

Academic Stress in Kindergarten

Douglas Bell, Ph.D
&
Ethel King-McKenzie, Ph.D.

Kennesaw State University
Georgia
United States

Abstract

Kindergartens are the oldest formal settings for early childhood education in the United States. Every state now has kindergarten as a part of its public education program. Historically, teachers of kindergarten had to receive formal training in early childhood principles and practices. Over time, teacher preparation requirements shifted and permit elementary trained teachers to teach kindergarten classrooms. This shift in teacher preparation, combined with high stakes standards-based education, has had an impact on instructional delivery and programming. This instructional delivery and programming an impact on the stress levels of the children.

Introduction

Since the emergence of standards-based education at onset of the new millennium beginning with National Goals 2000, early childhood educators have demonstrated both confirmation and concern about the place that academics has in early childhood classrooms. Teachers have expressed relief for the validation that there is a level of appropriateness in academics on the proper developmental level in early childhood programs. Along with that relief, standards-based teaching brings forth concerns of over focusing on academics until it has a negative impact on learning or push down curriculum.

The idea of academics in kindergarten has been controversial for quite some time. It was established in the 1980's that pushing young children to learn rigorous academics too early could have negative results. In fact, it was decided that early academics led to stress for children, teachers, and administrators in schools (Hatch& Freeman, 1988). The trend to increase academic rigor and focus on academics over developmental learning is tremendously increasing in American kindergartens.

This increased occurrence of an academic curriculum is in part due to the kindergarten primarily being housed in elementary schools (Walsh, 1989). The elementary schools face tremendous pressure for accountability and the kindergartens have been enveloped by the attempts for curricular control by elementary schools.

The school system itself put so much weight on competitiveness that parents are forced to join the fray. While children of past generations often entered kindergarten with a blank academic slate, many schools today, hope that new students will have mastered the basics of counting above ten and reciting the alphabet by the time they enter the classroom. Gone are the days when kindergarteners were required to learn letter recognition. Today they must be reading. Under the Common Core State Standards kindergartners do more than sing ABCs. They are guided to develop a deep understanding of what they alphabet does and how each letter blends to make words. The root of this pressure can be traced back to 1983, with the Nation at Risk, which lambasted the state of US schools and called for a host of needed reforms to right the alarming direction in which public education was seen to be

headed. Since then, most schools have taken drastic steps to meet the report's challenge to adopt "more rigorous and measurable standards for learning.

In this paper, an exploration of the literature on the topic of academic stress in kindergarten is conducted. The paper will outline what we already know about the topic and identify areas of further exploration to understand the topic more deeply.

Kindergarten Stressors

In a high stakes' academic environment, teachers often feel pressured to get the children to perform. They often spend considerable time correcting behaviors that interrupt the flow of academic learning, brushing aside the developmental needs of young learners, as well as the social emotional needs. This can affect academic achievement (Christopher & Farran, 2020). Instead, research supports the continuation of many of the successful behaviors of teachers in PreK into the kindergarten year to support academic success. These behaviors such as engagement, child centered learning experiences, and interacting with teachers who use positive tones, as well as teachers who listen to children more, lead to positive academic gains in kindergarten. In a study by Christopher & Dale (2020), such behaviors had more influence over academic achievement in kindergarten than the actual instruction. Improved teacher child relationships are key to reducing stress in kindergarten (White, 2020). Improved teacher child relationships allow the teacher to build on small moments and use a more child centered and developmentally appropriate practices.

Stress is more than worry. It is the body's physical response to experiences called "stressors." Stress can be defined as the unusual demands on one's internal and external resources that requires an individual to utilize energy reserves more than what would be necessary for dealing with ordinary life events (Hart et al., 1998). Stress can be difficult to detect in young children but, according to many researchers, children feeling stress can display this in diverse ways. It can be observed through behaviors as thumb sucking, sleep disruption, changes in eating habits, nail biting, crying, hair twirling, irritability, nervous laughter, physical hostility, inability to sit still, disrupting others, helplessness, outbursts, complaints of physical aches and pains and withdrawal (Burts, Hart & Charlesworth, 1992; Jewett, 1997; Fallin, Willinga, & Coleman, 2001; Zeigart, Kistner, Castro & Robertson, 2001). If the signals mentioned above or sudden changes persist over time or are brand new and out-of-the-blue, these may be signals of stress in a child.

It is the practices more than the content. The high stakes and accountability-based practices that have infiltrated the kindergarten curriculum include several aspects which create challenges for young learners. Increased rigorous standards combined with standardized testing contribute to the pressure of accountability and proficiency in content (Miller & Almon, 2009). When developmentally appropriate practices are used with kindergarteners, there is a significant decrease in stress behaviors exhibited among the children (Burts, Hart, Charlesworth, Fleege, Mosley, Thomasson, 1992). Unfortunately, research suggests that children at risk, and from lower SES are more likely to be enrolled in kindergarten programs using developmentally inappropriate practices and show more signs of stress from those practices (Burts, Craig, Hart, Charlesworth, Fleege, Mosley, & Thomasson, 1992).

Pressurized Academic Practices

The pressure of academic success often leads schools and administrators to encouraging practices which disrespect the development of young learners. The push for academic accountability causes teachers who are more child centered in their philosophy to implement teaching practices that are more aligned with the academic pressure (Parker & Neuharth-Pritchett, 2006). There are several developmentally inappropriate practices which are utilized in kindergartens when they are pressured into early academics. The practices which are synonymous with academic pressure tend to be more teacher directed in nature and less child centered. Several of these practices are described next.

Worksheets and abstract practices. The practice of using worksheets and workbooks in the early childhood age group has been established as a form of inappropriate practice over the years. Signs of stress in kindergartener learners were higher when engaging in such practices (Burts, Hart, Charlesworth, & Kirk, 1990). In one study, Zepeda (1993) demonstrated that kindergarteners using developmentally appropriate practices, including frequent use of worksheets, was highly correlated with kindergarten children being deemed not ready for first grade. Worksheets are considered a more abstract teaching tool (Kami, 1985).

For worksheets to be useful tools in the classroom, children must be able to mentally hold and manipulate symbolic representation. This is more abstract than at the level where many young children operate naturally. Young children are still practicing with holding and mentally manipulating symbolic representation. Therefore, being required to mentally manipulate symbolic representation can increase stress on young learners.

Worksheets are considered very closed ended and limiting in nature. They typically require a right answer, limited creative thought and higher order thinking. They are often synonymous with the adage drill and kill because they ask children to recall and document facts rather than asking them to truly construct thought and creativity. Worksheets are an assessment more than instructional tool. Rather than instruct the child, the worksheet measures what they know in a way that they do not naturally process knowledge. However, many kindergarten teachers erroneously assume the worksheet is a tool which helps the child learn.

While worksheets are specifically being discussed in this section as an overreach in abstract ability for young children, the worksheet method comes in a variety of forms, rather than just a preprinted sheet of paper (Lesley&Labbo, 2003). The worksheet goes by many names such as workbook, handout, and ditto among others. However, there are some other forms of worksheet which seem more appropriate due to their game appearance but are used mentally the same way as a worksheet. Some examples are folder games, mat games, and write and wipe boards that are pre-loaded with content. Even computer games can be classified as a glorified worksheet. While these tools can be used in some appropriate ways, over use of any of them can increase stress in young children because there is a pressure, spoken and unspoken, to get the right answer rather than genuinely thinking and problem solving.

Passive instructional practices. Young children of the kindergarten age range benefit from experiencing active learning practices. Active learning includes movement, manipulatives, and engagement with content and materials. It allows children to explore and construct meaning and knowledge. Active learning is synonymous with student centered learning (Michael, 2006). These practices are often messy and uncomfortable for adults and they also consume time to allow the children to construct knowledge. They focus on cognitive processes rather than right answers (Goffin&Tull, 1985). When academic accountability is being pushed, teachers feel pressured to forego the active experiences and implement passive teaching strategies. Passive teaching strategies are usually teacher directed and less child centered. They give a false appearance of orderly, organized learning; however, passive instructional practices often do not lead to deeper and higher order thinking and therefore hinder rich meaningful learning (Phenice&Griffore, 2003). Passive instructional practices include a great deal of sitting and listening, recalling facts while answering questions, and repeating facts. While some of these experiences can be useful to learning, when they dominate the curriculum learning decrease and stress increases.

As previously stated, teacher directed experiences are often considered to be a passive instructional approach. Teacher directed experiences give the active role in the learning process to the teacher who is in control and the teacher does the doing much of the time. Teachers in academically focused environments demonstrate a trend of leaning on the teaching practices we see in older age group classrooms (La Paro, Hamre, Locasale-Crouch, Pianta, Braynt, Early, Clifford, Barbarin, Howes, &Burchinal, 2009). Some of these practices include lecture, whole group teaching, teacher controlled didactic small group lessons, and very scripted or predetermined learning experiences with right or wrong ways of doing things. While these experiences themselves are not necessarily bad, an overuse of them do not support true learning and development but instead remembering facts or limited conceptual understanding. Many kindergarteners experience stress and pressure when engaged in teacher directed experiences (Burts, Hart, Charlesworth, & Kirk, 1990).

Young children in the kindergarten age range benefit more from exploration, experimentation, and play (NAEYC, 2020). The kindergartener needs child centered learning experiences where the child has some control and is actively participating the learning process. Young children are very capable of choosing experiences and making choices within open ended learning experiences which lead to deeper learning (Bonawitz, Bass, &Lapidow, 2018). Children learn better and are less stressed when they have some control of their learning (Zhao & Wang, 2020). While offering mostly child centered and child directed learning experiences is developmentally best, a balance can be found. The danger arises in the curriculum when it is teacher directed experiences dominate.

When passive strategies are used often with young children, there is an increase in behavioral challenges (Burts, Hart, Charlesworth, Fleege, 1992). Kindergarteners have a natural need to move, wiggle, and interact and these attributes do not lend themselves to passive instructional practices.

These behavior challenges increase pressure on the teacher who to try and ensure the academic goals are met, which then in turn put stress on the children to sit and listen quietly. The back and forth of challenging behavior and teacher pressure creates a cycle of low-level learning and stress.

Increased pace. The standards and accountability movement has impacted the pacing of the curriculum in kindergarten classrooms. The revision of standards to match the standards-based education movement increased the number of standards to cover in the kindergarten year. This increase of standards prevents teachers from being able to focus on traditional kindergarten activities and experiences, which fill important development and learning needs (Castantino-Lane, 2020). The substantial number of standards that are expected to be met by the end of the school year leaves little room for delay or lingering on a standard. Teachers complain of a pace in the curriculum that moves too fast (Zipin, 2017).

Pritchett and Beatty (2015) found that sometimes slowing the pace of the curriculum down benefits the learner and improves learning. It allows teachers to spend more time on concepts and skills which are more difficult for children to attain. Slowing down the curriculum also gives teachers a sense of freedom to allow more child-centered, active learning experiences. Traditional education practices and philosophy dictate that teachers are to set a learning goal, plan and deliver learning experiences to guide children to reach the goal, assess the children to determine if they attained the goal, and revisit the subject to refine or improve their knowledge related to the goal. In other words, the children set the pace of the curriculum.

Content that is not a developmental match. We have been discussing the practices being used in the kindergarten classroom that can induce stress from an academic focus. In addition to these practices, the pressure from standards-based education and the accountability movement has increased content in the kindergarten which does not match the development of children in this age range well. Kindergarten has shifted from a primarily social emotional foundation with goals of problem solving and exploration of concepts to a more academically oriented curriculum with the goal of achievement of specific skills to prepare for the next curricular steps in the standards. The focus shifted from school readiness in kindergarten to beginning academic skills.

The push for a more academic kindergarten created a narrow focus on numeracy and reading skills (Shepard & Smith, 1988). Kindergarten started as a place to learn to be together, build self-help skills and self-esteem, and develop a motivation and curiosity for learning. Along with this readiness, there was an introduction and exposure to early academic concepts such as colors, shapes, sizes, letters, etc. The new focus in kindergarten is early academic achievement. This academic achievement focus is particularly geared toward math and literacy as these are the areas tested in later grades by the No Child Left Behind Act (Bassok, Latham, & Rorem, 2016).

The early academic content that teachers are encouraged and pressured to focus on due to the standards and achievement goals of the states and systems they work in do not always match the developmental abilities of the children in the kindergarten classrooms. Often the children do not have the concrete understandings that are required to fully understand the concepts being taught. Additionally, the children have not always been exposed to the foundational skills and concepts needed prior to the academic concepts and skills taught in kindergarten. When children must interact with curriculum and concepts they are not prepared to engage in, they develop frustration and stress. This mismatch in development and content is mostly the result of the push down curriculum.

Push Down Curriculum

Push down curriculum is the phenomenon that sometimes occurs when academic rigor is increased (Adams & Fleece, 2016). In the field of early childhood, the standards-based movement and the development of the common core standards caused decision makers to examine expectations in each age group (Corrie, 1999). They shifted some standards from older grades to early childhood grades. Additionally, they added standards in younger grades to be intentional in explicitly preparing young children for upcoming standards in older grades. The “pushing down” of curriculum expectations to younger grade levels is not always a proper decision.

In 2002, No Child Left Behind Act scaled up expectations that trickled down to younger learners. Subsequently, the law placed pressure on students in kindergarten, first and second grades to pass the third-grade standardized

test. People are being pressured to show good test scores and the standards are being re-interpreted to fit the idea that if the nation wants students at a certain Lexile level at the end of high school, then they must be reading in kindergarten. Kindergarteners' brains are not wired to learn that way. Parents are stressed. Teachers are stressed and kindergartners are stressed. Kindergarteners suffer more than any from the diverse groups. These children do not know how to handle stress. In early childhood the young child's brain is like a sponge learning all the world quickly has to offer and being shaped by it. Physical or psychological stress on the child can shape development in ways that can last a lifetime.

Pushing down of the expectations from older grades to young grades can create challenges for both teachers and learners (Shepard & Smith, 1988). The expectations can lead to a developmental mismatch or frustration. This frustration increases stress in the kindergarten learner. For these reasons, focusing on academics too early is considered inappropriate.

Potential Outcomes of Academic Stress

The academic pressures put on any learner has an impact on development and learning. As expectations increase and the rigor of the curriculum intensifies, learners are going to be affected. Stress impacts both psychological and physiological outcomes (Cheetham-Blake, Family, & Turner-Cobb, 2019). These outcomes impact outcomes relating to schooling.

Stress in kindergarten. Kindergarteners can experience and express stress, just like people in other age groups. What stresses them and their expressions may differ slightly from adults, but the stress is just as valid and impacts them just as, more even more significantly. Young children can be stressed by a variety of risk factors in their lives. We have discussed many sources of stress related to academic focus in the kindergarten classrooms.

It has been proven that when young children are exposed to prolonged or intense stress their development is affected. In fact, prolonged and intense stress can develop toxic stress patterns in the brain, potentially altering the way the brain functions and develops (Agorastos, Pervanidou, Crousos, & Kolaitis, 2018). This happens when young children produce stress hormones in the brain consistently and potentially develop a pattern of continuous stress hormone development (Blair & Raver, 2012). Chronic and persistent patterns of stress in young children manifest both biological and developmental impact (Bates, Salsberry, & Ford, 2017).

The school is clearly an environment which can increase stress or build resilience. Often in school, children develop stress through requests and demands which do not match their developmental level. In a dissertation study it was observed that kindergarten children who were experiencing stress from pressure to do well on standardized tests demonstrated increased irritability when pressure was increased (Fleege, 1990). While minor irritability may not be problematic, increasing pressure and a prolonged state of stress from that pressure can have a negative lasting impact on development and learning.

Social emotional factors. The stress from over focus on early academics has an impact on the social and emotional well-being of the young learners in the kindergarten classrooms. Kindergarteners who have experienced significant patterns of stress often display anxiety and aggression (Schmidt, Demulder, & Denham, 2010). The most common display of social emotional impact related to academic stress in kindergarten is the exhibition of anxiety. Teachers report characteristics of anxiety in their learners (Lu, Li, Patrick, & Mantzicopoulos, 2019). The fear of inability and making errors can increase the stress and presence of anxiety of young children. The demand to perform correctly on academic work is too much pressure for some young children. Some ways that young children demonstrate anxiety are unwillingness to participate, crying, whining, and even developing physiological illness symptoms such as stomach aches.

There is a correlational between anxiety and behavior challenges (Vaz, Fiueredo, & Motta, 2020). Young children who feel inadequate and insecure will be combative and unwilling to participate. This increase in challenging behaviors prompts teachers to a place of stress and anxiety as they worry about being able to reach the academic goals pressured upon them by administrative and systemic influences. This becomes a cycle; the teacher is stressed because the students cannot meet the standards and students are stressed because they cannot meet the teacher's expectations.

Another social emotional impact from school rigor is depression (Bufferd, Dougherty, Olino, Dyson, Laptook, Carlson, & Klein, 2014). Depression emerges in young children much like it does in adolescence and adulthood.

This depression presents through sadness, quietness, and eventually a lack of motivation and trying in the academic experiences within the school.

Academic fatigue. Like all learners, young children can experience academic fatigue, a symptom of burnout. There are some researches that suggest that when young children are not ready for the rigors of kindergarten, they can develop poor grades in later years (Fitzpatrick, Boers, & Pagani, 2020). When children experience academic related stress, their school performance often suffers (Finch, McCreight, & McAleavy, 2010). Academic fatigue has an impact on grades and performance in the learning setting. Kindergarteners will show separation anxiety and wish not to come to school. Eventually, they will stop participating in school activities within the classroom and withdraw. This withdrawal can develop into a feeling of not liking school altogether and have a lasting impact in later years.

Academic drop out. One outcome associated with academic stress in kindergarten which can be alarming is the protentional for high school dropout. In one study, there was a correlation between kindergarten readiness, poor grades, and high school dropout (Fitzpatrick, Boers, & Pagani, 2020). While children in kindergarten do not drop out of school explicitly, as mentioned earlier, they can psychologically dropout. The dropout rates of adolescents have a direct correlation of feelings of inadequacy and academic related stress, among other influences.

Conclusion

The practices and curriculum in kindergarten have a long-term impact on children and society. The modern demands of a more rigorous curriculum for kindergarteners to become more competitive in later grades have several unintended consequences for many children. Children in the kindergarten classrooms are displaying signs of anxiety, depression, avoidant and efficacy-based behavior challenges, as well as academic burnout. It is important to rethink the way we deliver curriculum in kindergarten. Other areas of exploration which may benefit our situation is examining the preparation of those who teach kindergarteners and a closer examination of presence of the signs of stress in the kindergarten classroom. Finally, a closer look at our policies for the education of young children and their unintended consequences must be examined.

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