Creative Partnerships: collaborative art and science research to reduce stress and anxiety experienced by children undergoing painful, recurrent clinical procedures

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The result of an evolving three-way partnership facilitated by the Australian Network for Art and Technology (ANAT), with artist Dr George Khut and The Children’s Hospital at Westmead pediatrician Dr Angie Morrow, the BrightHeats project researched the ways the adaptation of biofeedback-based artworks can help manage pain and anxiety experienced by children undergoing painful medical procedures. The project designed, built and tested the use of a biofeedback-assisted relaxation training ‘app’, and its benefits above and beyond current iPad-based ‘distraction’ methods.

Through this creative partnership, artist Dr Khut was provided with insights into the workings of a hospital—where initial design concepts could evolve through observation of the experiences of children, their carers and health professionals. Together the partners explored the efficacy of multimedia interaction as a tool for managing painful procedure related anxiety.

The goal of the interactive artwork is to maintain a lowered heart rate—children are rewarded with sounds and visuals that respond to decreases in heart rate over different periods of time (i.e. changes that they can influence with their breathing, and longer term changes that require relaxation). The BrightHearts approach combines standard distraction methods with the principals of biofeedback relaxation training—focusing children’s attention away from the object of their anxiety and fear, and helping them to develop skills for observing and regulating their response during painful procedures.

Partnerships such as these increase recognition amongst artists, scientists, researchers and government agencies of the value of collaborative art and science research. The partnership between ANAT, Dr Khut and the Children’s Hospital at Westmead's Dr Morrow, has provided a platform to develop creative arts practice in health care settings and ultimately to improve the experiences of children in hospital. This partnership was recognised as the national recipient of the Arts and Heath Foundation Award at the 2012 AbaF Awards.