

Research Summary

During the 2013-2014 school year, 148 second and third grade students at two elementary schools in Tuscaloosa with DCGP gardens were surveyed to examine the effects of the school garden program on children's physical health, plant knowledge, nutritional choices, academic performance, and school behavior and school engagement. Teachers, parents, and school administrators were also surveyed. Preliminary analyses from Fall 2013 data (Boxmeyer et al., 2014) indicate that level of exposure to the school garden significantly improves children's healthy food choices (increased fruit intake, decreased fast food, candy, and soda intake), academic performance (social studies grades), interest in learning, and school engagement (excitement to go to school each day). There were also trend effects on children's reading grades, physical health (body mass index), and willingness to try or eat a range of vegetables. Separate analyses examined the impact of the school garden program on children's involvement in meal planning and preparation at home (Ricciardi et al., 2014). There was a trend effect for children who had higher levels of exposure to the DCGP school garden program to be more involved in meal planning and preparation with their parents at home. This is important, as the analyses revealed that children who are more involved in meal planning and preparation at home are more willing to try a range of vegetables and are more physically fit. A third study examined children's interest in the DCGP school garden and their interest and behavior at school (Remen et al., 2014). This study found a positive association between children's interest in the school garden and their academic performance (in nearly all subjects), effort put into school work, interest in learning, and ability to follow the rules. Future analyses will examine the impact of the DCGP school garden program on children's plant knowledge, teachers' and administrators' perceptions of the school garden program, and longitudinal effects of school garden involvement.

Boxmeyer, C., Turner, L., Ricciardi, C., Holley, K., Kaylor, S, & Grace, R (April, 2014). School garden involvement and children's health, nutrition, and school engagement. Poster presentation at the 15th Annual Rural Health Conference, "*Healthy Beginnings, Healthy Communities: The Early Childhood Experience.*" Tuscaloosa, Alabama.

Ricciardi, C., Boxmeyer, C., Holley, K., & Turner, L. (April, 2014). Children's involvement in meal planning: Effects on physical health, food choices, and school engagement. Poster presentation at the 6th Annual College of Community Health Sciences Research Day, The University of Alabama, Tuscaloosa, Alabama.

Remen, R., Boxmeyer, C., Ricciardi, C., & Holley, K. (April, 2014). The relationship between school garden exposure, behavior and learning in elementary school children. Poster presentation at the 6th Annual College of Community Health Sciences Research Day, The University of Alabama, Tuscaloosa, Alabama. (Won judges choice award for the best research presentation by a medical resident).

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