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*School of Occupational Therapy*

Pediatric Home Program after Completion of a Dolphin-Assisted Therapy Program: A Doctoral

Capstone Experience

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A capstone project submitted in partial fulfillment for the requirements of the Doctor of Occupational Therapy degree from the University of Indianapolis, School of Occupational Therapy.

Under the direction of the faculty capstone advisor:

Beth Ann Walker, PhD, OTR

# A Capstone Project Entitled

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Taylor Millar, OTS

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### Abstract

Island Dolphin Care, a not-for-profit, provides dolphin-assisted therapy programs for people with special needs. A needs assessment was completed by the therapy staff at IDC immediately after the therapy season ended in November 2017. The purpose of this DCE project was to explore the potential role of occupational therapy in a non-traditional practice setting and create a home program to increase carryover of skills for children who participate in the dolphin-assisted therapy programs. Based on a review of the literature and personal experience, the home program was designed to include fun, cost-effective, and therapeutic activities divided into five domains: gross motor skills, fine motor skills, sensory integration, self-regulation, and speech/language skills. Feedback regarding the home program was obtained from two families. Parents reported the activities in the home program helped increase carryover and generalization of skills for their children into the home, school, and community setting. The book was well received by the families and met the need of the facility, but it was recommended to create multiple books for the additional populations being served. It is recommended that the facility utilize an outcome measure to determine effectiveness of the home program. The site determined having an occupational therapist on staff would provide a unique perspective to the interdisciplinary approach.

## Pediatric Home Program after Completion of a Dolphin-Assisted Therapy Program: A Doctoral Capstone Experience

It is estimated that approximately one billion people, 15% of the world's population, are currently living with a disability (The World Bank, 2017). The Centers for Disease Control and Prevention (2015) reported that approximately 15%, or one in six children ages 3-17 in the United States have one or more developmental disabilities including learning, physical, behavior, and/or language impairments. Symptoms of various developmental disabilities include but are not limited to muscle weakness, hyperactivity, difficulty planning and controlling movement, delayed communication, anxiety, and difficulty learning (Akins et al., 2014). Medical professionals use symptoms of developmental disabilities to establish goals for improvement in both traditional and complementary/alternative medicine (CAM) therapies. Research has shown that more than 50% of parents raising children with a disability have tried at least one CAM method to improve symptoms (Kreivinienė & Kleiva, 2017). Some CAM treatments include dietary supplements, diet modification, massage, and animal-assisted therapy (Akins et al., 2014).

### **Background Information**

Island Dolphin Care, a not-for-profit organization in Key Largo, Florida, provides a unique, motivational, and educational experience for children and adults with special needs and their families to participate in dolphin-assisted therapy programs that enable the individuals to achieve goals and reach their maximum potential (Island Dolphin Care [IDC]), 2017).

Established in 1997, the family-centered business has grown substantially to meet the needs of all people with special needs and their families by offering a variety of therapy programs.

Dolphin-assisted therapy (DAT) programs offered at IDC include a single-day group veteran

program, a half-day dolphin talk group program for children and adolescents with disabilities, and a 5-day therapy program for people ages three and up with disabilities that includes both classroom and water sessions. All therapy programs, at minimum, include a dolphin interaction, art project, and marine animal education session. The most popular program at IDC is the 5-day therapy program, which is in session from the beginning of March to the end of November every year. The participants of this program most commonly are children, however adults and older adults with special needs are welcome to participate as well.

Licensed therapists, with backgrounds in recreational therapy and special education, assist and mentor clients to reach goals and maximize potential. Island Dolphin Care utilizes evidence-based, therapeutic methods and innovative assistive technology in the areas of sensory integration, gross motor skills, fine motor skills, social interaction, communication, language, organization, and self-esteem. The combination of therapeutic activities with a joyful experience of swimming with dolphins, provides the motivation and tools needed for the participants to reach their greatest potential (IDC, 2017). A previous family who attended the 5-day DAT program at IDC stated in a published periodical, “They brought us closer as a family, and brought our little man, Jamie, closer to his full potential” (Whitford, 2017).

Currently, IDC can provide therapy for eight families in a single week (IDC, 2017). Each family participates in approximately one and a half hours of therapy each day for the duration of the 5-day program. A typical day involves 60 minutes of classroom session which focuses on the goals that the family established in the application, but also therapist goals for the client including motor skills, behavior, social interaction, speech, etc. Immediately following the classroom session, the family participates in 20 minutes of DAT in the water, which reiterates the skills addressed in the classroom. Additionally, each Wednesday the families are invited to a

cookout that allows the families to interact with all the families participating in the program that week to promote bonding and social interaction.

### **Literature Review**

DAT is a branch of animal-assisted therapy in which dolphins are used as a therapeutic mode for treatment (Dilts, Trompisch, Bergquist, 2011). Treatment sessions are goal-directed and client-centered in the areas of physical, cognitive, social, emotional functioning, and overall wellbeing (Kreivinienė & Kleiva, 2017). The use of dolphins as a therapeutic mode for treatment is a new and emerging practice within the area of dolphin-human interactions and CAM therapies. DAT has limited qualitative and quantitative research, yielding mixed results (Kreivinienė & Kleiva, 2017). Despite limited research, positive outcomes have been reported (Dilts et al., 2011; Griffioen & Enders-Slegers, 2014; Kohn & Oerter, 2013; Kreivinienė & Kleiva, 2017; Nathanson, 1998; Nathanson, de Castro, Friend, & McMahon, 1997). Many researchers have focused on the short-term effectiveness of DAT, whereas only one reviewed literature article has discussed the long-term effectiveness (Dilts et al., 2011; Griffioen & Enders-Slegers, 2014; Kohn & Oerter, 2013; Kreivinienė & Kleiva, 2017; Nathanson, 1998; Nathanson et al., 1997). It is important to note that DAT should be used complementary to traditional therapy, not as a replacement, due to the unique nature and short-term participation in DAT programs around the world (Nathanson et al., 1997).

Nathanson and his team at the Dolphin Human Therapy Centre, another DAT program in Key Largo, FL, participated in a pre-post test research study where researchers examined the effect of DAT in terms of four domains: cognition, emotion, conspicuous behavior, and motor skills (Kohn & Oerter, 2013). At 6 weeks and 6 months after the therapy program, parents, teachers, and home therapists reported a statistical improvement in all four domains using a 5-

point Likert scale, with the largest reported increase in motor skills (Kohn & Oerter, 2013). Likewise, in terms of cognitive development, Griffioen & Enders-Slegers (2014) found a significant increase in ‘verbalization’ and a significant decrease in ‘impulsiveness’ immediately following and 6 months after DAT for children with down-syndrome. The skill ‘recognition of persons’ improved during the DAT program, however carryover of the skill was not maintained 6 months after completing program (Griffioen & Enders-Slegers, 2014).

When compared to traditional physical and speech-language therapy, researchers found that DAT is more cost-effective and achieves positive outcomes more quickly for children with severe cognitive and physical disabilities (Nathanson et al, 1997). After two weeks of DAT, 71% of children were able to complete specific fine motor task based on baseline level of function by the end of the DAT sessions, compared to 0% of children who participated in 6-months of traditional therapy. Nathanson (1998) found that 50% of children with severe disabilities improved or maintained behavior modification skills 12 months after completion of the DAT program. Additionally, this same group of parents received both a binder of information and a videotape of activities for behavior management, individually designed by the therapist as part of treatment to meet the goals for each child. The parents rated the resource book as ‘useful’ and the video as ‘very useful’ for parental follow through after completion of the therapy program (Nathanson, 1998).

Another area addressed in DAT in the literature is child-family interactions; similarly, this domain has limited data and yielded mixed results (Kreivinienė & Kleiva, 2017; Stumpf & Breitenbach, 2014). Special needs or disability of one family member affects the welfare of the whole family, showing a need to improve the family-child dynamic and interactions within the home (Kreivinienė & Kleiva, 2017; Stumpf & Breitenbach, 2014). Researchers found that after

family-centered DAT, parents reported improvements in communication and social-emotional behavior 4 weeks and 6 months after therapy (Breitenbach, Stumpf, Fersen, & Ebert, 2009; Stumpf & Breitenbach, 2014). Also, parent-reported quality of life significantly improved 4 weeks after therapy, but not 6 months (Stumpf & Breitenbach, 2014).

Families and medical professionals have reported positive improvements and benefits in many different domains for their children up to 6 months after completion of a DAT program (Breitenbach et al., 2009; Griffioen & Enders-Slegers, 2014; Kohn & Oerter, 2013; Kreiviniene & Kleiva, 2017). Current literature has not addressed the long-term effectiveness of DAT after program completion. Additionally, only one research study has provided a home program or resources for the home environment to increase carryover of skills developed in a DAT program.

Home programs, specific to this population, are defined as therapeutic activities aimed toward achieving desired therapeutic outcomes completed by both the client and their family in the home environment (Novak & Berry, 2014). Wang, Ho, & Su (2013) found that a home-based occupational therapy program produced significant improvements in the areas of fine motor function and activity participation for children with intellectual disabilities. Additionally, integrating play activities with goal-directed, evidence-based therapy in the home setting has been found to increase motivation to participate and compliance with the home-based therapy program (Novak & Berry, 2014; Peck-Murray, 2015).

Opinions about the best and most effective approaches to treatment for children with disabilities vary among health professionals, researchers, and parents. Despite differing opinions, there has been a shift in perspective from approaches trying to fix the underlying problem to approaches that promote increased participation and performance in meaningful activities or occupations (Skelton & Rosenbaum, 2010). Occupations are daily life activities in



which people engage that have meaning and purpose specific to the client (American Occupational Therapy Association, 2014). With this new perspective comes new possibilities for meaningful, client-centered treatment ideas that focus on improving performance of meaningful occupations. According to Skelton & Rosenbaum (2010), Dynamic Systems Theory (DST) is a combination of theories to form the idea that many factors connect to create the developmental outcome. This theory suggest that guiding therapy with a search for “normality” may be inappropriate. Therapeutic approaches should instead utilize strategies that are most efficient and effective for the individual client, even if they may be associated with a disability. Theories are used as a guide for traditional and CAM therapies, allowing therapists to identify strategies that are unique and client-centered to improve performance and increase participation in occupations (Skelton & Rosenbaum, 2010).

Dynamic Systems Theory is the most appropriate theory to guide a student occupational therapy Doctoral Capstone Experience (DCE) in DAT for children and adults with various disabilities. At IDC, clients and their families determine goals to be addressed in both the classroom and DAT water sessions. Therapists with experience in DAT can use DST to collaborate with the families to establish unique, client-centered treatment ideas to help increase performance and participation in occupations, rather than trying to fix the underlying problem. Each water and classroom session has an outlined plan working towards a specific goal. However, adaptations can be made depending on what is most efficient and effective for the client at that moment in time to promote success.

Additionally, since the person and environment interact with each other to either support or hinder participation, it is important to provide a supportive home environment for children with disabilities in order to promote successful participation in occupations that are meaningful

and purposeful to them. Based on foundations of DST, creation of a therapeutic activity book with graded therapeutic activities will help meet the need of increased carryover and participation in therapy-based activities beyond the typical therapy setting. The goal of this activity book is to aid clients in meeting client-centered goals for traditional therapy after completion of the DAT program. The purpose of this doctoral capstone experience is to increase participation and performance in occupations for adults and children with special needs and their families through a unique DAT program at IDC and a complementary therapy activity book for carryover into the home environment.

Research has linked DST with the occupational therapy (OT) process (evaluation, treatment, and discharge) to improve participation in activities of daily living (ADL) in various different practice areas (Coté, 2015; Darrah & Bartlett, 1995; Mastos, Miller, Eliasson, & Imms, 2007). This theory can be used across existing and emerging areas of occupational therapy practice as a basis for screening and evaluating clients to determine the most effective, client-centered treatments because of its top-down approach. Occupations are frequently described in terms of DST: the client, environment, and tasks or skills interacting to either support or hinder performance (Persson, Erlandsson, Eklund, & Iwarsson, 2001). Examples of limiting factors within the client include biomechanical, motivational, or neurological constraints (Darrah & Bartlett, 1995). Environmental constraints include physical, cultural, or social factors impacting performance of a task. Task limitations result from the nature of the task itself inhibiting performance (Darrah & Bartlett, 1995). Occupational therapy practitioners, regardless of the setting, evaluate these areas to identify the factor(s) that are specifically limiting performance and determine the system that is most available to change (Coté, 2015; Darrah & Bartlett, 1995). Once the area of change is determined, the OT practitioner should collaborate with the client and

family to create client-centered goals for increased participation, performance, and satisfaction in daily occupations that target this area of change. The dynamic system theory fits well alongside an occupation-based approach because it allows the OT practitioner to center the OT process on the client performing a task within his or her environment (Coté, 2015; Darrah & Bartlett, 1995; Granados & Agis, 2011; Mastos et al., 2007; Persson et al., 2001).

### **Methodology**

**Screening and Evaluation at IDC.** The screening and evaluation process at IDC initially begins with the family reaching out by phone, email, or social media to receive more information on the programs offered. Based on the information provided, the family chooses the program that would be the most beneficial for the child or family member with special needs. An application process is required for all new participants in the 5-day therapy program. The application is the main source of screening and evaluation for the therapists due to the unique nature of the program. The application addresses various dimensions of functioning that allows the therapists to paint a holistic picture of the child prior to beginning the program. In order to learn as much about the client as possible before starting the program, parents complete a questionnaire evaluating their child in the areas of physical, emotional, behavioral, social, and language skills using a 5-point Likert scale. The application provides basic information, which includes a description of how the not-for-profit was founded, specific information of the activities included in the 5-day therapy program, family and participant information, pricing, scholarship information, criteria for acceptance, and establishment of goals and expectations for the program. Criteria for acceptance includes completion of the application, recent doctors/therapy reports, and a ten minute DVD of the child interacting with others.

Inclusion criteria for participants of the 5-day program includes 1) a doctor's note which lists a medical diagnosis, (2) completion of all items in the criteria for acceptance listed in the application, and (3) the child must be able to actively participate in the sessions. Exclusion criteria includes children who are afraid of large animals or deep water, and those who will not allow strangers to hold them.

Once all the criteria for acceptance is received and the family reserves a date, the therapy staff at IDC begins analyzing and evaluating the child's performance and participation in daily activities based on information provided in the application and video. The therapists at IDC then begin to plan the week of therapeutic activities prior to the child starting the program. Therapists also use the time when the families first arrive during orientation to screen and observe the child in terms of attention, verbalization, and behaviors.

**Screening and Evaluation for Therapy Activity Book.** A needs assessment was completed by the therapy staff at IDC immediately after the therapy season ended in November 2017. The team discussed ideas and projects that would benefit most families who participate in 5-day therapy programs throughout the year. Ultimately, it was determined the greatest need at IDC was to increase carryover of the skills (fine motor, gross motor, speech, etc.) addressed during the 5-day DAT program into the home environment for children (Peplow & Carpenter, 2013). Repetition of skills needs to occur in order to maximize ADL independence. A cost-effective strategy to implement, complementary to traditional therapy, is a home-based program. Therapy staff and the writer (occupational therapy student) used literature and personal experience to collaboratively determine the book should address five domains of functional performance for children ages five to ten including: fine motor skills, gross motor skills, self-regulation, sensory integration, and speech-language skills (Novak & Berry, 2014; Wuang et al., 2013). Similar

home programs that utilized a functional therapy approach for children with special needs have led to positive outcomes in the areas of motor abilities, functional performance, cognition, and developmental skills (Novak & Berry, 2014). Activities were designed to benefit children whose developmental age is between five and ten, which is the largest population of children who participate in the 5-day program. Research has shown parent dissatisfaction with home programs that focus on the child's impairment rather than family and child preferences (Peplow & Carpenter, 2013). Currently, the book is uniform for all children and its focus is to incorporate a holistic approach to the home program that is fun and engaging for all members of the family. Activities will be simple and cost-effective, aiming to increase the quality of the parent and child interaction, while also increasing functional performance in many of the listed domains (Peplow & Carpenter, 2013).

### **Implementation**

Traditional occupational therapists in clinics or hospitals tend to adopt the expert and educator roles to provide the best occupation-based therapy for the individual client (Case-Smith & Holland, 2009). It is important to note that the role of an occupational therapist should change based on the service delivery model being utilized and the purpose of the services. Therefore, when designing a home program after therapeutic intervention it is important for the professional to adopt the role of a consultant. A consultant allows the occupational therapist to design and implement a family-centered, individualized, and engaging plan that is adapted to the needs and desires of the family (Case-Smith & Holland, 2009). The writer utilized leadership skills while acting alone to organize information obtained in the needs assessment to adopt the distinct role of a consultant. Leadership qualities continued during the planning and development phases of the home program for children to participate in after completion of the 5-day DAT program,

where the writer independently designed an activity book to promote development of skills. Research has shown that one key issue with the implementation of a home program is the ability of the therapist to adopt the role of consultant when developing the home program (Pelow & Carpenter, 2013). The consultant role is the most effective and appropriate role when implementing a home program because of the nature of utilizing an indirect mode of therapeutic services. Adopting the consultant role when developing the therapy book allowed the designer to address many of the issues about relevance and adherence to home programs identified in the literature. Some issues identified in the literature were adopting the consultant role when designing a home program, incorporating a family-centered approach, the pressure and stress placed upon the family to complete the activities, a lack of supplies, and the designing of a function-based home program rather than dysfunction (Peplow & Carpenter, 2013).

Based on results from the needs assessment, it was determined that in order to increase carryover of skills after completion of a DAT program, a home program needs to be implemented. The designer strived to incorporate many therapeutic domains into the therapy book with the goal of achieving desired therapeutic outcomes for the family (Novak & Berry, 2014). Volunteers from various disciplines, including occupational therapy, recreational therapy, and special education, reviewed the home program to ensure accuracy and reliability within each scope of practice. After the final reviews and edits were made, the book was finalized and copies were printed off on cardstock paper and bound together to increase durability.

To encourage staff development and introduction to novel therapeutic activities, the three therapists at IDC who plan and implement daily classroom sessions for the 5-day programs participated in the review process of the therapy activity book. To promote an expansion of therapeutic interventions used in the classroom, therapy staff were each provided with a copy of

the book to incorporate into the classroom sessions to introduce families to the nature of the activities. Therapy staff at IDC implemented several activities from the therapy book into their classroom sessions throughout the week with each family. The student designer trained therapy staff at IDC to obtain written consent for participation in the home program and follow-up survey, and introducing families to the directions and recommendations for completion of the home program.

A convenience sample of the two families who participated in DAT at IDC during the first three weeks of therapy season from March 5, 2018 to March 23, 2018 was obtained. Families were included in the project if their child was between the ages of five and ten. Participation in the home program and follow-up survey was voluntary, and written consent for participation in the home program was obtained at the IDC facility upon completion of the 5-day therapy program. Written consent to participate in the home program and follow-up survey was obtained for two families. These families were given a therapy book along with a printout of instructions for the home program including suggested frequency and duration of the activities prior to leaving the facility. To avoid increased pressure and stress to complete the home program, it was suggested that the home program activities be completed two to three times a week, for a minimum of 30 minutes; however, this was not required (Peplow & Carpenter, 2013). Parent and family participation in the activities is an integral part for the process of rehabilitation for children with special needs; therefore family participation in the home program was highly recommended in the verbal and written instructions for the therapy book (Peplow & Carpenter, 2013).

Due to time constraints and school requirements, families were emailed a follow up survey two weeks after completion of the DAT program in order to receive and analyze

responses before the writer was completed with the capstone experience. The internally developed follow-up survey (Appendix A) was used as the outcome measure to assess of the effectiveness, relevance, adherence, and sustainability of the student occupational therapy home program after completion of the 5-day DAT program at IDC. Questions in the survey were designed to assess the pre-determined goals within the categories of effectiveness, relevance, adherence, and sustainability of the home program. The survey utilized a Likert scale ranging from one to five, with one meaning strongly disagree and five meaning strongly agree. The first goal was to create an effective home program that increased carryover and generalizability into the home setting. Additionally, the program needed to be relevant to the child participating, relative to age, diagnosis, and ability level. For the family to achieve the desired therapeutic benefits of the home program, participation in the recommended frequency and duration of the program should be achieved. The final question utilizing the Likert scale in the survey addresses sustainability by determining if the family has a plan for further completion of the home program after the two weeks. If parents plan to not continue the home program after the two weeks designated for measuring outcomes of the home program, space is provided for an explanation. Additionally, space is provided for families to make recommendations to improve the student occupational therapy designed home program.

## **Results**

The purpose of the home program was to increase carryover of skills into the home setting for children who participate in the 5-day DAT therapy program at IDC. The student writer had additional goals for the program to incorporate cost-effective activities and improve the child-parent relationship (Peplow & Carpenter, 2013). The outcome measure was designed to address all aspects of the home program including: preparation to participate in the home



program, accessibility of supplies, adherence to the recommended frequency and duration, carryover and generalizability of the program, continuation of the program after the follow-up time frame, and general suggestions for improvement (Novak & Berry, 2014; Peplow & Carpenter, 2013; Wuang et al., 2013).

Outcome measurement via the follow-up survey was obtained from two clients ( $N = 2$ ). Survey results were compared to pre-established goals to assess the home program in four domains 1) effectiveness 2) relevance 3) adherence and 4) sustainability. In terms of effectiveness, both families reported the home program helped increase carryover of skills addressed during the DAT program. Additionally, the families reported the home program was relevant to the age, diagnosis, and ability level of their child and they understood how the activities promote skill development and carryover into the home, school, and community settings. One family participated in the home program above the recommended duration and frequency. The other family did not participate in the recommended duration and frequency due to a lack of time. Despite a lack of time to complete the home program, the family reported ‘agree’ with the statement regarding the recommended duration and frequency being fair and easily attainable. Both families reported having a plan to continue the home program despite completion of the student DCE project.

Continuous quality improvement is a business management process that encourages healthcare businesses to continually ask questions of how to improve the quality of care and services provided to clients (Edwards, 2008). To ensure continuous quality improvement standards were implemented, outcome survey analysis was conducted upon after return of the follow-up surveys. The student writer conducted analysis of outcomes through coding of the responses. Neither of the families reported any recommendations for improvement on question

16 on the follow-up survey (Appendix A). Familial involvement and participation in the home program plays an integral part to introduce principles of quality improvement after completion of the project; therefore, family recommendations for quality improvement will continue to be a significant factor shaping the future of the activity book.

### **Discontinuation**

Data collection was discontinued on April 6, 2018, three weeks prior to the completion of the student project to allow for analysis of outcomes; measures were implemented to ensure the identified need will still be addressed in the future. The student writer plans to continue implementing the home program for the clients who attend a 5-day DAT program at IDC.

Ongoing analysis of outcomes will continue even after completion of the student project.

Therapy staff at IDC have also agreed to provide recommendations to increase effectiveness and sustainability of the home program after completion of the project, while also incorporating activities from the activity book into the classroom sessions. This promotes the importance of fun, client-centered activities to increase carryover and generalizability into the home setting. To ensure the identified need will still be addressed, future families will be informed that the activity book is available at no cost. The recommendation for weekly frequency and duration will be included in the book, as well as the follow-up survey. The family can mail the finished follow-up survey to IDC or contact the writer to obtain an online copy of the survey. The writer will continue to conduct analysis of outcomes after completion of the project to modify the home program as suggested improvements are made.

By developing this type of ongoing program based on principles of continuous quality improvement, health professionals, including OT practitioners, can respond to society's changing needs. Initially, a needs assessment was completed to identify the current need of the population

of families at IDC. The student writer and other therapy staff members at IDC can respond to the changing need of the population by altering the original design of the home program to promote sustainability and effectiveness. Quality improvement principles will be implemented by continuously adapting the therapy activity book based on the need of this population as a whole or the individualized needs and goals identified by the family.

### **Conclusion**

Implementation of a home program after participation in DAT can help to increase carryover of skills into the home, school, and community settings. Due to a large population of clients not appropriate for the activity book designed for the purpose of this DCE project, it is recommended that an occupational therapist design multiple books for the additional populations served at Island Dolphin Care. Along with the use of multiple home programs, the facility should utilize an outcome measure to determine effectiveness of the home programs.

Additionally, through collaboration between the occupational therapy student, therapy staff at IDC, and the founders of the facility about the potential role of occupational therapy in this non-traditional practice setting, it was determined that hiring an occupational therapist would be beneficial for the not-for-profit organization and its clients. Island Dolphin Care staff determined that having an occupational therapist on staff would provide a unique approach to both the classroom and water sessions included in the DAT programs offered at IDC. Island Dolphin Care decided to hire the student occupational therapy writer to join the interdisciplinary DAT therapy team after state and national licensing is complete.

### **Overall Learning**

This Doctoral Capstone Experience (DCE) and Project has been very beneficial for me both personally and professionally. I have improved my communication skills, confidence,

leadership skills, knowledge, professionalism, and ability to generalize occupational therapy practice to a non-traditional setting. Communication is a very important aspect of being in a healthcare field and this DCE has provided me with an amazing opportunity to improve my written, oral, and nonverbal communication skills. When designing the activity book as part of my DCE project, it was crucial to have excellent written communication skills for the parents to understand the purpose, supplies, directions, and ways to grade the activities to promote success for all children participating. I have worked on improving my oral and nonverbal communication skills every day at my DCE site. Working with families who have fragile, young children, veterans with Post-Traumatic Stress Disorder, and others with various health conditions it is important to speak and act with empathy and sincerity to not provoke any negative thoughts or feelings. When talking with these families, especially the veterans, it has been extremely important to show interest and attention when listening to them share their story despite any other task I should be completing. There were several times when I had a lot of work to finish before leaving for the day, but I had to realize that patient care and sincerity was more important than anything else I should be doing. These people benefit so much from the programs we provide for them and for a lot of them it is difficult to build relationships because of the constant change and uncertainty, so developing sincere oral and nonverbal communication skills helps to promote a strong client-therapist relationship.

Generalizing my skills learned throughout OT school to this non-traditional practice setting has helped develop and improve a lot of skills including confidence, professionalism, and knowledge. Because of this experience, I feel more confident in my abilities to be an occupational therapist in a traditional setting. I have had the opportunity to help the therapists at my site develop activities that incorporate the goals the family identified. Most of the activities

done at the site are art projects; the therapists have asked for my help to incorporate other aspects to promote the therapeutic goals. My ability to plan client-centered interventions and incorporate OT principles in this non-traditional practice setting has provided me with increased confidence in my ability to plan interventions in traditional practice settings. I have been introduced to many fun activities that have been done in the classroom portion of the DAT program that could also be used for pediatric OT intervention sessions. These activities promote development and address client-centered goals, but are fun and often times the child does not even realize the activity is incorporating a therapeutic goal.

Being encompassed in interdisciplinary practice on a daily basis has helped me understand the benefits of collaborating and using other professionals as a resource to be a great therapist. I have been introduced to overlap between professions but then also uniqueness between the professions as well. I have been able to provide advice to parents to help with problems related to sensory integration on multiple occasions. I utilized these opportunities to improve my leadership skills by taking the initiative to give advice when the other therapists were not able to. I also had to use leadership skills when planning and implementing aspects of the home program. Besides the needs assessment being complete for me, everything else I completed independently including the activity book and consent forms. Additionally, I trained the therapy staff to give information about participation in the home program and how to obtain written consent.

During my first eight weeks of my DCE, I worked on the activity book, but I also was involved in marketing of our services to increase awareness and advocate for the services that Island Dolphin Care provides. Collaboratively along with the office administrator, we developed flyers and ads to promote fundraisers and events to the community including the addition of

weekend therapy programs, yoga with dolphins, and a Valentine's Day fundraiser to raise money and awareness for Island Dolphin Care. These skills have helped to increase my professional development and knowledge of working for a non-for-profit business. Since I have accepted a therapist position at this facility, these skills I have learned will help me in future practice to advocate for the services our facility provides to increase caseload. My display of interest in this area has provided me with another job when I start working for this facility; I will help with marketing and fundraising in the future at Island Dolphin Care.

Overall, from this DCE I have learned many valuable skills that will not only benefit my future work at Island Dolphin Care but also traditional occupational therapy services I will provide in the future. I have learned how to utilize appropriate communication with clients and the importance of effective written, oral, and nonverbal communication when building relationships with clients, families, coworkers, and the community. Communication and professionalism are the crucial factors to success in any healthcare profession. I cannot wait to see what the future hold for my professional career, but I will be a better practitioner and person as a result of this DCE.

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## Appendix A

A follow-up survey to assess effectiveness, relevance, adherence, and sustainability of a home program after completion of the 5-day dolphin-assisted therapy program.

Directions: Please complete the form to the best of your ability. Bold or highlight the most appropriate numeric response to each statement. If you do not feel comfortable answering a statement, then skip it and move on to the next.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Staff or interns adequately prepared my family with instructions for completion of the home program and the follow-up survey.	1	2	3	4	5
2. The supplies needed were cost-friendly.	1	2	3	4	5
3. The directions for the activities were simple and easy to understand.	1	2	3	4	5
4. The writer included ways to upgrade and downgrade the activities. This information was useful and easy to understand.	1	2	3	4	5
5. The recommended frequency and duration per week was fair and easy attainable with other daily life commitments.	1	2	3	4	5
6. My child participated in the recommended frequency and duration (2-3x/wk) of the home program.	1	2	3	4	5
7. My child participated in the home program more than the recommended frequency and duration.	1	2	3	4	5
8. The activities easily incorporated the whole family.	1	2	3	4	5
9. At least one family member was active in participating in the desired activity with the child each time.	1	2	3	4	5

10. The activities were fun and engaging for all members of the family who participated.	1	2	3	4	5
11. I understand how these activities can help promote my child's development and increase carryover of skills addressed in the dolphin-assisted therapy program.	1	2	3	4	5
12. I believe that these activities have helped with carryover and generalization of the skills addressed in the dolphin-assisted therapy program into the home, school, or community setting.	1	2	3	4	5
13. I believe that if I were to continue this home program with my child, these activities will help promote carryover and generalization of the skills addressed in the dolphin-assisted therapy program into the home, school, or community setting.	1	2	3	4	5
14. I will continue to complete this recommended home program with my child. If not, please explain why below.	1	2	3	4	5

15. If you do not plan to continue this home program with your child, please give an explanation.

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16. Recommendations to improve the home program.

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