



# An Investigation into the Impact of the Weaving Well-being Tools of Resilience Programme on Primary School Children's Self-Efficacy and Emotion Regulation

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## 1. Abstract

**Background:** With referrals to child and adolescent mental health services in Ireland rising, the Department of Education and Science (DES) stipulated that by 2023, universal, evidence-based programmes should be delivered in all schools to teach core social and emotional skills (DES, 2018; HSE, 2014). Resilience-based social and emotional learning programmes aim to increase protective factors and promote development of coping strategies (Fergus & Zimmerman, 2005).

**Aims:** The research study examined the impact of the universal Weaving Well-Being Tools of Resilience (WWTOR; Rock & Foreman, 2016) programme on children's self-efficacy and emotion regulation.

**Method:** Data from pre and post measures of emotion regulation and self-efficacy were collected from 100 fourth class students. Semi-structured interviews were conducted with eight children and four teachers.

**Results:** No changes were found in the quantitative data for the intervention group at post-intervention. Some children and teachers reported improved emotion regulation following participation.

**Findings:** The quantitative data demonstrated no post-intervention effects on children's self-efficacy and emotion regulation. However, the qualitative data indicated teachers and children's perceived improvements in emotion regulation.

## 2. Literature review and rationale

Data from the 2016 Healthy Ireland annual survey indicated that mental health difficulties were most common among 15-24 year olds with 16% of females reported to experience mental health difficulties (Department of Health [DoH], 2017).

A lack of available specialist mental health services exists for children and young people (CYP) in Ireland (Coyne, McNamara, Healy, & Gower, 2015).

Resilience-based universal programmes (RBUPs) aim to increase protective factors and nurture the development of coping strategies and adaptive mental health (Fergus & Zimmerman, 2005).

Statistically significant increases in coping, social functioning, social skills and emotion regulation have been reported subsequent to the implementation of RBUPs (Harlacher & Merrell, 2010; Holen et al., 2012; Novak et al., 2017; Mishara & Ystgaard, 2006).

Subgroup analyses conducted in two studies reported statistically significant increases in pro-social behaviour in children at lower risk for developing mental health difficulties and increases in active coping strategies in girls were found (Novak et al., 2017; Holen et al., 2012).

## 2. Literature review and rationale

The present study was the first study that evaluated the effectiveness of the culturally sensitive WWTOR programme.

**Table 1** Weaving Well-being Tools of Resilience coping strategies

Lesson	Coping strategy
Lesson 1	Understanding resilience
Lesson 2	Perspective taking
Lesson 3	Healthy distraction
Lesson 4	Problem solving
Lesson 5	Cognitive reframing
Lesson 6	Character strengths
Lesson 7	Mindfulness
Lesson 8	Mindfulness
Lesson 9	Mindfulness
Lesson 10	Name, Accept, Breath, Body

## 3. Research questions

- What effect if any, does the WWTOR programme have on children's self-efficacy?
- Taking self-efficacy into account, what effect if any, does the WWTOR programme have on children's emotion regulation?

## 4. Methodology

**Intervention:** The WWTOR programme is for fourth class children. It aims to increase self-efficacy and emotion regulation by teaching children positive psychology and cognitive-behavioural therapy strategies (Rock & Forman, 2016).

**Design:** A non-randomised, repeated measures quasi-experimental design.

**Paradigm:** A pragmatic paradigm using a mixed methods approach was used in the study. Employing both quantitative and qualitative research methods yields more robust research findings and allows for triangulation of the data (Bryman, 2016).

A lack of studies exists that explore children's perspectives about teacher led, RBUPs. The present study employed semi-structured interviews to gather data about children's experiences of the WWTOR programme.

**Sample:** 100 participants from six schools in Dublin. 54% female. 55 - intervention group.

## References

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Holen, S., Waaktaar, T., Lervåg, A., & Ystgaard, M. (2012). The effectiveness of a universal school-based programme on coping and mental health: a randomised, controlled study of Zippy's Friends. *Educational Psychology, 32*(5), 657-677

Health Service Executive (HSE) 2014. *Fifth Annual Child and Adolescent Mental Health Service Report 2012-2013*. Dublin: HSE

## 4. Methodology

**Data collection:** Data from pre and post measures of emotion regulation and self-efficacy were collected using the Cognitive Emotion Regulation Questionnaire Child Version and the Self-Efficacy sub-scale of the Resiliency Scales for Children Adolescents (Garnefski, Rieffe, Jellesma, Terwogt, & Kraaij, 2007; Prince-Embury, 2007).

Semi-structured interviews were conducted with eight children and four teachers from the intervention group.

**Data analysis:** Thematic analysis was used to analyse the qualitative data from the teacher and child semi-structured interviews (Braun & Clarke, 2006). This method enabled the researcher to gather rich and detailed data and allowed the voice of the child to be included in the study. SPSS Statistics Version 26 was used to analyse the quantitative data.

**Monitoring and evaluating fidelity:** Teachers completed self-report fidelity checklists. These were cross-referenced with fidelity checklists completed by the Researcher who observed teachers delivering three programme lessons. Inter-rater reliability was 90%.

## References

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Novak, M., Mihic, J., Basic, J., & Nix, L. R. (2017). PATHS in Croatia: A school-based randomised controlled trial of a social and emotional learning curriculum. *International Journal of Psychology, 2*, 87-95.

Rock, M., & Foreman, F. (2016). *Weaving Well-Being 6th Class Empowering Beliefs Teacher Resource book*. Dublin: Outside the Box Learning Resources Ltd.

## 5. Results

No changes were found at post-intervention in children's self-efficacy and emotion regulation.

Teachers and children reported improvements in emotion regulation. Due to the small sample of participants that were interviewed, the perceived improvements cannot be generalised to the wider population.

Results of the ANCOVA indicated that self-efficacy contributed to three per cent of the variance in emotion regulation.

## 6. Discussion

No post-intervention changes were found subsequent to programme implementation. This result is consistent with the findings of a minority of studies in this area that found no intervention effects at post-intervention and or follow-up (Malti et al., 2011; Vashti et al., 2016).

A factor that may have adversely impacted the findings was that the study was underpowered. A G power analysis indicated a sample of 158 was required to detect an intervention effect.

Participants had adequate pre-intervention levels of self-efficacy and sometimes or regularly used adaptive and maladaptive cognitive coping strategies indicating a ceiling effect may have been present.

Replication of the study is required with a more robust research design that includes the random selection of schools, a larger sample size and a follow-up assessment of outcome variables.

## 7. Conclusion

Many children have adequate levels of mental health and social and emotional competence (Fenwick-Smith, Dahlberg, & Thompson, 2018).

The findings from the present study indicates that children do not always benefit from RBUPs. Children displaying some initial difficulties tend to benefit the most from universal preventive interventions (Novak, 2017). An approach that involves screening children to identify those that are beginning to experience difficulties with their emotional well-being and including them in targeted interventions may be more beneficial than applying a universal approach.