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## Book review

### Can education about pain be fun, interactive, and accessible?

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**Pate JW (2022). *Zoe and Zak's pain hacks.***

*Book series 1-5.* Adelaide, Australia: Noigroup, 28-40 pp. ISBN 978-0-9873426-2-1 (Hardcover: \$70.00 AUD). [www.noigroup.com/product/zoe-and-zaks-pain-hacks/](http://www.noigroup.com/product/zoe-and-zaks-pain-hacks/)

An established body of evidence points to the utility of pain education as an essential component of treatment for individuals suffering from persistent pain (Harden et al., 2013). Australian-based researchers have investigated factors that should be considered for pain education in pediatric populations (Leake et al., 2019). The NOI group (responsible for the series publication) is a leading provider of resources to support knowledge around pain to clinicians, clients, and the general public. The five-part book series, *Zoe and Zak's pain hacks*, provides education about persistent pain, in addition to basic strategies and actions to take charge of pain, within a child-focused, creatively illustrated, and humorous hard bound package. The authors of this review work in a tertiary pediatric pain service which adopts an evidence-based interdisciplinary approach. The book series has been reviewed through the lens of professional experience, where pain education is provided as part of routine care.

Book 1 – *Zoe Zoppins nails it* commences the series, by introducing the concept of pain as a protective mechanism created by the nervous system. Throughout the book, the belief that pain is representative of tissue damage is challenged, by reframing pain as an experience that is about threat, regardless of whether tissue damage exists. In a fun

and playful manner, the story follows a similar narrative to the case study presented in the British Medical Journal of a man who experienced significant pain without associated tissue damage (Fisher et al., 1995). The book presents existing research which is well-integrated within the world of complex pain, but this information may still be novel to the general public. Clinical experience of using this case study has shown us that this story promotes an appropriate level of curiosity and surprise which is helpful when challenging common misconceptions about pain in a non-threatening manner.

Book 2 - *Zoe Zoppins lights up* extends readers' knowledge of pain by demonstrating the way that there are many contributors to a person's pain. In this book, the retelling of a seminal pain science experiment described in Moseley and Arntz's 2007 paper is used to scaffold Zoe to reflect on her own experience of abdominal pain and anxiety provoking situations. Pain being influenced by many different sensory, emotional, physical, psychological, and environmental inputs is a key component of pain science education for young people (Leake, et., al. 2019) and important in supporting people to develop agency in coping with pain. *Zoe Zoppins lights up* centers on the message that "anything and everything can change pain," and that a person who understands this can make choices that change their pain. This message is clearly delivered through careful use of illustration, character development, and narrative and empirical research. This book centers on just one pain science concept, allowing it to be effective at providing

children and young people with information about the biopsychosocial nature of pain.

Book 3 – *Zoe and Zak's brainy adventure* continues to build on concepts introduced in the previous two books to educate readers on the protective role that pain plays. These concepts are explored through examples of acute and persistent pain, told through the lens of Zoe in relation to her experience with chronic abdominal pain. Throughout these examples, readers are informed that many factors can influence the regulation of protection. Protection through pain is framed as helpful in relation to acute pain and unhelpful in relation to persistent pain, a developmentally appropriate dichotomy, which may be further extrapolated by a skilled clinician.

Book 4 – *Zak Zoppins retrains his brain* focuses on Zoe's cousin, Zak, (introduced in Book 3). By telling the story of Zak, who experiences back pain that can result in him feeling quiet, sad, and angry, the author integrates the cognitive and affective experiences that sit alongside pain. Education through dialogue between the characters demonstrates that acknowledging thoughts and feelings about pain is an important part of reducing the sensitization of a protective nervous system. The information Zak shares is based on his personal experience (and assumedly learning through professional support) about how to use evidence-based strategies, such as pacing, graded return to activity, and relaxation to support recovery (Palermo et al., 2010).

Book 5 – *Zoe Zoppins' action-packed action plan* completes the educational journey and shares the idea of activating strategies across settings to control the volume of pain. Built upon the foundation established in the first four books, this book includes diary entries of Zoe's experiences on different days and how she applied strategies taught through conversations with Zak, her uncle, her grandmother, and other professionals. While some suggestions are simplified and may require further discussion and consideration with the assistance of a clinician, they also present a recovery focused orientation, which supports active strategies to change the experience of pain.

The five books are written in a unified prose, utilizing a combination of first-person dialogue, and

narration. Written in rhyme, Dr. Pate has provided a fun and accessible style to engage both children and adults. The illustrations throughout are bright, simple, and often humorous (a win for any dog lovers!). The typography and illustrations follow recommendations for inclusion of neurodiverse readers. The books cover a variety of complex and novel concepts which we feel are best accessed by younger readers when they are supported by an adult. As clinicians working with many young people presenting with neurodiversity and disabilities, we found ourselves wondering if some young readers would have difficulties visually tracking in response to the unstructured use of speech bubbles.

Following the journey of a female protagonist whose grandma is a STEM superstar helps tackle stereotypes about gender norms and allows children to see themselves in the story. The lack of representation of characters with disabilities may reduce the relatability of the content for readers with disabilities and health conditions. Despite this, providing pain science education in this format takes much of the leg work of age-appropriate engagement out of the equation for time poor clinicians, educators, or parents who are new to the concepts of complex pain.

While the concepts related to understanding pain covered in the books are well-established for those working in this area, they are not concepts widely understood by the general public, especially children. Much like a SunSmart intervention which was driven by public health awareness (Dudley et al., 2015), perhaps it is publications like these that promote grassroots, community-based conversations about pain science. For those experiencing complex pain themselves, reading and discussing these books with an experienced healthcare provider may be a useful avenue to make sense of new, and sometimes challenging ideas that sit in contrast with traditionally biomedical perspectives on diagnosis and health management.

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