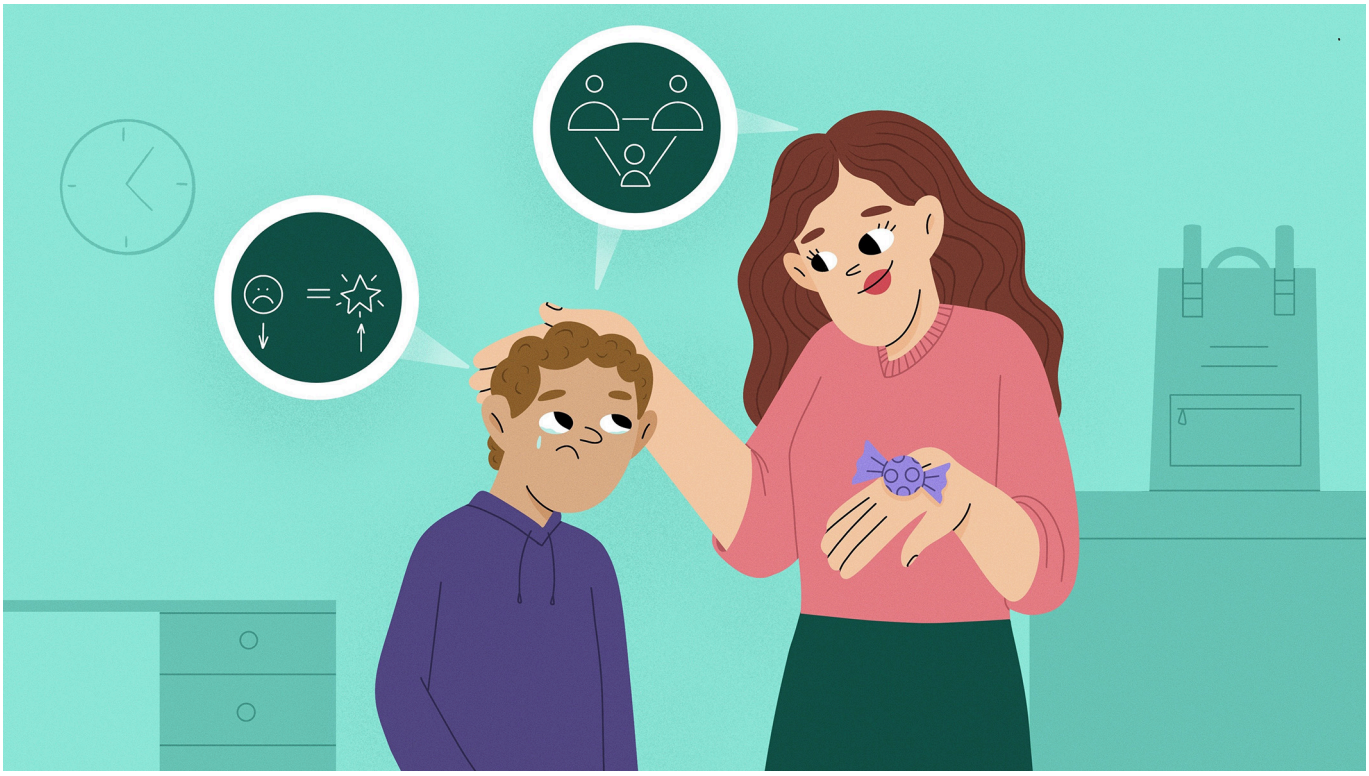
frontiers | Frontiers for Young Minds

NEUROSCIENCE AND PSYCHOLOGY
Published: 13 November 2024
doi: 10.3389/frym.2024.1416143



HOW DO CHILDREN LEARN TO MANAGE THEIR EMOTIONS?

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YOUNG REVIEWERS:

YALE OPENLABS AND PATHWAYS TO SCIENCE GROUP 2

AGES: 11–13

In life, it is important for us to be able to calm ourselves down, or manage our emotions, when we get very excited or very sad. Children learn how to do this at a young age. We wanted to learn what parts of a child's environment, like how their parents interact with them or what life is like at home, relate to how kids control their emotions. We predicted that children who are better able to manage their emotions may be more likely to help other people. We used questionnaires and tasks to learn about how children manage their emotions and interact with others. We found that parents and life at home both related to how well children manage their emotions. We also found that children who were better able to manage their emotions were more likely to help others in need and less likely to misbehave at home.

WHAT IS EMOTION REGULATION?

Think about the last time you got really sad or angry. You may have cried or raised your voice. After a while though, you may have worked through your feelings and stopped your reaction. Your ability to calm yourself down and manage your emotions is called **emotion regulation**. Emotion regulation allows us to control our emotions to achieve our goals. These skills are important for children and adults to manage everyday situations.

EMOTION REGULATION

The ability to manage your emotions to calm yourself down and achieve your goals.

For example, if a child is offered a reward to stop crying, like a lollipop, they will need to manage their emotions to calm down and obtain their reward. Another example may be an adult who has just asked their boss for a raise at work. If their boss says no, they might feel angry, but if they yell or scream at their boss they might get fired! So, they will need to control their feelings of anger to maintain a good relationship with their employer.

We begin regulating our emotions as children, but as we grow up, we continue improving our skills. So, adults tend to be better at managing their emotions than kids are. You may be wondering how we start to develop these skills as children. Scientists believe that parents play an important role in the development of emotion regulation. For example, how responsive or nurturing a parent is and the parent's own emotion regulation abilities may be related to how a child develops these skills. Other aspects of kids' lives, like living in poverty or what life is like in their home, may also change how kids learn to manage their emotions.

As you can see, the emotion regulation skills we develop as children are important throughout our entire lives. In fact, scientists believe that people who have trouble managing their emotions may also have behavior problems, problems with peers, or even later mental health challenges. It is also possible that kids who are better able to regulate their own emotions may be more likely to help people through **helping behaviors**. Helping behaviors are actions that are intended to help other people when they are in need. Bringing someone a tissue when they are crying or helping a friend with their homework are both examples of helping behaviors.

HELPING BEHAVIORS

Actions that we engage in that are intended to help other people in need.

We wanted to understand what helps children develop the ability to control their emotions. In our research, we examined if the way parents interact with their kids, how parents manage their own emotions, and what life is like inside the kids' homes related to emotion regulation skills in a group of 3-year-olds. Then, we investigated if kids who were better at managing their emotions were more likely to show helping skills.

MEASURING EMOTION REGULATION AND HELPING BEHAVIORS

To understand what aspects of parental and home characteristics may be linked to children's emotion regulation skills, we asked the parents of 90 children (44 girls and 46 boys), who were an average age of 3.5 years old, about their families and backgrounds through several questionnaires. This helped us learn about what life is like in their homes. We learned about the family's income level and how busy, loud, or chaotic their homes are. Parents and children also completed several tasks together so that we could learn how they interact with each other and how they manage their emotions.

We learned about children's emotion regulation skills through a questionnaire called the Emotion Regulation Checklist (ERC) [1]. For this task, parents answered 24 questions about how their child handles their emotions in different situations. For example, parents were given an example about how their child might typically act, such as "Can say when s/he is feeling sad, angry or mad, fearful or afraid" and parents indicated how frequently that is true of their child on a scale of 1 (rarely/never) to 4 (almost always).

To learn about what strategies parents use to manage their own emotions, we asked them to complete the Emotion Regulation Questionnaire (ERQ) [2], which is a questionnaire with 10 questions that ask parents to report on their own use of emotion regulation strategies. Then, parents and children completed a task together, which included a period of free play, a challenging puzzle, and a period of cleaning up. Parents who engaged with their children and were very responsive received higher scores [3].

Finally, we wanted to learn about children's behaviors, including helping behaviors. To learn about behavior problems, parents answered questions about whether their child ever misbehaves, like if they struggle to pay attention or often lose their temper. Children whose parents said they frequently misbehave received a high score for behavioral problems. To learn about helping behaviors, children completed three tasks in the lab. Helping behaviors are any behaviors that are meant to help other people, like helping your friend stand up after they fall down. For these tasks, scientists tried to see if the children would help them with some problems by giving the child clues that they needed assistance. For example, one of the tasks involved the scientist showing the child a blanket (Figure 1A) and giving the child clues that they needed help by acting cold (Figure 1B). If the child brought the blanket to the scientist, then the child showed helping behavior (Figure 1C). The scientist scored the tasks based on how many clues were needed before the child helped. Children who needed fewer clues got a high score and children who did not help the scientist received a score of 0. Scientists then created a helping behavior score by calculating the **mean** of all the tasks.

MEAN

The average of a set of numbers, calculated by adding the numbers together and dividing them by the total number of values.

Figure 1

Blanket task to study helping behavior. **(A)** The task starts by the scientist showing the child a blanket and reminding the child that the blanket is very warm. **(B)** The scientist suddenly starts acting very cold, to see if the child will offer to give her the blanket. **(C)** If the child gives the scientist the blanket, then they demonstrate a helping behavior.

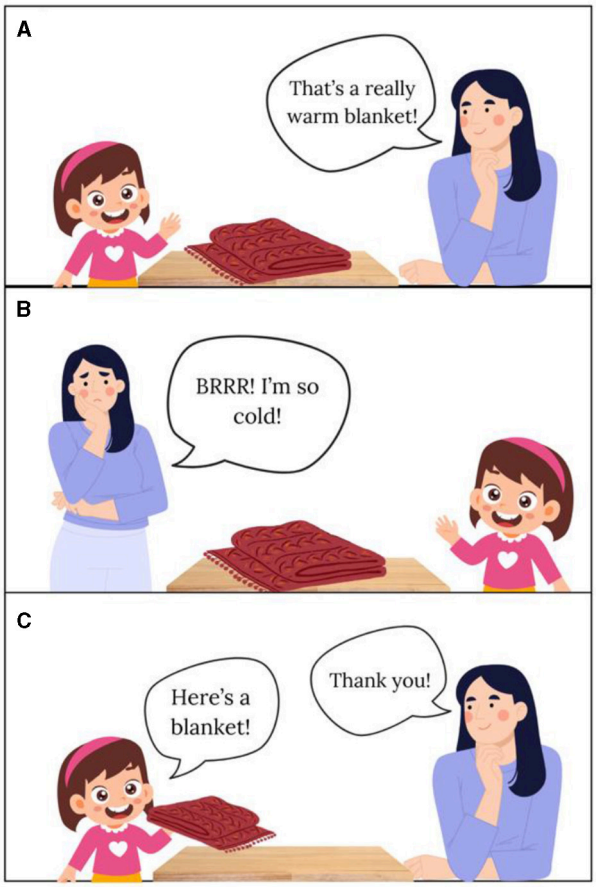

Figure 1

HOW DO PARENTS AND HOME ENVIRONMENTS AFFECT CHILDREN'S EMOTION REGULATION?

We found that parents and homes may be important for managing our emotions. Children being raised in higher-income homes, for example, were better at managing their emotions according to their parents. However, children living in very chaotic homes were not as good at managing their emotions. Another interesting thing we learned is that when parents used more strategies to manage their own emotions, their children were also better at emotion regulation. This suggests that being raised in a calm environment with a high income, by parents who are skilled at managing their own emotions, may be important for children learning emotion regulation.

DO EMOTION REGULATION SKILLS RELATE TO HOW WE BEHAVE?

We also wanted to know if emotion regulation skills relate to children's behaviors. We thought that children with better emotion regulation skills would have fewer behavior problems and would be more likely

to help the scientist during our tasks in the lab. Do you think we found what we expected to? We did! Children who were better able to manage their emotions were more likely to help the scientist (Figure 2). These children also misbehaved less at home (Figure 3). These are exciting findings because they show that emotion regulation skills may be very important for behavior, even for very young children.

Figure 2

Children who had better emotion regulation engaged in significantly more helping behaviors during our tasks in the lab. The *Y*-axis shows the children's scores from the helping behaviors tasks during the lab visit. Scores were based on how many clues the child needed before they helped the scientist.

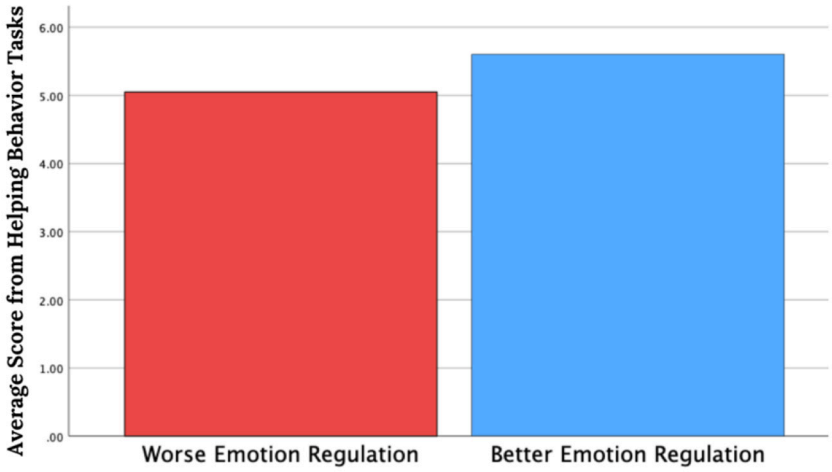

Figure 2

Figure 3

Children who had worse emotion regulation had significantly more behavioral problems at home. The *Y*-axis shows the child's score on a survey that parents completed about how many behavior problems the children have at home.

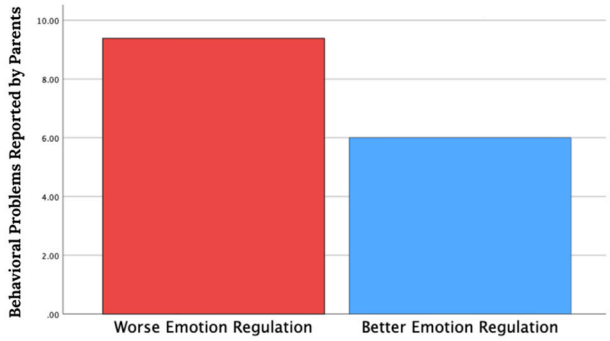

Figure 3

WHAT OTHER QUESTIONS CAN WE ASK?

Overall, in our study, we tried to learn more about emotion regulation skills in preschool-age children. We learned that how parents act and what life is like at home are both important for emotion regulation. We also learned that very young children who are better able to manage their emotions may be more likely to help other people around them.

Although we learned some cool things in this study, there are more questions for scientists to ask! In the future, we think that scientists should try to see if they would get the same answers to our questions even if they asked other people, like teachers or other caregivers, about

how children manage their emotions. This is important to show that our study is not just a one-time result, but instead a pattern that we can see in the real world.

Our study also only asked questions from one of the children's parents. However, the other parent may have different emotion regulation strategies of their own or different perspectives of their child that could affect our findings. It may be interesting to try a study like this again with both caregivers.

We might also want to consider what other aspects of life could affect emotion regulation. For example, do you think having siblings could change how well a child could manage their emotions? Or, since a child who is home schooled may have less interactions with their peers, might this affect their emotion regulation?

Finally, our study showed us that preschoolers who are better able to manage their emotions may be more likely to help other people. Do you think this might be true for older children, too? Another study could see whether older children who are better able to manage their emotions may also be more likely to help people. As you can see, there are a lot of future opportunities to learn more about emotion regulation. Can you think of any other questions that we should ask next?

ACKNOWLEDGMENTS

The present research was supported by grant R03HD082550 and the Clara Mayo Memorial Fellowship.

ORIGINAL SOURCE ARTICLE

Kao, K., Tuladhar, C. T., and Tarullo, A. R. 2020. Parental and family-level sociocontextual correlates of emergent emotion regulation: implications for early social competence. *J. Child Fam. Stud*. 29:1630–41. doi: 10.1007/s10826-020-01706-4

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SUBMITTED: 11 April 2024; **ACCEPTED:** 22 October 2024;
PUBLISHED ONLINE: 13 November 2024.

EDITOR: Casey Lew-Williams, Princeton University, United States

SCIENCE MENTORS: Gustavo Madeira Santana and Kate Maier

CITATION: Ewell A, Kao K and Tarullo A (2024) How do Children Learn to Manage Their Emotions? Front. Young Minds 12:1416143. doi: 10.3389/frym.2024.1416143

CONFLICT OF INTEREST: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

YOUNG REVIEWERS

YALE OPENLABS AND PATHWAYS TO SCIENCE GROUP 2, AGES: 11–13

We are curiosity-driven middle school students who had the exciting opportunity to collaborate with Yale graduate students to read and review a scientific journal article written by real scientists. Our Yale OpenLabs and Pathways to Science group consisted of Ariel, Azka, Carissa, Clarissa, David, Marietta, and Sophia. They were mentored by Gustavo Madeira Santana and Kate Maier. We came together with a shared interest in learning about science and enjoyed getting hands-on with peer review!

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