

Introduction

Resilience, the ability to overcome adversity and effectively recover from stressful experiences, is a complex theory with many contributing factors.

Previous studies have shown that condition-specific summer camps for children with chronic health conditions increase resilience and adaptive coping skills, change attitudes toward the illness, and improve quality of life. Further research indicates that some modifiable resilience factors to improve children's health outcomes include fostering positive appraisal styles, supporting maternal mental health, and bolstering executive function.

Objective

The aim of this study was to determine how neuropsychiatric comorbid diagnoses such as attention deficit hyperactivity disorder (ADHD), learning disability, and anxiety disorder influence the resilience of children with chronic health conditions.

Setting

Brainy Camps of Children's National is a consortium of residential summer camps for children with chronic health conditions.

Chronic health conditions served at Brainy Camps:

- Autism
- Cerebral Palsy
- Congenital Heart Disease
- Epilepsy
- Neurofibromatosis
- Sickle Cell Anemia
- Tourette's Syndrome
- Type 1 Diabetes

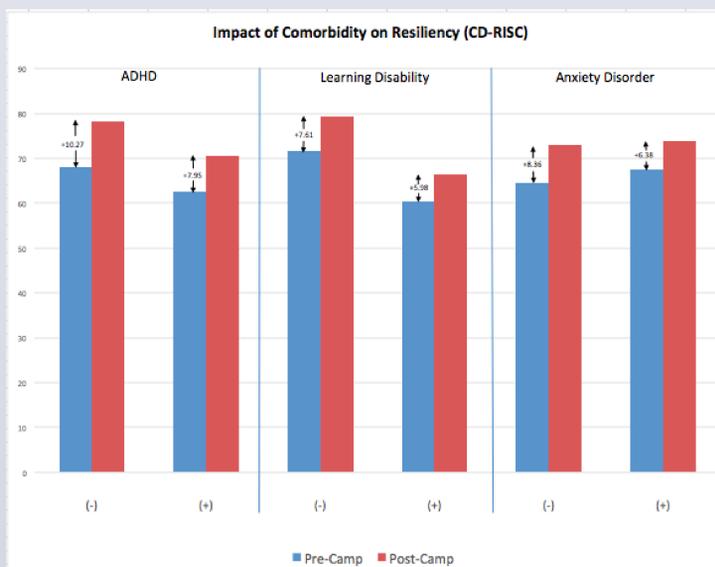


Methods

- Children with one or more of the listed chronic health conditions attended Brainy Camps of Children's National and participated in this study between 2010-2016.
- Sixty-seven participants ages 7-17 completed the Connor-Davidson Resilience Scale (CD-RISC) questionnaire pre- and post-camp.
- Parents of participants reported presence of comorbidities including ADHD, learning disability, and anxiety disorder.
- Averages for pre- and post-camp CD-RISC scores were taken for participants with ADHD, learning disability, or anxiety disorder, and were compared to scores for control participants without each comorbidity.

Results

Comorbidity (+/-)	Number of campers (n)	Pre-camp CD-RISC Score	Post-camp CD-RISC Score	Change in CD-RISC Score
ADHD (-)	35	68.09	78.36	+10.27
ADHD (+)	32	62.53	70.48	+7.95
Learning Disability (-)	30	71.63	79.24	+7.61
Learning Disability (+)	37	60.41	66.39	+5.98
Anxiety Disorder (-)	47	64.55	72.91	+8.36
Anxiety Disorder (+)	20	67.5	73.88	+6.38



Conclusions

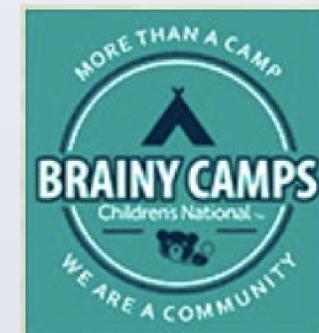
- These findings demonstrated a positive shift in resilience for all participants with chronic health conditions who attended Brainy Camps.
- However, the results indicated larger improvements in resilience for participants without comorbid diagnoses of ADHD, learning disability, or anxiety disorder.

Discussion

Children with chronic health conditions who also have neuropsychiatric comorbidities have more challenges developing resilience.

One limitation of this study is possible false reporting of comorbid diagnoses from parents.

Further research is needed to explore how other factors, in addition to comorbidities, influence resiliency of children with chronic health conditions, and how interventions such as residential camps can also impact self-management and health outcomes.



References

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