

## **i. Title Page**

### **Title:**

Mindset over matter: is parental health mindset an appropriate target for intervention?

### **Running Title:**

Parental health mindset and analgesic dosing

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**ii. Key Words (MeSH)**

Parents

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Pain, Postoperative

### **iii. Main body of text; including Acknowledgements, Conflict of Interest Statement**

Dear Sir,

We enjoyed discussing Kain and colleagues' recent paper at our online journal club.<sup>1</sup> This fascinating cohort study explores the impact of parental mindset in the context of routine ear, nose and throat (ENT) surgery, and demonstrates differences in the perceptions and behaviours of parents with a 'growth' mindset (i.e. the belief that one's skills are malleable and that outcomes can be changed) and those with a 'fixed' mindset (i.e. the belief that skills and consequences are unchangeable). However, there was no difference in the pain scores of the children themselves between cohorts.<sup>1</sup> This raises an important question: is parental mindset an appropriate target for intervention in this setting?

Kain and colleagues' study makes use of baseline and control data from a larger project that aims to evaluate a behavioural program,<sup>1</sup> which although not fully described in their paper presumably incorporates interventions to address parental health mindset. Though it is not explicit which of the two mindsets is thought to be 'better', the growth mindset is associated with tendencies which are conventionally thought of as positive, such as engagement in information-seeking and an empowered approach to health. As such, Kain and colleagues hypothesised that parents in this cohort would be more proactive in managing their children's pain, with associated improvements in recovery. It is therefore somewhat counter-intuitive that those with a fixed mindset actually administered more doses of ibuprofen to their children on postoperative day 1.<sup>1</sup> Whilst this is consistent with the fixed mindset parents' perception that their children's pain

was more severe and their recovery was less complete, it should be noted that the mean pain perception scores amongst parents of both mindsets (9.22 vs 8.17 on the *Parents' Postoperative Pain Measure*) indicate 'clinically significant' pain.<sup>1,2</sup> Furthermore, the mean pain scores in both groups of children on the *Faces Pain Scale – Revised* indicate at least moderate pain on postoperative day 1.<sup>1,3</sup>

We agree that pro-active treatment, including regularly administered analgesic medication, is required considering the severity of the pain as perceived by the parents and experienced by the children in this study. However, in view of the finding that children with parents of a fixed mindset received analgesia more frequently, we wonder how Kain and colleagues' observation that "[because] mindset can be altered, this finding could have a significant impact on managing postoperative pain in children at home" might be translated into practice?<sup>1</sup> If the treatment of post-operative pain is the outcome of interest, it would appear that a fixed mindset amongst parents is desirable despite its somewhat negative connotations. Alternatively, a growth mindset appears to be associated with reduced parental concern, which may of benefit to parents who often experience anxiety around the time of children's surgery.<sup>4</sup> However, this may not best serve the needs of the children themselves. It appears from Kain's data that when intervening to alter parental mindset we may have to decide whose suffering to prioritise, a decision which we feel should always favour the patient. With this in mind we invite Kain and colleagues to comment on whether parental mindset is an appropriate target for intervention around the time of routine ENT surgery, and if so, which mindset should we promote?

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**Conflict of Interest Statement**

The authors have no conflict of interest to declare.

#### **iv. References**

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