Enhancing Social-Emotional Competence to Reduce Challenging Behaviors

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Introduction

How can we help young children develop the skills necessary for success in the classroom and in life? As children enter school for the first time, they bring a broad range of experiences, knowledge, and skills. Key to children's success in the classroom and future success as adults is the development of social and emotional competence—skills such as the ability to play well with others, to listen and follow directions, to identify and express emotions, and to problem solve. The development of these skills begins early in a child's life and occurs within the context of their relationships with others. Research has shown that children who are skilled socially in kindergarten may be more likely to live healthier lives, attend college, and secure higher-paying jobs as adults (Jones, Greenberg, & Crowley, 2015).

The Pyramid Model (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003; Hemmeter, Ostrosky, & Fox, 2006) provides a framework for developing these skills in infants, toddlers, and young children. The model includes several key components provided across a multi-leveled and culturally responsive system of support, including positive teacher-student relationships, partnerships between teachers and families, structured classroom environments, explicit instruction in social and emotional skills, and individualized supports for children demonstrating more challenging behaviors. Several researchers have investigated practices that are included within the Pyramid Model. Most recently, in a national randomized study, students within classrooms using the Pyramid Model practices demonstrated statistically significant increases in social skills and decreases in challenging behaviors in comparison to students in classrooms not using Pyramid Model practices (Hemmeter, Snyder, Fox, & Algina, 2011).

In 2009, the State of Wisconsin was awarded a three-year technical assistance grant to support Pyramid Model implementation statewide. Since then, a state leadership team has built and supported training and technical assistance to guide child care, Head Start, and public school programs to implement the Pyramid Model framework. In September 2013, the Wisconsin Department of Public Instruction (DPI) received a Safe Schools Healthy Students (SSHS) grant from the Substance Abuse and Mental Health Services Administration (SAMHSA). This grant provided funds to create safe and supportive schools and communities through the building of partnerships among educational, behavioral health, and juvenile justice systems. The Safe Schools Healthy Students Department of DPI partnered with the Wisconsin Pyramid Model to promote the development of social-emotional learning in early childhood. In the fall of 2015, the Safe Schools Healthy Students

Department contracted with researchers at the University of Wisconsin-Whitewater to determine the effectiveness of the Pyramid Model practices in Wisconsin. Pyramid Model leaders were specifically interested in knowing whether or not the implementation of Pyramid Model practices was related to differences in teachers' use of evidence-based practices in the classroom. They were also interested in knowing whether or not the use of Pyramid Model practices was related to differences in students' social and emotional behaviors as well as their early literacy skills.*

The Evaluation

UW-Whitewater researchers, in collaboration with regional Wisconsin Early Childhood Collaboration coaches, successfully recruited 22 classroom teachers for participation in the evaluation. These teachers taught four-year-old kindergarten classes in child care centers, Head Start centers, public school buildings, and community centers located in two larger cities in Central Wisconsin. Ten of the teachers were part of Pyramid Model program-wide implementation sites, the Pyramid Model group. These teachers had received Pyramid Model training and individualized coaching to implement the evidence-based practices promoted by the Pyramid Model with fidelity within their classrooms. Additionally, their program leadership had also aligned program policies and procedures to support the use of evidence-based practices. The additional 12 teachers were located in the same communities for comparison, the comparison group. The teachers in the comparison group did report having participated in some Pyramid Model training (an average of 13 hours). The teachers in both groups were female and reported having taught in early childhood for an average of eight years.

The participating teachers were asked to identify five students in each of their classrooms for participation in the evaluation. In selecting the five students, the researchers asked the teachers to identify two students with typical behaviors and pre-academic skills as well as three students with more challenging behaviors and/or lower pre-academic skills. Parents consented to their children's participation in the evaluation. A total of 109 students participated in the evaluation—50 in Pyramid Model classrooms

and 59 in comparison classrooms. Children in both groups were the same average age (four years, four months) and included both males and females (53% males; 47% females).

Teachers' Implementation of Pyramid Model Practices
To determine the number of evidence-based practices promoted by the Pyramid Model implemented within the classrooms, trained observers rated teachers' implementation using the Teaching Pyramid Observation Tool (TPOT). These observers visited each teacher's classroom twice during the 2015-2016 school year, approximately six months apart: once in November and once in May. Each time, using the TPOT, the observer completed a two-hour observation of the classroom and a 15- to 20-minute interview with the teacher to determine the percentage of Pyramid Model practices implemented in the classroom. At both fall and spring visits, teachers in the Pyramid Model classrooms were observed to implement significantly more evidence-based practices than those in the comparison classrooms. Figure 1 displays these results. Teachers in Pyramid Model classrooms were observed to consistently implement an average of 83% of practices in fall and spring, demonstrating a high degree of fidelity of implementation. Research has shown that higher levels of implementation of practices are associated with more positive social-emotional outcomes for children. In contrast, teachers in comparison classrooms were observed to implement an average of 53% and 58% of practices in fall and spring, respectively.

Figure 1.
Average Percent of Evidence-Based Practices Implemented by Teachers in Fall and Spring
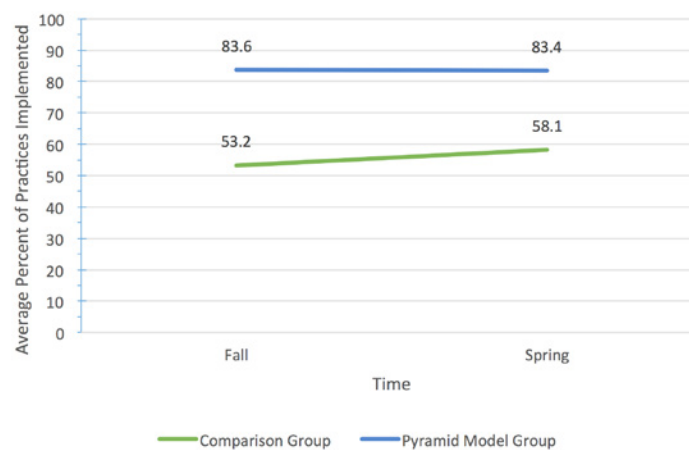
Students' Social and Behavioral Outcomes

To understand differences in students' social and behavioral outcomes, teachers were asked to complete individual questionnaires from the Social Skills Improvement System (SSIS) for each of the children in winter and spring. The SSIS was used in a national study that found improved social skills and reduced problem behaviors for children in Pyramid Model classrooms. In the current evaluation, both groups of students showed decreases in problem behaviors and increases in social skills between winter and spring; however, consistent with the results of the national study, the reduction in problem behaviors was statistically greater for the students in the Pyramid Model classrooms than for the students in the comparison classrooms.

Because preschool children who display more challenging behaviors are at greater risk for being suspended or expelled (U.S. Department of Education Office for Civil Rights, 2014), some members of the Pyramid Model leadership team were especially interested in looking at the related effects of Pyramid Model practices for these students. Using teachers' report of students' problem behaviors on the SSIS, 10 students in the Pyramid Model group and 12 students in the comparison group were identified as displaying more challenging behaviors than their same-age peers. These students were primarily male (74% males; 26% females) in both groups and were the same average age (four years, four months). As Figures 2 and 3 illustrate, both groups of students showed decreases in problem behaviors and increases in social skills between winter and spring; however, consistent with the results of the national study, the reductions in problem behaviors and the increases in social skills were statically greater for the students in the Pyramid Model classrooms than for the students in the comparison classrooms. *These decreases in problem behaviors and increases in social skills for students in the Pyramid Model classrooms were meaningfully different—the students in the Pyramid Model classrooms were reported on average to no longer display challenging behaviors and to show expected social skills of four-year-old children at the conclusion of the school year.* In contrast, the students in the comparison classrooms were reported on average to continue to display challenging behaviors in the classroom and to show fewer social skills than expected of children their same age.

Figure 2.
Students' Problem Behaviors Rated by Teachers in Winter and Spring
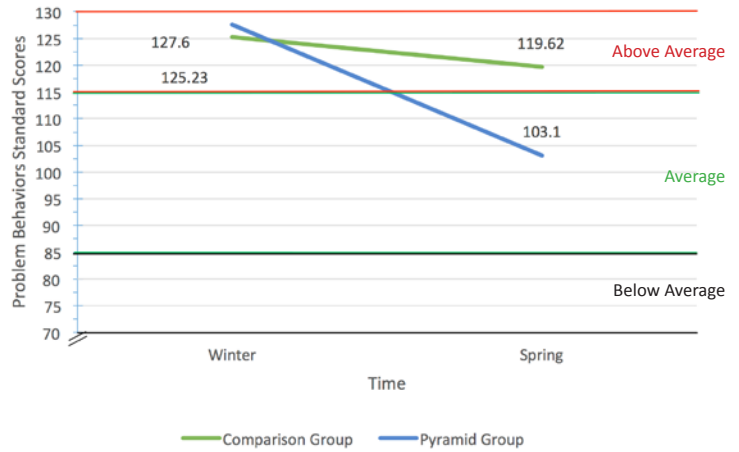
Figure 3.
Students' Social Skills Rated by Teachers in Winter and Spring
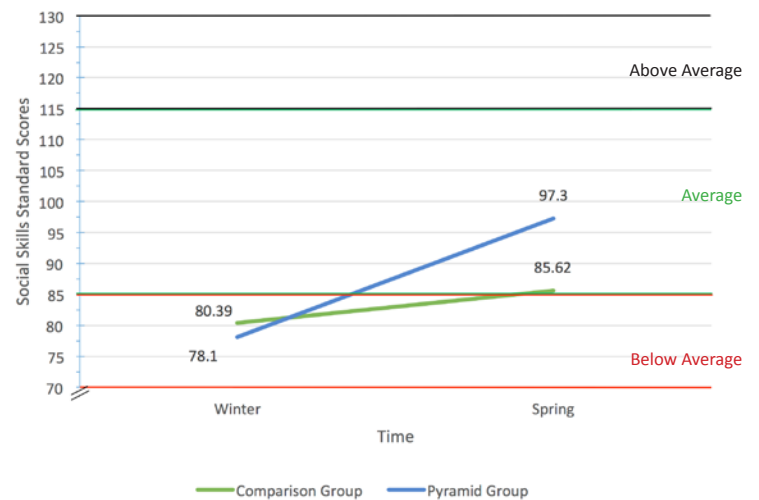
Students' Early Literacy Skill Outcomes

To understand differences in students' early literacy skill outcomes, UW-Whitewater researchers individually assessed students' early literacy skills using the Individual Growth and Development Indicators (IGDIs) in winter and spring. IGDIs are designed to assess key skills in the development of literacy. These skills include knowledge of both spoken language and letter sounds as well as skills in rhyming, early comprehension, and the ability to identify sounds in words. All students in both groups made moderate to strong progress from winter to spring across measures of early literacy. No differences were found between the groups. However, the students with more challenging behaviors in the Pyramid Model classrooms were found to have increased more in their early comprehension skill than those students in the comparison classrooms. This increased ability to understand and solve problems may be related to the students' increases in social skills and decreases in challenging behaviors in the classroom.

Conclusion

Since 2009, a state leadership team has been working to support the reliable implementation of the evidence-based practices promoted by the Pyramid Model statewide in Wisconsin. This program evaluation provides evidence of the effectiveness of the program-wide implementation of the Pyramid Model in Wisconsin. Similar to the results of a national study, this evaluation found teachers in Pyramid Model classrooms to consistently implement more evidence-based practices in their classrooms than teachers in comparison classrooms. The higher number of evidence-based practices implemented within the classrooms was related to successful outcomes for children. Children's problem behaviors decreased more in the Pyramid Model classrooms than the reported behaviors of students in the comparison classrooms. As well, the reductions in problem behaviors and the increases in social skills for students with more challenging behaviors in the Pyramid Model classrooms were so great that these students were reported to display typical behaviors and expected social skills of four-year-old children at the conclusion of the school year. With regard to early literacy, all students made moderate to strong progress in skills, but the growth in early comprehension skill was greater for the students with challenging behaviors in the Pyramid Model classrooms. These increases in early comprehension and related decreases in problem behaviors provide evidence of the Pyramid Model's vision of ensuring a healthy foundation socially and emotionally for children's future success inside and outside the classroom.

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