

# VR over Matter

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**ABSTRACT**

Medical procedures, like IV insertions and pin removals, may cause pain and anxiety in children. While preventable, high rates of procedural pain persist in hospitals. The use of distraction, such as virtual reality (VR), offers a non-pharmacological approach for pain and anxiety management during medical procedures. More specifically, VR is an immersive technology that brings the user into a three-dimensional world that looks and feels real. The illustration depicts how VR works to decrease pain perception through the analogy of a tug-of-war between pain signaling and VR. During a medical procedure, a child's attention may be focused on the IV poke, increasing pain perception. However, if the child is immersed in a VR game during their medical procedure, the VR pulls the brain's attention away from the IV poke towards an imaginary and pleasant world. As VR is immersive and interactive, it consumes more attention than pain, thereby decreasing pain perception and winning the tug-of-war. Despite the evidence for VR, there is a 20-year gap in the implementation of VR across child healthcare settings. Our team is currently investigating the barriers, facilitators, and contextual challenges for VR use in child healthcare, and in parallel, developing tools to disseminate research evidence and facilitate integration of VR into the standard of care. This illustration serves as a reminder of how VR is thought to help with pain management. To learn more about VR, visit: <https://www.mcgill.ca/virtualrealityforchildcare/>

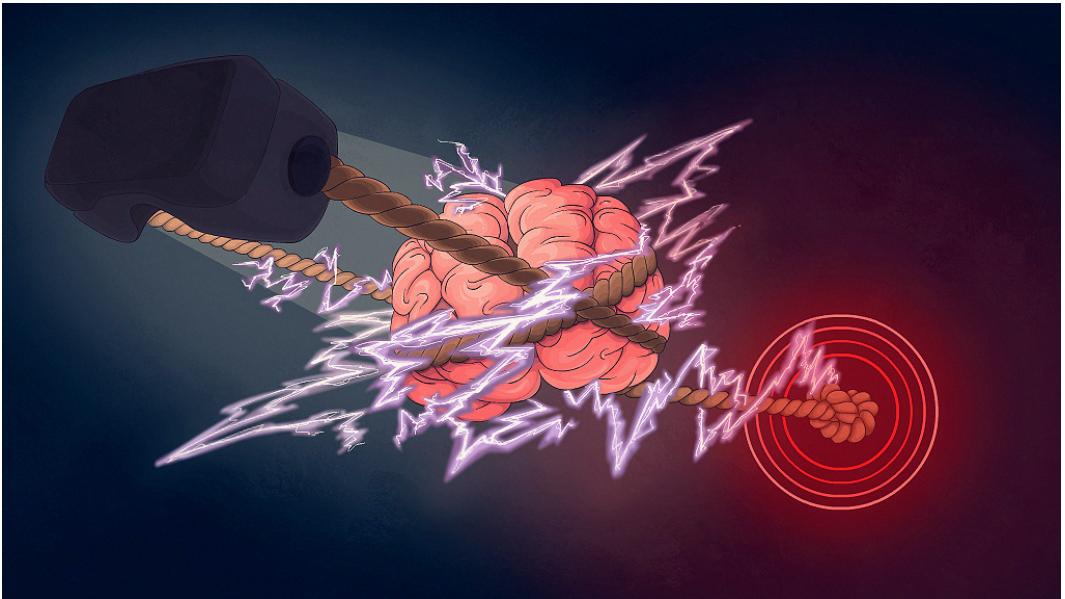
**KEYWORDS**

Virtual reality, Pain, Pain management, Distraction, Art

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**ORIGINAL ARTWORK 1** VR vs Pain