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Strategies For Campers With Sensory Challenges

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STRATEGIES FOR CAMPERS WITH SENSORY CHALLENGES

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Abstract

The OTS partnered with a summer camp agency to understand their needs for camp programming. The executive director informed the OTS that this camp would benefit from programming recommendations as they would like to be more inclusive toward campers of all abilities. Pfeiffer, Clark, and Arbesman (2018) explain that sensory challenges can exist in children/adolescents with or without an existing diagnosis. Children and adolescents who have difficulty regulating and responding to sensory input impedes their ability to participate in meaningful occupations. The OTS decided to provide the agency with programming recommendations to serve campers with sensory challenges in order to achieve the camp's goal of increasing inclusivity. Having strategies in place for campers with sensory challenges will help to improve occupational engagement and improve one's overall camp experience.

The OTS utilized the person-environment-occupation model (PEO) (Law et al., 1996) and Dunn's Model of Sensory Processing (1997) to provide this agency sensory based strategies for campers. The results of this DEP included the dissemination of a staff education packet intended to educate camp staff on the importance of considering camper's sensory needs. This product contained sensory-based strategies that could be implemented in the camp environment as well as weekly programming recommendations. Having strategies in place to help campers cope with sensory challenges allows for successful participation in meaningful occupations in the variety of environments offered at this summer camp.

Keywords: sensory, summer camp, occupational therapy

Chapter I

Introduction

Problem Statement

An occupational therapy student (OTS) completed this doctoral experiential placement (DEP) at a summer camp programming office in Minnesota. This summer camp hosts 300-500 campers per summer and provides opportunities for campers to engage in outdoor activities, games, worship, and more. The OTS met with the camp's executive director to discuss the needs of current camp programming. The executive director stated that they would like the camp to be more inclusive for children of all abilities. Although this summer camp is known for offering an exciting outdoor experience, not all children/adolescents are able to thrive in this type of setting, as it may be overstimulating to those with sensory challenges.

Pfeiffer, Clark, and Arbesman (2018) explain that sensory challenges can exist in children/adolescents with or without an existing diagnosis. Children and adolescents who experience sensory challenges have difficulty regulating and responding to sensory input which inhibits their ability to participate in meaningful occupations (Pfeiffer et al., 2018). Therefore, stimulating and exciting environments, such as a summer camp, may cause individuals to become overstimulated and produce maladaptive behaviors that negatively impact their overall camp experience.

Children and adolescents with sensory challenges are often treated by an occupational therapist (OT) as these challenges impact daily occupations such as play, social participation, and education (Pfeiffer et al., 2018). Promoting one's ability to regulate sensation, emotion, and behavior is known as self-regulation, this is a common outcome for OTs and researchers alike (Pfeiffer et al., 2018). Previously, if a child who was attending this summer camp became

overstimulated due to the environment, the task at hand, and/or other internal factors, there were no sensory-based strategies in place to help campers self-regulate.

Purpose Statement

The focus area of this scholarly project was to create programming recommendations in the form of a product that explained the importance of providing staff with the education and strategies to best serve campers with sensory challenges. This project was completed in collaboration with programming staff at an agency in Minnesota. The programming office was the official site where the OTS completed a 14-week DEP.

Project Objectives

Throughout this DEP process, the OTS aimed to find ways to provide staff with education and strategies to best serve campers with sensory challenges. Campers who experience sensory challenges may struggle with emotional regulation which may negatively impact their camp experience. The goal of this DEP was to educate camp staff about campers with sensory challenges and provide evidence-based strategies. The strategies were created to both increase camper's engagement in camp activities, as well as allow campers to regulate their senses and manage challenging emotions.

To create evidence-based recommendations, the following questions were constructed to guide the literature search: Are environments that promote inclusivity more beneficial compared to segregated activities based on personal factors?; How many children struggle with sensory difficulties?; What are the common diagnoses that entail sensory challenges?; What types of sensory regulation strategies are most effective for children and adolescents? The questions were then posed as guided prompts to find relevant literature to complete this DEP.

Theoretical Frameworks

Through the lens of the person-environment-occupation (PEO) model (Law et al., 1996), the OTS aimed to consider children with sensory challenges, the many environments at this summer camp, and the activities, or occupations, that will be taking place. Examining these constructs is essential to promote the "goodness of fit" (Law et al., 1996) and occupational performance to provide campers with the optimal camp experience.

The OTS also utilized The Sensory Processing Model (Dunn, 1997) to understand how sensory processing impacts one's behavior. This model focuses on the individual's neurological ability to process sensory input and the behaviors produced as a response to that stimuli. Dunn (1997) informs readers that one's threshold for stimuli may be low, minimal, high, or large. Because individuals are around a variety of stimuli each day, people need to be able to discriminate and process sensory input effectively to engage in daily occupations. Increased sensitivity can cause irritation or disability in individuals, such as those with attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorder (ASD), or schizophrenia.

PEO and the Sensory Processing Model both allowed the OTS to evaluate the person, the environment, the occupations that take place at camp, and the science behind sensory processing, all of which cumulatively impact each camper's ability to be successful at summer camp. Campers with sensory difficulties may require special accommodations to help regulate their sensory systems and engage in camp activities. With the completion of this DEP, the OTS created a staff education packet to educate staff on how to best serve campers with sensory challenges.

Significance of a DEP at a Summer Camp

This DEP is significant at this summer camp because providing strategies for children with sensory challenges allows campers to be successful in the least restrictive environment (Roberts & Teigland, 2019). This supports the idea that children of all abilities should be able to attend camp, and not attend a separate facility or program. With the staff education product and knowledge of sensory strategies, camp staff will be able to provide an inclusive camp experience for campers with sensory challenges. This camp will provide its regularly scheduled programming while also having the additional education and strategies in place for children/adolescents in need of sensory-based strategies.

Roberts and Teigland (2019) inform readers that placing children/youth in the least restrictive environment produces positive results for children in the areas of skill development. Moreover, although the American Camp Association (ACA) wrote the following literature in 2000, this previously performed research still signifies the importance of inclusive camp programming. ACA (2000) researchers found that inclusive programming not only improves the skills and development of those needing accommodations but also promotes social acceptance of those with special needs.

Sensory-based strategies provided at this summer camp will improve the campers' ability to participate in all camp games, worship, mealtimes, bible study, free time, and more. The staff education product, which contains programming recommendations and sensory-based strategies was provided to the programming staff, to then disseminate to future camp staff, in order to promote sensory regulation for campers. The OTS presented the product with an in-person presentation and gave the agency a hard and digital copy of the packet. The OTS also provided

the agency with a voice recording on a flash drive, intended to be presented to future camp staff in training.

Chapter II

Literature Review

This chapter will present the literature review for a Doctoral Experiential Placement (DEP) completed by a University of North Dakota (UND) Occupational Therapy Student (OTS). This process focused on locating research relevant to occupational therapy (OT) in a summer camp setting as well as evidence-based strategies for children with challenges related to sensory processing. This literature review will provide an in-depth exploration of the research that supported this DEP process. Additionally, this review will guide readers through the analysis of the "goodness of fit" (Law et al., 1996) between the campers, the environment of this summer camp, and the activities at camp. Performing this literature review enabled the OTS to provide camp staff with evidence-based strategies to serve the targeted population, the campers with sensory challenges.

Providing programming recommendations from an OT perspective, for children with sensory challenges, will be beneficial for camp staff. Bodison and Parham (2017) stated occupational therapists have historically been the leading professionals in evaluating and treating sensory challenges for children and youth. OTs have the skills to perform both remedial and compensatory interventions to help children with sensory processing, and other difficulties, be successful in their daily activities.

Theoretical Frameworks

A theoretical framework that guided this DEP was the Person, Environment, Occupation Model (PEO). This model was chosen because it breaks down the constructs of the person, environment, and occupation. This enables one to find the "goodness of fit" (Law et al., 1996) between the campers, the physical and social environments of camps, and the activities or

occupations that take place at camp. The OTS explained in the product, the camp staff education packet, that if "goodness of fit" (Law et al., 1996) is not able to be reached due to a child being overstimulated, the staff may have to implement sensory strategies to promote occupational performance. Staff are also instructed to consider certain elements of the occupation at hand or the environment that may be causing the camper to experience sensory dysregulation. These recommended strategies can be implemented in each week of programming to provide the best summer camp experience for children of all abilities.

The OTS also utilized Dunn's Model of Sensory Processing (Dunn, 1997) to understand how sensory processing may impact one's behavior. This model focuses on an individual's ability to process sensory input as well as the respective behaviors that may follow interpreting sensory input. Dunn (1997) explains that an individual may have a low or high threshold for sensory stimuli and this results in sensory seeking or sensory avoiding behaviors. Because there are many new and exciting sources of stimuli at camp, utilizing PEO and the Sensory Processing Model helped the OTS to create a staff education packet with recommended strategies for campers with sensory challenges. Before the product was created, the OTS broke down the constructs of PEO to better understand factors that may impede optimal occupational performance and participation at camp.

Breaking Down The Constructs of PEO:

The constructs of PEO were broken down below with respective questions that helped to guide this literature review. Breaking down the constructs allows readers to identify the specific aspects of the person, the environment, and the occupation that may promote and/or inhibit the ability to be successful at camp for campers with sensory challenges. The findings also supported the need for programming recommendations to provide an inclusive camp experience.

Person

According to Law et al., (1996), the "person" includes physical, cognitive, and affective components that all contribute to one's identity. Cole and Tufano (2019) stated PEO is a client-centered model and emphasizes the importance of spirituality. A broad definition of spirituality includes religious faith, the meaning of everyday activities, and the connectedness that people experience in their environment (Cole & Tufano, 2019). Considering the human spirit, and personal factors that correlate with sensory challenges helped the OTS to develop the following questions to guide this literature search and provide relevant programming recommendations. The construct of "person" was correlated with the following questions: How many children struggle with sensory difficulties?, and What are the common diagnoses that entail sensory challenges?

It is important to reflect on how many children experience challenges with sensory processing to understand the significance of this DEP. In 2009, researchers found that 1 in 20 to 1 in 6.25 children in the US, with or without diagnosis entailing sensory abnormality, have sensory processing challenges (Crasta et al., 2020). In an article by Bunim (2013), published by The University of California San Francisco (UCSF), Bunim reported that sensory processing disorder (SPD) is a specific diagnosis aside from other sensory abnormality diagnoses such as ASD, ADHD, schizophrenia, etc. Bunim (2013) wrote that SPD impacts 5% to 16% of school-age children. A more recent study, that took place in 2020, revealed that sensory processing challenges were present in at least 8% of children in an epidemiological population (Crasta et al., 2020).

Reflecting on these statistics in addition to the camp's values reinforces the importance of this DEP. The summer camp's Executive Director reported that this summer camp hosted a total

of 350 campers in the summer of 2021 and 500 campers "pre-COVID." Based on this statistic of 350 campers, and the published literature on the likelihood of sensory challenges present in today's children, one could conclude that between 17-56 campers who attend this summer camp may have challenges with sensory processing.

There are many diagnoses that correlate with having challenges with sensory processing. Posar and Visconti (2018) conducted a study and summarized the main features of sensory challenges and the respective implications for those with ASD. Sensory experiences in individuals with ASD are reported as distress or anxiety, as well as a source of interest, either due to a lack, or influx, of stimuli to their senses. When individuals with ASD experience distress/anxiety, it can lead to avoidance behaviors against the particular disturbing stimuli or may even trigger reactions with intense agitation and aggressive behaviors (Posar & Visconti, 2018). The extra stimuli absorbed can lead to restricted and repetitive behaviors which can be difficult to mitigate and the stimuli can be hard to deflect from the individual's attention (Posar & Visconti, 2018). Posar and Visconti (2018) also stated that difficulty with processing one's senses creates obstacles for many children, especially those with ASD and those with intellectual disabilities (ID). Children with both ASD, ID, and alike diagnoses that entail sensory challenges have the right to attend a public camp and should have access to accommodations that allow them to have a meaningful and inclusive camp experience.

Crasta et al. (2020) stated that children with ASD and children with sensory processing disorder (SPD) have different processing and attention challenges. Specifically, children with SPD have more sensory difficulties compared to those with ASD. Moreover, SPD and ADHD are also positively correlated and therefore present similar obstacles for children with these diagnoses. Understanding the relevancy of this information assisted the OTS in creating the staff

education packet and sensory-based strategies for the general challenges these particular diagnoses may entail. Implementing effective strategies for the most typical challenges a child may have will increase the likelihood of each child receiving a quality camp experience.

As previously implied, ADHD is another disorder that will entail sensory challenges. According to the CDC (2021), Children with ADHD experience difficulty with maintaining attention, controlling impulsive behaviors, overall executive function, and hyperactivity. About 6.1 million children in the United States (9.4 percent) between ages 2 to 17 are estimated to have been diagnosed with ADHD, according to a 2016 study by the CDC (2021). This large statistic further supports the need for providing accommodations for these children in a summer camp setting.

Crasta et al. (2020) stated children with ADHD and SPD are less likely to participate in group activities due to the overwhelming amount of input from their senses. According to Bodison and Parham (2017), interventions used to immediately improve participation in meaningful occupations for these children include wearing a weighted vest periodically throughout the day or providing different seating options such as a therapy ball to provide vestibular input. Other interventions such as a weighted blanket and headphones have been proven to reduce stress and anxiety for children in overstimulating settings (Bodison & Parham, 2017).

Furthermore, fidgets have been shown to reduce impulsive behaviors and improve attention in those with ADHD (Hansen et al., 2017). Fidgets provide tactile and proprioceptive input, common interventions used by OTs to promote sensory regulation in those with sensory challenges. Hansen et al. (2017) informed readers about a project involving 5 special education students who created fidgets to help them sustain attention. The goal of this project was to have

these students design their own fidgets to utilize in the classroom. The creators of this project encourage this intervention to be implemented in classrooms across the nation as it is implied that fidgets may help all students reach a higher potential (Hansen et al., 2017).

According to the executive director, this summer camp has served campers in the past with ASD and ADHD. Common interventions have included intermittent breaks from the larger group with individualized attention from camp staff. My hope is that having programming recommendations in place will assist in helping those with ASD, ADHD, and other sensory disorders, learn to self-regulate and engage in camp activities without seclusion.

Environment

The "environment" is composed of physical, social, cultural, and institutional fundamentals. Cole and Tufano (2019) inform readers about the environmental construct in the text "Applied Theories in Occupational Therapy." A physical environment could be a home, classroom, or the outdoors; social environments include the individuals in those physical environments. Cultural environments include religious, ethnic, and political factors whereas institutional environments influence the political and social enforcements that limit participation in occupations. The "environment" was correlated with the research question: <u>Are environments that promote inclusivity more beneficial compared to segregated activities based on personal factors?</u>

According to the American Camp Association (ACA) (2000), inclusive programming benefits all campers. In an article by ACA (2000), the authors stated that across the country, youth with and without disabilities yielded significant growth and development while enrolled in a one-week residential camp. Researchers also found that children with and without disabilities made significant gains regarding social interactions and acceptance of others.

To further expand on the importance of inclusive programming, Roberts and Teigland (2019) conducted a study in which 1722 of 1931 special education students were included in the regular education classroom during the school year. In doing so, they significantly reduced the number of students who were originally requiring special education services. Additionally, students who previously performed below grade level improved to at, or just below their grade level, due to placing these students in the least restrictive environment (Roberts & Teigland, 2019). Results also showed that there are cases of previously nonverbal children who can now express themselves orally and through writing (Roberts & Teigland, 2019). This study demonstrates the importance of placing children in the least restrictive environment (Roberts & Teigland, 2019). Not only did educators yield satisfactory results for their school, but children identified in a special education program succeeded alongside their classmates in a regular classroom setting. Making recommendations for this summer camp to adapt to challenges, such as sensory processing, is another example of providing the least restrictive environment. This allows for the inclusion of all campers, which not only will promote acceptance but will potentially yield positive results and success for campers with sensory challenges.

In addition to these articles, in 2002, Fisher and Myer challenged the former assumption that contained settings, in comparison to inclusive settings, will result in superior gains on students' goals. In this study, 40 students in two groups were assessed across two years of inclusive vs. self-contained educational programming, comparing outcomes on measures of child development and social competence. Researchers performed the statistical analysis and found that moving children who received specialized services into inclusive environments yielded greater psychometric results compared to peers who were segregated (Fisher & Meyer, 2002). By providing programming recommendations for this summer camp to provide an inclusive

environment, as opposed to segregating campers based on their abilities, children will not only be able to have an exceptional camp experience but will gain lifelong social and educational skills.

An added benefit of providing inclusive programming at a summer camp includes increasing awareness of children with disabilities. Inclusive programming may help to end the stigma of children with disabilities and promote a positive attitude regarding the acceptance of all campers. As previously stated, this camp's executive director aims to provide an inclusive experience for campers of all abilities. Papaioannou et al. (2013) examined the impact of a disability awareness program to determine children without disabilities' attitudes toward children with disabilities in a summer camp setting. The control group followed regular camp programming, while the experimental group attended a disability awareness program alongside regular programming. Participants reported positive attitudes toward the inclusion of peers with disabilities at the end of this study. This further supports the idea that inclusive programming is beneficial for children of all abilities and promotes the acceptance of all individuals.

Although a disability awareness program was not an original objective for this DEP, this research was beneficial in supporting the fact that children of all abilities will benefit from inclusive programming. Moreover, this will support the chances of eliminating the stigma of children with disabilities or other challenges. Inclusive programming and the promotion of ending this stigma towards children with necessary accommodations can be implemented in camp programming with a brief education for camp staff that can be extended to campers.

Occupation

Cole and Tufano (2019) explain that "occupation" includes activities of daily living (ADLs); social participation, home, work, and community activities. The construct of occupation

was correlated with the question: What types of sensory regulation strategies are most effective for children to successfully engage in meaningful occupations?

Thompson (2021) found the implementation of a calm-down corner in a classroom can help to mitigate maladaptive behaviors by providing sensory-based strategies. This author also stated that students voluntarily used the calm-down corner frequently and effectively. This supports the idea that children will use a mindfulness strategy to self-regulate and that a calm-down corner may produce less maladaptive behaviors in the classroom or similarly in the environment of a summer camp. Coping strategies utilized in the calm down corners included: "breathing strips" with movable beads students pushed down on a string to practice deep breathing (Thompson, 2021). Students also had the option to do yoga, color, or sit in a bean bag chair (Thompson, 2021).

There are many areas of research that indicate effective sensory strategies. For example, yoga is an activity that can integrate many aspects of interventions commonly used to treat children who have ASD (Delgado, 2013). Using yoga as an effective intervention relates to this DEP. As previously stated, children with ASD, ID, and ADHD typically have sensory difficulties. According to Delgado (2013), the potential benefits of yoga for adolescents with ASD, and others with similar challenges include: reducing stress, improving attention, promoting self-regulation skills, decreasing challenging behaviors, increasing the ability to concentrate, increasing compliance behaviors, and decreasing hyperactivity (Delgado, 2013). Yoga is an activity that can be performed during "free time" at camp or as a group cabin activity to help reduce the general stress and anxiety of all campers.

To further explain strategies to promote sensory processing, it was found that Opalinski and Martinez (2020) performed a study at a summer camp to understand the effectiveness of

mindfulness-based practice (MBP). Camp counselors reported campers who experienced overwhelming emotions and utilized self-regulatory activities were able to improve maladaptive behaviors (Opalinski & Martinez, 2020). Didactic teachings and hands-on experimental activities were implemented to reinforce mindfulness content throughout the week (Opalinski & Martinez, 2020). In this study, "peace corners," similar to calm-down corners, were implemented in cabins to support camper's ability to regulate their emotions. Opalinski and Martinez (2020) informed their readers that "peace corners" contained self-regulatory interventions, such as a rug or beanbag chair, and hands-on activities such as "calm-down bottles" or stress balls. Based on camp counselor feedback, it was concluded that MBP at the summer camp helped to promote emotional regulation and overall mental health for their campers (Opalinski & Martinez, 2020).

There have been many interventions performed to promote positive behaviors at summer camps across the nation. Another example included a summer camp experience that encompassed the principles of Positive Youth Development (PYD) (Merryman et al., 2012) with an emphasis on occupation. This study was shown to increase resilience and skill development in at-risk youth (Merryman, et al., 2012). Researchers aimed to understand the benefits of an occupation-based summer camp to promote social, emotional, and mental health in at-risk youth, therefore supporting the role of occupational therapy in a summer camp setting. Occupation-based groups engaged in self-regulating craft activities throughout each week of camp programming. Ultimately, it was indicated that successful participation in PYD and occupation-based activities appeared to positively influence behavior and skill competence (Merryman, et al., 2012).

There are many occupation-based recommendations that will be beneficial to implement at this summer camp to promote sensory regulation to campers in need. Collaborating with the

program staff allowed for analyzing the feasibility of such implementations to best serve the population of children who attend camp. Considerable factors included allocating physical space to store supplies and equipment, budgeting for purchasing supplies and equipment, as well allotting time to educate camp staff on the proper use of sensory strategies.

Occupation Based Models of Choice

As previously discussed, PEO was the occupation-based model of choice to guide this DEP, as well as Dunn's Model of Sensory Processing (1997). An important aspect of PEO includes the "transactions" that take place between the person, environment, and occupation as these will help readers to understand the "goodness of fit" between each construct to allow for optimal performance and success (Law et al., 1996). The essence of the PEO transactions (Law et al., 1996) with consideration of the Model of Sensory Processing (Dunn, 1997) helped the OTS to create a staff education packet and recommended strategies that staff at camp will be able to implement each week of summer programming.

Person x Occupation

A child experiencing challenges in sensory processing may lead to outcomes such as difficulty focusing, irritability, discomfort, feeling overly excited, stress, anxiety, or fear (Watson, 2021). A child who is overstimulated at the camp may exhibit maladaptive behaviors and cause distress to themselves, other campers, as well as camp staff. Therefore, impeding their ability to participate in meaningful activities, or occupations, at camp.

This summer camp's staff encourages their campers to fully participate in activities such as worship, mealtimes, arts and crafts, swimming, low and high ropes course, hiking, tenting, and much more to maximize the camper's experience. If a child is overstimulated due to personal factors such as an influx of auditory, visual, tactile, proprioceptive, or vestibular input, their

maladaptive behaviors will impede their ability to participate in camp activities. If the recommendations provided by the OTS are properly implemented, camp staff will be educated in sensory challenges and able to provide strategies for these campers so they can regulate their senses and participate in camp activities to their best ability.

Environment x Occupation

Before this DEP, the physical environment of this summer camp did not have strategies in place for campers with sensory challenges. Various types of stimuli occur in the camp environment and may produce maladaptive behaviors. These stimuli may include but are not limited to auditory, visual, proprioceptive, vestibular, and tactile stimulation. Auditory input may be due to worship, mealtimes in the dining hall, and "morning movers," which consists of group songs and dance before breakfast. An influx of proprioceptive and vestibular input may occur during large group games, low ropes, and high ropes courses. Reversely, a lack of proprioceptive input may be evident during seated, quiet activities such as "bible party." Moreover, tactile sensitivity may occur during messy play activities, swimming, and mealtimes with unfamiliar foods. These environmental factors that impede occupational performance justify the need for sensory strategies to be in place to promote the "goodness of fit" (Law et al., 1996). This also justifies the importance of staff being educated on the possibility that external factors that may impede on camper's occupational performance.

Person x Environment

The children who attend this summer camp have access to many of the opportunities offered by the outdoor environment, such as all-camp games, canteen, canoeing, swimming, rock climbing, zip-lining, etc. However, if the outdoor physical and social environments of a summer camp become overstimulating, the camper will no longer be able to be successful in their

environment. Because this summer camp is an outdoor facility with a large number of campers, there are many opportunities for a child to become overstimulated.

However, there are also instances at this summer camp where campers will be in an indoor setting or a less stimulating environment. This could be during candlelight worship in the chapel or in a seated, quiet group participating such as "bible party." Depending on the child's sensory needs and abilities, the variety of environments and external factors may cause challenges for campers. This is why it is necessary to provide camp staff with education on how to implement sensory-based strategies that will be useful for campers in a variety of environments and activities.

Each camper deserves a meaningful camp experience in an inclusive environment. This supports the reasoning on why it is important to provide this summer camp with the appropriate education and sensory strategies to best serve campers with sensory challenges. Having strategies in place to help campers cope with sensory challenges allows for successful participation in meaningful occupations in the variety of environments offered at this summer camp.

Chapter III

Methodology

This chapter will present the methodology performed to complete this doctoral experiential placement (DEP). This DEP was created by a University of North Dakota (UND) occupational therapy student (OTS) in collaboration with a summer camp programming staff in Minnesota. The goal of this DEP was to provide a summer camp with a product intended for educating camp staff on how to best serve campers with sensory challenges. This DEP resulted in a product in the form of a staff education packet with educational resources and evidence-based strategies to best serve campers with sensory challenges. This product also included education in the form of a digital voice recording to ensure that future camp staff could properly perform the sensory-based strategies for future years of programming.

This chapter will demonstrate a thorough description of this DEP process from start to finish. The first step was to identify reliable databases to glean valid research and literature. To complete this step, the OTS utilized the following databases: Google Scholar, CINAHL, PubMed, and OT Search. Other helpful resources included information from the following professional organizations: the American Occupational Therapy Association (AOTA), the American Camp Association (ACA), the School Superintendents Association (SSA), and the American Association of School Administrators (ASA).

Search Terms and Criteria

The next step for the OTS was to search for relevant data that would pertain to this DEP. This was completed by utilizing the following keywords and phrases: summer camp AND children, emotional regulation AND children, sensory strategies AND children, children OR adolescents. It was also necessary to consider inclusion and exclusion criteria to consolidate the

research that was to be included in this DEP. The inclusion criteria included articles about therapy and summer camp, managing emotions, emotion regulation/coping skills/sensory strategies, articles about promoting inclusion, and articles in which participants are children and/or adolescents. Articles that were excluded from the literature search included: articles about physical rehabilitation, articles about environmental alteration, studies involving medication/ interventions rather than coping skills, and studies including adult populations.

Experts in the Field

The OTS initiated this DEP by conducting a semi-structured interview with the camp programming staff to further identify the need. The OTS asked programming staff the following questions:

1. What is your mission statement?
2. What are your goals for camp programming?
3. What do you know about occupational therapy?
4. What types of interventions have been utilized for children with special needs in the past? How many children attend camp each summer?
5. How many children with special accommodations attend camp each summer?

Theoretical Framework

The OTS utilized the person, environment, occupation (PEO) model (Law et al., 1996) to guide this DEP. PEO was a useful occupation-based model due to its ability to find the "goodness of fit" between the campers, the environment of camp, and the activities that take place at camp. Personal factors of the campers, the external stimuli of the camp environment, and the activities that campers engage in all contribute to one's experience at summer camp. Law et al., (1996) explain that "goodness of fit" means the person (campers), the environment (camp),

and the occupations (activities at camp) create a harmonious experience for the individual and promote occupational performance. The model of PEO (Law et al., 1996) was then used as an educational tool in the product provided for the agency to describe the importance of considering all possible factors that may be impeding a camper's occupational performance.

The OTS also utilized The Model of Sensory Processing (Dunn, 1997) to promote an understanding of how sensory processing impacts one's behavior. This model focuses on the individual's neurological ability to process sensory input and the behaviors produced as a response to that stimuli. Because individuals are around a variety of stimuli each day, they need to be able to discriminate and process sensory input effectively to engage in their daily occupations. Increased sensitivity to the senses can cause irritation or disability in individuals, such as those with attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorder (ASD), or other related diagnoses that entail sensory challenges.

Project Timeline and Procedures

The first three weeks of this DEP included meeting with the site mentor to identify initial tasks and establish guidelines to initiate this DEP. This meeting was beneficial as it assisted in reassessing the needs of the site and helped the OTS to make adjustments as needed. Essential contacts for collaboration and partnership to complete this DEP were established. The OTS was then given office space to engage in collaboration with the programming director and begin the DEP process.

Weeks 4-6 of this experience included researching and understanding past and current camp programming. The OTS collaborated with programming staff to understand the typical needs of campers ages 5-18. The OTS then took this information and referred to prior performed research to recommend that staff be educated on campers with sensory challenges and know

what strategies to provide and when. Theoretical references were then included in the form of education to the camp staff. The OTS utilized PEO (Law et al., 1996) and Dunn's Model of Sensory Processing (Dunn, 1997) to create the staff education packet and promote awareness of factors that may inhibit a camper's ability to participate in camp activities.

Weeks 7-10 involved product development for this DEP site. This product was made in collaboration with the programming director and executive director of this summer camp. The OTS referenced the established camp curriculum while creating the product to ensure relevance to the site. Referencing the curriculum also established structure in creating the recommendations for implementing sensory-based strategies to best serve campers with sensory challenges.

Weeks 11-14 were structured in making finalizations on the product and considering how the product would be disseminated to the site. The OTS communicated with the executive director and programming director to schedule a meeting to present the product and provide the site with essential materials. The OTS created a staff education packet provided in a physical and digital format. The student also created a digital voice recording to ensure the sustainability of the project. The digital voice recording explained the product in hopes that this voice recording could be provided to future camp staff to consider the needs of campers with sensory challenges for years to come. The staff education handout was explained in full to the executive director and programming director and necessary education was provided on the importance of having sensory-based strategies in place.

Ethical Considerations of the Project

Ethical considerations in this DEP involved maintaining the privacy of the names of camp staff as well as the name and location of this summer camp. Maintaining the privacy of the

summer camp ensures the protection of the children who attend this camp as well as their families. Other ethical considerations include maintaining communication and transparency with the executive director, programming director, and faculty mentor through digital and in-person communication to follow necessary DEP rules and guidelines.

Chapter IV

Product Overview

The product was created by an occupational therapy student (OTS) during a 14-week doctoral experiential placement (DEP). The created product was a staff education packet including strategies that could be implemented in the camp environment for children with sensory challenges. This product was created in collaboration with programming staff at a summer camp programming office in Minnesota. The OTS used information from literature, a semi-structured interview with programming staff, and the camp's published summer curriculum to create a product that will help current and future staff implement recommended strategies to provide a meaningful camp experience for campers with sensory challenges. The final product was presented in the format of a digital and physical copy of a staff education packet as well as a digital voice recording explaining the product in full. The digital voice recording was included in hopes to provide future camp staff with the proper education to implement the recommended sensory-based strategies for years to come.

Partnering Agency

The OTS completed this DEP and created a product for a summer camp in Minnesota. This summer camp hosts 300-500 campers per summer and provides opportunities for campers to engage in outdoor activities, games, worship, and more. To initiate this process, the OTS met with the camp's executive director to discuss the needs of current camp programming. The executive director stated that they would like the camp to be more inclusive for children of all abilities. Although this summer camp is known for offering an exciting outdoor experience, not all children/adolescents are able to thrive in this type of setting, as it may be overstimulating to those with sensory challenges. Prior to this DEP, this camp did not have any evidence-based

strategies in place to serve campers with sensory challenges. This is why the OTS decided to create a product to provide staff with the education and strategies to best serve campers with sensory-related challenges.

Guiding Theories

Through the lens of the person-environment-occupation (PEO) model (Law et al., 1996), the OTS explained the importance of considering the personal factors of children with sensory challenges, the physical environment of the summer camp, and the occupations that will be taking place at camp. Examining these constructs can assist one in determining the "goodness of fit" (Law et al., 1996) between the person (campers), environment (summer camp), and occupation (activities at camp). This theory was also used as a form of education to explain to camp staff that a variety of sources can impede a camper's ability to achieve occupational performance.

The OTS also utilized Dunn's Model of Sensory Processing (Dunn, 1997) to explain how sensory processing impacts one's behavior. This model focuses on the individual's neurological ability to process sensory input and the behaviors produced as a response to that stimuli. Dunn (1997) informed readers that the threshold for stimuli may be low, minimal, high, or large. Because individuals are around a variety of stimuli each day, people need to be able to discriminate and process sensory input effectively to engage in daily occupations. This model was also used as a form of education to explain to camp staff that children will differ in sensory needs. For example, some campers may be "sensory seeking" while others may be "sensory avoiding" (Dunn, 1997).

PEO (Law et al., 1996) and Dunn's Model of Sensory Processing (Dunn, 1997) both allowed the OTS to consider the person, environment, occupations that take place at camp, and

the science behind sensory processing, all of which cumulatively impact a camper's ability to be successful at summer camp. Campers with sensory difficulty may require special accommodations to help regulate their sensory systems and engage in camp activities. With the completion of this DEP and corresponding scholarly project, camp staff will have access to educational materials on these theories and their importance, as well as the evidence-based strategies for campers with sensory challenges.

Product Organization

The product was structured with the intent of prioritizing staff education to best serve campers with sensory challenges. The product (staff education product) was organized by first introducing staff to the occupation-based models that guided the OTS'sf scholarly project. The model of PEO was then further explained by breaking down the constructs of person, environment, and occupation. As well as the concepts of "spirituality," "development through the lifespan,", and "goodness of fit" (Law et al., 1996). Dunn's Model of Sensory Processing (1997) was also included to educate camp staff that children will all have different sensory needs. For example, some children may be hyperactive or "sensory seeking" while others may be reserved or "sensory avoiding."

The product then educated camp staff on common diagnoses and what to expect of campers with particular sensory needs. The product then explained how certain strategies may be effective in different settings. For example, the OTS explained that during a sedentary occupation, such as bible study, a camper with a low threshold for sensory stimuli (Dunn, 1997) may need proprioceptive input from a sensory strategy such as a fidget.

Summary

Each camper deserves a meaningful camp experience in an inclusive environment. This supports the reasoning why the OTS provided camp staff with an educational packet and sensory-based strategies to promote inclusion and provide opportunities for campers to self-regulate. Having strategies in place to help campers cope with sensory challenges allows for successful participation in meaningful occupations in the variety of environments offered at this summer camp. The completed product can be found in Appendix A.

Chapter V

Summary of Findings

This chapter will present the summary of findings from this scholarly project. An occupational therapy student (OTS) completed a 14-week doctoral experiential placement (DEP) at an agency in Minnesota. This agency was a summer camp that the OTS had previous experience with. The OTS expressed that she would like to provide this agency with a product that pertained to serving campers with sensory processing challenges. The OTS initially interviewed with this agency to understand their needs. The executive director of this agency expressed they would like to be inclusive of campers of all abilities. The OTS took this information and prior performed research and collaborated with camp staff to create a product that resulted in a staff education packet.

Purpose

The purpose of this scholarly product was intended on educating staff on sensory challenges as well as the importance and effectiveness of providing strategies to children with sensory challenges. The OTS educated programming staff on common diagnoses, interventions for particular age groups/weeks of programming, as well as evidence-based strategies to best serve campers with sensory challenges.

Program Description

Programming recommendations included staff education on how to care for campers with sensory challenges. The OTS both collaborated and educated programming staff on the importance of intervening and providing strategies to campers with sensory challenges. The OTS also educated staff on the importance of considering external factors that entail sensory challenges as well as the importance of inquiring about a child's particular challenges. It was

recommended that inquiring about a child's accommodations be performed through verbal discussion with the camper or their guardian. It was also recommended that formal inquiring be established in the format of an intake form clarifying the camper's needs and abilities. The programming director informed the OTS that they implemented the OTS' recommendation of the intake form for a camper with autism spectrum disorder (ASD) so that they can know how the camp can best accommodate this particular camper's sensory needs.

Implications for Occupational Therapy

Creating programming recommendations and strategies that can be implemented in a camp setting has implications for the future practice of occupational therapy (OT) in a variety of settings. This project further justifies the need for OT to be involved in summer camp environments. This project also poses the idea that an OT-based summer camp may be beneficial for those in need of OT services. For example, an OT-based summer camp would create greater opportunities for clients to participate in sensory interventions in an outdoor environment, providing a greater variety of sensory stimuli.

Sustainability

The results of this doctoral experiential placement (DEP) included the dissemination of a staff education product for future and current camp staff. This product is sustainable due to many factors. The occupational therapy student (OTS) provided a voice recording of how to best implement recommended strategies contributing to the sustainability of the product for years to come. Moreover, sustainability entails that the product will benefit the camp, campers, and the community. Parents may experience greater ease knowing their children with sensory challenges will have opportunities to self-regulate at camp. This may lead to more parents being willing to provide their children with this experience.

Furthermore, having these modifications in place promotes inclusion for children of all abilities as occupations at camp are being modified in lieu of removing children from their environment. This product not only equips staff with strategies that will make their job easier but also gives back to the community by providing campers with sensory-based strategies that they can continue to use outside of the camp environment. This also provides an opportunity for advocacy for those with sensory-based challenges and will help to address these issues at home, in the classroom, and in the community.

Strengths and Limitations

Strengths of this scholarly project included the availability of onsite communication with the executive and programming director of the camp. Furthermore, The OTS had prior knowledge about this camp specifically, as she had attended the camp and was a former member of the camp staff. Other strengths of this scholarly project included the office space that was provided to promote collaboration with programming staff and incorporate the current camp curriculum into the staff education packet. The final strength of this scholarly project was the openness of this agency to welcome the recommendations and strategies to implement during camp programming for campers with sensory challenges.

Limitations of this scholarly project included the timing of the product design. Because camp programming does not take place until June, and this product was created in the months of January through April, the product was not able to be implemented and tested for efficacy. Another limitation included the COVID-19 pandemic which created barriers to collaboration such as periods of time that collaboration required virtual communications.

Recommendations

To ensure the efficacy of this scholarly project, it is recommended that a future student perform a program evaluation in which the recommended sensory strategies for campers are performed and implemented by camp staff. Future students could observe if and how campers utilize the sensory strategies and formally report the effectiveness of such strategies. Further recommendations include interviewing camp staff about their perception of the effectiveness and/or practicality of implementing these strategies. Camp staff could report how/if they saw many changes in camper behavior during weeks of summer programming. This would ensure program outcomes are being met and support the sustainability of this scholarly project.

Conclusion

After 14 weeks of collaboration with an agency in Minnesota, this scholarly project resulted in the product of a staff education packet to educate staff on how to best serve campers with sensory challenges. The OTS recommended that programming staff educate future camp staff on the importance of considering a campers' sensory abilities as well as the knowledge on how to intervene as necessary. The product contained theoretical models in the form of educational references, common diagnoses that may entail sensory accommodations, sensory-based strategies for camp, and weekly programming recommendations to provide campers with sensory challenges the optimal camp experience. The members of the agency were pleased with the final product and informed the OTS that they were eager to implement the recommended education and strategies at this summer camp.

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Appendix

Campers with Sensory Challenges: Staff Education Packet

The Person, Environment, and Occupation (PEO) Model (Law et al., 1996)

Through the lens of the person-environment-occupation (PEO) model (Law et al.,1996), one can consider the personal factors of campers and the environment in which activities, or occupations, are taking place. Examining these constructs, and intervening as necessary, will ensure the "goodness of fit" (Law et al., 1996) between the person (campers), environment (the camp), and occupation (activities at camp). This staff education packet will further explain the importance of implementing sensory strategies that camp staff can implement when hosting a camper with sensory challenges.

Person

- Cole and Tufano (2019) state that PEO is a client-centered model and emphasizes the importance of spirituality. Because this agency is a Christian-based summer camp, the element of spirituality in PEO can further assist in ensuring "goodness of fit" for campers at all times.
- There are key points that incorporate spirituality in treating and caring for others. Some relevant points are empathy and reflective listening, understanding that the human spirit is at the center of function, providing opportunities for others rather than "prescriptions," and collaborating when treating another individual.
    - This element of PEO supports the belief that when one provides sensory strategies, they are to practice empathy and understanding so that campers can fully engage in their meaningful occupations.

Environment

- The "environment" is composed of physical, social, cultural, and institutional fundamentals.
    - A physical environment could be a home, classroom, or the outdoors; social environments include the individuals in those physical environments.
    - Cultural environments include religious, ethnic, and political factors whereas institutional environments influence the political and social enforcements that limit participation in occupations.
    - At this camp, these environments could include the dining hall, chapel, swim beach, cabins, etc.

Occupation

- Cole and Tufano (2019) explain that occupation includes activities of daily living (ADLs); social participation, home, work, and community activities.
- Occupations can be further described as activities that "occupy" our time and give meaning to our lives.
- Since occupational therapy is client-centered, the meaning of certain occupations and the ability to complete them is based on the importance of that task, which is established by the individual.
- Because the activities that take place in camp are meant to be engaging and meaningful to the campers, it is important to promote engagement in the occupations by promoting staff education on sensory challenges and knowing how to support campers with these needs.

PEO- Development Through the Lifespan

- Another aspect of PEO is "Development Through the Lifespan" (Law et al., 1996). This is an important construct to consider when caring for campers with sensory challenges.
- This concept means that throughout one's lifespan aspects of the self, the occupations one engages in, and the environment are ever-changing.
- As the camper ages, the aspects of the camper will change. What was effective for a particular camper last summer may not be relevant the following summer. Therefore, the "goodness of fit" is always going to be changing as campers, their environments, and their meaningful occupations are ever-changing.

Sensory Processing Model (Dunn, 1997)

- This model explains the neurological ability to process sensory input and the behaviors produced as a response to stimuli.
- Dunn (1997) informed readers that one's tolerance for stimuli can be high or low. Dunn (1997) also stated that one can be "sensory seeking" or "sensory avoiding" depending on their personal threshold for sensory stimuli.
- Because campers will be around a variety of new stimuli, campers need to be able to discriminate and process sensory input effectively to engage in occupations at camp. Increased sensitivity can cause dysregulation or irritability in campers who have a low threshold for sensory stimuli (Dunn, 1997).
- Dunn's sensory processing model explains, depending on the individual's tolerance for stimuli, which sensory techniques will be most effective. Below are some strategies for campers with sensory challenges that can be implemented during occupational engagement in a variety of environments.

    - If a child is requiring sensory input to better engage in an activity, a hands-on strategy, such as a fidget, can provide proprioceptive input that will help increase attention and focus.
        - This strategy will be helpful during a sedentary activity like bible study or cabin time to improve attention and focus.
    - Reversely, if a child is overstimulated and is hyperactive, overwhelmed, or emotional, a calming visual strategy such as a calm down jar may be beneficial. Moreover, a comfortable seat or weighted blanket in a calm down corner can provide calming proprioceptive input.
        - These strategies can be helpful after a child finishes an all-camp game, activity, or "free time", another stimulating activity that produces hyperactivity. A calming strategy such as those listed above can assist in transitioning between activities and environments.
    - Moreover, earmuffs or noise-canceling headphones can mitigate auditory stimuli and help to regulate a camper who is overstimulated by loud environments.
        - This strategy can be helpful during a meal at the dining hall, worship, or an all-camp game as these environments may produce an influx of auditory stimuli.
- Considering the camper, what activities they are engaging in, the environment they are located in, as well as understanding the importance of sensory processing, will all be beneficial in caring for campers with sensory difficulties. This supports the reasoning for using both PEO (Law et al., 1996) and Dunn's Model of Sensory Processing (Dunn, 1997) in this staff education packet.

The goodness of fit: Campers with Sensory Challenges at Summer Camp (Law et al., 1996)

- As previously stated, an important aspect of PEO is that "goodness of fit" implies optimum occupational performance. This means that if campers are engaging successfully in occupations at camp, they will achieve the best occupational performance.
- To ensure that campers with special needs will have an inclusive camp experience and experience "goodness of fit" (Law et al., 1996), camp staff are strongly encouraged to review their camper health intake forms.
- Some parents may be apprehensive to send their child with special needs to camp, so any information given to camp staff or conversation about how camp staff can better accommodate the camper will be beneficial (Lutheran Outdoor Ministries, 2020).
    - Information that can be gleaned from the intake form, as well as in personal communication with the campers caregiver, should include how routines and disruptive behaviors are managed at home so camp staff can generalize those techniques to the camp setting.
- Engaging in personal communication with caregivers helps to support both the parent and the camper. Maintaining empathy with the caregiver and the camper is also an essential aspect of "spirituality" according to the PEO model (Law et al., 1996).

Sensory Processing and Sensory Challenges

- Children and adolescents who experience sensory challenges have difficulty regulating and responding to sensory input which inhibits their ability to participate in meaningful occupations (Pfeiffer et al., 2018). This personal factor of a "sensory challenge" impedes achieving "goodness of fit" which limits occupational performance (Law et al., 1996).
    - Stimulating and exciting environments, such as an outdoor summer camp, may cause individuals to become overstimulated and produce maladaptive behaviors that negatively impact their overall camp experience. A variety of environments, activities, and personal factors, constructs of PEO, (Law et al., 1996) will need to be considered at all times by camp staff to ensure "goodness of fit" (Law et al., 1996) and reach optimal occupational performance.
    - Dunn's Model of Sensory Processing (1997) supports the idea that a variety of environments and activities may be tolerable for some campers and intolerable for others, depending on their threshold for sensory stimuli (Dunn, 1997). It is important that camp staff are aware that a child may be seeking out sensory stimuli (running, jumping, talking excessively) because their threshold for sensory stimuli is high. Reversely, a child may appear withdrawn or anxious because their threshold for sensory stimuli is low. This information can help staff to know that a calming strategy will be effective for some campers, while other campers may need a strategy that promotes engagement.

Common Diagnoses with Sensory Challenges

- Listed below are examples of common diagnoses that entail sensory challenges. Having the education on different personal factors will help to provide "goodness of fit" (Law et al., 1996) for campers with and without a diagnosis entailing sensory challenges.
- Sensory experiences in individuals with ASD are reported as distress or anxiety, as well as a source of interest, either due to a lack, or influx, of stimuli to their senses (Posar & Visconti, 2018).
- When individuals with ASD experience distress/anxiety, it can lead to avoidance behaviors against the particular disturbing stimuli or may even trigger reactions with intense agitation and aggressive behaviors (Posar & Visconti, 2018).
    - To avoid some of this anxiety, establish a schedule and routine with campers. The average camper will thrive with schedule and routine, especially those with ASD. A schedule or routine will help a child with ASD know what to expect and better structure their day (Lutheran Outdoor Ministries, 2020).
        - This can be done by simply providing a camper with a written-out schedule they can keep in their pocket. This will help to ease anxiety and prepare for upcoming transitions.
    - For lower elementary campers, a pictorial schedule may be helpful to provide visual cues. This schedule could be put up on the wall of the cabin for everyone to see, or given to campers individually (Lutheran Outdoor Ministries, 2020). Camp staff can draw out the activity that will be taking place (drawing a sandwich for lunchtime, or a campfire for worship) to help elementary campers prepare for upcoming activities.
- ADHD is another disorder that may include difficulty with sensory processing.

    - When overstimulated, children with ADHD may display emotional reactivity and present with a reduced ability to inhibit and recognize emotions (Jensen & Rosen, 2004). Therefore, emotional reactivity could potentially lead to impulsivity, inattention, and hyperactivity.
    - Knowing that the camper with ADHD is experiencing challenges in emotional regulation can help counselors to know that their camper may be needing extra accommodations such as a sensory break, a fidget, or a calm down jar (these strategies are later explained) to promote self-regulation.
- The authors of Lutheran Outdoor Ministries (2020) inform future camp staff that it is important to be aware of your environment. Campers with ADHD, ASD, or other sensory difficulties may be hyper/hypo sensitive to new and different stimuli. As a result, these campers may exhibit disruptive behaviors.
    - When collecting information about your camper, ask parents or guardians what some of the triggers could be (loud noises, unpleasing textures, gross/fine motor activities, etc.). This is an example of considering the importance of the "environment" construct in PEO (Law et al., 1996).
    - You can also ask the camper if a certain noise, temperature, lighting, or texture is bothersome. If it is necessary, allow the camper to take a break from the environment in a designated quiet space with dim lighting. This can be referred to as a "sensory break." If a camper is overwhelmed due to their environment, a sensory break can be taken with an adult that the camper is comfortable being around.

        - A sensory break can allow for a camper to self-regulate and then later engage in meaningful occupations. Allowing the camper time to self-regulate to promote engagement in their occupations is an example of showing empathy and supports the concept of "spirituality" in the PEO model (Law et al., 1996).
    - During a sensory break, activities such as a fidget, stress balls, or toys with various textures and colors will be beneficial. Providing an opportunity for a child to color/draw will also help a child self-regulate as they are able to apply deep pressure to the paper which will provide positive feedback to their sensory systems (Lutheran Outdoor Ministries, 2020). A sensory break will be necessary if the occupational performance is compromised due to personal factors, the task at hand, or the environment. The sensory break can be performed in the environment the original occupation was taking place in, or in a separate environment if necessary.

Importance of Inclusive Programming

- It has been statistically proven that providing inclusive programming yields significant results for those with and without special accommodations (Roberts & Teigland, 2019).
    - Providing accommodations for children with sensory difficulties at a summer camp, as opposed to providing separate programming for campers needing accommodations helps to promote inclusivity and end the stigma toward those needing accommodations.

Evidence-Based Strategies for Camp

- Thompson (2021) found the implementation of a "calm down corner" in a classroom can help to mitigate maladaptive behaviors by providing sensory-based strategies; this author also stated that students voluntarily used the calm down corner frequently and effectively.
    - This supports the idea that children will use a sensory-based strategy to self-regulate and that a calm down corner may produce less maladaptive behaviors in the classroom and presumably in a camp environment.
- Coping strategies utilized in the calm down corners included: "breathing strips" with movable beads students pushed down on a string to practice deep breathing (Thompson, 2021). A beaded fidget can also be used as a "breathing strip." Instructions for how to create fidgets or "breathings strips" will be explained in the "Sensory Strategies for Camp" section of this packet.
    - These "breathing strips", or fidgets, can be made during arts & crafts time, a current aspect of camp programming.
- According to Delgado (2013), the potential benefits of yoga for adolescents with ASD, and alike challenges, include: reducing stress, improving attention, promoting self-regulation skills, decreasing challenging behaviors, increasing the ability to concentrate, increasing compliance behaviors, and decreasing hyperactivity (Delgado, 2013).
    - Yoga is an activity that can be performed during "free time" at camp or as a group cabin activity to help reduce the general stress and anxiety of all campers.
- Opalinski and Martinez (2020) informed their readers that "peace corners" were an effective strategy at a summer camp. These "peace corners" contained self-regulatory interventions, such as a rug or beanbag chair, and hands-on activities such as "calm-down

bottles" or stress balls. Based on camp counselor feedback, it was concluded that these strategies at the summer camp helped to promote emotional regulation and overall mental health for their campers (Opalinski & Martinez, 2020).

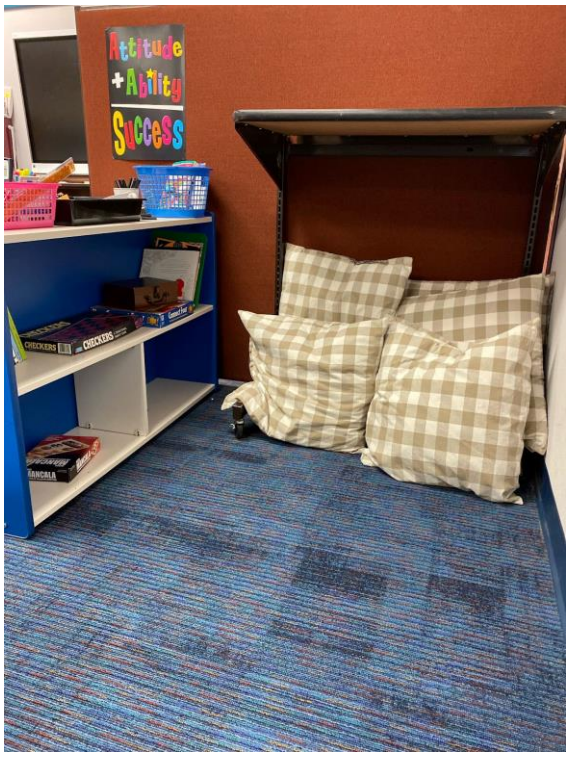
- Color Scale for Upper Elementary Special Camper Population
    - It can be difficult for those with special needs to communicate how they are feeling. Therefore, a color scale can be used between campers and staff.
        - Assign a feeling to each color and write it on a piece of paper. Check in with the camper multiple points throughout the day and have them point to the color they are feeling.
        - A common example that can be used is to assign feelings to the colors: blue, green, yellow, and red.
            - The color blue can be associated with feelings of sadness, fatigue, or depression. The color green can be associated with happiness, calm, and peace. The color yellow can signify feelings of restlessness, anxiety, or hyperactivity. The color red represents anger, frustration, and feeling out of control.
            - Have a plan in place, such as a sensory strategy, and collaborate with the camper on how you can work to regulate the camper's emotions if they are feeling "yellow," to avoid feeling "red."
- Number Scale for Junior High Special Camper Population
    - This is a similar concept to the color scale but adapted for older age campers.
    - This number scale can be easily created by staff by writing out the numbers and associating them with feelings or emotions.

- A number scale can be structured as such:
    - 1= I'm feeling good, 2= I'm still in control of my feelings but feeling a bit frustrated, 3= I'm feeling frustrated but can still manage my feelings, 4= I'm frustrated and getting upset, 5= I'm shutting down.

Sensory Strategies for Camp

Calm Down Corner

- As previously stated, a "calm down corner" (Thompson, 2021) may help a camper who is experiencing maladaptive behaviors, overstimulation, or a camper who simply needs a break due to a lack of occupational performance from the occupation or environment (Law et al., 1996).
- The calm down corner may feature a bean bag chair and/or rug for comfortable seating and weighted/throw blankets to provide proprioceptive input. Coping strategies such as "breathing strips" or fidgets, "calm down jars" or ear muffs can also be available, as well as sequined/textured pillows, to provide tactile and visual sensory input.



(Lindemann, 2022)

Arts & Crafts Activities

- The following activities can be made by campers during arts & crafts time. It is recommended that campers receive supplemental education on the benefit of the coping strategy they are creating.

Calm Down Jars

- Calm-down jars provide calming visual and tactile stimulation and promote a feeling of calm (Opalinski & Martinez, 2020).
- To make calm down jars, fill water bottles about ¼ full of clear glue, glitter, as well as marbles, pebbles, food coloring, etc.
    - Then fill to top with warm water, until bubbles disappear at the top.
    - When the jar is shaken, the glitter will settle.
    - Teach campers to focus on the falling glitter and practice deep breathing until the glitter is settled at the bottom of the jar.

(Lindemann, 2022)

Fidgets

- Fidgets provide both proprioceptive and tactile input.
- Materials needed include beads, elastic string, and scissors to trim the string.
- Beaded fidgets can be made by taking a 6-inch elastic string and folding it in half.
    - Next, secure a knot (or key ring) at the top of the string so you have two pieces of string to hold on to.
    - Then, Place on bead through the string on the right, cross the right string over the left, and bring the left string through the bead as well.
        - You will have a string entering through both ends of the bead at this point.
    - Next, pull both ends tight so the bead ends up below the secured knot.
    - Continue this step with 6 beads total and fasten at the end.
- Finally, campers can pull on the beads, dragging them up the string to provide necessary sensory regulation.

Earmuffs

- Noise-canceling headphones are a common intervention for those who become overstimulated due to an influx of auditory input.
- Environments with a possible opportunity for auditory influx include the dining hall during mealtimes, all-camp games, worship, free time, etc.
- If a child becomes overstimulated and they do not have a noise-canceling device, such as headphones, children may benefit from the calm down corner and/or wear earmuffs.
- These earmuffs can be created by camp staff; they are more cost-effective compared to noise-canceling headphones.
    - Supplies needed for earmuffs:

        - Plain headband
        - 2 pieces of 8 in felt
        - Hot glue gun
        - Scissors
        - Fur trim
- Instructions:
    - Fold each piece of felt in half, horizontally (the “hamburger” way)
    - Along the folded edge of each piece of felt, cut out a semi-circle
    - Once each semi-circle is cut, you will have two “figure 8” shaped pieces of felt.
    - Next, take one end of the headband and secure the “figure 8” piece around the end with hot glue. Make sure the end of the headband is covered by felt on both sides. This forms the “muff” that goes over the ear.
        - Repeat on the other side
    - Next, use hot glue to secure the fur trim on the outer edges of the “muffs” that cover the ears.
    - Finally, let the glue dry.

Campers with Sensory Challenges: Weekly Programming Recommendations

Pints Plus

- Grades K-2; 1 night at camp
- Campers who attend Pints Plus are at least preschool age. These children may require sensory strategies as they are in the early stages of sensory development.
- Campers may exhibit strong emotions due to sensory sensitivity while exploring a new social and physical environment. Campers may also be "sensory seeking" if they have a higher threshold for sensory stimuli (Dunn, 1997).
- During Pints Plus, campers will be spending one night at camp. This may be a challenging experience as it may be one of their earlier experiences of sleeping and waking up in an alternative environment. Having this education can help camp staff to feel better prepared to provide necessary strategies.

Pints Plus Activity Recommendations

- Mixers & Initiatives
    - During this activity, it would be beneficial to introduce campers to any calm down corners in the camp buildings and explain the significance and benefits of calm down corners. This can help campers to know that there are resources available if they need them.
- The following activities may require noise-canceling headphones or earmuffs for campers, as these activities may create an influx of auditory stimulation:
    - Field games (bonkers, paparazzi, safari, etc.), campfire worship, morning movers, parachute games.

- The following activities may require extra intention from camp counselors and staff to ensure success for this particular age group
    - Bible party
        - To encourage engagement in bible parties, provide hands-on opportunities to hold/gather objects relative to the subject being discussed. This will give campers the opportunity to use their senses to self-regulate while participating in a bible party.
        - Staff could also provide a small treat relative to the bible study to engage olfactory (smell) and gustatory (taste) sensations.
    - Afternoon activity time: swimming, canoeing, kayaking.
        - Because these are water-based activities, having extra towels available will help to comfort children who are overwhelmed by tactile sensitivity (due to water, seaweed, sand, insects, etc.).

Elementary Minis

- Grades 2-4; 3 days, 2 nights at camp
- Elementary Minis programming is much like Pints Plus, with the addition of Clown Worship. Elementary Minis also differs from Pints due to campers spending 2 nights at camp as opposed to 1.

Elementary Minis Activity Recommendations

- Because Clown Worship may be unfamiliar to many campers, staff should be prepared to intervene as necessary. Campers may become overstimulated and upset due to this new stimulus from the “clowns” and music.

- Campers may need to seek a sensory break in a calm down corner and/or wear earmuffs to mitigate auditory stimulation from the music that is played over the speakers during Clown Worship.
- Elementary Minis also differs from Pints due to campers spending 2 nights at camp as opposed to 1.
    - Additional sensory strategies may need to be implemented to comfort campers experiencing challenges with homesickness or the new camp environment/stimuli.

Elementary Juniors

- Grades 4-5; 3 days, 2 nights at camp
- Elementary Juniors Programming is similar to Elementary Minis with the addition of a campout in "the field."
- To ease the campers before they transition from sleeping in their cabin to sleeping in a tent in the field, campers should be prepped and educated on what changes will be taking place.
    - This will make the transition easier and will decrease the chances of campers becoming overstimulated due to sleeping in a different environment.

Elementary Classic

- Grades 4-5; 6 days, 5 nights at camp
- The authors of Lutheran Outdoor Ministries (2020) state that elementary-age campers thrive on routines and structure. Be sure to provide guidelines, instruction, and prep campers for all activities to ensure comfortability and confidence.

- Some children may not be ready to jump into new environments and activities, make campers feel comfortable by not forcing them to join in if they are feeling overstimulated.
- Games or songs at this camp may involve giving high fives, hugs, or other forms of physical touch. Educate campers to ask for permission/consent before initiating physical touch. Campers with tactile sensitivity may become overwhelmed with physical touch. This is also a great opportunity to educate campers about respecting personal boundaries.
- Because children are still in the early stages of development in their elementary years, children are encouraged to explore their environment and engage in the physical elements of nature to promote development and sensory regulation. Encourage campers to practice mindfulness by feeling things in nature like rocks, sand, water, etc. Ask campers to describe the sensations they are experiencing and discuss the importance of exploring the physical environment of the outdoors.

Middle School Classic

- Grades 6-7; 6 days, 5 nights at camp
- Because emotions are high and hard to navigate at this age, implement mindfulness training to improve the camp experience.
- Deep breathing can be implemented into a daily routine by engaging in "breath prayer: peace, be still." This activity will provide campers an opportunity to pause and transition from other activities before preparing to engage in a more sedentary activity like bible study.
    - Invite campers to take a comfortable position, any position that they prefer that does not restrict breathing.

- Take a few big breaths together, inhaling through the nose, exhaling through the mouth. Tell campers to exhale completely through pursed lips, like they are slow blowing up a balloon.
- Tell campers to focus on their breath, and if it is helpful, repeat the phrase to themselves (Peace, Be still).
- Remind campers it is okay to become distracted and not judge their thoughts. As long as they remember to focus on their breath, they will receive the benefits of this exercise.

Junior High & High School Classic

- Junior High: Grades 6-9; 6 days, 5 nights at camp
- High School: grades 9-high school graduate, 6 days, 5 nights at camp
- Campers in this age group are starting to enter early adulthood. Because personalities and learning styles are starting to become more solidified, it will be important to respect boundaries and offer different varieties of learning and experiences.
- It is important to allow for physical movement throughout bible study and other sedentary activities to promote sensory regulation and improve the camp experience.
- If some members of the group find physical activity difficult, allow for a variety of activities and adapt as necessary. Alternative options can include:
  - Arts & crafts
  - Meditation/ reflection
  - Teamwork and communication activities

- At this age, many diagnoses and disabilities may have solidified that impact one's learning and overall camp experience. Knowing that all campers are not able to fully participate in all camp activities to the best of their abilities is not feasible.
    - For instance, individuals with ADHD may find it difficult to follow along with reading bible verses to themselves due to overstimulation from their environment.
    - Those with anxiety may find it difficult to communicate their thoughts during group discussions.
    - Those with sensory processing disorder (SPD) may find certain textures, sounds, and sensations intolerable.
    - Consider these factors and accommodate them accordingly. Be wary of judgment or alienating individuals and offer your support and encouragement.

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