

Overview of the Science in *Timbi Colors About Addiction*

Timbi Colors was written to give children, their caregivers, and counselors/teachers a more playful way to reinforce the topics, coping skills, and methods introduced in *Timbi Talks About Addiction*. Some of these will be new to the child and [will be more easily assimilated if multiple sources and senses are engaged](#).¹

Chief among these topics is the concept of neuroplasticity: the brain is more capable of change than formerly believed. This concept is frequently described with the expression [“what fires together, wires together”, meaning the encouragement of positive thoughts forges stronger pathways to positivity](#).² The converse is also true; dwelling on negative thoughts and situations strengthens those pathways. Therefore, the goal is to introduce as much positivity into the lives and minds of these children as possible.

In *Timbi Colors*, we share the evidence-based ‘positive-thinking’ practices of visualization, gratitude, experiencing nature, and even smiling and playing! These are explained more fully below. Once learned, these practices become part of the child’s toolkit for managing stress and difficult feelings.

And finally, some pages are just for fun, to offer a break from the learning and make the book less like a ‘workbook’ and more like a ‘funbook.’

The following is a brief page by page overview:

- First Spread, pages 2-3: Reintroduce Timbi and reinforce the [four core facts adapted from NACoA](#).³ Attempt to engage the child actively in the material by identifying four ways Timbi stays healthy in the rest of the book.
- 2nd Spread, pp 4-5: Timbi hugs his Teddy and he feels better. [Hugging encourages positive thoughts and activates beneficial neurochemicals](#).⁴ On page 5, children are encouraged to think about something that helps them feel better with the goal of facilitating positive thoughts.
- 3rd Spread, pp 6-7: Reinforcing the child has trusted adults and people who love them.
- 4th Spread, pp 8-9: Timbi misses Daddy and feels sad, but [visualizes a happy place](#).⁵ The active, multi-sensory approach of thinking about, and describing, a “happy place” allows for a richer, more realistic experience of getting away to that place.
- 5th Spread, pp 10-11: When Timbi feels bad, Timbi remembers to be thankful. [Gratitude is another positive emotion that has been studied and shown to improve well-being](#).⁶
- 6th Spread, pp 12-13: Timbi knows people who have a parent who is struggling with addiction which helps Timbi feel less alone and stigmatized. The maze page is just for fun.
- 7th Spread, pp 14-15: [Timbi and Sami are playing together and supporting each other, accessing the special neural circuitry for play that enhances self-regulation and aids healing](#).⁷ The train dot to dot is just for fun.
- 8th Spread, pp 16-17: Something’s not right. This is one of the key learnings from Timbi Talks. Children are quite sensitive and pick up on signals of tension and stress very well. They also tend not to have a vocabulary that permits them to express their feelings effectively. As a result, [they tend to manifest their strong emotions in their body, largely unrecognized](#).⁸ Teaching them to “listen” when their body has something to say (that is, when the body is holding on to emotions/stress) is crucial to allowing them to release them. The drawing of Timbi has some suggestions of how the body might “speak” to someone and encourages the child to circle the symptoms that feel right to them.
- 9th Spread, pp 18-19: Timbi invites the child to take some [deep breaths](#).⁹ The next page explores the physical feeling of breathing to enable the child to connect to and stay focused on the breath. This focus prolongs the child’s attention, giving the parasympathetic nervous system more time to settle the body.
- 10th Spread, pp 20-21: Timbi is on the swing out in nature. [Being out in nature has cognitive and physiological benefits](#).¹⁰ The child is then invited to reflect on and draw or write about their favorite outdoor activity.

- 11th Spread, pp 22-23: Timbi talks to the teacher. This is another key message. [The child has access to and can avail themselves of safe adults who reassure them.](#)¹¹ The child is invited to think about and draw their safe adult.
- 12th Spread, pp 24-25: This spread is showing that drawing or [coloring generally can be relaxing and therapeutic.](#)¹² The Find the Differences page is just for fun.
- 13th Spread, pp 26-67: [Studies have shown that smiling actually makes people happier. The facial muscles send a signal to the brain.](#)¹³ And smiling is contagious! Smile at someone and chances are very good they will smile back, and everyone feels happier.
- 14th Spread, pp 28-29: Page 28 is fun, and page 29 invites a smile-inducing drawing, again, reinforcing positivity in the brain.
- 15th Spread, pp 30-31: These are mostly fun coloring pages that encourage children to read. [Reading or being read to develops vocabulary and word fluency which lead to greater success at school](#)¹⁴ and the significant advantages that brings.
- 16th Spread, pp 32-33: These are fun pages which encourage children to clean up after themselves.
- 17th Spread, pp 34-35: This spread reinforces the key message of goodness, love and resilience.
- 18th Spread, pp 36-37: Recap of learnings and practices outlined in the book. The inside back cover has a handy list of activities Timbi uses to feel better that can be displayed as a reminder.

We thank you for sharing Timbi with a child who is impacted by a loved one's substance abuse. It is our great hope that the concepts and activities shared in the Timbi books will offer children a means to find hope and happiness, both with the help of safe people, and by themselves.

Janet Hellier, MS MHC

1 Multi-sensory learning: <https://link.springer.com/article/10.1007/s11571-018-9489-x>

2 Wires together fires together: <https://www.scientificamerican.com/article/the-brain-learns-in-unexpected-ways/#:~:text=In%201949%20psychologist%20Donald%20Hebb,happens%2C%20learning%20has%20taken%20place.>

3 NACoA's Tools for Kids: https://nacoa.org/tools_for_kids/

4 Hugging: <https://www.sciencedirect.com/science/article/pii/S2666497621000655>

5 Visualization: <https://psychcentral.com/lib/imagery-in-everyday-life>

6 Gratitude: <https://pubmed.ncbi.nlm.nih.gov/37585888/>

7 Playing: <https://psycnet.apa.org/record/2014-37632-000>

8 Trauma in the body: https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Physical_Symptoms_of_Emotional_Distress-Somatic_Symptoms_and_Related_Disorders-124.aspx

9 Benefit of Deep Breaths: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5455070/>

10 Being in Nature: <https://pubmed.ncbi.nlm.nih.gov/20337470/>

11 Neuroception of Safety: <https://eric.ed.gov/?id=EJ938225>

12 Coloring: <https://health.clevelandclinic.org/3-reasons-adult-coloring-can-actually-relax-brain>

13 Smiling: <https://online.uwa.edu/news/benefits-of-smiling-and-laughter/okay>

https://www.ted.com/talks/ron_gutman_the_hidden_power_of_smiling/transcript?hasSummary=true&language=en

14 Reading: https://portal.ct.gov/-/media/SDE/ESSA-Evidence-Guides/Early_Skills_and_Predictors_of_Academic_Success

Overview of the Science in *Timbi Talks About Addiction*

There is strong scientific evidence underlying each practice/activity we share in the Timbi books, and we are particularly drawn to practices which facilitate positive thinking. Read *Timbi Talks* aloud with the child in your care the first few times to be sure they understand the key points of the book. Sit as close as they are comfortable with and enjoy your time together.

Page by Page Review (Items 1-4 are adapted from [NACoA's Tools for Kids](#).¹)

1. The affected parent did not choose the disease, but the disease changed them, and they can behave strangely and be scary. (pp. 2-5, 8-10)
2. The child is not alone in their situation. There are many other children who have a parent who struggles with addiction. There is comfort in knowing that this isn't the only time this situation has occurred, and there are professionals who know how to deal with it. (pp. 6-7)
3. You and other safe adults in the child's life are available to listen and hear them. (p. 12)
4. The child did not cause the disease and is not to blame for the parent's behavior or circumstances. [The egocentrism and magical thinking that are developmentally normal](#)² for young children contribute to their sense that anything happening around them results from them and their behavior. The adult can point out that the child behaves independently at times, and reinforce the fact that grown-ups always do. (p. 13)
5. Timbi labels emotions throughout the books. [Labeling negative emotions has been shown to diminish their intensity and duration](#).³
6. Lacking adequate vocabulary to verbally process challenging events, [the child will likely experience the trauma in their body in some way](#).⁴ Timbi tells them they can learn to listen to their body and be more in control of their reactions: (pp.14-15)
 - o [They can take some deep breaths](#)⁵—the safe adult can explain that the body will naturally and automatically calm down with deep breaths. (pp.16-19)
 - o [Sitting on the floor or feeling your feet on the floor can be grounding](#).⁶ that is, it helps the child feel connected to the ground/earth and not frighteningly cut loose from it. (pp.16-19)
 - o The visualizations of the mountain and tree are helpful for children to feel more grounded, and [many studies have shown that being in nature, and even just thinking about, it is calming to the nervous system](#).⁷ They are loosely adapted from renowned Buddhist teacher, [Thich Nhat Hanh's Pebble Meditation](#).⁸ (pp. 16-19)
 - o [Neuroscientists have found that humans have separate neural circuitry dedicated to play which enhances self-regulation and aids healing](#).⁹ Additionally, [physical activity is shown to have beneficial impacts on mental health](#).¹⁰ However, immediately post-trauma, some children may be too shut down to engage in a lot of physical play. (p. 20)
 - o [Singing is stress-relieving and therapeutic](#).¹¹ (p. 21)
 - o [Hugging a pillow or other soft object is another way of activating positive neurochemicals](#).¹² (p. 21)
7. The emotions and feelings the child is having are perfectly natural in the circumstances. They are an automatic response to the situation, but the child can begin to be in control of them. Emotions have been shown to be fleeting; [it is rumination about them allows them to persist](#).¹³ The goal is to disrupt the rumination. Awareness is the first step of gaining control. (p. 22)
8. Finally, the child can remember/learn that they are: (p. 23)
 1. Good—this is not their fault.
 2. Lovable and loved—you are present and there for them.
 3. Strong and resilient— acquiring and practicing the skills presented in the book will help.

You'll find a handy list of the skills and tools introduced in the book that the child can practice, fostering a sense of agency or control in their lives at the end of the book.

Janet Hellier, MS MHC

Turn Over for References

References

- 1 NACoA's Tools for Kids: https://nacoa.org/tools_for_kids/
- 2 Egocentrism and Magical Thinking: <https://www.ncbi.nlm.nih.gov/books/NBK537095/>
- 3 Labeling emotions: <https://www.psychologytoday.com/us/blog/sweet-emotion/201408/why-labeling-emotions-matters>
- 4 Trauma in the body: https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Physical_Symptoms_of_Emotional_Distress-Somatic_Symptoms_and_Related_Disorders-124.aspx
- 5 Benefit of Deep Breaths: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5455070/>
- 6 Grounding: <https://www.unh.edu/pacs/what-grounding#:~:text=Grounding%20is%20a%20self%2Dsoothing,and%2Dnow%20and%20to%20reality>
- 7 Being in Nature: <https://pubmed.ncbi.nlm.nih.gov/20337470/>
- 8 Pebble Meditation: <https://ncdvtmh.org/wp-content/uploads/2022/10/Thich-Nhat-Hanh-Pebble-Meditation.pdf>
- 9 Playing: <https://publications.aap.org/pediatrics/article/142/3/e20182058/38649/The-Power-of-Play-A-Pediatric-Role-in-Enhancing?autologincheck=redirected>
- 10 Physical Activity: <https://pubmed.ncbi.nlm.nih.gov/36796860/>
- 11 Singing <https://www.menningerclinic.org/news-resources/exploring-the-mental-health-benefits-of-music#:~:text=The%20simple%20act%20of%20singing,muscles%20in%20your%20respiratory%20system>
- 12 Hugging: <https://www.sciencedirect.com/science/article/pii/S2666497621000655>
- 13 Rumination: <https://www.psychiatry.org/news-room/apa-blogs/rumination-a-cycle-of-negative-thinking#:~:text=Rumination%20involves%20repetitive%20thinking%20or,and%20can%20worsen%20existing%20conditions>