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Overview

- An interdisciplinary, neuroscience-informed approach to creating training materials and resources for educators to use as they develop skills in using therapeutic arts/music with children
- Key aspects:
 - Workshops and materials on incorporating arts-based approaches in the classroom
 - Research to Practice - A neuroscience-informed approach to understanding music, the brain and children
 - An understanding of the role of relational learning in supporting children from adverse backgrounds



Photo by Viggo Krüger

Background

STALWARTS (Sustaining Teachers and Learners With The Arts), an Erasmus+ funded project, was an innovative cross-sectoral higher education project based in 5 European countries: Estonia, Italy, Norway, Portugal and the UK. It brought together inter-disciplinary professional groups: university researchers in education, some with specific expertise in cognitive neuropsychology, school-based teachers and educators; and music and creative arts therapists/trainers to create a programme of training modules and materials for those working with children and young people affected by adverse life conditions, including early childhood trauma.

Young people with adverse childhood experiences face multiple challenges in education. Teachers of any subject and others involved in supporting children need to be empowered to use arts-based therapeutic approaches in developing their professional practice. A primary initiative in STALWARTS was the introduction of theoretical underpinning and relevant measures relating to the impact of music and the arts on affective and cognitive function, using a neuroscience-informed approach. Effects of trauma were considered by highlighting studies finding that early adverse experiences can lead to dysregulation of the stress response, hyperactivation of the amygdala and reduced activation in areas of the prefrontal cortex (e.g., Park et al., 2018; Tottenham & Galvan, 2016).

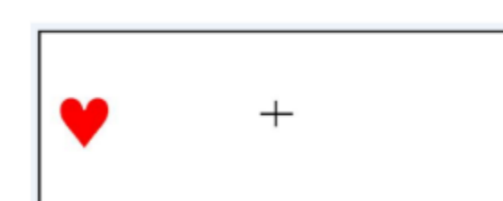
Approach

- Sharing of practical and theoretical materials at international meetings between teachers, therapists and researchers across 5 European countries
- A series of training sessions/teaching modules were developed between universities and schools over two years. These used a combination of in-person workshops and distance learning. Materials were developed for educators to develop their confidence in using music and arts approaches; and was the basis for a therapeutic approach.
- Neuroscience-informed enquiries and reflections
 - Background (music and the brain, attachment and trauma, ethics)
 - Measures and approaches for teachers to use for the enquiries

Measures used for enquiries

Executive Functions and Affect	Hearts and Flowers (Wright & Diamond, 2014; Positive and Negative Affect Scale for Children (PANAS-C; Laurent et al., 1999); Self-regulation Questionnaire (SRQ, adapted from Novak & Clayton, 2001)
Classroom Behaviours	Child Behaviour Rating Scale (CBRS; Bronson, Goodson, Layzer & Love, 1990)
Flow	LINK Flow observation; Flow short-scale (Rheinberg, Vollmeyer, & Engeser, 2003)

Heart condition (congruent, press the same side)



Flower condition (incongruent, press the opposite side)



Example Schedule for an enquiry

Focus: Executive Functions in young people, self-regulation in educator

Week	Educators	Children/Young People
Week 0-1:	SRQ	Flower-Heart task
Week 2-3		Music Activities Flow short-scale
Week 2-3 post session	SRQ	Flower-Heart task



Example of a Neuroscience-informed enquiry

Problem identified	Children from a trauma/adversity background may have difficulties with self-regulating. This can be particularly pronounced during transition times.
Focus of Enquiry	Music, Movement and Self-regulation
Method	Use of a sound-based intervention at the beginning and end of a therapy sessions over 10 weeks. Outcomes: Self-regulation questionnaire, Child Behaviour Rating Scale.
Findings and Reflection	Found that self-regulation increased over time. Children that they were able to show further confidence in regulating their emotions. Young people were observed using the sensory strategies in the classroom. The young people and educators enjoyed doing the activities together – building relational learning.

Outcomes and Next Steps

Modules/training programmes ran across 5 countries. Over 100 neuroscience-informed enquiries were conducted by the teachers and educators over the two-year period. Exploring neuroscience-informed approaches to trauma, combined with therapeutic models and approaches, and the application of the work to professional practice was viewed as especially beneficial to interdisciplinary working. It was also noted that the experience was more challenging and more important than initially expected.

Future educators and students at the school will continue to benefit from the findings of the enquiries. The university team identified ways to enhance the distance learning approach used and also adapt the materials for multiple education backgrounds. Materials developed during STALWARTS will continue to be offered at the HEIs involved in the project and other universities.

The UK school reported that participating in the training furthered the school's understanding of their developing roles in the field of education and therapeutic provision. A strength of the project was the balance between practical and theoretical perspectives, particularly in terms of neuroscience-informed approaches. The school's commitment to working with the university and continually developing their knowledge and professional practice was reflected in their recent Ofsted rating of 'Outstanding' - *'Practice by staff is recognised by social workers as exceptional, and learning is shared across the sector and internationally. For example, senior leaders recently presented their findings from their practice model to a European study group.'*

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