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Promoting Social, Emotional, and Behavioral Development for Children in a School Setting using Target Occupational Therapy Intervention

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BACKGROUND & PURPOSE

- Children who experience trauma have a disadvantage when it comes to the school setting.
- Trauma, especially when it is complex, can have many negative effects on the development of the brain and occupational performance of children (Fraser et al., 2019).
- It was reported that more than two thirds of children have experienced a traumatic event by age 16 (Fondren et al., 2020).
- One aspect that trauma can impact in children is their self-regulation skills. Numerous studies have shown that a child's ability to self-regulate predicts their academic performance (Fondren et al., 2020).

Purpose Statement: The purpose of this capstone project was to gain in-depth clinical experience working with children who have experienced trauma in a school setting by implementing an emotional regulation program.

THEORETICAL FOUNDATION

Public Health Approach to Mental Health

This model focuses on children's mental health by supporting health and participation in life through engagement in occupation (Bazyk & Arbesman, 2013). There are three tiers of service that can be provided. The capstone project utilized mainly tier two (targeted) and tier three (individualized) approaches.

Trauma-Informed Care

This model focuses on providing care to children while considering trauma that they have experienced (SAMHSA, 2014). A specific trauma-informed care approach is Trust-Based Relational Intervention® (TBRI). The TBRI® model focuses on promoting cognitive, behavioral, and emotional development of children who have experienced trauma. The three main principles are empowerment, connecting, and correcting to help promote healing and growing healthy relationships (Purvis et al., 2013).

METHODS

- The capstone project was supported and mentored by the Northwest Area Education Agency in Iowa.
- **Participants:** The program consisted of 59 students from two elementary schools between transitional kindergarten and 5th grade.
- **Procedure:** All participants were sent home with an informed consent form. Emotional regulation small groups met weekly for 30 minutes for 11 to 12 weeks. A combination of TBRI® Nurture Group©, How Does Your Engine Run, interoceptive awareness, and emotional regulation interventions were used throughout the project to help promote development of emotional and self-regulation skills. Educational flyers were placed in the teachers lounge every other week with information related to emotional regulation and trauma.
- **Outcome measure:** Teachers filled out a Strength and Difficulties Questionnaire pre- and post-program about their beliefs of the student's occupational performance. It is a 25-item questionnaire that is divided into six scales. The scales include emotional symptoms, conduct problems, hyperactivity, peer relationship problems, prosocial behavior, and emotional behavioral difficulties (YouthinMind, 2022). Written reports were used to document teacher reports of different difficulties that children with trauma experience in a school setting.
- Additionally, this project focused on complementing any existing prevention and intervention efforts targeting at-risk students and the students who have already been identified as being impacted by trauma.

RESULTS

- The paired samples t-test compared the responses from teachers of the student's perceived emotional and behavioral responses pre- and post-program showed statistical significance for reducing the total difficulties score, hyperactivity, and emotional behavioral difficulties (see table 1).
- The independent samples t-test compared the pre- and post-intervention questionnaires separately. The results were statistically significant for reducing emotional behavioral difficulties (see table 2).
- Therefore, there was a reduction in hyperactivity, emotional behavioral difficulties, and overall total difficulties and there was not a reduction in emotional symptoms, conduct problems, peer relationships, and there was not an increase in prosocial behaviors for the SDQ t-test.
- Development of 12 modules using TBRI, interoceptive awareness, and How Does Your Engine Run.
- Created 7 educational flyers with the topic areas of emotional and self-regulation, arousal levels, sensory adaptation, and childhood trauma to educate school staff.

Table 1. Elementary Student's Pre and Post SDQ, Paired Samples

| Subscale | Pretest (n=57) | | Posttest (n=57) | | 95% CI for Mean Difference | t | p |
|-----------------------------------|----------------|------|-----------------|------|----------------------------|------|--------|
| | M | SD | M | SD | | | |
| Total Difficulties Score | 10.72 | 6.22 | 9.19 | 5.59 | .35 to 2.70 | 2.61 | 0.01 |
| Emotional Symptoms | 2.00 | 2.04 | 1.70 | 1.92 | -0.16 to 0.76 | 1.30 | 0.19 |
| Conduct Problems | 2.07 | 2.15 | 1.65 | 1.72 | -0.02 to 0.86 | 1.93 | 0.06 |
| Hyperactivity | 4.51 | 3.14 | 3.98 | 2.66 | 0.00 to 1.05 | 2.02 | 0.047 |
| Peer relationships problems | 2.11 | 1.78 | 1.89 | 1.79 | -0.20 to 0.62 | 1.04 | 0.30 |
| Prosocial behavior | 6.42 | 2.34 | 6.47 | 2.25 | -0.62 to 0.51 | 0.19 | 0.85 |
| Emotional behavioral difficulties | 1.96 | 1.74 | 1.23 | 1.64 | 0.30 to 1.18 | 3.34 | 0.0015 |

Note: Mean values for each of the subscales are shown both pre- and post-test, as well as the results of t tests comparing scores before and after participation in emotional regulation groups.

Table 2. Elementary Student's Pre and Post SDQ, Independent Samples

| Subscale | Pretest (n=57) | | Posttest (n=57) | | 95% CI for Mean Difference | t | p |
|-----------------------------------|----------------|------|-----------------|------|----------------------------|------|------|
| | M | SD | M | SD | | | |
| Total Difficulties Score | 10.72 | 6.22 | 9.19 | 5.59 | -0.67 to 3.72 | 1.38 | 0.17 |
| Emotional Symptoms | 2.00 | 2.04 | 1.70 | 1.92 | -0.44 to 1.03 | 0.81 | 0.42 |
| Conduct Problems | 2.07 | 2.15 | 1.65 | 1.72 | -0.30 to 1.14 | 1.15 | 0.25 |
| Hyperactivity | 4.51 | 3.14 | 3.98 | 2.66 | -0.55 to 1.61 | 0.97 | 0.34 |
| Peer relationships problems | 2.11 | 1.78 | 1.89 | 1.79 | -0.45 to 0.87 | 0.63 | 0.53 |
| Prosocial behavior | 6.42 | 2.34 | 6.47 | 2.25 | -0.91 to 0.80 | 0.12 | 0.90 |
| Emotional behavioral difficulties | 1.96 | 1.74 | 1.23 | 1.64 | 0.11 to 1.36 | 2.33 | 0.02 |

Note: Mean values for each of the subscales are shown both pre- and post-test, as well as the results of t tests comparing scores before and after participation in emotional regulation groups.

DISCUSSION

- Increased time for sessions throughout the school year could allow more time for increased SDQ scores.
- Continued engagement and participation from the students was believed to be from mixing up the topics of the weekly sessions.
- Program had the ability to serve more grades at the schools but was unsuccessful in expanding to more students.
- Minimal traffic in the teacher's lounge led to a lack of knowledge about the educational flyers.
- Capstone experience provided a good foundation for the students and teachers with the awareness that continued education is needed for both.

IMPLICATIONS

- Occupational therapists have the unique skill set to teach children how to take input from their environment, process it, and produce a productive output.
- Recommend more targeted emotional regulation intervention with students who have experienced trauma.
- Recommend more support and education to teachers. Many educators lack the knowledge of how trauma can impact a student which can lead to misunderstanding the student.
- Students were provided with more tools to identify their feelings, regulate their emotions with calming strategies, and to understand their body more.

REFERENES

Please scan QR code for list of references.

