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School of Occupational Therapy

Designing and Implementing Employee Education Resources for a Residential School Serving
Children with Disabilities

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Abstract

This project was developed for the recreation department at Damar Services, a residential school facility for children with developmental and behavioral challenges. The project was designed to provide employee education regarding best practices for working with students with disabilities, how to identify sensory challenges and implement sensory regulation techniques, and how to plan for and engage students with disabilities into meaningful play and leisure occupations. The information in the employee education materials was modeled by the student, and education modules were compiled to be used as training materials for future employees of the recreation department. The results of the project revealed that the occupational concepts applied during the recreation classes increased student engagement and participation in physical activities. The education materials created will be implemented into future Damar recreation employee orientation in order to promote staff engagement and knowledge regarding meaningfully engaging students during recreation classes.

Designing and Implementing Employee Education Resources for a Residential School Serving Children with Disabilities

This project was completed at Damar Services in Indianapolis, Indiana. Damar Services provides many disability support and education services to children and adults throughout the Indianapolis area. This project was designed for the staff of the recreation department at Damar's main campus, which is a residential facility where nearly 180 students live, and have the opportunity to attend either the private on-campus school known as Freeway, or the Damar Charter Academy (DCA), which also serves children with disabilities who live in the community. The recreation department is responsible for providing physical education classes throughout the week for all of the classes at Freeway and DCA, as well as after school, weekend, and summer recreational programming.

Based on the findings of a needs assessment and several weeks of observation during the school day recreation classes held at Damar Services, it was determined that the staff of the recreation department had limited training on best practices for working with and engaging students with developmental disabilities and behavioral challenges, as well as limited education on how to design activities to promote the students' meaningful engagement in physical activity and play. The purpose of this project was initially to provide employee education regarding best practices for working with students with disabilities, how to identify sensory challenges and implement sensory regulation techniques, and how to plan for and engage students with disabilities into meaningful play and leisure occupations. Due to site staffing changes during the course of the capstone, the doctoral student implemented the occupational principles to the recreation classes directly, and created the employee education resources to be incorporated into future employee training. This report will discuss the relevant literature supporting the project, as well as the project design, implementation, and outcomes.

Background

Necessity for Residential Support Services

Residential schools and programs can serve as a vital resource for both children and the families of children with developmental disabilities. These services may become the only available option for students with disabilities that can provide the support and care needed that may not be available to them in traditional school settings or within the care of their families (Gutman et al., 2018). King et al. (2021) found that residential life skills programs can increase student awareness of their own capabilities, as well as providing foundational skills that can be built upon in the future. Another study by this group of researchers discovered the importance of staff engagement and communication skills with the students, especially in providing encouragement and direction (King et al., 2019). This study shows how important the role of staff and caregivers are to the success of the services provided by residential organizations. The current literature surrounding residential organizations for children with developmental disabilities supports their necessity in providing services for an often underserved population. Furthermore, evidence indicates that the staff of these organizations serve in a pivotal role that directly influences the success of these services.

Staff Education about Children with Disabilities

Employees of residential services for students with disabilities need to be educated on the techniques and intervention strategies that can best support the population served. The primary population that Damar serves is students diagnosed with Autism Spectrum Disorder (ASD). One primary challenge of students with ASD is difficulty participating in and understanding social interactions, and implementation of maladaptive behaviors (Ghanouni et al., 2019). This article further details the frustration that both students and caregivers feel when there is difficulty with

communication, and how this can perpetuate a maladaptive cycle. This evidence demonstrates the necessity for staff education about facilitating social and communication skills among the ASD student populations. A review by Arbour-Nicitopoulos et al. (2018) indicates that instructors of physical education classes play an important part in supporting positive social interactions during recreational activities. Further evidence suggests that increased communication leads to better understanding of preferred activities, which is a vital component in promoting participation in physical activity (Stanish et al., 2017). Another study demonstrated that teachers could be educated in sensory interventions to help students with ASD or emotional regulation issues regulate themselves, and after providing education all teachers involved in the study implemented several strategies within the classroom and noted positive results from students (Kaiser, 2020). This provides further evidence to show that education on intervention methods to support students with ASD and other developmental abilities can be effective and provide increased positive outcomes and participation in recreational occupations for the students.

Furthermore, it is important to understand specific techniques and recommendations to maximize facilitation of student skill-building and participation in recreational activities. Research indicates that incorporating various types of cueing, such as physical, verbal, and visual, are vital to student learning (Bremer & Lloyd, 2021). Importantly, research suggests that students with disabilities such as ASD participate more in physical activities when they have a higher level of competence and consistency, which indicates that with the correct facilitation techniques, students at Damar can gain confidence, skills, and increase participation in recreational activities (Arnell et al., 2018).

Best Practice for Education Implementation

Additionally, it is necessary to understand the best practice for fostering employee engagement and participation within their role as a caregiver for students with disabilities. In a study by Scahill et al., researchers found that providing parent training versus parent education for behavioral interventions can lead to overall increased participation in activities of daily living by children with ASD (2016). The study found that providing caregivers with specific training, home visits, role plays, and personalized behavior management interventions, rather than standardized educational materials, led to better outcomes in the ADL category among the children. This is important evidence to incorporate into this educational process, as it will be more effective if it includes personalized training with site specific and meaningful examples and demonstrations.

Finally, it is important to recognize the value of an occupational therapy approach to helping facilitate student development and participation in recreational occupations. A review by Taylor et al. (2018) indicates that physical activity interventions positively correlate to motor skill, social skill, and cognitive development. A review by Castro-Kemp & Samuels (2022) also indicated that collaboration across the fields of education, healthcare, and social care support communication across multiple disciplines to create the most holistic care possible. Holistic care is a vital part of occupational therapy practice, and education materials with an occupational perspective can help provide the most beneficial and holistic care for the children at Damar.

Needs Assessment Review

The needs assessment conducted prior to beginning capstone and expanded upon during the first several weeks of the doctoral capstone experience on site at Damar Services illuminated the specific site needs to be targeted through this project. Primarily, the largest barrier to

successful and meaningful service delivery is the lack of staff education and engagement with the students they serve. This causes secondary challenges, such as inconsistent scheduling and expectations, and difficulty identifying the needs of each child. With these challenges in mind, the purpose of this project will be to implement staff education materials designed to improve staff understanding of working with children with disabilities. Additionally, the education materials will emphasize the importance of building meaningful relationships and routines with the children, and improving overall staff engagement during all of the recreation classes that occur throughout the week.

Theoretical Background

The Person-Environment-Occupation-Performance (PEOP) model guided this DCE project. The PEOP model provides a theoretical basis for considering the intrinsic factors of the person, the extrinsic factors in the environment, and the necessary occupations, while focusing on the success of the performance, which is considered occupational competence (Baum & Bass, 2011). The staff training and education materials designed for Damar Services were created to target current problematic areas related to staffing to educate the staff in the basics of working with students with developmental disabilities, and help to engage the staff into the importance of facilitating participation alongside the students to improve their outcomes.

The frame of reference used to guide the project planning was the Cognitive Behavioral Theory. This theory describes the cyclical relationship between thoughts, emotions, and behaviors (Cole & Tufano, 2020). This theory will help me with my program evaluation and employee training design as it will be vital to understand the thoughts and emotions of the employees that are contributing to the current behaviors exhibited that may not be beneficial to the organization, and to help ensure that the training I design will be tailored to address those

factors to support the behaviors that will be supportive of the overall goals of the organization.

Project Design

The project was designed to be a series of education modules specifically for the recreation staff at Damar Services in several areas identified by the needs assessment. The education modules were formatted to begin with an overview of each main topic and emphasize the importance of the material, and included several subsections with specific examples for implementation into existing recreation programming. The topics chosen for the education modules were “Increasing Student Engagement”, “Sensory Processing and Regulation”, and “Recreation Activity Design”. The “Increasing Student Engagement” module includes a general overview on best practices for working with children with disabilities, as well as more specific information related to some of the more common diagnoses found among students at Damar Services, including Autism Spectrum Disorder, Attention Deficit Hyperactivity Disorder, and Oppositional Defiance Disorder. The “Sensory Processing and Regulation” module included information regarding how sensory information is processed, how to identify sensory seeking or avoiding behaviors, and how to implement sensory friendly ideas into activities and gym space to help students with sensory regulation. The “Recreation Activity Design” included general information about how to structure classes to promote engagement, as well as more specific activity ideas tailored to the different types of classes and students that Damar serves.

Project Implementation

During the course of the DCE, several staffing changes occurred within the recreation department at Damar services. Both of the full-time recreation employees, who were responsible for planning and leading the recreation classes during the week, left their positions in the early weeks of the DCE. As a result, all of the education provided in the education modules was

implemented into the recreational classes directly by the capstone student. Each day, classes were provided with an overview of the schedule for the class, as well as a reminder of student expectations. The schedule remained consistent week-to-week, and activities were graded to provide an appropriate level of challenge for each class. Intentional communication and various forms of verbal, physical, and visual cues were incorporated into all activities to maximize student understanding and participation. Additionally, all educational principles were compiled in the modules as originally designed, with the intention that the recreational director could use them to train future employees of the department. The goal for all the education modules and the implementation of occupational principles into the recreational classes was to increase staff knowledge and demonstrate how to help students with disabilities engage in meaningful activities during recreation classes at Damar services.

Project Outcomes

The education modules developed for the Damar Services recreation department were created in order to help staff improve their engagement with the students, as well as how to design and implement activities to promote participation in physical activity and sensory integration. The education modules were intended to be designed and taught to the existing employees at the site, and project outcomes were designed to be measured based on employee surveys before and after education from the capstone student. However, due to staffing changes during the course of the project, the student implemented the techniques and approaches found in the modules firsthand through leading the recreation classes. Due to the aforementioned changes, the outcomes of the projects were instead assessed via interviews conducted with the recreation director and assistant director to assess their perspectives on the beneficence of the principles implemented by the student during recreation classes, as well as the educational materials

created. The interview method was utilized to understand the recreation director and assistant directors' opinions on the programming implemented by the student, especially the participation and engagement of the students and their care staff during the classes taught by the student, specifically in comparison to these aspects prior to the implementation of the capstone project. Additional questions were asked about the education resources created, in order to determine both knowledge and understanding of the topics, as well as the ability to implement the materials into future employee training.

The interview conducted with the recreation director indicated several positive outcomes of the project. In regards to the concepts applied during the recreational classes, the director stated “I don’t remember a time when the students were this involved or excited during class.” He also stated “This has given us a good basis for what things should look like around here”. In regards to the educational materials, he stated that “All of this information is easy to understand and reflects all of the work you’ve [the capstone student] done here with us. This will be the perfect thing to give to whoever we hire in the future.” The interview conducted with the assistant director reinforced several of these outcomes. He agreed that the student participation during classes increased throughout the project implementation, and further stated “You [the capstone student] have demonstrated how much of an impact being consistent has on the students, and that is definitely what we need to keep up.” He also stated that the educational resources “gives really good guidance for people joining the department” and felt that “providing clear steps and expectations will help them be successful.” Overall, both the director and assistant director indicated that the occupational principles implemented into the recreational classes improved participation of both students and direct care staff, and that the educational

materials accurately reflected the principles implemented. Additionally, they indicated that the educational materials will be incorporated into future staff training.

Summary

Residential school facilities, like Damar Services, provide important services for students with developmental disabilities and behavioral challenges. These residential facilities are responsible for facilitating student development, skill-building, and occupational engagement. Employees of these organizations play a vital role in this skill-building process, and research shows that employee education can increase ability to communicate effectively with students and improve student engagement and regulatory skills. Therefore, it is important that employees have educational resources to help maximize knowledge and confidence when working with students at residential facilities.

This project was designed for employees at the recreation department of Damar Services to create educational materials to improve staff knowledge and confidence in working with students. Due to staffing changes during the course of the doctoral capstone experience, the recommendations for improving staff and student engagement in physical and recreational activities were implemented directly by the capstone student during recreation classes each week. Classes each week were provided a consistent structure, clear directions and expectations, opportunities for sensory breaks, and multiple forms of cueing to help students remain engaged in activities throughout the class period. Additionally, education materials were created to be used by the recreation director to train future staff of the department and help ensure carryover in the future.

The results of the study were measured via interviews conducted with the recreation director and assistant director at the site. The interviews revealed that the programming

conducted during the DCE increased student engagement and participation in recreational activities. Additionally, the educational materials provided will be used to train future employees to help promote carryover of results in future classes.

Conclusion

The goal of this project was to provide educational resources to the recreation department at Damar Services. In conjunction with the materials, all of the recommendations provided were implemented during recreation classes. The implementation of this project benefitted Damar Services in many different ways. Firstly, over 200 students each week attend recreation classes, and throughout the implementation of the project the classes all received increased structure and design to make physical activity more appealing, engaging, and adequately tailored to the ability level of the students. Additionally, the staff of the recreation department gained examples and materials to help increase student participation and engagement, as well as to help train future staff members in maintaining these benefits.

Overall, while the work completed at this project was designed specifically for the staff at Damar Services, there may also be further implications for the occupational therapy profession. Current research indicates that there are continued barriers to children with disabilities participating in meaningful recreational and physical play occupations (Carbone et al., 2022). This is an occupational injustice that occupational therapy practitioners have the ability to help address. As indicated by the positive results of the project, it is clear that bringing an occupational therapy perspective into the programming of a developmental school can help improve participation in vital occupations for students with disabilities and behavioral challenges, especially play and leisure, as well as supporting health promotion and wellness through increasing engagement in physical fitness.

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Appendix A

Week	DCE Stage (orientation, screening/evaluation, implementation, discontinuation, dissemination)	Weekly Goal	Objectives	Tasks	Date complete
1	Orientation	Orient to site	<ul style="list-style-type: none"> - Meet employees of rec - department - Witness rec class time - Meet students and direct care staff 	<ul style="list-style-type: none"> -Worked on project timeline -Started introducing self to students -Met with faculty advisor -Updated goals of MOU 	1/9 – 1/13
2	Screening/Evaluation	Finalize needs assessment/MOU	<ul style="list-style-type: none"> - Continue shadowing rec classes - Start learning student names - Talk to rec staff about areas of knowledge/growth 	<ul style="list-style-type: none"> -Continued meeting students and learning names -Initiated conversations with direct care staff -Initiated conversations with recreation staff -Drafted intro of scholarly report 	1/16 – 1/20
3	Screening/Evaluation	Begin compiling staff education resources	<ul style="list-style-type: none"> - Determine topics for staff education - Assist with rec class time 	<ul style="list-style-type: none"> -Learned structure of students day and organization at Damar -Continued learning student names -Helped with setting up rec classes, assisted with leading activities -Drafted Background 	1/23 – 1/27

4	Screening/Evaluation	Continue compiling staff education resources	<ul style="list-style-type: none"> - Locate research articles for needed topics - Format research with site specific information - Continue assisting with rec time; apply principles of occupational therapy during interactions with children 	<ul style="list-style-type: none"> -Decided educational resource concepts should be organized based on staff education & engagement, sensory integration, and activity ideas and structures -Started planning activities for morning classes d/t no staff present in the morning -Started keeping track of preferred activities for students in ASD classes -Write Design and Implementation 	1/30 – 2/3
5	Screening/Evaluation	Continue Compiling staff education resources	<ul style="list-style-type: none"> - Continue researching & developing educational materials - Continue working with students 	<ul style="list-style-type: none"> -Began implementing expectations at start of class -Began implementing visual and verbal cues into classes with projector & speaker -created outline for Sensory integration module 	2/6 – 2/10
6	Implementation	Implement education resources into structured classes	<ul style="list-style-type: none"> - Develop pre-test based on education materials - Administer to staff 	<ul style="list-style-type: none"> -Increased leadership during majority of classes -Continued implementing structure and expectations to classes taught 	2/13 – 2/17

			<ul style="list-style-type: none"> - Continue working with students - Complete midterm eval with site mentor 	<ul style="list-style-type: none"> -Finished sensory integration education materials -Started outline for facilitating participation -Met with site mentor to discuss Midterm Eval 	
7	Implementation	Continue implementing educational principles into classes led	<ul style="list-style-type: none"> - Implement group activities for different classes based on principles of OT and demonstrating materials from education resource 	<ul style="list-style-type: none"> -Restructured project implementation d/t staff no longer working for department -Began leading all recreation classes during the week -Continued compiling participation facilitation materials 	2/20 – 2/24
8	Implementation	Continue implementing educational principles into classes led	<ul style="list-style-type: none"> - Brainstorm activities for rec time based on education provided - Implement preferred activities for Autism Service classes 	<ul style="list-style-type: none"> -continued leading all rec classes throughout the week -Finalized facilitating participation handout -Continued compiling activity ideas and interventions materials 	2/27 – 3/3
9	Implementation	Continue implementing educational principles into classes led	<ul style="list-style-type: none"> - Determine how outcome measures will be assessed based on project changes - Continue implementing OT principles 	<ul style="list-style-type: none"> - Continue leading all recreation classes - Created poster for rec department to set 	3/6 – 3/10

			during classes	expectations for direct care staff during classes - Start drafting outcomes - Start determining dissemination plan	
10	Implementation	Continue implementing educational principles into classes led	<ul style="list-style-type: none"> - Continue implementing OT principles during classes - Design interview to be conducted for final outcomes 	<ul style="list-style-type: none"> - Continued leading all recreation classes -Met with advisor regarding outcome measures -Continued drafting outcomes -Designed interview questions for site mentor & assistant director -Completed dissemination plan 	3/13 – 3/17
11	Implementation	Continue implementing educational principles into classes led	<ul style="list-style-type: none"> - Continue implementing OT interventions with student groups 	<ul style="list-style-type: none"> -Continued leading all recreation classes -Finalized all educational materials for presentation 	3/20 – 3/24
12	Discontinuation	Present recreation director and assistant director with educational materials & conduct interviews	<ul style="list-style-type: none"> - Conduct interviews with director and assistant director - Continue implementing OT interventions 	<ul style="list-style-type: none"> -Met with director to present materials and conduct interview -Met with assistant director to present materials and conduct interview 	3/27 – 3/31

			with student groups	-Continued leading rec classes; began preparing students for capstone ending in two weeks -Noted areas in education resources to edit based on initial review	
13	Discontinuation	Data analysis	<ul style="list-style-type: none"> - Analyze data - Write summary and conclusion of project 	<ul style="list-style-type: none"> -Made final edits to educational resources -Finalized outcomes draft based on interviews -Continued leading all classes; continued to prepare students for capstone ending next week -Drafted abstract, summary, conclusion 	4/3 – 4/7
14	Dissemination	Disseminate to site mentor and staff	<ul style="list-style-type: none"> - Disseminate research - Wrap-up working with students 	<ul style="list-style-type: none"> -Disseminated to director and assistant director -Presented site with physical and digital copies of educational resources -Taught final classes, thanked students and staff for capstone experience 	4/10 – 4/14

Appendix A. Doctoral Capstone Experience and Project Weekly Planning Guide