, nor had they encountered this content in previous classes, although they were seniors.

Such research studies invite serious consideration of how the results of this study on themes of resilience in fairytales might be integrated into existing coursework in early childhood teacher education. Because current state law mandates a maximum of 120 credits for all undergraduate degree programs offered at state universities, it is unlikely

that dedicated classes focusing on SEL will be required in public teacher preparation programs or the community colleges which articulate with them. However, the infusion of SEL content into curriculum classes may provide one avenue to educate preservice teachers about the importance of topics related to early childhood mental health and resilience and how to promote SEL in early childhood classrooms.

This could be accomplished in a variety of ways. Because both fairytales and storytellling are already identified in the learning outcomes in many teacher education classes, the content analysis grid used in this study could be incorporated into student learning. Preservice teachers could use the grid to analyze either exemplars provided to them or fairytales of their own choice, after being provided with preliminary background information on the protective factors for resilience. Completing the grid would simultaneously be a way for them to become more familiar with the fairytale so that they could tell it to the class, or to children, as a storytelling assignment.

Teacher storytelling is the foundations of implementing Paley's ST/SA pedagogy (Paley, 1988, 1990, 1992, 1997, 2016), which research has shown to be a developmentally appropriate and engaging way to develop both emergent literacy competence and social and emotional skills related to resilience (Nicolopoulou et al., 2015. Many early childhood teacher education programs already require students to read Paley's work, as well as require students to prepare a storytelling activity. Using the grid to specifically identify themes of resilience as they gain confidence in their oral storytelling skills would provide preservice teachers an additional opportunity to explore

storytelling as a teaching strategy. This may enhance their ability to implement ST/SA in their own classrooms.

In addition, their analyses could be a springboard for class discussions, roleplaying, and activities, since these strategies, too, are ones that they will be learning to implement with children. Related music, movement, and art experiences presented in class could be focused on various elements of resilience found in the stories; these activities could be generated by the students themselves, or modeled by the teacher educator. Because the early learning standards already include many references to resilience-related concepts, connecting content area learning with SEL goals in aesthetic, literacy, and play experiences related to the fairytales analyzed will be a valuable extension of the teacher candidates' learning.

The teacher's use of fairytales and storytelling in the classroom may also be an interesting addition to other play-based curricula. Pretend play and storytelling have been identified as "effective, scalable, sustainable and affordable" strategies by The Center on the Developing Child at Harvard University (2016) and Diamond (2016, p. 16; 2014b), a prominent researcher in EFs. Both practices target all three of the EFs (cognitive flexibility, self-regulation, and working memory). While this study has examined their place in the pedagogy of Paley, other early childhood curricula, such as the Vygotsky-inspired *Tools of the Mind* (Bodrova & Leong, 2007, 2017; Bodrova et al., 2013; Leong & Bodrova, 2012) also focus on the importance of pretend play and children's ability to create scenarios, or stories, in the development of these skills.

In contrast to Nicolopoulou et al.'s (2015) findings that Paley's ST/SA strategies positively impact both children's literacy skills and self-regulation, a number of studies of *Tools of the Mind* have shown mixed results about its ability to develop self-regulation in young children (Farran et al., 2015; Office of Planning, Research and Evaluation, 2015). These well-controlled studies failed to replicate studies (Diamond, Barnett, Thomas, & Munro, 2007; Diamond & Lee, 2011) that offered evidence that *Tools'* pretend play-based curriculum did, indeed, seem to foster EFs, including self-regulation. In discussing their results, Farran et al. noted that in comparison classrooms, children had many more opportunities to choose their own materials and activities during center time than the children in the *Tools* classrooms. While the children in the comparison classrooms were choosing and initiating their play, *Tools* children were engaged in teacher-facilitated pretend play. While Vygotsky's theory, and the *Tools* model, would predict that this pretend play would promote self-regulation, the authors questioned whether the fact that classes that engaged in this pretend play scored lower on measures of self-regulation had to do with how this pretend play took place:

> However, in the *Tools* version of pretend play children must dictate ahead of time what role they will carry out in the play, and must not deviate from that role. As we observed, teachers, in fact, were encouraged to use the play plan as a management tool, reminding children what they were supposed to be doing if they got off track. Such scripted requirements may have inhibited children from internalizing some of the skills that were hypothesized to be developed via the pretend play activities. In comparison classrooms, by contrast, children were

allowed much more time to explore materials freely chosen and on their own. (Farran et al., p. 83)

This is quite different from the pretend play in the classrooms Paley described. There, the teacher's role is observer; children's roles and scenarios emerge from their experiences and blend seamlessly with stories and songs they have heard. Characters mutated to serve the story being played, and discussions, sometimes heated, occurred as consensus was reached about whether an action or role served to move the plot forward in a way satisfying to all.

Leong and Bodrova (2012) noted that teacher facilitation may be necessary because today's young children often lack the higher level of play skills that supported the development of self-regulation and other EFs. However, this teacher facilitation may remove the elements of initiative, such as problem-solving, cognitive flexibility, persistence, and self-efficacy from the children's pretend play. All of these may contribute to resilience and self-regulation, according to Masten's theory and Paley's pedagogy.

As preservice teachers use fairytales and storytelling to learn about resilience, they are also afforded the opportunity for a window into the pretend play of young children. Whether the stories children play are influenced by storytelling, or books, or popular media, it is likely that they will include elements related to both magic and resilience. It would seem very useful, for example, for a teacher to be able to make explicit connections between a young child's fascination with Elsa, the disdained, yet powerful princess who wields magic and ends up demonstrating her goodness, and the

lack of agency children living in challenging situations often feel. Discussions and reflections on the fairytales being shared may enhance these connections.

While this kind of active learning is ideal, the implications of this study for social change could also be extended beyond the confines of the preservice teacher education classroom. The 24 fairytales in this study could be a starting point for a database of fairytales that exemplify various protective factors for resilience, for example. Such a database could be embedded into a website, where preservice and in-service teachers could search for fairytales by core story, specific protective factor, geographic region, or targeted age group. Supplemented by the many available media on resilience, SEL, and related topics such as EF and toxic stress, this kind of collection would offer teachers a resource for integrating fairytales into their early childhood classrooms in an intentional way. Early learning standards-based activities and play experiences that connect the fairytales with other curriculum areas, such as emergent literacy, math, science and social studies, as well as resilience, would provide busy teachers with a way they could use fairytales and storytelling to address curriculum expectations, while learning how to provide the most vulnerable children in their classes with opportunities to experience these critical protective factors.

Teachers who have a strong understanding of what these protective factors for resilience look like in a fairytale setting will also be better prepared to identify children's behaviors and needs related to these factors. Their work with fairytales could be scaffolded with tools that identify these elements of resilience in an early childhood classroom, such as the *Devereux Reflective Checklist for Teaching Practices* (Mackrain

& Cairone, 2012). This checklist, which is aligned with the three primary protective factors for resilience, has been found to be an effective tool to support teacher understanding of how to promote resilience with classroom interactions, routines and environments (Fleming, LeBuffe, & Alloy, 2017). This will allow teachers to more adroitly identify the many opportunities for nurturing resilience throughout the day. It may also help them to use fairytale imagery and plot references to frame children's social interactions during play and routines. Paley cited the use of class-shared stories as one of the most powerful strategies for supporting the development of children's social and emotional skills, including self-regulation (Dombrink-Green, 2011).

Such strategies could be disseminated to early childhood teacher educators, as well as practitioners in a variety of settings. Workshops at conferences and articles in professional journals would be effective ways of sharing information. In addition, the use of social media may be an effective means to inform early educators about how fairytales can support the development of resilience.

In order for these practices to have impact, however, it will be important to help both preservice and in-service teachers, as well as the parents of the children they work with, understand that fairytales can be powerful tools to promote resilience. Many studies have shown that both teachers and parents have a distrust of fairytales as appropriate for young children, for a variety of reasons (Cooper, 2017; Paley, 1990; Tatar, 2009; Taylor, 2012; Tippet, 2014; Tsitsani et al., 2012). These include concerns about violence and aggression, sexism, ageism, and the inclusion of magic, which some believe will prevent children from adapting to the real world. While there appears to be no evidence that

young children perceive fairytales in the same way their caregivers do, or that fairytales that are read or told to children have negative impact, such prejudices persist.

Cooper (2017) wrote that this discomfort among many preservice and in-service teachers extended even to the fairytales motifs that regularly emerge in the play and storytelling of young children themselves. It will be important to provide resources and professional development that explicitly counter such concerns with evidence about the important messages of resilience in the stories. This may help early childhood educators and others begin to appreciate what Masten (2015) called the "ordinary magic" that these extraordinary tales of wonder offer the developing child, beyond the fascination with plot and imagery that permeates his play.

Even if future research affirms the prevalence of themes of resilience in fairytales, and teacher education and professional development opportunities are developed that promote their use, this will be only a small piece of the puzzle surrounding how to best support young children living in stress. Social change around the public health issue of substance use disorder must take place on many levels: in policy at the national, state and local levels; in the treatment and medical communities; in social work; in education; and in the perspective of society which continues to stigmatize those who suffer from the disease.

Shapiro (2015) summarized the necessity of such a wide-reaching approach, while emphasizing the importance of a focus on what she called "resilience-enhancing strategies:"

> While we engage in earnest in the long fight for societal change, we cannot fail this generation of children by inadequately understanding, providing, and nurturing the individual and environmental characteristics that lead to their resilience…The potential outcome of resilience-enhancing strategies is a world in which problems that society seeks to treat or control never emerge; they are prevented. (Shapiro, 2015, p. 7)

Fairytales may be one such "resilience-enhancing strategy" (Shapiro, p. 7) that early childhood educators can use. This would allow teachers of young children to use their own unique expertise to provide child-centered, play-based learning and development opportunities. They could then join their colleagues in social work, psychology and the treatment community in a multi-pronged approach to familial substance use disorder.

Conclusion

Whether through preservice teacher education, professional development, or online resources, it is vital that early childhood educators be informed about resilience and how to develop it in young children. One in 4 children in the United States lives in a home where at least one parent suffers from a substance use disorder (American Academy of Pediatrics, 2014). These children are between four and ten times more likely to develop alcoholism or addiction as adults (Lander et al., 2013) and are at higher risk to experience a variety of other trauma, such as child abuse, homelessness, and the incarceration of a parent (Gardner, 2014). They are also at high risk for academic and behavioral challenges (Connors-Burrow et al., 2013).

While national attention is riveted on the epidemic of opiod addiction (McGinty et al., 2015), a recent study in *JAMA Psychiatry* reports that alcoholism in American adults has increased by an astounding 49% in this century. One in 8 Americans, or 12.7 % of our population, now meets the criteria for a diagnosis of alcohol use disorder (Grant et al., 2017). The need for evidence-based strategies to support young children living with SUD has never been stronger.

Numerous studies have identified resilience as a key protective factor for both short-term success in school and social interactions, and long-term positive outcomes for children living with this heritable family disease (American Academy of Pediatrics, 2014; Chassin et al.,2013; National Scientific Council on the Developing Child, 2015; Ronel & Levy-Cahana, 2011). Masten (2001; 2015) referred to the protective factors for resilience as "ordinary magic" (2015, p. vii) because multiple studies have indicated that they are found in healthy interactions everywhere. However, because of the way SUD impacts parenting styles and family dynamics, such healthy interactions are often lacking in these families (Bittler & Brinker, 2014; Child Welfare Information Gateway, 2014; NIDA, 2016; Straussner & Fewell, 2011).

In spite of this, few resources are available to most early childhood teachers that address specific ways to promote resilience at the age when it is most advantageous, from a neurodevelopmental perspective. Debates over how to balance play with academic learning often eclipse what neuroscience is trying to tell the field. The brain needs caring, healthy relationships and interactions; opportunities to initiate, explore, and play with interesting ideas and problems; and the development of self-regulation and executive

function skills to support resilience (National Scientific Center on the Developing Child, 2015). If resilience is not developed, no amount of early literacy training is going to help the many children impacted by SUD and other forms of trauma have successful and productive lives.

In this study, I have provided evidence that fairytales may exquisitely parallel the evidence-based neuropsychological model of resilience proposed by Masten and Harvard's Center on the Developing Child. As such, these tales may offer early childhood educators a way to integrate play, story, and a learning-rich curriculum with the protective factors for resilience that all children need, but that are critically important to those living with family substance use disorder and other forms of toxic stress. These ancient "Tales of Magic" could offer teachers and children a sparkling treasure trove of the 21st century tools they need to fight the dragon of substance use disorder, and to move joyfully and confidently towards becoming happily ever resilient.

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Appendix A: Fairytale Analysis Coding Protocol (developed by S. Goloway from Propp [1968] and Masten [2015]

Propp's Functions (Vertical Axis) (*Related event in story recorded during Reading #2 directly below each function*)	Specific resilience event in story (recorded during Reading #3 (Horizontal Axis)						
	Effective parenting: Positive or Negative Examples[1]	Positive relationship with other capable adults[2]	Positive relationships with friends and romantic partners or siblings)[3]	Intelligence, ingenuity and problem-solving skills[4]	Motivation to succeed[5]	Self-efficacy[6]	Self-control, emotion regulation, planfulness[7]
INTRODUCTION/ SETTING:							
Protagonist (P) confronted by interdiction or prohibition that was violated:							
P given or assumes task related to prohibition; leaves or is banished:							

Notes 1-7: See *Directions for Completing Fairytale Analysis Coding Protocol* for definitions

(Continued on next page)

Appendix A: Fairytale Analysis Coding Protocol (Continued)

Propp's Functions (Vertical Axis) (*Related event in story recorded during Reading #2 directly below each function*)	Specific resilience event in story (recorded during Reading #3 (Horizontal Axis)						
	Effective parenting: Positive or Negative Examples[1]	Positive relationship with other capable adults[2]	Positive relationships with friends and romantic partners or siblings)[3]	Intelligence, ingenuity and problem-solving skills[4]	Motivation to succeed[5]	Self-efficacy[6]	Self-control, emotion regulation, planfulness[7]
Encounter with villain; magical helper; animal helpers; gifts give P power to change situation:							
Endowed P tested and moves on to battle and conquer villain, hostile forces, natural disaster:							
Sudden fall in P's fortune:							

Notes 1-7: See *Directions for Completing Fairytale Analysis Coding Protocol* for definitions

(Continued on next page)

Appendix A: Fairytale Analysis Coding Protocol (Continued)

Propp's Functions (Vertical Axis) (*Related event in story recorded during Reading #2 directly below each function*)	Specific resilience event in story (recorded during Reading #3 (Horizontal Axis)						
	Effective parenting: Positive or Negative Examples[1]	Positive relationship with other capable adults[2]	Positive relationships with friends and romantic partners or siblings)[3]	Intelligence, ingenuity and problem-solving skills[4]	Motivation to succeed[5]	Self-efficacy[6]	Self-control, emotion regulation, planfulness[7]
P used endowed gifts (including wits) to achieve goal:							
Villain punished or hostile forces vanquished:							
Successful P gets rewarded: marriage; money; survival/wisdom; combination of above=happily ever after:							

Notes 1-7: See *Directions for Completing Fairytale Analysis Coding Protocol* for definitions; see next page)

Appendix A (continued): Directions for Completing *Fairytale Analysis Coding Protocol*

The researcher will employ the 3-read method of analysis adapted by Ellefsen (2015) from the work of Madsen (2011). This process involves reading each text three times, with specific purposes. In this study, the following protocol will be used.

1. **The first reading**: The researcher will read the complete fairytale from beginning to end to familiarize her/himself with the story, with no specific objective in mind.
2. **The second reading**:
    a. The researcher will read through the story from beginning to end and while doing so, identify each of the eight Proppian functions listed on the left-hand side of the content analysis chart, *Fairytale Analysis Coding Protocol* (Appendix A).
    b. S/he will record a brief description/passage pertaining to the function in the row directly beneath each function.
3. **The third reading**:
    a. The researcher will again read through the fairytale from beginning to end.
    b. While doing so, s/he will identify specific short phrases or passages that align with protective factors for resilience identified by Masten (2015).
    c. These factors are listed across the top of the Fairytale Analysis chart.
    d. A brief description of Masten's definition can be found at the end of these directions.
    e. The researcher will record examples/quotes from the story in the appropriate column (resilience factor) and in the corresponding row (Proppian function) where they occur in the structure (plotline) of the story.
    f. The resilience factors are not always in sequential order, so it is important that the researcher be familiar with the coding categories for resilience

prior to the beginning of the process.

g. **Additional comment**: Because of the relevance of the parent/child relationship to this study's purpose (supporting young children living with parental substance use disorder), both positive and negative examples of the protective factor "Effective parenting" will be recorded.

DESCRIPTORS OF PROTECTIVE FACTORS FOR RESILIENCE:

[1]**Effective parenting: Positive or Negative Examples:** Actions related to comforting, protecting, or encouraging child

[2] **Positive relationship with other capable adults:** Actions related to sharing with, supporting, helping or mentoring hero

[3] **Positive relationships with friends and romantic partners or siblings:** Actions related to sharing, helping, collaborating with or showing commitment to each other

[4] **Intelligence, ingenuity and problem-solving skills:** Actions related to using wits to resolve problems or adapt to environment

[5] **Motivation to succeed**: Actions related to hero's perseverance when working towards a goal

[6] **Self- efficacy:** Actions related to hero's confidence that s/he can effect change and exert control over circumstances

[7] **Self-control, emotion regulation, "planfulness:**" Actions related to management of attention, emotions, and actions

Appendix B: Archived Lists of Fairytales Used by Students by Semester

FA 2011
Jack and the Beanstalk
Sleeping Beauty
Beauty and the Beast
Cinderella
Little Red Riding Hood
The Three Little Pigs
Rumpelstiltskin
The Gingerbread Boy

SP 2012
Rumpelstiltskin
Thumbelina
Beauty and the Beast
The Three Little Pigs
Rapunzel
Cinderella
Goldilocks and the 3 Bears
Hansel and Gretel
The Gingerbread Boy

FA 2012
Fool of the World in the Flying Ship
The Gingerbread Boy
Little Red Riding Hood
Hansel and Gretel
Beauty and the Beast
Goldilocks and the Three Bears
The Three Little Pigs

SP13
Beauty and the Beast
The Three Little Pigs
Cinderella
The Little Mermaid
Snow White
Hansel and Gretel
Little Red Riding Hood

FA14 (missing data)

SP15
Sleeping Beauty
Thumbelina
Snow White
Maui
Cinderella
Beauty and the Beast
Jack and the Beanstalk
Little Red Riding Hood
Rumpelstiltskin
The Princess and the Pea
The Three Little Pigs
Hansel and Gretel

SP 16
Jack and the Beanstalk
Cinderella
Rapunzel
The Frog Prince
Little Red Riding Hood
Beauty and the Beast
Snow White
The Three Little Pigs

Appendix C: Preliminary Sampling Protocol for Geographic Distribution

CORE STORY (Listed in ABC order)	**Northern European**	**Southern European**	**Middle Eastern**	**African**	**Asian and Indo-Asian**	**South/ Central American**	**Native American**	**Other American**
Beauty/Beast (ATU 425C)	X		X			X		
Cinderella (ATU 510A)		X		X			X	
Frog Prince (ATU 440)	X				X			X
Hansel and Gretel (ATU 327A)		X	X			X		
Jack and the Beanstalk (ATU 328)	X			X			X	
Rapunzel (ATU 310)		X			X			X
Rumpelstiltskin (ATU 500)	X		X			X		
Sleeping Beauty (ATU 410)		X		X			X	
Snow White and Seven Dwarves (ATU 709)	X				X			X

Goal: Each story's analysis will include one variant from each of the three broader geographic categories:

1) European [Northern (Germany, Great Britain, Netherlands, Russia, Scandinavia, Slavic countries) or Southern (France, Spain, Portugal, Italy, Greece)];
2) Non-European, Non-American (Middle Eastern, African, Asian/Indo-Asian)
3) Americas (South/Central; Native; Other)

Preliminary sampling distribution was made via sequential assignment by alphabetical order for each category.

If a specific example for the category is not available for a given story, a substitution will be made with a variant from the same broad geographic category.

If one or more variants is available within the designated category, selection will be made from a list of countries placed in ABC order, with the variant for the first story taken

from the first of these countries, the second the second, and so on (e.g. If there are multiple Northern European variants for stories: Beauty and Beast's variant would be from Austria; Frog Prince: England; Jack and the Beanstalk: Lapland, and so on).

Appendix D: Final Sampling for Geographic Distribution

Core Story (Listed in ABC order)	Northern European	Southern European	Middle Eastern	African	Asian and Indo-Asian	South/ Central America	Native America	Other American
Beauty and the Beast (ATU 425C)	X Austria: The Singing Rose		X Turkey: The Princess and the Pig			**X**		*Spanish-American/ SW: The Enchanted Prince*
Cinderella (ATU 510A)		X Armenia: Cinderella	X Iran: The Persian Cinderella	**X**			X Mic Mac: Little Burnt-Face	
Frog Prince (ATU 440)	X Britain: The Maiden and the Frog				X China: The Frog Who Became Emperor			**X** Kentucky**:** A Bunch of Laurel Blooms for a Present
Hansel and Gretel (ATU 327A)		x Italy: Chick	**x**	*South Africa: The Story of the Bird That Made Milk*		**x**	*Gros Ventre: The Deserted Children*	
Jack and the Beanstalk (ATU 328)	x Lapland: How the Stalos Were Tricked			X (None found that meet criteria in this group)			**x**	*Southern US: Jack in the Giants' Newground*
Rapunzel (ATU 310)		X Italy: The Canary Prince			X Philippines Juan and Clotilde			**X** (None found that meet criteria in this group)
Rumpelstiltskin (ATU 500)	x Hungary/ Slovenia The Golden Spinster		x (None found that meet criteria in this geographic group)			X West Indies: The Girl Who Spun Gold		
Sleeping Beauty (ATU 410)		x France: Sleeping Beauty in the Wood		x Egypt: The Ninth Captain's Tale		*Chile: Sleeping Beauty*	**X**	
Snow White and Seven Dwarfs (ATU 709)	**x** Germany Snow White and the Seven Dwarves			*Mozambique: Unnatural Mother & the Girl with the Star on Her Forehead*	**x**	*Chile: Blanca Rosa and the 40 Thieves*		**X**

Appendix E: Final List of Variants Selected

1. Blanca Rosa and the 40 Thieves (Pino-Saavedra)
2. Bunch of Laurel Blooms for a Present (Campbell/Hearne)
3. Canary Prince (Calvino)
4. Chick (Calvino)
5. Chilean Sleeping Beauty (Pino-Saavedra)
6. Cinderella (Armenian) (Villa)
7. Deserted Children (Cole)
8. Enchanted Prince (Espinosa)
9. Frog Who Became Emperor (https://foxfiresolutions.wordpress.com/trickster-stories/asian-trickster-tales/the-frog-who-became-an-emperor/)
10. The Girl Who Spun Gold (Hamilton)
11. Golden Spinster (http://www.surlalunefairytales.com/rumpelstiltskin/stories/goldenspinster.html)
12. How the Stalos were Tricked (http://www.surlalunefairytales.com/jackbeanstalk/stories/stalos.html)
13. Jack in the Giants' Newground (Chase)
14. Juan and Clotilde (http://www.pitt.edu/~dash/type0310.html#fansler)
15. Little Burnt-Face (http://www.surlalunefairytales.com/cinderella/stories/littleburntface.html)
16. The Maiden and the Frog (http://www.pitt.edu/~dash/frog.html#phillipps)
17. The Persian Cinderella (Climo)
18. Ninth Captain's Tale (http://www.maerchenlexikon.de/texte/te410-001.htm)
19. Princess and the Pig (Walker/Hearne)
20. Singing Rose (http://www.pitt.edu/~dash/type0425c.html#singingrose)
21. Sleeping Beauty in the Wood (http://www.surlalunefairytales.com/sleepingbeauty/index.html)
22. Little Snow White (http://www.surlalunefairytales.com/sevendwarfs/index.html)

23. Story of the Bird that Made Milk
    (http://www.surlalunefairytales.com/hanselgretel/stories/birdmilk.html)
24. Unnatural Mother and Girl with Star on her Forehead (Gunderson)

Appendix F: Fairytale Analysis Summary Table by Resilience Factor and Geographic Region, All Variants								
Core Story and Variants	Number of specific resilience events in each story							
	Effective parenting: Positive or Negative Examples +	 -	Positive relationship with other capable adults	Positive relationships with friends, romantic partners or siblings	Intelligence, ingenuity and problem-solving skills	Motivation to succeed	Self-efficacy	Self-control, emotion regulation, planfulness
ATU 310: The Canary Prince, Italy	4	3	1	3	7	3	4	3
ATU 327 A: Chick, Italy	3	0	1	4	4	2	6	1
ATU 328: How the Stalos were Tricked, Lapland	2	0	0	4	7	1	0	2
ATU 410: Sleeping Beauty in the Woods, France	6	0	3	3	4	1	3	2
ATU 425C: Singing Rose, Austria	3	1	1	1	2	2	6	3
ATU 440: The Maiden and the Frog, Britain	1	1	1	4	0	2	0	5
ATU 500: The Golden Spinster, Hungary/Slovenia	2	0	1	4	5	1	1	2
ATU 510A: Cinderella, Armenia	4	0	0	3	0	0	5	5
ATU 709: Snow White and the Seven Dwarves, Germany	0	5	7	3	1	3	3	1
Ratio of examples of each factor to total number of variants	8/9	4/9	7/9	9/9	7/9	8/9	7/9	9/9
Percentage of examples of each protective factor	89%	44%	78%	100%	78%	89%	78%	100%
ATU 310: Juan and Clotilde, Philippines	2	1	3	6	2	2	2	0
ATU 327 A: The Bird Who Made Milk, South Africa	1	3	0	5	3	2	3	2
ATU 410: Ninth Captain's Tale: Egypt	3	0	3	3	3	2	4	1
ATU 425C: Princess and the Pig, Turkey	5	0	1	4	0	0	1	3

ATU 440: The Frog Who Became Emperor, China	5	3	0	2	4	2	5	3
ATU 510A: The Persian Cinderella, Iran	2	1	5	6	3	2	4	4
ATU 709: Unnatural Mother and Girl with the Star on Forehead, Mozambique	0	2	3	2	1	0	0	1
Ratio of examples of each factor to total number of variants	6/7	5/7	5/7	7/7	6/7	5/7	6/7	6/7
Percentage of examples of each protective factor	86%	71%	71%	100%	86%	71%	86%	86%
ATU 327 A: The Deserted Children, Gros Ventre	0	1	0	1	3	3	6	1
ATU 328: Jack in the Giants' New Ground, U.S. South	2	0	2	1	9	2	4	1
ATU 410: Sleeping Beauty, Chile	4	0	3	5	2	0	1	1
ATU 425C: The Enchanted Prince, Spanish-American	1	0	0	5	4	3	2	1
ATU 440: Bunch of Laurel Blooms for a Present, Kentucky	2	0	0	3	2	0	2	2
ATU 500: The Girl Who Spun Gold, West Indies	3	0	1	3	3	0	4	5
ATU 510A: Little Burnt Face, Mic Mac	0	1	3	3	1	1	4	2
ATU 709: Blanca Rosa and the Forty Thieves, Chile	2	2	5	1	2	2	3	1
Ratio of examples of each factor to total number of variants	6/8	3/8	6/8	8/8	8/8	5/8	8/8	8/8
Percentage of examples of each protective factor	75%	38%	75%	100%	100%	63%	100%	100%

Appendix G: Fairytale Analysis Coding for Exemplar, The Canary Prince (Calvino, 1980)							
Propp's Functions (Vertical Axis) (*Related event in story recorded during Reading #2 directly below each function*)	Specific resilience event in story (recorded during Reading #3 (Horizontal Axis)						
	Effective parenting: Positive or Negative Examples[1]	Positive relationship with other capable adults[2]	Positive relationships with friends and romantic partners or siblings)[3]	Intelligence, ingenuity and problem-solving skills[4]	Motivation to succeed[5]	Self- efficacy[6]	Self-control, emotion regulation, planfulness[7]
INTRODUCTION/ SETTING:							
King has daughter, mother dies, marries stepmother who is jealous. Stepmother "speaks badly" of daughter	Negative: Stepmother is jealous of daughter, speaks badly of her to king.						
Protagonist (P) confronted by interdiction or prohibition that was violated:							
King agrees to let stepmother send away daughter, as long as she is comfortable and not mistreated. Stepmother sends daughter to castle in woods where she has ladies in waiting, but cannot ever go outside. Stepmother visits when father asks how his daughter is.	Although King "loves daughter," he gives in to stepmother and has daughter sent away "but to some place where she would be comfortable, for he would never allow her to be mistreated." King asks about daughter "every now and then."						
Notes 1-7: See *Descriptors of Protective Factors for Resilience* for definitions (Continued on next page)							

Appendix G: Fairytale Analysis Coding for Exemplar, The Canary Prince (Calvino, 1980) (continued)

Propp's Functions (Vertical Axis) (*Related event in story recorded during Reading #2 directly below each function*)	Specific resilience event in story (recorded during Reading #3 (Horizontal Axis)						
	Effective parenting: Positive or Negative Examples[1]	Positive relationship with other capable adults[2]	Positive relationships with friends and romantic partners or siblings)[3]	Intelligence, ingenuity and problem-solving skills[4]	Motivation to succeed[5]	Self- efficacy[6]	Self-control, emotion regulation, planfulness[7]
P given or assumes task related to prohibition; leaves or is banished:							
Daughter has no company so spend her days gazing out of window, leaning on pillow on windowsill to protect her elbows. One day sees Prince out hunting. They smile, waves, etc. This continues for many days.			Ladies in waiting ignore daughter. Sees Prince when she is looking out window and waves, smiles, etc. "For a whole hour, they smiled, bowed, and curtsied, being too far apart to communicate in any other way."	"She sat there leaning on the windowsill, and had she not thought to put a pillow under them, she would have got calluses on her elbows."			
Encounter with villain; magical helper; animal helpers; gifts give P power to change situation							
Prince meets witch who says she can help; she takes old book to door of castle and tells ladies in waiting to give to daughter as a gift. Daughter opens book and reads: "This is a magic book. Turn the pages forward, and the man becomes a bird; turn the back, and the bird becomes a man once more		Prince meets witch: "I like you both, said the witch, and I'll help you." Witch gives magic book to ladies in waiting as gift to daughter.					

Notes 1-7: See *Descriptors of Protective Factors for Resilience* for definitions (Continued on next page)

Appendix G: Fairytale Analysis Coding for Exemplar, The Canary Prince (Calvino, 1980) (continued)							
Propp's Functions (Vertical Axis) (*Related event in story recorded during Reading #2 directly below each function*)	Specific resilience event in story (recorded during Reading #3 (Horizontal Axis)						
	Effective parenting: Positive or Negative Examples[1]	Positive relationship with other capable adults[2]	Positive relationships with friends and romantic partners or siblings)[3]	Intelligence, ingenuity and problem-solving skills[4]	Motivation to succeed[5]	Self- efficacy[6]	Self-control, emotion regulation, planfulness[7]
Endowed P tested and moves on to battle and conquer villain, hostile forces, natural disaster							
Daughter turns pages of book, Prince becomes canary who flies to windowsill. She brings canary into her room and he becomes man. They spend time together, then she turns him back into canary and he flies away. This happens day after day.			Daughter turns prince into canary every time he visits so that they can visit. This continues for days. "Never in their whole life had the two young people known such happiness."				
Sudden fall in P's fortune							
Stepmother visits and notices daughter is happy; sees Prince coming from window. Sends daughter out for water and puts hairpins into pillow, then leaves. Daughter flips pages, Prince as canary comes to sill and is stabbed by pins, flies down, daughter transforms him back into man, but wounds are still mortal. His huntsmen take him back to his castle. Daughter is distraught. Makes rope out of sheets so she can escape and see him.	Negative: When stepmother visits and sees Prince beneath window, she puts hairpins in pillow to stab daughter as she leans on it to flirt.			"She cut her sheets into thin strips which she tied one to the other in a long, long rope. Then one night, she let herself down from the high tower and set out on the hunters' trail. But because of the thick darkness and the howls of wolves, she decided to wait for daylight."		Daughter climbs out of window to go save prince.	"The frightened princess, not yet fully aware of what had happened, quickly turned the pages back in the hope there would be no wounds when he regained his human form."
Notes 1-7: See *Descriptors of Protective Factors for Resilience* for definitions (Continued on next page)							

Appendix G: Fairytale Analysis Coding for Exemplar, The Canary Prince (Calvino, 1980) (continued)							
Propp's Functions (Vertical Axis) (*Related event in story recorded during Reading #2 directly below each function*)	Specific resilience event in story (recorded during Reading #3 (Horizontal Axis)						
	Effective parenting: Positive or Negative Examples[1]	Positive relationship with other capable adults[2]	Positive relationships with friends and romantic partners or siblings)[3]	Intelligence, ingenuity and problem-solving skills[4]	Motivation to succeed[5]	Self- efficacy[6]	Self-control, emotion regulation, planfulness[7]
P uses endowed gifts (including wits) to achieve goal							
Hides in tree and overhears witches talk about only cure for Prince's wounds; vial hidden under tile in his room. Daughter disguises self as doctor, goes to Prince, finds vial, saves his life. She asks for prince's shield, his standard, and bloodied yellow vest as reward. Prince rides by castle three days later, ignores daughter. She turns him into canary. He accuses her of trying to kill him. She says she saved his life, and offers proof of his shield etc. He asks for forgiveness and her hand in marriage.				"Finding an old oak with a hollow trunk, she nestled inside." (p. 55) She disguises self as doctor so she can gain access into Prince's castle. She asks for three items belonging to Prince as her reward instead of "all the wealth in the kingdom." She uses these to prove to Prince she saved him.	"The princess jumped from the tree and set out in the dawn for the city" (p. 56) "She paced up and down the room until she stepped on a loose tile, which she raised and discovered a phial of ointment." (p. 56). She convinced Prince that she had saved him, even though he accused her of trying to kill him.	After prince is healed, he rides by and doesn't look up at window. "She immediately picked up the book, leafed through it, and the prince had no choice but change into a canary." (p. 56)	"It was all the princess inside the tree could do not to scream for joy" (after hearing remedy). Once she gets to Prince's room: "Finding her lover groaning and unconscious in his sickbed, the princess felt like weeping and smothering him with kisses. But she restrained herself because of the urgency of carrying out the witch's directions." (p, 56)
Villain punished or hostile forces vanquished							
At wedding, Father of girl is surprised to discover that his daughter is bride and learns what his wife has done. Has stepmother seized and taken away.	"Learning of his daughter's misfortune, the father was filled with pity for the girl and with loathing for his wicked wife."					At wedding, fathers are surprised bride is a princess. Daughter asked why she did not tell them: "Because, explained the bride, I an longer consider myself the daughter of a man who let my stepmother imprison me. And she pointed at the queen." (p, 57)	

Appendix G: Fairytale Analysis Coding for Exemplar, The Canary Prince (Calvino, 1980) (continued)							
Propp's Functions (Vertical Axis) (*Related event in story recorded during Reading #2 directly below each function*)	Specific resilience event in story (recorded during Reading #3 (Horizontal Axis)						
	Effective parenting: Positive or Negative Examples[1]	Positive relationship with other capable adults[2]	Positive relationships with friends and romantic partners or siblings)[3]	Intelligence, ingenuity and problem-solving skills[4]	Motivation to succeed[5]	Self- efficacy[6]	Self-control, emotion regulation, planfulness[7]
Successful P gets rewarded: marriage; money; survival/ wisdom; combination of above=happily ever after							
Prince and daughter married: "Thus the marriage was celebrated to the satisfaction and joy of all, with the exception of that wretch."			"That very evening he informed his father he was going to marry the maiden in the castle in the forest. You may marry only the daughter of a king or an emperor, replied his father. I shall marry the woman who saved my life." (p. 57)				
Notes 1-7: See *Descriptors of Protective Factors for Resilience* for definitions							

Descriptors of Protective Factors for Resilience:

[1]Effective parenting: Positive or Negative Examples: Actions related to comforting, protecting, or encouraging child

[2] Positive relationship with other capable adults: Actions related to sharing with, supporting, helping or mentoring hero

[3] Positive relationships with friends and romantic partners or siblings: Actions related to sharing, helping, collaborating with or showing commitment to each other

[4] Intelligence, ingenuity and problem-solving skills: Actions related to using wits to resolve problems or adapt to environment

[5] Motivation to succeed: Actions related to hero's perseverance when working towards a goal

[6] Self- efficacy: Actions related to hero's confidence that s/he can effect change and exert control over circumstances

[7] Self-control, emotion regulation, "planfulness:" Actions related to management of attention, emotions, and actions