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The Role of Occupational Therapy in Community Based Recreation for Children and Adults with Disabilities

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The Role of Occupational Therapy in Community Based Recreation for Children and Adults with Disabilities

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The Role of Occupational Therapy in Community Based Recreation for Children and Adults with Disabilities

Bridget Markgraf
Pacific University
July 26, 2016
Chapter 1: Review of the Literature

Camps are a shared experience of children around the globe. Participating in camps can provide a wealth of benefits to youth, both in areas of socialization and personal growth. The American Camping Association (ACA) (1998) conducted a survey asking parents of campers across the United States what the benefits of camp were for their children. They identified four key benefits:

1. Increased self-confidence and self-esteem
2. Providing a safe place
3. Making new friends
4. Offering fun activities

While the ACA highlights the benefits of camp for the general population, there is a need to review the benefits of camp specifically for children with disabilities. Such a review should include describing the different components that create a positive camp experience for children with disabilities, comparing inclusive and disability-specific camp experiences, and enumerating the benefits of camp for the families of children with disabilities. Although these areas have been somewhat explored in the literature, it is unclear whether they have ever been described cohesively in one document. There is also insufficient literature, if any at all, that addresses the effect an occupational therapy presence has on the camp experience for children with disabilities. Occupational therapists have specialized training in grading activities and modifying environments in order to ensure full and appropriate participation in activities for people with disabilities. This training could benefit camps that cater only to disabled children as well as inclusive camps to ensure that all campers are able to participate in camp activities in some way.
and have the opportunity to feel successful in doing so. The following literature review examines the benefits that overnight summer camp has for children with disabilities and their families including increased peer interaction, opportunity for adaptive recreation, increased self-esteem, and respite for families. This literature review also compares the benefits of inclusive versus disability-specific camps. Finally, this literature review proposes an occupational therapy presence at Mt. Hood Kiwanis Camp, an Oregon camp catering to children and adults with disabilities. An OT presence at camp may help promote increased participation in activities for campers and provide instruction to counselors on strategies to increase participation for their camper.

Three databases, CINHAL, ERIC and MEDLINE were identified as potentially contributing useful references on the topic of summer camps for disabled youth. Using the search criteria “camp and disabilities” as well as “camp and disabilities or therapy” 23 relevant articles were found. Hand searching was also employed to find two relevant articles. The articles found were further narrowed by excluding articles that did not match criteria of impact of camp on camper, impact of camp on family/caregivers, and comparisons of the benefits of inclusive versus disability specific camps. Eleven (11) articles were selected for review because they met necessary criteria. Five (5) articles were identified for review because they met the criteria of camp benefits to camper, three (3) articles met the criteria of camp benefits to families, two (2) met the criteria of benefits of inclusive camp experience, and one (1) met the criteria for critical components of a therapeutic recreation programs. A summary of the articles selected can be found in the table below.
<table>
<thead>
<tr>
<th>Author, Year</th>
<th>Study Objective</th>
<th>Study Design/Participants</th>
<th>Sample Size</th>
<th>Interventions and outcome measures</th>
<th>Summary of results: conclusions and implications</th>
<th>Study limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page &amp; Pearson, 1990</td>
<td>Description of components necessary to create recreation program for children with chronic illnesses or disabilities.</td>
<td>A descriptive article, contains no research aspects.</td>
<td>N/A</td>
<td>N/A</td>
<td>Article identified resources, population needs, staff training, financing, equipment needs, liability issues and participant selection as important components of creating a therapeutic camp.</td>
<td>No guidelines are based in evidence but are guided instead by experience and assumed best clinical practice (expert opinion).</td>
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<tr>
<td>Devine &amp; Dawson, 2010</td>
<td>Determine the effects of a residential camp experience on the self-esteem of youth and adolescents with craniofacial differences.</td>
<td>This study uses a single group repeated measures design (pre, post, 6 week follow-up).</td>
<td>31</td>
<td>The Rosenberg Self Esteem Scale (1965) was used to collect pre, post, and follow up data on campers. The scale addresses personal qualities, positive attitudes, self-efficacy, pride, self-worth, and respect.</td>
<td>The participants reported higher self-esteem post camp than at the pre-test and these means were statistically significant at the .10 level. The 6 week follow up mean was also greater than the pretest however was not statistically different</td>
<td>Small sample size may have contributed to lack of statistical significance to the follow-up data. Lack of comparison group (children with craniofacial differences who...</td>
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<tr>
<td>Author(s)</td>
<td>Objective</td>
<td>Methodology</td>
<td>Findings</td>
<td>Conclusion</td>
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<tr>
<td>Fullerton, Brandon, &amp; Arick (2000)</td>
<td>Examine the impact of specialized, residential camp programs on children and youth with disabilities.</td>
<td>Fifteen specialized residential summer camp programs that provide specialized programs for children and youth with disabilities were selected for inclusion and five campers were chosen to participate from each camp that fit criteria of: 1 camper with severe mental retardation, 1 child with mild mental retardation, 1 child with mild, moderate, or severe mental</td>
<td>A total of 73 counselors and parents were interviewed. Interviews were conducted with each subject’s counselor and parent regarding social interactions, communication with others, taking responsibility, self-reliance, self-esteem, participation in recreation, skill achievement, and self-help</td>
<td>While camper’s self-esteem improved at the end of camp, it is unclear what aspects of camp resulted in improved self-esteem. Roughly half of the counselors (51%) and parents (48%) reported that the camper’s behavior had “stayed the same” while at camp or after they had returned home. The other half reported a change in the camper’s behavior with only two counselors and three parents reporting a decline in function and all others, (29 of 31 it is unclear what aspects of the residential camp experience contributed to these outcomes.</td>
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<tr>
<td>Author</td>
<td>Methodology</td>
<td>Findings</td>
<td>Notes</td>
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<td>Shelton &amp; Wit, 2011</td>
<td>Examines the utilization of a therapeutic summer camp (camp LIFE) for children with disabilities as a respite care service for parents of camp participants. Interviews were conducted with 9 parents whose children had participated in a 3-day residential camp. Two of the interviews included both the father and the mother of the same child. One interview was conducted with two parents, one for each of two children and all other interviews were conducted with a single parent, the mother in all cases.</td>
<td>Interviews were conducted with 9 parents regarding if camp provided a respite experience for the parents. If parents agreed that they had a respite time, they were asked to describe how they utilized the time and any additional benefits to family functioning they felt were derived from the camp experience. Two major themes were identified via interview: respite benefits both during and after camp attendance and Camp LIFE qualities that contributed to respite benefits. Respite care: Camp allowed parents to “recharge their batteries” and relax as well as more freely participate in leisure and work activities. Camp LIFE benefits: Parents felt as though they trust the camp and the experience is enjoyable for campers.</td>
<td>This study had a small sample size: 9 parents of 8 children who attended 1 camp. It is unknown what specific camp practices make camp LIFE an enjoyable experience for campers.</td>
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<td>Siperstein, Glick, Harada, Bardon, &amp; Parker</td>
<td>Examines the impact of five multi-week day camps known as Camp Shriver, a camp with a focus on improving sports skills and enriching the social relationships of individuals with and without intellectual disability. The study sought to document the impact of Camp Shriver on the sports skills of campers, the social relationships among campers with A 0-5 scale was used for campers to self-assess their sports skills after camp and interviews were conducted to determine the degree of integration of campers with ID into the camp. 5 day camps were used to gather data with an unspecified number of campers at each. Each camper was assessed by rating his/her proficiency in a particular sport on a scale from 0 to 5 in the skill components that pertain to that sport. A series of interviews was also conducted at the end of camp to assess campers’ social relationships which included questions such as “Who do you like to play with at camp?” and “Did you make any new friends at camp?” Results of this study show that Camp Shriver camps improve the existing sports skills of campers while also introducing campers to new sports and also that campers with ID were just as socially integrated in camp activities as campers without ID and the camp experience improved the staff members’ understanding of and attitudes toward children with disabilities. Unknown number of participants. Unknown if questions that address social relationships between campers go further than “Who do you like to play with at camp?” and “Did you make any new friends at camp?”</td>
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<td><strong>Devine &amp; O’Brien 2007</strong></td>
<td>This study, grounded in contact theory, examines the quality of contact (i.e., personal versus casual) and the conditions (i.e., organized vs. informal) under which the contact occurred between campers and staff without disabilities and campers with disabilities in an inclusive summer camp. The purpose of the study is to create an in-</td>
<td>Qualitative methods were used to collect and analyze data. Contact theory was used as a framework to guide data collection. Campers with and without disabilities were selected to be interviewed, 4 with disabilities and 4 without disabilities. Data was collected on the last two days of camp over four different camp sessions. One face-to-face interview was conducted. Questions were based on tenets of contact theory (the nature of contact, how well campers got to know each other).</td>
<td>The interview was conducted using a semi-structured guide. Constant comparison method was used to analyze the data.</td>
<td>Findings indicate that conditions of the camp experience can produce a mixture of positive, negative, and varied attitudes which have significant impact on the camp experience for the camper. One implication that this study reveals is that social relations within camp contexts are still influenced by societal views of disability and this should not be ignored by recreation professionals.</td>
<td>Because the study examines the camper’s perspective, it is difficult to generalize the findings to other inclusive recreation experiences. Small sample size (8 campers)</td>
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<tr>
<td>depth inquiry examining contact and how conditions of contact influenced campers’ perceptions of the experience.</td>
<td>other, equality of contact, and conditions under which contact occurred.</td>
<td>when facilitating interactions between campers with and without disabilities. This study also found that campers without disabilities looked to camp staff as a model for interacting with campers who had disabilities. Findings show that inclusion can be complicated and there is a hierarchy of acceptable and unacceptable disability that further complicate the inclusion process and these should be examined by professionals who are developing other inclusionary programs.</td>
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<td><strong>Metzler &amp; Johnson (2004)</strong></td>
<td>This study examines summer camps for children with chronic illnesses as a source of respite care for mothers.</td>
<td>Mothers of children with asthma, cancer, epilepsy, or kidney disorders completed 4 structured telephone interviews (before, during, and twice after camp) measuring caregiving demands and psychological distress.</td>
<td>161 Each participant participated in 4 structured telephone interviews. 1 before camp, 1 during camp, 1 one week after camp, and 1 one month after camp. Caregiving demands were relieved during camp and returned to pre-camp levels once the child returned home. The psychological functioning of mothers improved while children were at camp and some changes lasted up to 1 month after camp ended and children returned home. This study demonstrates that summer camps are not just beneficial to campers, but to the family of campers as well. Summer camps can serve as respite care providers for mothers of children with disabilities.</td>
<td>All measures of caregiving demands and psychological distress relied on maternal report, with no objective information about actual treatment regimens. The authors suggest that future studies include multiple sources of information as well as examining the role that fathers and other caregivers play in caring for the child and supporting the mother. This study lacks a control group of either healthy children attending regular summer</td>
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Goodwin & Staples (2005)  

<table>
<thead>
<tr>
<th>STUDY</th>
<th>PURPOSE</th>
<th>PARTICIPANTS</th>
<th>METHODS</th>
<th>RESULTS</th>
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<tbody>
<tr>
<td>The purpose of this study is to capture the meaning of segregated summer camp experiences to youths with disabilities.</td>
<td>9 youth, aged 14-19 years with physical, sensory, or behavioral disabilities were interviewed using a semi-structured format about their experiences at a disability-specific camp. All participants were drawn from the same pool of campers attending the same summer camp.</td>
<td>A phenomenological method was employed to collect data via one-on-one semi-structured telephone interviews with campers and their parents. Data was also gathered via artifacts (photographs and written documents) and field notes that were gathered over a 6 month period following camp. Letters of application written by the camper were also reviewed.</td>
<td>Three themes emerged from the data: 1) not alone, 2) independence, and 3) a chance to discover. Campers described their experience as having a strong sense of community and social belonging which reinforces the use of camps as therapeutic mediums. Campers also described a reprieve from disability isolation that is felt in their camp or disabled children who do not attend camp.</td>
<td>Telephone interviews, the main source of data collection, cannot capture the nuances of body language or facial expressions like a face-to-face interview can. Small sample size (9 campers). All campers attended the same camp, however components of camp that resulted in the</td>
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<tr>
<td><strong>Dawson, Knapp, &amp; Farmer (2012)</strong></td>
<td>Measure the effect of attendance at a pediatric oncology camp designed to support the psychosocial needs of youth 8-18 years old.</td>
<td>A mixed method research design was used to gather data. Participants were campers who had attended a pediatric oncology camp. Participants were asked to complete a 12 item pre and post-test as well as complete a telephone interview 3 months post camp.</td>
<td>29 campers completed pre and post-tests, 8 campers completed telephone interviews.</td>
<td>Campers were given a 12 item evaluation as a pre-test as well as a post-test to gather quantitative data on independence, social skills, and self-esteem. Campers were contacted via telephone 3 months after camp ended for a telephone interview to gather qualitative information about self-esteem.</td>
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<td><strong>Knapp, Devine, Dawson, Piatt (2015)</strong></td>
<td>Examine perceptions of social acceptance and quality of life amongst youth with disabilities who participated in</td>
<td>Participants were campers who had a diagnosis of a physical disability and participated in a one-week residential camp designed for youth with disabilities. The study used both</td>
<td>51</td>
<td>Campers completed the social acceptance scale and the PedsQL General Well-being scale (quantitative). A phenomenological approach was used to gather qualitative data about camper’s</td>
</tr>
</tbody>
</table>
A weeklong residential camp experience with similar peers.

Quantitative (social acceptance scale, PedsQL general well-being scale) and qualitative (phenomenological approach, interviews) measures.

Recollections and perceptions of their camp experience.

Outcomes were found 3 months post camp, which demonstrates the powerful social impact of the camp experience for participants. These results also highlight the lack of similar social support opportunities after returning to their home communities.

The ‘pre’ and ‘post’ test design limited the ability to determine the carryover effects of what campers gained from camp. The authors recommend that future studies perform a follow-up phase to study the long term effects of camp.

| Brannan, Arick, Fullerton, & Harris (2000) | The purpose of this study is to identify inclusionary practices and outcomes for youth with and without disabilities in outdoor programs across the country. | A total of 743 youth (373 subjects were disabled, 370 subjects were non-disabled) from 12 residential camps and 2 outdoor programs participated including 72 youth studied as case study subjects. | 743 disabled and non-disabled youth from 12 resident camps and 2 resident outdoor sites. | Instruments used to gather data included the Inclusive Practices Inventory, Outdoor Skills Inventory, Social Interaction Observation, Individual Characteristic Survey, and case study interviews. | This study found that inclusionary program models benefit all youth who participate, both disabled and non-disabled. This study also found that nationwide, campers with and without |
This study used a descriptive design to summarize the findings for each assessment for youth with and without disabilities. The use of videotaping was utilized to record social interactions between campers. Disabilities make significant growth in their outdoor skills and personal development (self-reliance, social interactions, communication, and self-esteem) in 1-week residential camps and outdoor school programs.
Benefits of Camp for Campers with Disabilities:

The camp experience is not well documented in the literature and as such there remains a wide variety of research that has yet to be explored. Although there are relatively few scholarly articles that discuss the benefits of camp for children with disabilities, the articles that do exist outline several benefits. One benefit that camp offers children with disabilities is the opportunity for peer interaction that may not be available in their home communities. Dawson, Knapp & Farmer (2012) found that the lack of opportunities to connect others who have similar life experience is one of the most significant barriers that youth with disabilities face. This deficit is addressed at camps. One of the goals of residential summer camps is to build a sense of community among campers. This means building a sense of camaraderie and belonging for children among their peers. In providing an environment of social acceptance and belonging, residential summer camps give youth an opportunity to feel accepted, raise self-esteem, and build social skills through interaction with peers. At a one week overnight camp for youth with craniofacial differences, Devine & Dawson (2010) found significant increases in both self-esteem and social acceptance. Camp provides a supportive social context that fosters a sense of normalcy for youth with disabilities that they do not get in contexts where disability is not understood or accepted as normal by peers such as schools and community contexts. Being around other youth with similar disabilities offers a reprieve from the disability isolation that is often felt in their home communities and an opportunity to relate similar life experiences with peers. Knapp, Devine, Dawson, & Piatt (2015) found that the peer interactions experienced at camp had a greater impact than the activities put on by the camp. This is because of the inclusive and supportive context that camp creates which allows youth with disabilities to interact with their peers without feeling like an outsider.
Summer camps also offer children with disabilities an opportunity to learn life skills in a supportive context among peers who understand the difficulties of navigating adolescence with a disability. Camp offers youth a chance to learn and practice independent living, communication, social skills, and recreation and leisure skills which they might not otherwise learn due to limited opportunities in their home communities (Knapp et al., 2015). At a pediatric oncology camp, independence is encouraged through activities of daily living such as brushing teeth, showering, dressing, selection of outfits, and opportunities to practice shoe tying (Dawson, Knapp & Farmer, 2012), which are skills that a summer camp for typically developing children may not address. Although self-care skills are addressed, therapeutic camps for youth with disabilities are generally operated on the same principles as camps for children who do not have disabilities or illnesses. They allow children to experience the outdoors and participate in activities that are outside of a day-to-day routine and focus on physical activity, nature, and creativity, such as canoeing, climbing a challenge course, boating, and arts and crafts (Shelton and Witt, 2011 p20). These recreational activities allow children with disabilities a supportive context to try new things and take chances that they do not necessarily have outside of camp because opportunities for youth with disabilities to explore recreation programs is limited.

Despite the clear benefits of the camp experience, it is unlikely that youth are able to continue to participate in adaptive recreation or interact with as many peers with disabilities once they return home. At summer camps that offer programming for children with disabilities, adaptive recreation materials and other considerations are made. Sadly, there are often not opportunities to participate in or resources to provide adaptive recreation in home communities. Knapp et al. (2015) also found that although accessibility in parks and recreation has improved in the United States, there is not an effort to attract people with disabilities to accessible recreation
programs; therefore, many programs go unutilized. This means the experiences that youth with disabilities have at camp are not carried over into the rest of the year. Camp provides an avenue for youth with disabilities to raise self-esteem, make friends and improve social interaction skills, focus on independence with activities of daily living, and feel included. Unfortunately, the lack of carry-over of these feelings and skills into their home life makes the benefits of camp short-lived and may suggest that the skills that children learn in the camp context are not generalized into their day-to-day life.

Benefits of Camp for Families as Respite Care:

Summer camps are not only beneficial to the camper, but benefit the entire family. The burden of caregiving for a child with a disability is constant and results in overworked and overstressed caregivers and/or parents. The burden has been well documented. Parents of a child with a disability are responsible for caring for their child in a variety of ways and the caregiving demands on a mother for a child with disabilities can cause an enormous amount of stress.

Metzler and Johnson (2004) identified four areas of caregiving that are both labor intensive and cause stress: administering medications, providing in-home medical care, accessing out-of-home medical care, and performing night time medical care. These four areas illustrate the 24 hour a day nature of caring for a child with a disability. The stress of caring for a child with a chronic condition often causes fatigue and burnout for the caregiver. Parents of chronically ill children have reported more anxiety and depression, higher levels of parenting stress, and more limited social functioning than parents of children without an illness (Meltzer and Johnson, 2004).

Summer camps can offer parents of children with disabilities an important respite from caring for their high needs child, which provides relief from physical and emotional stress. Respite care has
been shown to relieve family stress, improve parental attitudes toward their child, reduce parental social isolation and reduce parental depression for parents of children with disabilities (Shelton and Witt, 2011). Respite care can improve parent and family self-esteem, improve family relationships and restore normal sleep patterns for parents. While their child is at summer camp, parents are able to engage in important and fulfilling activities such as spending time with their other children, accomplishing household tasks, spending time together, and engaging in leisure activities. Shelton and Wit (2015) found that mothers reported feeling happier when they had access to respite care, but the benefits go beyond that. For mothers of disabled children, overnight respite care decreased maternal feelings of overload, depression, anxiety, and maternal distress (Metzler and Johnson, 2004). Respite care also has been found to improve medical outcomes for both the caregiver and the child. Families who had access to respite care had fewer trips to the hospital, fewer missed days from school, and fewer days of missed work for parents (Metzler and Johnson, 2004).

Summer camp can be a powerful tool for families because not only have parents and family had a time to recharge but because summer camp promotes independence and self-reliance, the youth may return home with more confidence in self-help skills which can take some of the burden off the family. Some studies have shown that the benefits of camp extend beyond the time that the children are away. In interviews conducted by Meltzer and Johnson (2004), mothers reported that they experienced less stress caring for their child after they returned from camp. They also found that mothers of children with asthma, cancer, or kidney disorders experienced relief from depression, anxiety, and maternal distress while their children were at camp and decreased maternal distress was maintained 1 month after camp. Using summer camp as a respite can give parents and/or caregivers time to participate in desired
activities without the constant worry and concern that accompanies caring for a child with a disability.

**Inclusive vs. Disability Specific Camps:**

Summer camps that cater to youth with disabilities fall into two categories: inclusive camps, where children with disabilities and children who are typically developing attend camp together and participate in the same activities, and disability-specific camps which only children with disabilities attend. There is evidence of the benefits of both inclusive and disability focused camps and debate over which type of camp provides the most benefit to the child.

Knapp et al (2015) suggests that “the disability-specific design is purposeful in that it provides opportunities for social support, recreation participation with peers who have similar life experiences, and increased independence related to diagnosis” (p5) however, supporters of inclusive camp models argue that inclusive camps stress the importance of recognizing the similarities that exist among all children who participate rather than focusing on the slight differences (Siperstein, Glick, Harada, Bardon, & Parker, 2007). One study which examined the interactions and relationships built between disabled and non-disabled campers at an inclusive camp found through interviews with non-disabled children that although there may be overall feelings of acceptance, there was still an “us vs them” mentality among non-disabled campers rather than a mindset of inclusion, seeing disabled and non-disabled campers as part of the same group (Devine & O’Brian 2007).

Integrated camps are becoming more popular across the United States. In fact, programs that have previously only serviced children with disabilities are moving toward models of inclusion (Goodwin & Staples, 2005). In a nationwide study examining the outcomes of
inclusionary recreation programs, it was found that inclusionary programs benefit youth with and without disabilities in areas of self-esteem, communication, social interactions, and self-reliance (Brannan, Arick, Fullerton, & Harris, 2000). Mulvihill, Cotton, & Gyaben (2004) also found that an integrated camp setting children with ID improved in independence, resourcefulness, and social skills as a result of participating in camp with non-disabled peers. These studies show the benefits that children with disabilities can gain by interacting with, playing games with and making friends with non-disabled peers. There is also literature that describes the benefits that non-disabled children gain from an integrated camp experience. One enormous benefit that Brannan, Arick Fullerton, and Harris (2000) found is that youth without disabilities “developed a greater understanding and respect for persons different than themselves” (p. 1). Developing understanding and acceptance for peers with disabilities in a camp environment has potential to transfer into greater acceptance and inclusion of children with disabilities in home communities.

**Conclusion:**

In reviewing the literature, it is clear that overnight summer camps hold great benefit to campers as well as their families. The literature points to areas such as increased independence with activities of daily living, improved self-esteem and increased self-sufficiency in children who attend summer camps. These areas are areas of specialization for occupational therapists, however, no research was found that examines the role of OT at an overnight summer camp. Occupational therapy may prove to be extremely beneficial to summer camps. Occupational therapy practitioners have specialized training in adapting activities and environments to allow for inclusion and participation for people with disabilities. The ability to adapt environments and activities for full engagement in activities could add a greater depth of participation and learning for campers with disabilities.
Through my doctoral capstone project and experiential internship, I will examine the benefits of an occupational therapy student presence at Mt. Hood Kiwanis Camp, a disability-specific camp in Oregon. I predict that, using outcome measuring that examines the quality of the camp experience, an OT presence will result in campers feeling more independence and being able to more fully access the activities at the camp. I will be working closely with the camp director(s) to add to the programming at MHKC to create a richer experience for campers. This might include leadership development, use of a simple measurement of the camp experience, providing additional training to the incoming camp counselors, developing a richer repertoire of activities and adaptations to current activities, and providing sensory supports so that campers are able to fully engage in and enjoy camp experiences.
Chapter 2: Kiwanis Camp

Mt Hood Kiwanis Camp was founded by the Montavilla Kiwanis Club in 1933 and began exclusively serving campers with disabilities in 1956. Currently, MHKC serves approximately 520 campers each summer ranging in age from 10-61 years old. MHKC provides people with disabilities an opportunity to participate in traditional camp experiences including horseback riding, swimming, fishing, zip-lining, rock-wall climbing and other ropes course adventures, arts and crafts and field activities, canoeing, and singing songs by the campfire. MHKC is often the highlight of a camper’s year as it offers a place where campers feel empowered, feel a sense of acceptance, are able to make friends with peers, and are able to engage in leisure and recreation activities that are often limited or unavailable to them during the rest of the year. At MHKC, there are no disabilities, just campers.

The mission of MHKC is to empower children and adults with disabilities. Their vision is to provide best practice, state-of-the-art programs and facilities for children and adults with disabilities. In order to constantly work toward and achieve their vision, MHKC strives to fulfill the following:

- Be a community leader in the field of special education and developmental disabilities
- Focus on personal growth and empowerment of participants, volunteers and staff
- Maintain long-term relationship with campers, families, partners, financial contributors, and supporters
- Generate planned growth through innovative ideas and practices

In order to achieve their goals, MHKC works within the following values:

- Express our passion for empowering people with disabilities
- Practice acceptance and adaptability in welcoming diversity
- Demonstrate integrity and honesty in all our actions
- Treat employees, campers, volunteers, supporters, and partners with respect and trust
- Strive for the highest quality through continuous improvement and personal excellence
• Value proficiency, expertise, knowledge, and vision in our employees
• Lead through competency and creativity
• Work collaboratively to achieve common goals
• Assume accountability for results

MHKC employs 110 professional staff which includes special educators, graduate students, and health and human services professionals. Additionally, each camper at MHKC is paired with a one-on-one counselor, generally a senior at Portland State University, so that campers are sure to get individual attention and care throughout their time at camp. Each year, approximately 230 Portland State University students volunteer over 35,000 hours each summer as one-on-one counselors to make camp possible. MHKC is also expanding its university affiliations to include Pacific University and George Fox University in order to continue to expand the camp and create sustainable relationships to ensure continued volunteer support in the future.

MHKC is divided up into eight one-week-long regular camp sessions as well as three off-site programs: trip-and-travel, tent-and-travel and a specialty session of canoe camp. MHKC also offers a week-long family camp where the camper, parents and siblings can come enjoy camp activities together and young campers can experience camp with their family before joining in regular camp the next summer.

A week of camp for one camper costs $1300. Camp is funded through private pay, Oregon’s K-Plan under respite care service, and through “campership” scholarships which helped fund 56 campers’ camp experience this year totaling $24,892 in campership dollars. MHKC puts on fundraisers throughout the year including an auction and golf tournament to offset the cost of camp to campers and their families. Without these fundraisers, camp fees would be over $5000 per camper.
MHKC serves campers with a wide range of disabilities and with 41% of campers reporting more than one disability. The range of disabilities includes:

- Developmental/intellectual disability ….45%
- Cerebral Palsy & physical disability ….16%
- Autism Spectrum Disorder .................. 28%
- ADHD/ADD ................................... 7%
- Seizure Disorder...............................8%
- Down syndrome.............................20%
- Other Disabilities ...........................21%

While the majority of campers are from Oregon, this diverse population come from as far as Washington, Idaho, and Florida to attend camp. As such, camp is extremely competitive to get into. About 75% of the 520 camper spots are filled within the first 4 hours of enrollment being open and 83% of the spots are filled within the first 48 hours of enrollment being open. Due to the high demand for camper spots, there is always a wait list of hopeful campers. This demand for camper spots speaks to the need for adaptive recreation and overnight summer camps as well as the innovative and important service that MHKC provides.
Chapter 3: My role at Kiwanis Camp

MHKC offers an excellent program however does not currently have any occupational therapy services influencing the programming at camp. Because of occupational therapy’s unique skill-set of grading activities and modifying environments to ensure full and appropriate participation and inclusion for people with disabilities, an occupational therapy presence may be highly beneficial to community based adaptive recreation and overnight summer camp programs for people with disabilities. An occupational therapist’s training could benefit camps that cater only to people with disabilities as well as inclusive camps to ensure that all campers are able to participate in camp activities in some way and have the opportunity to feel successful in doing so. For my occupational therapy doctoral capstone project, I piloted occupational therapy services at MHKC focusing on adapting activities to promote full inclusion and creating supports for campers. I entered camp after performing a need assessment by meeting with the camp executive director and director of programming as well as touring and observing camp in session.

Theoretical Basis:

The PEO model was used as a theoretical basis for occupational therapy interventions used at MHKC as well as various frames of reference including biomechanical and occupational adaptation. The PEO model postulates that modifying aspects of the person, environment, or occupation can increase a person’s occupational participation and emphasizes that occupational performance is person, environment, and occupation specific and the three cannot be considered separately. Therefore, intervention can be targeted at any one of the three elements because change in one will lead to change in the others (Turpin & Iwama, 2011). This model was a good fit for MHKC as many modifications are needed in activities and environment to allow people
with varying abilities to fully participate in the activities that camp offers. Making a change to the environment may increase a camper’s ability to participate in an activity, increasing their occupational performance, just like changing an activity to meet the needs of a camper will change the way a camper participates in the activity and will lead to greater occupational performance. For example, if a camper is blind and is unable to participate in a game of tag, the game (occupation) can be altered so that everyone links arms with a partner while playing. This simple adaptation allows the camper to fully participate in the game, increasing her occupational performance.

Using the Person Environment Occupation (PEO) theoretical model, I performed a needs assessment and developed adaptations that promoted fuller inclusion of campers of all abilities in areas of canoeing, arts and crafts, functional communication, recreation and field activities, as well as incorporating changes to the information gathering process currently in place at MHKC and creating a space to support camper’s sensory needs so that they are able to prepare their minds and bodies for camp activities. An occupational therapist’s skill-set in activity analysis, grading and adapting activities, training and expertise in adapting equipment, and the belief in the importance of leisure and recreation make an occupational therapy presence at MHKC a good fit. MHKC is providing opportunities for social engagement, leisure and recreation exploration, and growth for campers. OT interventions and adaptations help ensure that all campers are able to engage in each camp activity.

**Occupational therapy programmatic contributions:**

**Parent Interview Sheet:**
Counselors are given a “cheat sheet” of questions to ask their camper’s parents about at check-in. I reformatted and added to the questionnaire, making room for counselors to write down important information and adding questions about camper preferences and aversion to foods, personal care needs, transfer needs, and effective calming strategies for that particular camper. Please see appendix A for an example of the initial and modified parent questionnaire.

**Sensory Tent:**

Camp can be a place that is overstimulating. There are few breaks from activities and campers are always with a group of people. Using the PEO model, I saw a need for an environmental change for some campers; a soothing space, where campers are able to remove themselves from activities and use sensory strategies to organize and calm their nervous system if they feel overstimulated, practice deep breathing, or just have some alone time so that they are better able to participate in group activities. In previous years, if campers were having a difficult time, they were encouraged to walk laps around the camp. I introduced and trained campers and counselors in various strategies which may be a better way for campers to take a break and trained individual campers and counselors on how to utilize the equipment.

The sensory tent is a large, 10 person tent that has equipment including weighted blankets, hand fidgets, noise canceling headphones, sensory bins of lentils, water beads and rice, a head massager and a vibrating electric hand held massager, “calm-down jars”, a peanut therapy ball and inflatable balance disc, soft and fiber-optic light fixtures, and large cushions to sit on. Individuals who are experiencing overstimulation, physical pain, and emotional distress are encouraged to utilize the tent throughout their time at camp. These individuals, along with their counselors, were given instruction by myself on how to use the equipment in the tent as well as relaxation and deep breathing techniques. Campers are encouraged to use the equipment as
needed, without OT supervision, promoting independence and self-regulation at camp. The sensory tent provides a space where campers can decompress from their busy so that they are ready and able to fully participate in the activities that camp offers.

**Canoe chairs:**

Campers and MHKC are given the opportunity to go canoeing on Oregon’s Trillium Lake. Generally, campers sit on the bottom of the canoe with their backs resting against the canoe’s crossbar and thin seat pads are used to prop campers up if needed. Using the PEO model and the biomechanical frame of reference, I saw a need for a more structured seat in canoes for campers who have limited trunk stability. By adapting plastic lawn chairs and securing them in the canoes, I created a seat inside the canoe to give campers trunk support and arm rests in order to help them maintain an upright and comfortable position while they canoe.

This adaptation ensures that campers with physical disabilities are able to comfortably sit in canoes and enjoy their experience for a longer period of time. Canoe chairs give campers a platform to use their wheelchair seat cushions in the canoes as well if needed for comfort.

Prior to occupational therapy input and the creation of this adaptive equipment, these campers were seated on the floor of the canoe and propped up using pads. Staff reported that by the end of the canoe trip, campers were often leaning heavily to one side, causing the canoes to lean as well as making canoeing an uncomfortable experience for the camper. Using occupational therapy’s PEO model as a framework, I implemented a simple solution of providing adequate drunk and back support in the canoe to solve both of these problems.

**Recreation:**
Explanation of PEO model as well as examples of adaptations were given in the recreation manual to provide the Recreation Summer Program Staff with ideas on what to think about and how to adapt different field and recreation activities for people of various abilities. Use of the PEO model in the rec program helps program staff to direct their thinking toward adapting activities to allow for full inclusion in rec activities. (See Appendix B for example of PEO model explanation and adaptation ideas).

**Arts and Crafts:**

In order to promote full inclusion in the arts and crafts program I created various sized grasps for utensils as well as a slant board. These pieces of equipment can help a camper who has difficulty making a fist or spasticity in their upper extremities be able to hold on to and access the materials necessary to complete some arts and crafts projects. Specific adaptation ideas for arts and crafts projects were also written out and included in the Arts and Crafts manual to assist the Arts and Crafts Program Staff in adapting activities for all to use.

**Functional Communication Support**

I provided picture schedules in all of the dorms that show campers what camp activities they will be participating in that day as well as what items they need to bring with them. In order to increase communication between counselors and campers who use ASL, I posted pictures of relevant ASL signs in various areas of camp including dorms, bathrooms, the dining hall and the pool area.

**Transfer Training**

Transfer training was given to all counselor supervisors and assistant counselor supervisors at the beginning of the summer as well as to counselors before each camp session.
(about 50 people every 2 weeks). Demonstrations of a stand pivot, squat-pivot and 2 person dependent transfer were given and then counselors were given opportunities to practice on each other in preparation for meeting their camper. Fundamentals of safe transfer techniques, body mechanics, and communication were covered in the transfer training.

**Yoga**

Each afternoon, campers have a rest period of 1.5 hours. Some campers choose to take a nap or have quite time by themselves. Many campers, however, want an activity to do during this time. In collaboration with the camp director, I led a yoga session 2 days a week and the camp director led a tai chi session two days a week to provide campers an opportunity to engage in a meaningful occupation during their down time.

**OT role on a daily basis:**

My role on a daily basis at camp consisted of varied tasks such as assisting counselors and campers with difficult transitions including consulting with counselor supervisors about providing tools such as transition items or other incentives for campers. I worked with individual campers who were having a difficult time by teaching deep breathing and relaxation techniques as well as teaching campers and counselors how to utilize equipment in the sensory tent. I provided assistance with camper personal care, as needed. I collaborated with nursing staff, speech pathologist, and behaviorist to provide support with communication tools, sensory fidgets or snacks, develop treatment plans to address overstimulation in campers, and provide on the spot support to campers and their counselors, as needed. In addition to the above tasks, I also worked with camp directors to do odd jobs to help the camp run smoothly.

**Case Example:**
The experience of camper “Danny” illustrates the impact of OT contributions on one camper’s experiences this summer. Danny is a 29 year old male who has been coming to camp for the last 9 years. Danny grew up in the foster care system and currently lives with a foster family. He has a love for animals and works as a custodian. Among other things, Danny has bipolar disorder and major depression. While at camp he also complained of many physical ailments including liver and pancreas pain. After consulting with camp nursing staff, it was apparent that Danny’s depression was manifesting itself as physical pain as he had received a clean bill of health from his doctor days before. Danny was unique at camp in the sense that he did not seem happy to be there, most likely due to his depression. He was running away from his group and almost constantly complaining of physical ailments which was detracting from his participation in camp activities. I introduced Danny and his counselor to the sensory tent to give Danny an option to remove himself from his group without the potentially dangerous possibility of running away. I taught Danny deep breathing and relaxation techniques and trained him on the use of the equipment in the sensory tent to relax and calm his body as well as provide relief for some of the physical pain he was feeling. The Sensory Tent gave Danny a place to remove himself from his group when he needed some time alone and the equipment in the tent helped to give Danny a sense of control over his body. Danny consistently indicated a happier emotional state after using the tent on the Sensory Tent Log and his counselor reported that after using the tent Danny was able to participate more in camp activities, had fewer complaints of physical pain, and stopped running away from the group. By using the Sensory Tent, Danny was able to have a more enjoyable time at camp and more fully participate in camp activities.
Chapter 4: What Happened? How did I measure progress?

Occupational therapy service at camp was measured by observation, camper self-report, interview, and the Student Life satisfaction Scale (Huebner, 1991).

Sensory Tent:

Impact of the sensory tent on camper experience was measured through a self-report style log (see Appendix C) that campers were asked to complete when entering and leaving the tent. The log asked campers to indicate their emotional state by selecting an emotion out of a five-point face scale (happy to sad) upon entering and leaving the tent.

The log shows improvements in emotional states of campers who used the tent. Of the 56 campers who filled out the log in the first 4 weeks of camp, 10 responses were inconclusive, 7 felt the same upon entering and leaving, 23 reported 1 mark increase in mood, 11 reported a 2 mark increase, 4 reported a 3 mark increase and 1 reported a 4 mark increase.

Although the log showed improvements in camper emotional states, it was not completely accurate. Through observation I know that campers did not always use the log so there was more use of the tent than actually recorded. This means that data may be skewed in either direction. Although collected data may not be accurate, I believe that based on personal observation as well as camper and counselor report use of the sensory tent had a positive impact on campers’ camp experience. It allowed campers a place to separate themselves from their groups when they needed time to themselves. The equipment in the sensory tent provided campers with relaxing stimuli to help calm down and prepare for reuniting with their group.

Personal observation and counselor report was also used to determine the effectiveness of the Sensory Tent on camper well-being. When I asked campers who used the tent about their
experience and how they felt when using the tent, campers reported that they felt “better” and “relaxed”. Several counselors also came up to me during camp and reported that their camper had benefitted greatly from the sensory tent or that their campers were using the tent multiple times a day. This feedback demonstrates the benefits of the tent on camper experience and the potential benefit of continued use of the tent in future years.

**Canoe Chairs**

The lake lifeguards who help campers in and out of canoes and were in charge of determining when to use canoe chairs reported that the canoe chairs were very useful for some campers and made the canoe ride more comfortable.

**Student Life Satisfaction Scale:**

Huebner’s (1991) Student Life Satisfaction Scale was chosen to assess the impact that camp has on campers’ lives once they are finished with camp. I predicted that the life satisfaction scale would show an increase in camper life satisfaction after camp, demonstrating that the benefits of increased self-esteem, confidence and social interaction would carry-over into campers’ outside lives. I chose campers to administer the scale to as they were checking in, however the tool proved to be inappropriate for this population. There were very few campers who were able to complete the scale and fully understand the question and answer choices. Some of the reasons that this scale was inappropriate were that some statements were too abstract, there were too many answer choices which confused campers, and campers did not understand the meaning behind some of the statements. Results may have also been skewed because when campers initially completed the scale, they were in a really good mood and very excited to be attending camp, something that they had waited all year to do. I would recommend that in the
future, a simpler scale be used with fewer answer choices and if possible, that campers are contacted prior to arriving at camp in order to get more accurate results.

**Counselor Feedback:**

I received positive verbal feedback from several counselors that I had consulted with or had spent time working with to develop strategies to make camp meaningful for their camper. Counselors reported that OT interventions were useful and that it gave them strategies that they could use throughout the week with their campers in order to ensure that camp was a positive experience. Interventions included providing alternate activities, assistance with transitions from activity to activity, assistance with camper personal care, behavioral support, instruction on communication with campers, and instruction on use of the Sensory Tent.
Chapter 5: Next steps

My experience shows that occupational therapy can play a meaningful role in outdoor recreation and leisure in community based non-profit organizations. Given the many benefits of having an occupational therapy practitioner working at MHKC and the evidence pointing toward increased satisfaction and participation from campers as a result of OT consultation and intervention at camp, I recommend that MHKC maintain an occupational therapy presence at camp in order to continue to strive toward their mission to empower children and adults with disabilities and their vision to provide best practice, state-of-the-art programs and facilities for children and adults with disabilities. An occupational therapy presence through Pacific University’s OTD program will remain at camp which gives MHKC an opportunity to continue providing OT services at camp without additional cost which can be prohibitive for a not-for-profit organization. As the partnership between MHKC and Pacific University’s Occupational Therapy program continues to develop some future projects and areas that an occupational therapy practitioner may influence or take on at camp include:

- Creating a sensory station or arts and crafts alternative for campers who are unable to or do not benefit from participating in traditional arts and crafts activities
  - This may include listening to music or access to sensory activities

- The use of a standardized assessment to measure carry-over of camp experience into campers’ ordinary life. I recommend using a simple assessment without too many answer choices or an assessment that parents and caregivers are able to fill out regarding their camper’s perceived life satisfaction. I would also recommend sending out the survey by mail or email before camp starts so that excitement from the first day of camp does not influence answers given by campers. See chapter 4 to read about my experience using the Student’s Life Satisfaction Scale (Hueber, 1991).

- Continue transfer training for counselors, CS, ACS, Summer Staff

- Add to and further develop equipment and information in the sensory tent
- Give a presentation to all CS, ACS, and Counselors on the equipment in the tent including when and how to use.

- Create activity station at poolside for campers who do not want to swim or who are menstruating, as they are not allowed in the pool (currently, campers sit on the side and watch others swim or chat with counselors).

- Put together sensory “to-go” packs. I found that equipment was frequently being taken from the sensory tent for campers to use throughout their days. While this serves a purpose, it meant that when a camper goes to the sensory tent to use equipment, it may not be there. If each group had a mini equipment bag to take instead, the sensory tent might remain stocked.

- Create programming for the mid-day break such as quiet activity stations. This year, we provided yoga (taught by myself) and tai chi (taught by the Camp Director) sessions during break. Additional programming may be especially beneficial during kid week, as younger campers were not interested in participating in yoga and tai chi.

- Fishing accommodations: fishing poles at camp cannot be cast into the water very far so most of the hooks end up very close to the shoreline, creating equipment to get hooks further into water may help campers be more successful in this area (collaborate with Nurse Rebecca: eadams61@msn.com).

- Collaborate with staff to improve rec program, ensure activities are age appropriate, and provide ideas and solutions for adapting activities. Adaptive PE background could be extremely helpful in this area.
References


http://search.ebscohost.com/login.aspx?direct=true&db=c8h&AN=2005079177&site=ehost-live


http://search.ebscohost.com/login.aspx?direct=true&db=c8h&AN=2009012892&site=ehost-live


Appendix A:

Parent Interview with OT Input:

Parent Interview

Camper Name: ________________________________

Does camper have any adaptive equipment?
  • Hearing aids, manual or automatic wheelchairs, orthopedic shoes, arm braces, leg braces, eating utensils, etc.
    o Have the parents/caregivers show you how to turn on/off all devices, how to put on everything, practice while they are still there

____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

Does the camper take his/her medication a certain way?
  • With a particular juice, drink, food?
  • A particular way? Before meals, after meals, during meals? All at once, one at a time?

____________________________________________________________________________
____________________________________________________________________________

Does your camper have any strong preferences or aversions to certain foods/plain water? If camper doesn’t like drinking plain water, how should we help your camper stay hydrated (crystal light, other preferred beverages)?

____________________________________________________________________________

Does camper have any fears that will affect their stay at camp?
  • Bears (i.e. Smokey the Bear)
  • Horses, dogs, or other animals
  • Water
  • Night/Darkness
  • Masks, wigs, costumes
  • Dances
• Other:

________________________________________________________________________
________________________________________________________________________

What is the camper’s favorite part of camp if attended before?
________________________________________________________________________
________________________________________________________________________

What is the camper looking forward to the most as a new camper?
________________________________________________________________________
________________________________________________________________________

Any new goals for camp this year? If returning goals in general if new?
• Make new friends
• Socialization
• Independence
• Other:

Morning routines:
________________________________________________________________________
________________________________________________________________________

Bedtime routines:
________________________________________________________________________
________________________________________________________________________

Self-care
• Level and type of assist with
  • Toileting:
  • Showers:
  • Dressing (including shoes/socks):
  • Grooming (washing face, brushing/combing hair, brushing teeth, etc.):

________________________________________________________________________
________________________________________________________________________

Transfers
• Does your camper need assistance getting into and out of bed? Shower? Toilet? Wheelchair?
• What type and level of assistance does your camper need for transfers?
• Have caregiver demonstrate a transfer if possible.

________________________________________________________________________
________________________________________________________________________

Things that might trigger challenging behavior? Or might upset the camper?
• Being rushed, needs time for transitions, does better with schedule-written or verbal, loud noises, being hungry, meal times, bed time
What calming strategies are helpful to use with your camper if upset?

• Time out/quiet time
• Deep pressure/other sensory strategies
• Other:

Any preoccupations with busses, electronics, water, Ebenezer, animals, or a person/staff member?
Parent interview prior to OT input:

Cheat Sheet of Questions to ask Parents while waiting through check-in and information to put in file

- Does the camper have any adaptive equipment?
  - Hearing aids, manual or automatic wheelchairs, orthopedic shoes, arm braces, leg braces, eating utensils
    - Have parents/caregivers show you how to turn on/off all devices, how to put on everything, practice while they are still there
- Does the camper take his/her medication a certain way?
  - With a particular juice, drink, food?
  - A particular way? Before meals, after meals, during meals? All at once, one at a time?
- Does the camper have any fears that will affect their stay at camp?
  - Bears (ie Smokey the Bear)
  - Horses, dogs, or other animals
  - Water
  - Night/darkness
  - Masks, wigs, costumes
  - Dances
- What is the camper’s favorite part of camp if attended before?
- What is the camper looking forward to the most as a new camper?
- Any new goals for camp this year? If returning or goals in general if new?
  - Make new friends
  - Socialization
  - Independence
- Morning routines?
- Bedtime routines?
- Things that might trigger challenging behavior? Or might upset the camper?
  - Being rushed, needs time for transitions, does better with a schedule-written or verbal, loud noises, being hungry, meal times, bed times
- Any obsessions with busses, electronics, water, Ebenezer, animals or a person? Staff member?
Using the PEO model to adapt activities at MHKC:

This diagram illustrates occupational therapy’s PEO model. This model challenges us to examine the role of the person, the environment, and the occupation and how the three work together to support occupational performance. The more overlap, or the better the fit is between these three areas, the better the camper will be able to perform the activity.

Elements of the person, environment, or activity can be modified or changed to increase camper participation in activities at camp.

**Person**: elements of the “person” can be modified by providing adaptive equipment or using adaptive strategies to change the way the camper engages in an activity such as using a grasp in arts and crafts or using a fishing pole holder instead of holding the pole themselves.

**Environment**: elements of the environment can be changed to improve a camper’s engagement such as moving from a crowded area to a quiet area, providing extra lighting, moving furniture to allow better access, etc.

**Occupation/Activity**: Activities can be made easier or more difficult to accommodate different abilities. Examples include kicking a stationary kickball vs a moving kickball, or holding a fishing pole after having assistance tossing the bait in the water.
Appendix C:

**Sensory Tent Log**

Please sign in and indicate how you are feeling when you enter and leave the sensory tent. If you don’t want to use your name, just put a check mark in the initial column.

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