

Implementing a Sensory Room for Preschoolers

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BACKGROUND

In the United States, up to 3 in 1,000 infants are born with varying degrees of hearing loss⁷. There are four main types of hearing loss: conductive, sensorineural, mixed, and auditory neuropathy spectrum disorder (ANSD). Conductive hearing loss occurs when there is a problem in the outer or middle ear. This can range from a blockage in the ear canal to missing structures. Sensorineural hearing loss occurs when there are issues with the inner ear and or the auditory nerve. The cells within the inner ear can be damaged causing partial or full hearing loss. Mixed hearing loss is when there is both conductive and sensorineural hearing loss. Auditory neuropathy spectrum disorder or ANSD occurs when there is a problem with the transmission of the auditory signal from the auditory nerve to the brain. The impacts of partial or complete hearing loss can be profound. Studies have shown that hearing loss is associated with atypical language development and difficulties in visuospatial processing, visuomotor skills, and motor development⁶. In a study conducted by Bharadwaj, Daniel, and Matzke, there was a significant correlation between children who had cochlear implants due to hearing loss and atypical sensory processing leading to a diagnosis of sensory processing disorder (SPD)¹.

PROGRAM DETAILS

A sensory room was created at the Boystown Center for Childhood Deafness, Language and Learning. The preschool program is an early education childhood program that aims to provide a comprehensive educational program for children ages 3-5 years who are deaf or hard of hearing. The program consists of educators and specialists who not only provide the standard preschool curriculum but also deliver listening and spoken language and sign-based instruction¹⁰. Working with local occupational therapists, the director of the preschool ordered materials for the new room based on the OTs' recommendations. With the sensory room materials already provided, the aim of this program was to begin implementing the sensory room to fit the specific needs of the preschool.

FOCUSED QUESTION

How does one implement a sensory room to benefit preschool aged children who also have a hearing deficit?

METHODS

1. The materials that were already provided were assessed, categorized, and organized.
2. The room was set up for optimal use and safety.
3. All items that could be used were photographed. These pictures were then printed and laminated to create a picture board. Due to some of the students having limited language skills, a picture board of items they can pick from was used to increase the student's autonomy.
4. A list of emotions with pictures of children expressing the emotion were also printed and laminated. The children were asked to "check-in" before each session and before they left. This helped assess the child's mood before and after as well as teach the children healthy ways to express their emotions.
5. Each classroom was observed to assess how the children behaved in their classroom environment as well as note sensory modulation programs already in place in the classroom.
6. The teachers and staff were asked to provide a list of students they believe would benefit from the sensory room. Additional children were added based on classroom observations.
7. Each child's file was obtained to provide additional information about possible IEPs and OT goals.
8. A schedule was created for children who would benefit from daily sessions in the sensory room and open time was made for any child who might need a break.
9. This schedule has been revised as needed based on the needs of the children
10. New items have been added to the room to provide for the children's unique and individual needs.

RESULTS

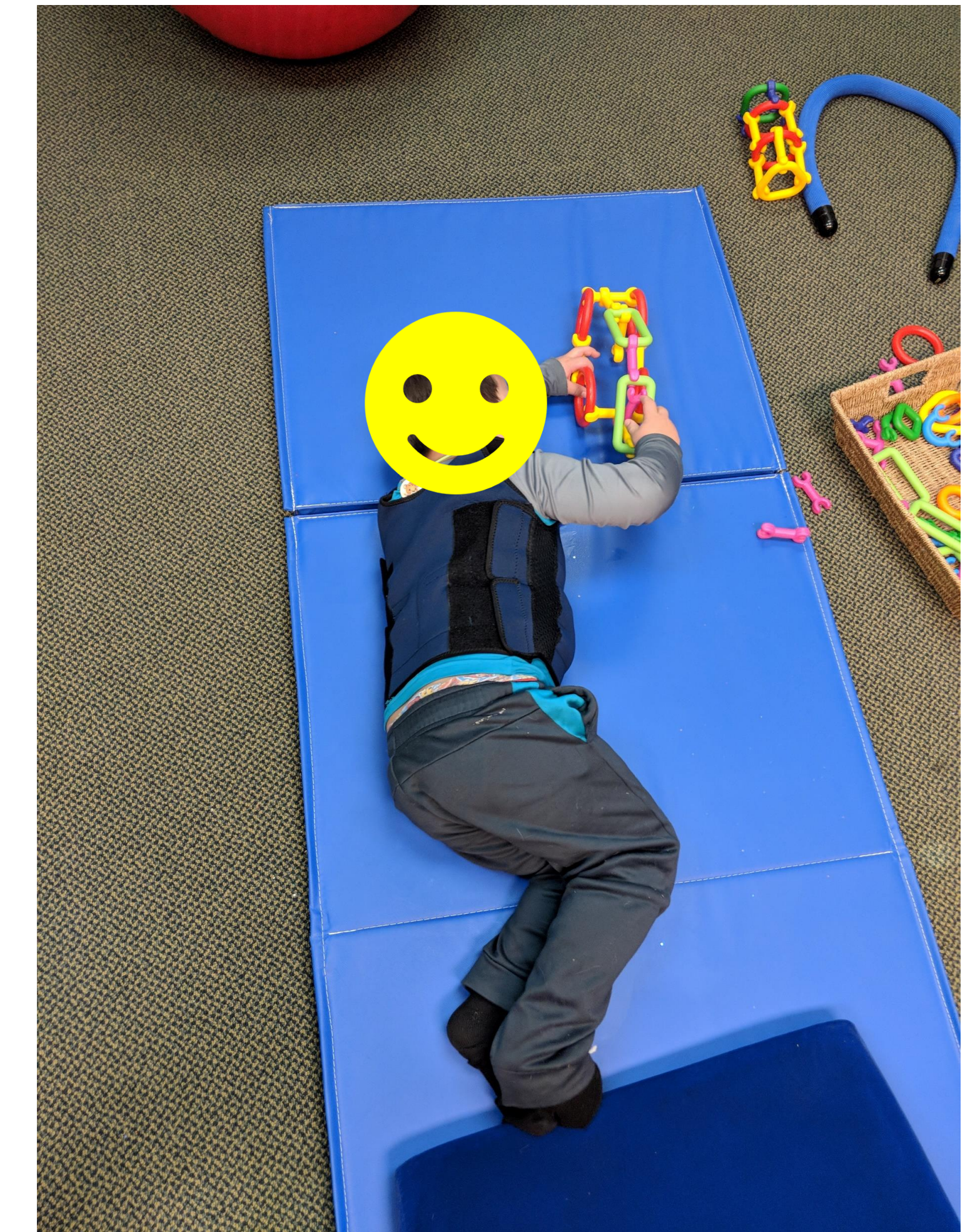
No formal before and after standardized assessments were done regarding the sensory room. However, observational data was collected from teachers and staff. They commented that the students who had a scheduled time in the sensory room had increased positive behavior in the classroom.

"When E when comes to the art room he is more focused and has less incidents of aggression with other students. M's behavior has also improved in art as well. Many times he pulls out the sensory room picture but accepts when we put a wait card on it for you are busy with another student. I have been impressed that he is accepting and will wait which I feel is because there is a regular routine that he knows he will get to work with you."

The teachers and staff were trained on how to utilize the equipment in the sensory room. They have also been educated on behavioral cues a child might give to indicate they need a sensory break. The school is intending on continuing using the sensory room and they are looking to hire an occupational therapist to help maintain the program.

BOTTOM LINE FOR OT

Historically, OTs have been the leading professionals in evaluating and treating those with sensory integration (SI) difficulties². OTs use both remedial and compensatory strategies to make interventions plans to improve children's performance and increase participation in home, school, and community environments⁴. A sensory room is one such tool to aid children who have SI difficulties. This type of room can be used in a varying environments, including the school setting⁶. Providing a space to help a child regulate their senses while also working on teaching the child ways to recognize and communicate that they are having difficulties regulating their senses can increase the child's participation in the classroom as well as aid in their social play in the school setting⁸. There are other means to help a child become more successful in the classroom such as weighted vests, changing the lighting in the room, or changing the surface the child sits on⁹. These can be used in conjunction to the sensory room. Ultimately, a sensory room should be used to aid the child in the moment while also educating them on how to become more independent in regulating their emotions. It is vital to be cognizant of the time each child spends in the room. A balance should be maintained to allow the child time to regulate their senses and emotions while still having them participate in the classroom setting as much as possible². As with most intervention, a sensory room is not a one-time fix or the only strategy to be used. To fully support and help the child succeed, an array of strategies should be used to fully and holistically treat the child⁵.



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