

Brain Health: It's SPECtacular

Science Behind the Story (SBS) Helping You Helps Me Too (A Social Health Story) (2nd Grade- 7-8yrs)

This story describes how engaging in altruistic, prosocial behaviors helps everyone's social health.

When you need help, think about how good you feel when someone helps you.

Children develop a sense of who they are and what they can do (Christoff, 2011), then they know when they need help. Being able to ask for help may be dependent on the behaviors that they learn from adults in their support system (Alexander, 2021; Stewart, 2004).

If children have experienced the positive feelings that they may have felt upon receiving help, this is most likely due to the activation of the dopaminergic mesolimbic system – reward pathway (ref). This will help reinforce the positive aspect of getting help from others and may encourage children to ask for help when they need it in the future.

Being able to ask for help when needed is a useful behavior to exhibit and it helps children to develop empathy for others (Malik, 2020).

When you help others, think about how good that makes you feel.

As a child develops along the Theory of Mind spectrum, they not only realize that others have needs but that others may also need help at times (Malik, 2020). If they have witnessed the positive effect that someone offering help to another produces, then they are more apt to offer help to others themselves (Crone, 2020; Malik 2020).

Helping others is a prosocial behavior (Crone, 2020; Malik 2020) that will cause positive feelings in the in the child due to activation of the reward pathway. This will then increase the probability that the behavior will be repeated in the future (Crone, 2020; Malik 2020).

Altruistic behaviors help your brain to be healthy and is good for both your social and emotional health. (instills empathy for others)

Prosocial behaviors, such as helping others, leads to social competence (Crone, 2020). Social competence is needed to adapt to social situations and is important for developing social relationships (Crone, 2020).

Helping others is a behavior that demonstrates the child's ability to understand how another person is feeling, which is key to the development of empathy (Crone, 2020; Malik 2020). Empathy is also key to developing and maintaining social relationships (Lockwood, 2016).

So, in helping others a child is not only helping the other child with their needs, they are also helping both the other child and themselves in terms of their social health.

National Standards:

Next Generation Science Standards

- Crosscutting Concepts:
 - Cause & Effect: Events have causes, sometimes simple, sometimes multifaceted. Deciphering
 causal relationships, and the mechanisms by which they are mediated, is a major activity of
 science and engineering.
 - Events have causes that generate observable patterns.
 - o **Patterns:** Observed patterns in nature guide organization and classification and prompt questions about relationships and causes underlying them.
 - Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.

ASCA (American School Counselors Association):

Personal/Social Development

- **Standard A:** Students will acquire the knowledge, attitudes and interpersonal skills to help them understand and respect self and others.
 - PS:A1 Acquire Self-knowledge
 - PS:A1.1 Develop positive attitudes toward self as a unique and worthy person
 - PS:A1.2 Identify values, attitudes and beliefs
 - PS:A1.6 Distinguish between appropriate and inappropriate behavior
 - PS:A1.9 Demonstrate cooperative behavior in groups

National Health Education Standards (Shape America) & CDC (Centers for Disease Control and Prevention)

- Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
 - 1.2.1: Identify that healthy behaviors impact personal health. (CDC)
 - o 1.2.2: Recognize that there are multiple dimensions of health. (CDC)

References:

Alexander, R., et al. (2021). The neuroscience of positive emotions and affect: Implications for cultivating happiness and wellbeing. *Neuroscience & Biobehavioral Reviews*, 121, 220-249.

Crone, E. A., et al. (2020). Neural and behavioral signatures of social evaluation and adaptation in childhood and adolescence: the Leiden consortium on individual development (L-CID). *Developmental cognitive neuroscience*, *45*, 100805.

Lockwood, P. L., Apps, M. A., & Chang, S. W. (2020). Is there a 'social' brain? Implementations and algorithms. *Trends in Cognitive Sciences*, *24*(10), 802-813.

Malik, F., & Marwaha, R. (2018). Developmental stages of social emotional development in children.

Stewart, D., & Sun, J. (2004) Asia-Pac J. Public Health. 16(Supp): S37-S41.