

## Book review

# A creative and effective way of explaining chronic pain experiences to children!

Line Caes

**Rumping K, van Bakkum R (2019).** *My bodyguard brain*. Self published, 72 pp. ISBN 978-9083082004 (Hardcover: €15,50; \$19.00 USD). [www.mybodyguardbrain.com](http://www.mybodyguardbrain.com)

Kitty and Ramona bring together their unique skills to author the book: *My bodyguard brain*. Kitty Rumping is a physiotherapist who, after 29 years of experience within the adult pain team at Heliomare Rehabilitation Centre in Wijk aan Zee in the Netherlands, made the switch in 2017 to focus on assisting children in Heliomare with persistent pain problems. In her efforts to provide appropriate, child-friendly education about persistent pain to children (and their parents), she met Ramona van Bakkum, who is a book illustrator. Ramona has worked for 19 years in a day care center and is (like Kitty) a mother of three children, who has now her own art school. It was a match made in heaven to produce a highly successful child-friendly education tool. *My bodyguard brain* explains persistent pain in an easy-to-understand language alongside outstanding drawings which visualize the pain experiences in a way that makes them relatable to common, everyday experiences. Additionally, the various examples, case studies and experiments that the reader is advised to engage with throughout the book are well thought out and provide a further, deeper understanding of the complex pain mechanisms. While the book was originally written in Dutch, it has recently been translated into English, thereby ensuring it can be used by a wider audience.

The authors recommend *My bodyguard brain* for ages 9-99, although the language and illustrations used throughout the book seem to target children and teens (aged 9-16 years) as the main audience.

The book starts with a general overview of which brain areas (i.e. amygdala, hypothalamus, pituitary gland, hippocampus, and prefrontal cortex) are involved in the experience of pain. Every brain area has its own character, which is linked to their shape (e.g. the hippocampus is represented as a banana). Each character provides an introduction. Linking each brain area to a specific character is a powerful and creative communication style to engage children and assist them in remembering the information better. Also, the introductions are at a good pace without overwhelming the reader with too much information at once, while ensuring enough information is shared to understand the main function of each brain area, as well as their interconnections. At the end of this chapter, the relevant hormones (i.e. adrenaline and cortisol) are introduced with a focus on their role in how you feel. Importantly, this chapter normalizes the function of these brain areas and hormones in how they can make you feel stressed out or feel pain, which is useful but can sometimes go wrong.

This normalizing message is further continued through the chapter *Explaining how pain works*. This chapter does an outstanding job of illustrating the complexity of pain and the critical role the previously highlighted brain areas play in making you feel pain. The focus of this chapter is on how

the brain is a bodyguard and makes you feel pain if it notices any danger. Indeed, the brain receives a large variety of messages from the millions of sensors across our body (called mini-guardians), and needs to make a clever decision on whether you are in danger or not. Crucially, the chapter eloquently stresses, using a wide variety of real-life and relatable examples, that this central role of the brain in making you feel pain to protect you from harm does not mean that the pain is not real.

The subsequent chapter, *When pain doesn't go away*, might be my favorite one as a psychologist, as it illustrates the important role of both positive and negative emotions. In this chapter, the book focuses back on the role of hormones and introduces the reader to two new hormones, the happy hormones oxytocin and endorphins. In particular, the reader is introduced to the vicious cycle in which negative emotions can make your brain think that you are in danger, reduce the function of the happy hormones, and hence make you feel pain. Effective usage of introspective questions (e.g. Why don't you feel safe? What have you learnt from them [parents and family]?) really make the reader reflect on the provided information and apply it to their own experiences. The mix of information provision, examples, a case study and introspective questions, with a perfect balance in focusing on negative and positive emotions/thoughts, is neatly done in this chapter to engage the reader with potentially emotionally difficult messages.

The final chapter is key as it makes sure the reader does not remain hanging with solely an explanation of persistent pain experiences, but provides practical, evidence-based strategies to manage pain. Keeping in line with the storyline used throughout the book (i.e. the brain can get it

wrong and think that we are in danger and hence make us feel pain while we are actually safe), the focus is on how we can make our brain think that we are safe and no longer in danger. A particular strength of this chapter is the thought exercise to make the reader understand what danger thoughts they might have when they are in pain, followed by an overview of safer thoughts for the brain.

Finally, the book ends with a section aimed at parents which provides a summarized, much reduced version, of the explanations provided throughout the book. While this section is appreciated, I feel it also represents the main limitation of the book, as it misses the opportunity to thoroughly explain and underscore to parents how their own emotions, thoughts and behaviors in response to their child's pain can impact their child's pain experiences. While throughout the main part of the book, readers are made aware on various occasions of the important role parents play, I feel that this could have been taken forward more given the growing body of strong evidence on parental influences in the child's persistent pain experiences (e.g. Palermo et al., 2014).

In sum, *My bodyguard brain* is a unique educational tool, available in Dutch and English, that can either be picked up by children (and their parents) to go through on their own or be used by any clinician, regardless of their background or training, to effectively educate children (and their parents) step by step on the complex mechanism that contributes to persistent pain experiences.

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Palermo TM, Valrie CR, Karlson CW. Family and parent influences on pediatric chronic pain: a developmental perspective. *Am Psychol* 2014;69:142-152. [www.ncbi.nlm.nih.gov/pubmed/24547800](http://www.ncbi.nlm.nih.gov/pubmed/24547800)