

The Benefits of Yoga for Enhancement of Self-Regulation: A Case Report

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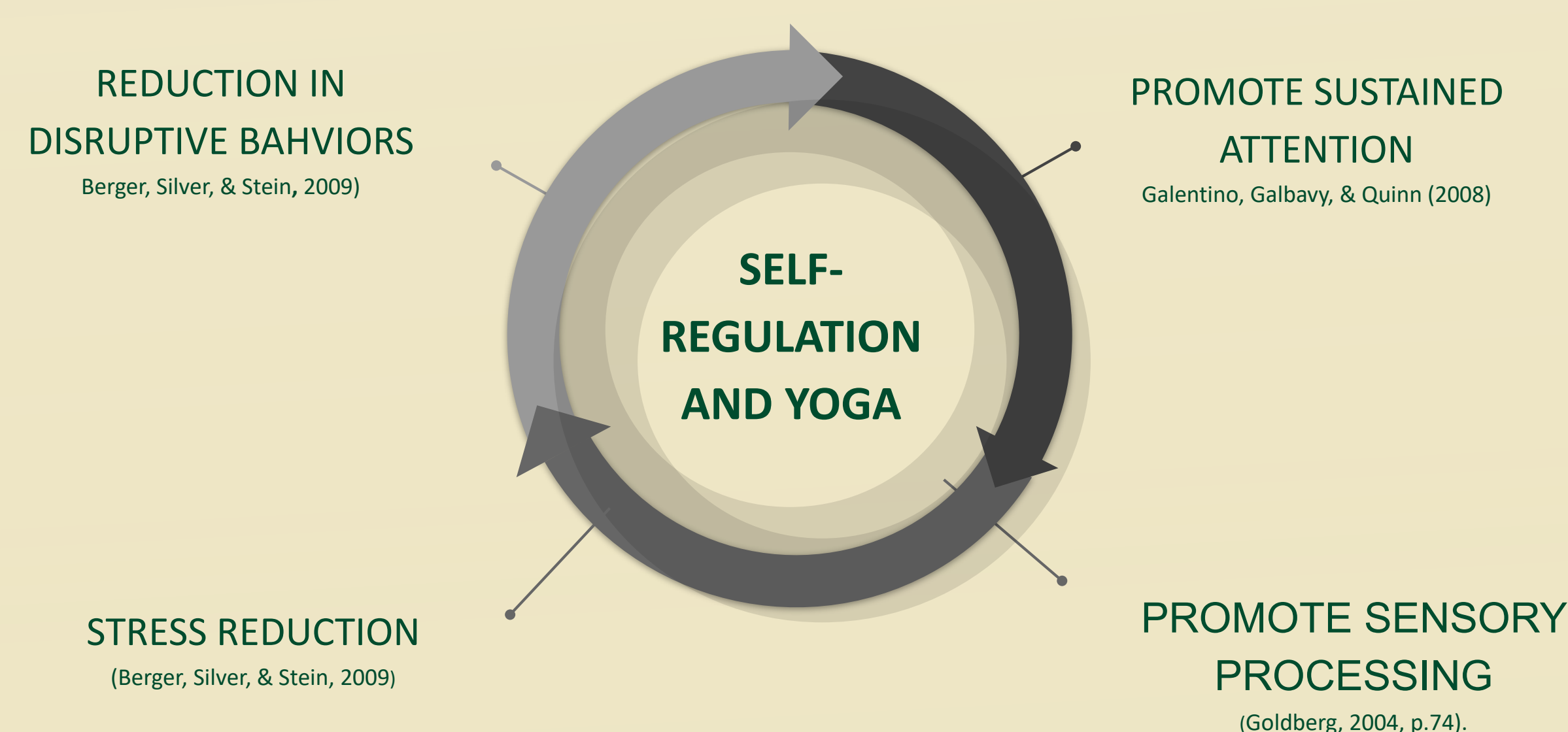


Introduction

Rosanbalm and Murray (2017) describe self-regulation as "the act of managing thoughts and feelings to enable goal-directed actions" (p.1). When maladaptive integration of the emotional and cognitive systems occur, it affects "how children experience, express and regulate emotional responses," (Wyman et al., 2010, p.3) resulting in emotional dysregulation. This dysregulation can impact a child's ability to engage productively within varied environments and relationships, as it leads to poor impulse control, significant emotional reactions, and difficulty meeting task demands. Valkanos, Huber-Lee, and Cahill (2016) state that "poor self-regulation can lead to frequent off-task behaviors, aggression, poor academic outcomes, and restricted social participation" (p. 7). Thus, self-regulation is a critical component for academic success and overall well-being. The purpose of this project is to explore the integration of current best evidence on the use of yoga into the existing plan of treatment for a child presenting with emotional dysregulation to examine the benefits of a structured daily yoga routine. The participant was a 5-year-old female who presented with poor social-emotional regulation resulting in frequent big, upset reactions to seemingly little stimuli during daily activities. Per the Sensory Profile-2 (Dunn, 2008), she demonstrated probable differences in multisensory processing and her emotional/behavioral responses to sensory processing.

Literature Review

Fourteen research articles from national journals in the fields of occupational and yoga therapies were included in the review using the search terms "yoga" AND "self-regulation" AND "children". Study designs included one meta-analysis, three systematic reviews, one randomized controlled trial, five quasi-experimental pre-posttest designs and four correlational designs. Articles revealed four common themes of yoga's ability to promote positive emotional-behavior changes, increase sustained attention, reduce stress, and provide organizing sensory information.



Method

The participant engaged in a structured daily yoga routine, five days per week for three weeks, in the home environment. The yoga routine followed a video format including a sequence of physical postures, breath regulation and mindfulness techniques. Specific components are included in table 1. Measures included a pre and post comparison using the home-grown Self-Regulation Questionnaire and a qualitative, semi structured interview completed after intervention with the participant's mother. Attendance at yoga sessions was recorded daily on a participation log by the participant's mother.

Table 1: Yoga Intervention

Warm-Up	Postures	Breath Regulation	Mindfulness
a. Criss Cross	a. Warrior Pose	a. Inhalation:	a. Laying Supine:
b. Cross Body Reaches	b. Forward and Backward Rolling	Breath in through the nose	focused on the air coming in and out, watching the thoughts pass by
	c. Tree Pose	b. Exhalation:	
	d. Cat and Cow Pose	Breath out through the nose	
	e. Downward Dog		
	f. Forward and Backwards Bends in Standing		

Results

The participant's parent reported on the child's self-regulation via the home grown Self-Regulation Questionnaire (SRQ) pre and post yoga intervention (Bandy & Moore, 2010). The parent rated how true a series of statements were regarding the child's emotions, behaviors, cognition and attention on a 5-point Likert scale ranging from (1) all of the time, to (4) none of the time, or (5) n/a. Items were summed with lower scores representing better regulation skills. Scores are represented in Table 2. Qualitative findings from parental interview revealed decreased occurrence of emotional outbursts during daily activities and improved flexibility with changes in expectations.

Table 2: Self-Regulation Questionnaire

	Pre-Intervention	Post-Intervention
Emotions & Behaviors (14 Items)	37	30
Cognition & Attention (11 Items)	29	25
SRQ Total Score (25 Total Items)	66	55

Summary

Many affirmative benefits are cited on yoga's effectiveness in promoting self-regulation skills in children through reducing maladaptive behaviors, improving focus and attention and providing sensory input (Ehleringer, 2010; Goldberg, 2004; Pascoe & Bauer, 2015). In conjunction with typical occupational therapy intervention, the daily yoga intervention was beneficial for the participant with emotional dysregulation in promoting improved self-regulation skills in regards to improving emotional regulation and decreasing behavioral outbursts. Incorporating yoga techniques including physical postures, breath regulation, and mindfulness techniques shows potential to support healthier overall well-being and improved participation in daily activities for the participant. Increased time engagement in the yoga program may be beneficial for the child to experience greater advancements in self-regulation.

References

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