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# Occupational Therapy with an Adventurous Twist

Ashley Cambronne
*University of North Dakota*

Mikaela Karpen
*University of North Dakota*

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Occupational Therapy with an Adventurous Twist

by

Ashley Cambronne, MOTS

Mikaela Karpen, MOTS

Advisors:

Breann Lamborn, MPA & Andrea Young, MOT, OTR/L

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This Scholarly Project Paper, submitted by Ashley Cambronne, MOTS and Mikaela Karpen, MOTS in partial fulfillment of the requirement for the Degree of Master's of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisors under whom the work has been done and is hereby approved.

Breann C. Lambert, MPA

Faculty Advisor

2/22/19

Date

Andrea Young

Faculty Advisor

02/22/2019

Date

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## Abstract

The purpose of this scholarly project is to increase knowledge and awareness of adventure therapy (AT) for occupational therapists (OTs) practicing in mental health settings or who are interested in practicing in mental health settings within the United States. Currently, there is a lack of knowledge and awareness of AT by OTs practicing within the United States. This lack of knowledge and awareness is due to a lack of research, especially research focused on AT implementation by OTs. The process for gathering data and creating the scholarly project was first, identifying a problem, then searching CINAHL, PubMed, PsychInfo, and Academic Search Premier utilizing a variety of search terms. The product created is a workshop specific to AT and AT interventions for OTs practicing in mental health settings or who are interested in practicing in mental health settings. The product was designed specifically for the instructor of the workshop, preferably an OT, as a step by step of how to present the content, lead a rock climbing group activity, and facilitate discussion related to the group activity and overall workshop. It is recommended that more research be completed on AT in the future, not only to strengthen this scholarly product, but also to strengthen the rationale and evidence behind utilizing AT as a valid and effective intervention in OT practice.

# Chapter I: Introduction

A formal definition of adventure therapy (AT) does not exist; however, the most universally accepted definition is provided by Gass, Gillis, and Russell (2012) as "the use of adventure experiences provided by mental health professionals, often conducted in natural settings that kinesthetically engage clients on cognitive, affective, and behavioral levels" (p. 1). Currently, there is a lack of knowledge and awareness of AT by occupational therapists (OTs) practicing in mental health settings within the United States. This lack of knowledge and awareness has resulted from a lack of research, especially research focused on AT implementation by OTs. This problem is significant because OTs in other countries, such as New Zealand and Australia, are utilizing AT as an alternative to standard occupational therapy (OT) treatment (Jeffrey & Wilson, 2017).

AT has also proven beneficial for youth and adolescents (Ritchie, Patrick, Corbould, Harper, & Oddson 2016), as well as adults (Tucker & Norton, 2013) with mental health problems or diagnoses. Therefore, the purpose of this scholarly project is to address the problem identified above by increasing knowledge and awareness of AT for OTs practicing in mental health settings, or who are interested in practicing in mental health settings within the United States. The purpose of AT is to build trust, develop interpersonal or intrapersonal awareness and skills, and develop processing skills to create and/or facilitate positive changes to address underlying problems (Ritchie et al., 2016; Scheinfeld, Rochlen, & Buser, 2011). For this scholarly project, OTs within the United States who are practicing or who are interested in practicing in mental health settings were targeted, as a large majority of research focused on AT has been completed in mental health settings, and for individuals with mental health problems or diagnoses. The product being proposed is a workshop specific to educating OTs practicing in

mental health settings about AT and AT interventions. The workshop materials are specifically designed for the instructor of the workshop, as a step by step process to present the content, lead a hands on group activity, and facilitate important discussions is provided. Participant handouts, a pre-test, a post-test, and a resource page are included in addition to the educator materials. All of the mentioned materials were meticulously created to ensure understandability and ease of use by the instructor.

This scholarly project enables OTs to incorporate AT interventions into their standard OT mental health practice; therefore, providing OTs within the United States with an opportunity to broaden their scope of practice, as well as offer clients an alternative to standard treatment. Despite relevance to OT practice, the application of this scholarly project may be impacted by various factors. Currently, there is a lack of recognition from the American Occupational Therapy Association of AT and AT interventions, which may result in hesitancy of OTs to acknowledge AT as a viable and effective treatment option for clients with mental health problems or diagnoses. Additionally, increased risk must be taken into consideration. Prior to implementation of the training session, it is imperative that workshop facilitators obtain the proper training and education to ensure safety of participants.

The experiential learning theory guided the creation of this scholarly project. Utilization of the experiential learning theory was essential in investigating the issue of a lack of AT implementation by OTs practicing in mental health settings within the United States. It provided insight into how participants could potentially experience novel situations, as well as process information and create associations related to novel risks.

The experiential learning theory is derived from Kolb (1984) and Dewey (1938). This learning theory aims to develop skills and capacities, create motivation, clarify personal beliefs

and values, and increase overall knowledge while participating in activities (Kolb, 1984). Therefore, the main concept of the experiential learning theory is learning from experience (Kolb, 1984). The experiential learning theory is based in five major concepts: active participation, reflection in-action, reflection on-action, eustress, and novel environments and activities (Gass et al., 2012; Merriam, Caffarella, & Baumgartner, 2007). Active participation refers to engaging in the experience that a mental health practitioner is facilitating. Reflection on-action refers to individuals reflecting on their thoughts and emotions in the moment or while participating in an activity, whereas reflection on-action refers to individuals reflecting on their experience after the experience has concluded (Gass et al., 2012). According to Merriam et al. (2007), it is through these reflections that individuals obtain and create new knowledge and meaning. Eustress is a term utilized within AT that refers to a client's level of perceived risk within an activity (Gass et al., 2012). For example, a client may indicate a high level of eustress for kayaking, but it may or may not directly correlate with the actual risk of kayaking. Metaphor is another term commonly utilized within AT to assist the client in generalizing acquired knowledge from the AT intervention to his or her daily life. Lastly, novel environments refer to contexts that an individual is not familiar with or has not participated in before (Gass et al., 2012), therefore, creating eustress.

A variety of additional key terms were utilized within AT including adventure, adventure experience, AT, metaphor, and wilderness therapy (WT). Adventure is at the core of AT practice as it is defined as an ordinary endeavor that consists of some degree of unknown risk or danger (Merriam-Webster, 2018). Adventure activities are experiences that challenge a person physically and psychologically, and occur within a natural environment, whether outdoor or indoor. (Richards & Peel, 2005; The Council on Accreditation, 2010). Therefore, AT is "the

prescriptive use of adventure experiences provided by mental health professionals, often conducted in natural settings (i.e. indoor or outdoor) that kinesthetically engage clients on cognitive, affective, and behavioral levels" (Gass et al., 2012, p. 1). Metaphor is utilized to assist clients in generalizing their newly acquired knowledge from the AT intervention to his or her daily life. WT is a type of intervention that must be distinguished from AT, as they are commonly considered to be similar. WT is always piloted in the wilderness (Becker, 2010; Bettman & Jasperson, 2007) and is commonly described as extensive outdoor adventures or expeditions used to teach wilderness safety skills and promote personal change and growth (Tucker & Norton, 2013).

The next chapter of this scholarly project contains a literature review describing AT, elements of AT, and AT research. Additionally, the literature review illustrates common theories utilized within AT, specifically the experiential learning theory. The third chapter describes the methodology of this scholarly project, including key terms, databases, and strategies utilized to create the product. The fourth chapter entails a description and outline of the product. The summary, chapter five, will include limitations of the product, as well as recommendations and suggestions for future research and future implementation of the product. The summary is followed by a list of resources utilized throughout the entirety of this scholarly project. Finally, the appendices contain the product in its entirety, including instructor PowerPoints with lecture notes, participant handouts, and a resource page.

# Chapter II: Literature Review

## Occupational Therapists' Role in Adventure Therapy

In recent years, a wide variety of mental health professionals have opted to move away from the clinical therapy setting to take their clients outdoors (Levack, 2003). The use of adventure interventions allows mental health professionals to participate in activities that do not fit the status quo of traditional occupational therapy (OT) approaches (Levack, 2003). Adventure activities are experiences that challenge a person physically and psychologically, and occur within a natural environment, whether outdoor or indoor (Richards & Peel, 2005; The Council on Accreditation, 2010). Adventure activities include: rock climbing, kayaking, snowshoeing, backpacking, hiking, surfing, ropes courses, and archery. Levack (2003) noted that the majority of people do not engage in adventure activities on a daily basis, but these types of activities have the potential to facilitate personal change and increase quality of life. Adventure therapy (AT) is an example of an alternative intervention that engages clients in adventurous activities that are novel and experiential in nature. Mental health practitioners, such as social workers, psychologists, and counselors typically administer AT, although AT is an appropriate technique for any mental health-based profession.

Within the United States, a large majority of AT programs were created to treat at-risk youth (Ritchie, Patrick, Corbould, Harper, & Oddson, 2016). AT has proven to be effective for youth and adolescents who have a mental health diagnosis and/or are at risk for developing a mental health diagnosis (Gillis & Gass, 2010; Lauer, Bathurst, & Richardson, 2017; Norton et al., 2014; Scheinfeld, Rochlen, & Buser, 2011; Tucker, Javorski, Tracy, & Beale, 2013; Tucker, Norton, Itin, Hobson, & Alvarez, 2016). Largely, however, the use of AT with youth and adolescents has been limited to professions other than OT. There is a gap in existing AT

literature specific to OT practice, especially within the United States where occupational therapists (OTs) do not typically utilize AT as an alternative to standard treatment. Current literature from New Zealand and Australia has indicated that OTs have incorporated AT into their practice, which could serve as a model for OT within the United States (Jeffrey & Wilson, 2017).

## Adventure Therapy

Formally defining adventure therapy (AT) is not an easy feat. A majority of existing definitions did not outline the principles of AT, but highlighted the program elements and components within each research study to describe what it was. Additionally, variability was seen amongst the definitions due to differences in service delivery modes used by mental health practitioners, organizations, and programs (Ritchie et al., 2016). Because so many health care professionals may utilize AT, it is considered to be a set of techniques or tools as opposed to a profession (Jeffery & Wilson, 2017). For example, Jeffrey and Wilson (2017) defined AT as the practice of using outdoor activities for therapeutic benefits, including psychosocial changes for adolescents, whereas Richards and Peel (2005) stated that AT assists clients in identifying and addressing maladaptive patterns by completing challenging experiences in natural environments. Additionally, The Council on Accreditation (2010) defined AT as "day or residential programs that provide an intensive, therapeutic experience based on outdoor, educational, clinical, and other activities that involve physical and psychological change" (p. 1). Discrepancies in program elements and components have resulted in a lack of a formal definition of AT. For this reason, Gass, Gillis, and Russel (2012) aimed to formally define AT to prevent distraction from the focus of AT and provided a reference point for theory development, practice, and research. Therefore, these authors have created the most commonly known and referenced definition of AT. AT is

defined by these authors as “the prescriptive use of adventure experiences provided by mental health professionals, often conducted in natural settings that kinesthetically engage clients on cognitive, affective, and behavioral levels” (Gass et al., 2012, p. 1). Although the word prescriptive is included in the definition, researchers stress that one should not assume advocation for a medical model. Rather, the word prescriptive is utilized to describe the power to heal, restore, or prevent without doing harm while utilizing a mental health approach (Gass et al., 2012). For the purposes of this literature review, the researchers used this definition to guide their research.

AT origins in the United States can be traced back to the 1800s, however therapeutic camps for adolescents with psychosocial deficits did not open until the 1920s (Gass et al., 2012). The Outward Bound organization was established in 1941 by Kurt Hahn; his organization was created to address what Hahn called the "five social diseases of the young" (Gass et al., 2012). Hahn was credited with creating the first adventure-based program that involved youth with psychosocial deficits in dynamic expeditions to increase their self-discipline and reliance. The creation of this organization significantly impacted the field of AT and resulted in the creation of Outward Bound USA in 1962 (Gass et al., 2012). Currently, Outward Bound programs are being utilized in the following states: Minnesota, Maine, Colorado, Oregon, North Carolina, and New Hampshire (Gass et al., 2012). Though this list is not exhaustive, it highlights how the program has expanded over time.

AT entails many unique components as a therapeutic approach as it utilizes experiential education to assist individuals in coping with psychosocial problems (Bowen & Neill, 2013; Norton et al., 2014). According to Gass et al. (2012), AT is composed of seven key elements, including active participation, novel contexts or adventures, construction of personal change,

constant facilitation of activities to measure change, group development and cohesion, solution-focused approach, and participation of the therapist as a facilitator rather than as an expert. Key elements identified by Bowen and Neill (2013) included: learning through experiencing an activity, the presence of nature, use of intentional risk, meaningful engagement in adventure, solutions focused on creating positive changes, holistic outlook of patients, providing ethical care, and facilitating group-based activities. Variability amongst key elements exists as the administration of AT can differ depending on the mode preference of the therapist overseeing treatment (Ritchie et al., 2016). When using adventure-based experiences, therapists act as a consultant to clients, so that the experience becomes the central medium for functional change (Gass et al., 2012).

Specific assumptions and principles of AT are not consistently identified in existing literature, aside from the use of therapeutic metaphor. Reflection and novel experiences are not specifically addressed, however are important components of the AT process. Metaphor can be used three ways by practitioners administering AT. Spontaneous metaphoric transfer ensures that the client develops healthier and productive behaviors through messaging given by the challenging experiences and natural environment in general (Gass et al., 2012). Analogous metaphoric transfer is when practitioners use reflective activities, group discussions, as well as debriefing strategies succeeding the adventurous experience; a three question process is typically utilized to facilitate a change in the client's affect, behavior, or cognition (Gass et al., 2012). Structured metaphoric transfer is when a framework is created prior to engaging in the adventurous experience; interpretation of the experience on the front end increases the likelihood that the client will draw connections between the therapeutic issue and his or her adventure experience at the end (Gass et al., 2012). Isomorphism is a key principle utilized in structuring

spontaneous, analogous, and structured metaphoric transfer. It creates a relevance that is important and current to the client's situation, as well as an understanding about what is important to hone in on for future adventure experiences (Gass et al., 2012). Through metaphor the client is able to reflect in action and on action (Merriam et al., 2007). Both, are critical components to consider when successfully transferring metaphoric information (Merriam et al., 2007). Also, novel experiences allow clients to step outside of their comfort zone and relate perceived risk to their everyday lives.

AT presents with a wide array of challenging activities that occur in natural environments to induce a level of perceived risk (Richards & Peel, 2005). Activities range from outdoor pursuits, such as ropes courses or residential camps, to group board games (Bowen & Neill, 2013). AT activities may be short, as each activity lasts less than an hour or long, as each activity lasts more than one hour (Scheinfeld et al., 2011). Also, it is important to note that AT interventions do not require extreme activities, such as ropes courses (Norton & Tucker, 2010; Tucker, 2009). Instead, it is important that the AT intervention is focused on individuals' personal and group goals to facilitate a metaphorical connection to their lives (Norton & Tucker, 2010; Tucker, 2009). Each client's emotions and behaviors are being replicated to determine if they need to be resolved or changed (Gass et al. 2012; Tucker et al., 2013). The overall purpose of many AT activities is to build trust, develop interpersonal or intrapersonal awareness and skills, and develop processing skills to create insight to facilitate change (Scheinfeld et al., 2011). AT allows individuals to participate physically, cognitively, socially, and emotionally while natural consequences and group cohesion influence the learning process. (Gass et al., 2012; Tucker et al., 2016). Because of these influences, AT is beneficial and effective in creating positive changes, addressing underlying problems, and maintaining or increasing health and well-being

(Ritchie et al., 2016). AT interventions may lead to individuals developing coping skills to deal with stress (Koperski, Tucker, Lung, & Gass, 2015). According to Miles (1987), clients who are physically challenged while engaging in nature activities experience psycho-emotional release due to the expression of anxiety and frustration, as well as increased physical fitness. Coon et al. (2011) further explained that anger and depression are decreased due to physical exertion within an outdoors setting. AT interventions can be administered outdoors, however do not need to be done outdoors alike other therapeutic approaches.

**Wilderness Therapy**

Wilderness therapy (WT) is piloted in the wilderness (Becker, 2010; Bettman & Jasperson, 2007) and is commonly described as extensive outdoor adventures or expeditions used to promote personal change and growth (Tucker & Norton, 2013). Many WT definitions utilized the benefits of the programming and/or settings (i.e., outdoors) to outline what it was (Russel, 2001). For example, Fernee, Gabrielsen, Andersen, and Mesel (2017) defined WT as a mental health treatment approach that is used within nature that is remote in location, whereas Russel (2001) described WT as an outdoor wilderness program that encourages rehabilitation, therapy, education, personal reflection, primitive skills, and personal and interpersonal development. Although there is an increase in WT programs within the United States, WT still lacks a formal and consistent definition and WT programs struggle with consistent use of theoretical backgrounds (Russell, 2001).

The goal of WT is to therapeutically address client problems by removing them from destructive environments that contribute to behaviors or other problems (Russell, 2001). WT often consists of risk association, reflective group therapy, unfamiliar wilderness environments, natural consequences, and a variety of therapeutic and adventurous techniques, all of which may

vary in duration (Russell, 2001). According to Russel (2001), WT programs include a healthy diet, physical exercises, and education of survival skills, in addition to therapeutic discussions or challenges. Additionally, WT programs have the ability to create self-confidence and self-esteem through promoting strength, empowerment, resiliency, and accomplishment, while allowing clients to use this self-confidence in future situations (Russell, 2001). WT programs are generally overseen by a licensed mental health practitioner who has contact with the clients, both individually and in group settings (Bettmann & Jasperson, 2007; Bettmann & Tucker, 2011; Russel, 2001; Russel, 2003). This ensures that each client's treatment plan and interventions are individualized, and after-care plans are appropriate (Bettmann & Jasperson, 2007; Bettmann & Tucker, 2011; Russell, 2001; Russel, 2003).

**Similarities/Differences between AT and WT**

Adventure therapy (AT) and wilderness therapy (WT) programming are similar in many ways. First, AT and WT are both described by components and elements of programming, as opposed to having a widely accepted formal definition (Ritchie et al., 2016; Russel, 2001). Second, AT and WT are often administered to adolescent mental health populations (Bowen & Neill, 2013; Norton et al., 2014; Russel, 2001) and overseen by a licensed mental health practitioner (Bettmann & Jasperson, 2007; Bettmann & Tucker, 2011; Gass et al., 2012; Russel, 2001; Russel, 2003). Lastly, AT and WT are individualized, however, both can be administered in an individual or group setting (Bettmann & Jasperson, 2007; Bettmann & Tucker, 2011; Gass et al., 2012; Russel, 2001; Russel, 2003; Tucker et al., 2016).

Although AT and WT have many similarities, it is important to note that AT and WT are not interchangeable terms. For example, mental health practitioners who are delivering AT act as a consultant to the client rather than as an instructor (Gass et al., 2012), whereas practitioners

delivering WT must initially act as instructors and progress towards a facilitative role (Russell, Hendee, & Phillips-Miller, 2000). Also, WT is delivered in the wilderness with a focus on physical exertion and survival skill education (Russell, 2001). In contrast, AT can be administered in outdoor or indoor settings; however, the primary focus is on the client's perceived risk while engaging in the task and the psychological components of the client to encourage a behavioral change (Bowen & Neill, 2013; "Wilderness therapy," 2016).

**Population Access to AT**

**Youth and Adolescents**. A large majority of existing literature is focused on the adolescent and youth populations, as within the United States a large majority of programs were created to treat at-risk youth (Ritchie et al., 2016). AT has proven to be effective for youth and adolescents who have a mental health diagnosis and/or are at risk for developing a mental health diagnosis (Gillis & Gass, 2010; Lauer et al., 2017; Norton et al., 2014; Scheinfeld et al., 2011; Tucker et al., 2016). In a meta-analysis conducted by Bowen and Neill (2013), the identified focuses of AT research programs have been for survivors of abuse, delinquent youth, youth with behavior disorders, individuals with disabilities, individuals who are educationally delayed, individuals who are emotionally disturbed, families, people with mental health disorders, individuals who are physically challenged, youth or adults with substance abuse, and a mixture of the previously listed mental health problems. Berman and Davis-Berman (2013) noted a gap in services available to adolescents and the mental health needs of adolescents in the United States and the United Kingdom, as most treatment provided in the United States is privatized and delivered via outpatient settings. For this reason, there is less access to mental health services in the United States than the United Kingdom, where the continuum of care is tiered (Berman & Davis-Berman, 2013). The United Kingdom's tiered continuum of care allows health care

providers to deliver integrated services earlier on (Berman & Davis-Berman, 2013). According to Tucker et al. (2013), AT is commonly used as a substitute for inpatient therapy or treatment for the youth population when they become resistant to therapy options, and/or for youth and adolescents who are not benefiting from standard treatment. Also, AT has been used as a complimentary service in addition to an individual's current treatment plan to enforce learning and positive behaviors (Tucker et al., 2013). AT has proven to increase youth and adolescent interpersonal skills, psychosocial functioning, self-awareness, self-esteem, teamwork, self-control, and problem-solving (Scheinfeld et al., 2011; Tucker et al., 2016). Additionally, AT interventions have been highly effective in decreasing depression, substance abuse, conduct disorder, high levels of stress, and problem severity for individuals who have a mental health diagnosis within the adolescent and youth population (Norton et al., 2014; Scheinfeld et al., 2011; Tucker et al., 2016).

AT programming has positively influenced both male and female youth and adolescents. Whittington, Mack, Budbill, and McKenney (2011) acknowledged an increased risk for body-image, self-concept, and depression difficulties for adolescent girls aged between 10 and 19 years old. Lauer et al. (2017) utilized this information to design, create, and lead an adventure-based program for seven adolescent girls over the course of 10 weeks to improve self-concept and social interaction skills. Qualitative data collected was clinically significant, as social interaction and self-concept increased because of participation in the adventure-based programming (Lauer et al., 2017). Gillis and Gass (2010) created an adventure-based behavioral management program to focus on outdoor living skills and self-development for male juvenile sex offenders struggling to be successful in residential juvenile sex offender programs. A reduction in re-arrest rates was noted over the course of three years (Gillis & Gass, 2010).

Furthermore, Norton et al. (2014) found that both AT and WT programs decreased the rate of recidivism of juveniles; however, there was a larger decrease in the juveniles three years past intervention (Norton et al., 2014).

**Adults.** The adult population has not been focused on in many AT research studies; therefore, there is a gap in AT literature that is specific to the adult population. Although AT has proven to be effective with youth and adolescents, the available limited research indicated it has also proven beneficial for the adult population. Tucker and Norton (2013) asserted that AT demonstrated effectiveness for the adult population in decreasing negative symptoms of post-traumatic stress disorder or trauma in general, increasing the well-being of individuals with schizophrenia, and improving family functioning. Shimitras, Fossey, and Harvey (2003) stated that active leisure-based interventions are important for adults with mental health issues because the interventions will lead to physical activity, engagement in healthier lifestyles, and engagement in social interactions. Furthermore, the promotion of nature-based activities and recreational activities have increased adults' appeal towards said activities (Anon, 2003). Scheinfeld et al. (2011) found that an all-male group of AT participants led to the adult males sharing personal information through the newly built relationships within a positive group atmosphere. The researchers further elaborated that the male participants had reported that they would not be interested in participating in a mixed gender AT program, as the participants believed that this would decrease their level of participation and openness (Scheinfeld et al., 2011). Koperski et al. (2015) found that limited research evaluating AT as an alternative therapy for adults who deal with chronic stress exists. All in all, limited research addressing the implementation of AT programming with male and female adults has been conducted.

## Professions Involved in AT

According to Jeffrey and Wilson (2017), AT was developed internationally from the professions of psychotherapy, psychology, and counseling. Jeffrey and Wilson (2017) found that the most common mental health practitioners involved within AT are psychologists, counselors, social workers, and recreational therapists. According to Tucker and Norton (2013), social workers are becoming more interested in implementing AT, as 35.1 percent typically used adventure-based activities during therapy, especially with youth clients. Although many professions other than OTs have facilitated AT in the past within the United States, OTs are commonly administering AT programming in New Zealand and Australia (Jeffrey & Wilson, 2017). It has been found that therapeutically confronting the psychosocial components of patients leads to an increased quality of life and well-being when OTs facilitate AT due to their unique training and group facilitation process (Lauer et al., 2017).

## OT Role in AT

In a qualitative descriptive study, Jeffrey and Wilson (2017) argued that occupational therapists (OTs) have more strengths related to adventure therapy (AT) implementation than other professions, as OTs are uniquely trained to evaluate clients' abilities through activity and environmental analysis, group facilitation, and activity sequencing. Furthermore, another strength is that the occupational therapy (OT) profession focuses on the use of occupation-based activities in a wide range of settings and environments. Therefore, OTs do not have to adapt their practice on a large scale, when compared to psychology-based professions (Jeffrey & Wilson, 2017). Psychology-based professions may not have the same skill set regarding analyzing the activity or environment, thus making the activity analysis process more difficult (Jeffrey & Wilson, 2017). For example, OTs are well versed in activity analysis and have skills to facilitate

reflective processing, prior to, during, and after an activity. With that being said, OTs stated they were familiar with compatible psychology concepts found within AT from their mental health training in OT school. Examples of this are: Cognitive behavioral therapy and motivational interviewing (Jeffrey & Wilson, 2017). Although some OTs were hesitant to facilitate groups utilizing these concepts due to unfamiliarity with in-depth discussions, OTs were able to facilitate relevant and necessary discussions during and after the AT intervention (Jeffrey & Wilson, 2017).

OT literature specific to implementing AT as an alternative to standard therapy is limited; however, novel, sports-oriented, and skills-based programming has proven beneficial for individuals with post-traumatic stress disorder (PTSD) and spinal cord injuries (Rogers, Mallinson, & Peppers, 2014; Taylor & McGruder, 1996). Taylor and McGruder (1996) asserted that individuals participate in activities due to personal meaning and choice, facilitating well-being, life satisfaction, and a higher quality of life through occupational balance. Sea kayaking is an example of an adventurous activity that can be graded to a person's abilities and mental status (Taylor & McGruder, 1996). Although sea kayaking has many physical benefits, it was proven to decrease depression, mental stagnation, and social isolation (Taylor & McGruder, 1996). As part of their qualitative study, Taylor and McGruder (1996) interviewed three participants after engaging in sea kayaking. It was found that participants received the opportunity to re-define themselves and stated that the adventure activity allowed them to cope with difficult times/situations by decreasing stress and the impact of life changes, as well as increase their self-esteem and self-perception (Taylor & McGruder, 1996).

Rogers et al. (2014) conducted a pretest-posttest cohort design to determine the feasibility of using an OT intervention that was sports-oriented and that complemented services being

delivered to veterans experiencing symptoms of PTSD and depression. 11 veterans enrolled in Ocean Therapy and attended five sessions over the course of five weeks; five resiliency themes were also addressed (Rogers et al., 2014). Themes for demonstration of resiliency were as follows: Role identity, leadership and trust, community building, problem-solving, and transition (Rogers et al., 2014). In identifying and working through each theme, participants were also encouraged to reflect on the process and experience of obtaining a new skill set in the unpredictable ocean (Rogers et al., 2014). In conclusion, researchers found that 73% of the 11 participants completed at least three of five sessions and veterans reported a decrease in their PTSD and depression symptomology (Rogers et al., 2014).

Ocean Therapy and sea kayaking are similar to AT in numerous ways. First, both interventions are utilizing novel environments to promote self-efficacy. AT supports this methodology as novel contexts play a significant role in creating eustress and encouraging the client to make comparisons and changes to their everyday life and/or thought patterns (Gass et al., 2012; Richards & Peel, 2005). Next, the sports-oriented activities were intended to be utilized to complement traditional OT interventions, as opposed to replacing what was previously implemented (Rogers et al., 2014; Taylor & McGruder, 1996). For example, AT is commonly used as a substitute for inpatient therapy or treatment for the youth population when they become resistant to therapy options, and/or for youth and adolescents who are not benefiting from standard treatment (Tucker et al., 2013). Lastly, both Ocean Therapy and sea kayaking were experiential in nature (i.e., learning through doing). Similarly, AT allows individuals to participate physically, cognitively, socially, and emotionally while natural consequences and group cohesion influence the learning process (Gass et al., 2012; Tucker et al., 2016).

**Training for AT Intervention**

According to Berman and Davis-Berman (2013), mental health practitioners who administer adventure therapy (AT) do not easily conform to inpatient mental health models without first receiving specialized mental health training, and without practicing within a mental health organization. It is important to note that training also needs to be provided on mental health diagnoses, such as bipolar disorder, depression, and anxiety disorders (Jeffrey & Wilson, 2017). The most common mental health diagnoses and prevalence of said diagnoses of youth and adolescents cannot be easily identified, as age criteria differ across societies, there is limited access to populations, and mental health diagnoses are defined differently depending on an individuals' culture (Berman & Davis-Berman, 2013). The same could be assumed for adult mental health populations, as access to these clinical populations are also limited.

AT requires the use of soft skills (e.g., communication skills) and hard skills (e.g., weather knowledge and first aid), so learning both skill sets prior to implementing AT interventions is crucial (Jeffrey & Wilson, 2017). Jeffrey and Wilson (2017) found that occupational therapists (OTs) struggled with incorporating soft skills while administrating AT in mental health practice, as OTs are more familiar with utilizing activities to facilitate the therapeutic process. For example, mental health OTs currently utilize cognitive behavioral therapy, motivational interviewing, and positive psychology skills within their standard practice, but reported still lacking complete confidence in these areas when applied to the debriefing phase of AT (Jeffrey & Wilson, 2017). Along with this, the OTs expressed that learning the soft skills utilized in AT would increase their occupational therapy (OT) facilitation skills in general (Jeffrey & Wilson, 2017).

Jeffrey and Wilson (2017) also found that OTs reported struggling with incorporating hard skills while administering AT in mental health practice, as OTs expressed a lack of education and training for basic outdoor skills. For example, education and training of weather knowledge, risk assessment, outdoor first aid, and ensuring safety during the facilitation of AT are not included within the standard OT curriculum. It is important to note that all mental health professions alike lacked the knowledge and training in hard skills as well (Jeffrey & Wilson, 2017). For this reason, researchers suggested that all mental health practitioners' utilizing AT should complete additional hard skills training, in addition to experiencing novel adventure experiences themselves to be a qualified AT facilitator (Jeffrey & Wilson, 2017).

The lack of hard and soft skill knowledge by OTs may be correlated to a lack of training programs. Out of 66 college programs in Canada focused on therapeutic adventure, only 10 programs had at least one course specific to AT, and only three schools offered an undergraduate program specific to AT (Ritchie et al., 2016). This problem has also been presented in the United States, as there is a lack of AT related educational and training programs within college affiliated structures (Ritchie et al., 2016). Furthermore, a lack of formal education on AT may lead to a lack of knowledge when practicing in the field of mental health. Tucker and Norton (2013) distributed a survey on AT and found that only 35.1 percent of clinical social worker respondents reported using adventure-based activities for therapy; the most common activities that were used were cooperative games and problem-solving activities. Of all the respondents who reported utilizing adventure activities, no matter the frequency, only 9.2 percent stated that they had received formal education or training and only three participants had received training on AT techniques (Tucker & Norton, 2013). Similarly, Norton et al. (2014) found that only 17.6 percent

of individuals working in the AT practice area received formal training, of which only half reported having training on the therapeutic benefits and application of AT activities.

A lack of training or education presents as an ethical dilemma, risks quality of care, and challenges the competency requirements required to facilitate AT due to lack of risk assessment skills, improper intentional use of activities and intensity levels, and lack of proper management of physical and psychosocial safety of clients (Tucker & Norton, 2013). Although many of the respondents were not properly trained or educated, a large majority of the respondents indicated that they were interested in being educated and trained on adventure activities and techniques (Tucker & Norton, 2013). It is important to distinguish that knowing an adventure activity from personal experience is significantly different than knowing how to facilitate the activity therapeutically in order to obtain optimal outcomes (Tucker & Norton, 2013). To ensure ethical and effective utilization of the AT modality, training and development of staff are crucial.

**Theoretical Foundations of AT**

Many philosophical and theoretical backgrounds are used to guide adventure therapy (AT) interventions due to a variety of mental health professions facilitating AT. The theory of occupational science is a concept that has been used in the past by AT facilitators. Occupational science proposes that individuals' minds and bodies are positively impacted due to participating in meaningful or valued occupations (Townsend, 1997; Wilcock, 1993). Laliberte-Rudman (2002) suggested that this theory allows individuals to achieve a higher level of wellbeing by gaining a sense of satisfaction, meaning, and self-identity. The ABC-R model is another model utilized by practitioners who administer AT. Gass et al. (2012) explained that the ABC-R model guides the AT process by considering the relationship between an individual's affect, behavior, and cognition. Through this model, clients are viewed holistically and are engaged in therapy at

their current level of need in order to initiate or trigger thoughts, behaviors, or emotions that need to be focused on during therapeutic interactions (Gass et al., 2012).

Affect, behavior, and cognition are access points to meet the clients' current needs and wants. Affect hones in on mental health, as opposed to mental illness by encouraging the client to focus on his or her experience, and how they make sense of the experience (Gass et al., 2012). Practitioners are encouraged to direct the clients' attention to the here or now to prevent rumination on past or future events (Gass et al., 2012). The behavior access point requires little insight on the part of the client, however it is imperative that the client understands the consequences of negative behaviors and vice versa (Gass et al., 2012). The cognitive access point requires the client to identify irrational thinking patterns and/or behaviors to ensure a positive change can be made (Gass et al., 2012). All access points revolve around how the client perceives interpersonal relationships. Understanding of the clients' interpersonal relationships, and how the client perceives them will dictate how the client will participate in the AT programming (Gass et al., 2012). Assumptions and principles are not blatantly outlined; however, the primary assumption is that multiple access points can be taken into consideration during one and/or multiple sessions to best meet the clients' needs and wants.

The ABC-R model serves a guide for initial assessment, as well as assessment during the treatment process. An affect access point may be appropriate for clients who have an affective or emotional issues, as the practitioner would encourage the client to focus on the here and now (Gass et al., 2012). A cognitive access point may be appropriate for clients who have difficulties with identifying and understanding irrational thoughts or negative thought patterns (Gass et al., 2012). Lastly, purely behavioral access points need reward/punishment systems that are

straightforward, as understandability may not be high with regard to personal insights into behaviors (Gass et al., 2012).

Although there are many models to choose from when facilitating AT, the experiential learning theory is reported to be the foundational guiding philosophy for AT and is currently the most popular theoretical framework (Jeffrey & Wilson, 2017; Newes & Bandoroff, 2004; Norton et al., 2014). The experiential learning theory is derived from Kolb (1984) and Dewey (1938), stating that learning occurs due to engagement in activities, active reflection, and follow-through (Newes & Bandoroff, 2004; Norton et al., 2014; Tucker et al., 2016). The experiential learning theory aims to develop skills and capacities, create motivation, clarify personal beliefs and values, and increase overall knowledge (Jeffrey & Wilson, 2017; Norton et al., 2014). Jeffrey and Wilson (2017) found that occupational therapists in New Zealand were familiar with the experiential learning theory's concepts from their occupational therapy (OT) education; however, it is unknown if this model is widely used and recognized within the OT profession.

Active participation requires individuals to be involved in discussion or activities in the moment. Novel activities and environments refer to tasks or contexts that an individual is not familiar with or has not participated in before. Additionally, these concepts may refer to large changes within an activity or environment. Lastly, reflection in-action refers to individuals reflecting on their thoughts and emotions in the moment or while participating in an activity, whereas reflection on-action refers to individuals reflecting on their experience after the fact. It is through this reflection of experiences that individuals obtain and create new knowledge or meaning (Merriam et al., 2007). For learning to occur, the therapist must recognize that each experience is influenced by the quality of past, present, and future experiences, but is also impacted by the current environment or atmosphere (Merriam et al., 2007). Additionally,

learning requires a person to be open to novel experiences, to be able to reflect and observe, conceptualize ideas abstractly for generalization, and actively experiment through problem-solving and decision making (Merriam et al., 2007). The experiential learning theory asserts that all knowledge generation or education derives from experiences that require either one's cognitive, physical, or emotional self, no matter if the outcomes are positive or negative (Merriam et al., 2007). From Dewey's (1938) constructivist approach of experiential learning theory, therapists must place emphasis on reflection on-action and reflection in-action (Merriam et al., 2007).

**Outcomes and Implications of AT**

As previously mentioned, adventure therapy (AT) is typically implemented by mental health practitioners, such as psychologists, counselors, social workers, and recreational therapists (Jeffrey & Wilson, 2017). Despite a lack of occupational therapy implementation of AT, research suggested that occupational therapists (OTs) meet the qualifications to administer AT to individuals with a mental health diagnosis. It is important that the AT intervention is focused on the individuals' personal and group goals to metaphorically connect with their lives. The clients' emotions and behaviors are being replicated to determine if they need to be resolved or changed (Gass et al., 2012; Tucker et al., 2013). OTs are uniquely trained to evaluate clients' abilities through activity and environmental analysis and modification, group facilitation, and activity sequencing, which present as an advantage over other professions; However, OTs lack education and training for basic outdoor skills which are an essential component to the AT experience (Jeffrey & Wilson, 2017). Ultimately, extensive training and education on soft and hard skills for OTs implementing AT is critical, as a lack of procedural and safety awareness jeopardizes clients' safety.

## Chapter III: Activities/Methodology

The creation of this scholarly project followed specific guidelines in order to ensure scholarly merit and reliability. The first step taken to develop this scholarly project was to review the existing literature regarding adventure therapy (AT) and related topics. Resources were pulled from scholarly and reputable databases. Databases included: CINHAL, PubMed, Academic Search Premier, and PsychInfo. Within the listed databases, the following search terms were utilized: adventure therapy, adventure, wilderness therapy, wilderness, outdoors, experiential education, experiential learning, and occupational therapy. These search terms were utilized in order to ensure that the evidence obtained was thorough and the best available evidence. These resources were then summarized. A book titled *Adventure Therapy* by Gass, Gillis, and Russell (2012) was also utilized as it was highly referenced within the literature as a primary resource for AT. Additionally, the book *Learning in Adulthood* by Merriam et al. (2007) and scholarly websites, such as the Association of Experiential Education, were utilized to supplement and validate information gained from other sources. Relevant resources that were pulled were utilized to create a literature review.

Following the creation of the literature review, it was evident that there was a gap in the literature regarding research on AT, especially research involving OTs administration of AT within the United States. The identified gap in the literature supported the decision to create a workshop centered on educating OTs about AT interventions in mental health settings. The research and evidence within the literature review was then utilized to establish the foundation of a workshop that was specific to OTs in order to increase knowledge and awareness of AT.

The experiential learning theory was utilized to guide the creation of the scholarly project. The experiential learning theory was chosen over an occupation-based model because

the product is a workshop focused on educating OTs on what AT is and how it can be implemented in mental health practice. Therefore, a learning theory is crucial to the product. Each presentation within the product is guided by the experiential learning theory as active participation, reflection, and eustress were incorporated through the use of guided discussion, pencil and paper tasks, and hands on activity.

# Chapter IV: Product

The product created is a workshop specific to adventure therapy (AT) and AT interventions for occupational therapists (OTs) practicing in mental health settings (See Appendix). The product was designed specifically for the instructor of the workshop, preferably an OT, as a step by step instruction of how to present the content, lead a rock climbing group activity, and facilitate discussion related to the group activity and overall workshop. Due to the lack of OT knowledge and awareness of AT, the product was created as thoroughly as possible in order to ensure understandability and ease of use by the instructor.

The product includes six PowerPoint presentations with instructor notes, participant handouts, pre-tests and post-tests for assessment, and an AT resource page. The first five presentations were created to increase OT knowledge and awareness of AT as an alternative to standard treatment. These presentations are as follows: (1) Introduction to AT; (2) Theory and Ethics; (3) Education, Training, and Risk Management; (4) Research and the Future of AT; and (5) Occupational Analyses. The fifth PowerPoint presentation entails three occupational analyses involving archery, kayaking, and rock climbing. For each activity, there is a case scenario provided to facilitate clinical reasoning of activity appropriateness based on specific mental health diagnoses. For example, archery is analyzed for an individual with panic disorder. Prior to working through each occupational analysis the audience would be provided with an overview to each activity, including the equipment needed and jargon specific to the activity. It is important to note that the first two occupational analyses are discussion based as they would be filled out and given to participants; however, the final occupational analysis was created to be filled out by the participants of the workshop to solidify their understanding of the occupational analysis process required for AT interventions.

Following the fifth PowerPoint presentation, a hands-on rock-climbing activity would be completed in order to simulate an AT activity. The purpose of this activity is to move or bring participants outside of their comfort zone in order for them to develop their own personal metaphor for the activity and to consider what this experience may be like for a client. During this activity, instructors would provide assistance as needed and facilitate reflection in-action. After the completion of the rock climbing activity, participants would engage in reflection on-action from the view of as a client, not as a therapist. First, participants would be encouraged to share their perception of the activity, then would be challenged to consider what this would look like for a client with a mental health diagnosis. This allows OTs to develop their own metaphor of how the client would participate in a novel experience. The sixth and final PowerPoint presentation is a template of questions for the instructor to facilitate a discussion rather than an actual PowerPoint presentation. Participants would discuss what they have learned, determine how to apply their new knowledge to practice, clinically analyze what application would look like, and evaluate their overall experience.

It is important to acknowledge why the creation of a workshop on AT for OTs in the mental health field is relevant. This scholarly project presents with an opportunity to broaden the scope of OT practice within the United States, as AT is a valid and effective OT intervention in New Zealand and Australia (Jeffrey & Wilson, 2017). It is also important to consider how AT can serve as a supplement or alternative to standard treatment interventions as it has proven effectiveness with a variety of youth and adolescent populations who do not respond to standard treatment (Norton et al., 2014; Scheinfeld et al.; Tucker et al., 2013). Lastly, this scholarly project is beneficial to the profession of OT as it leads to occupation-based outcomes through engaging individuals in client-centered and meaningful adventure experiences. Experiences can

be incorporated into their everyday lives in order to facilitate changes in cognition, behavior, or overall independence. Additionally, AT can also create new meaningful activities for individuals to engage in outside of OT interventions, leading to an increase in meaningful leisure pursuits.

# Chapter V: Summary

The purpose of this scholarly project is to increase knowledge and awareness of adventure therapy (AT) for occupational therapists (OTs) practicing in mental health settings. A workshop was created to educate OTs about AT intervention implementation through utilizing the experiential learning theory. Clinical strengths of the product include a meticulous outline of educator materials and hands on activities increasing ease of use by facilitators, in depth research that was scholarly in nature, and a tool that can be used to train practicing OTs on interventions that are alternative to standard treatment. Although this scholarly project has many strengths, it also has a few areas that could be improved.

The first limitation of this scholarly project are knowledge barriers, as there is a lack of recognition from the American Occupational Therapy Association (AOTA) that AT is a viable treatment option. It is also anticipated that there will be hesitancy from OTs to see that AT is a viable and effective treatment option. Additionally, prior to implementing this workshop in the future, the authors would have to obtain the proper training on technical skills for the hands on activity portion of the workshop. Another limitation arises from the risk associated with AT interventions, as there are more chances of injury during AT interventions than when compared to standard treatment interventions. The last limitation is that physical disability adaptations were only briefly addressed in presentation five; however, physical disabilities were not the focus of this scholarly project as it was designed for patients with mental health problems or diagnoses. Nonetheless, it was acknowledged that there is research supporting the adaptability of many AT activities. This research can be easily accessed in journals and in reputable websites, such as Disabled Sports USA. The authors did choose to include these adaptations within each occupational analysis in presentation five in order to make workshop attendees aware of the possible adaptations.

It is recommended that more research be completed on AT in the future, not only to strengthen this scholarly product, but also to strengthen the rationale and evidence behind utilizing AT as a valid and effective OT intervention. Research regarding a wide variety of diagnoses and adult populations is needed, as these were gaps found within the literature; however, the largest gap in research was research regarding OTs implementing AT interventions. Additionally, more sound and quantitative research in the future is recommended, as current research on AT are largely qualitative and does not describe AT interventions in depth. It is also suggested that a similar project or extensive literature review be completed regarding AT and its effectiveness for individuals with physical disabilities.

Another suggestion for the future is to increase awareness and recognition of AT within the United States. Therefore, this product could be presented at a poster presentation or seminar at the annual conference of the AOTA. In addition, presenting on AT and AT interventions at state conferences or facilitating a workshop after the correct education has been obtained would assist in increasing awareness and recognition. Lastly, it would be beneficial to build a relationship with Helen Jeffrey from New Zealand as she is the leader of OT implementation of AT interventions with individuals with mental health problems or diagnoses. Additionally, other consultants who are trained and educated in AT interventions would be beneficial in order to strengthen this scholarly project, as well as increase opportunities to increase knowledge and awareness of AT within the profession.

Appendix

# Occupational Therapy with an Adventurous Twist

By: Ashley Cambronne, MOTS & Mikaela Karpen, MOTS

Advisors: Breann Lamborn, MPA & Andrea Young MOT, OTR/L

# Implementation of Workshop: Instructor Materials

## Product Overview

The purpose of this product is to increase the knowledge and awareness of adventure therapy (AT) for occupational therapists (OTs) practicing in mental health settings in the United States. The information will be presented via large group discussions, hands on activities, and pen and paper tasks; however, a majority of the information will be presented through PowerPoint presentations.

The experiential learning theory was chosen to guide the creation of this product, as learning through doing was critical in increasing the knowledge and awareness of participating OTs. The experiential learning theory is derived from the constructivist-based theories developed by Kolb (1984) and Dewey (1938) and this theory expresses that learning occurs due to engagement in activities, active reflection, and follow-through (Newes & Bandoroff, 2004; Norton, Tucker, Russell, Bettmann, Gass, Gillis, & Behrens, 2014; Tucker, Norton, Itin, Hobson, & Alvarez, 2016). The experiential learning theory aims to develop skills and capacities, create motivation, clarify personal beliefs and values, and increase overall knowledge (Jeffrey & Wilson, 2017; Norton et al., 2014).

It will take approximately eight hours to cover all of the material provided in this product, as discussed on the next page. The workshop will begin with a pre-test to gauge the participants' current knowledge of AT. Presentations one through five will be discussed in a classroom setting, as a computer and projector screen is needed. There will be an hour break for lunch prior to beginning the rock climbing activity. Presentation six will be completed after the rock climbing activity has ended. After the last presentation, a post-test will be administered to gauge the participants' learning from the beginning of the workshop. Correct answers will be discussed prior to concluding the workshop. Follow the outline on the next page to ensure enough time to adequately cover all of the material provided within this product.

# Workshop Schedule

**Introduction and Pre-Test**

- 8:00 AM to 8:15 AM

**Presentation One: Introduction to Adventure Therapy**

- 8:15 AM to 9:00 AM

**Presentation Two: Theory and Ethics**

- 9:00 AM to 9:45 AM

**Break**

- 9:45 AM -10:00 AM

**Presentation Three: Education, Training, and Risk Management**

- 10:00 AM to 10:45 AM

**Presentation Four: Research and the Future of AT**

- 10:45 AM to 11:15 PM

**Break**

- 11:15 AM to 11:30 AM

**Presentation Five: Activity Analyses**

- 11:30 AM to 1:00 PM

**Lunch**

- 1:00 PM to 2:00 PM

**Rock Climbing Activity**

- 2:00 PM to 3:30 PM

**Break**

- 3:30 PM to 4:00 PM

**Presentation Six: Discussion**

- 4:00 PM to 4:45 PM

**Post-Test**

- 4:45 PM to 5:00 PM

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**Name: ____________________**

**PRE-TEST**

**Fill out BEFORE seminar on Occupational Therapists' role in Adventure Therapy**

Please circle the letter for the BEST answer to each question.

**(1) What is the formal definition for AT?**

A. There is not a formal definition for AT
B. Learning that takes place in an outdoor setting
C. Outdoor adventure-based activities to create psychosocial changes within a person
D. All of the above

**(2) AT is mainly directed towards what population?**

A. Old adults with physical disabilities
B. At risk adolescents and youth
C. Adults with mental health diagnoses
D. Old adults with mental health diagnoses

**(3) Which of the following professions is qualified to administer AT?**

A. Psychiatrist/ Counselor
B. OT
C. PT
D. A and B
E. All of the above

**(4) When would AT be an effective alternative treatment to traditional therapy services?**

A. When a client is not responding to traditional therapy services
B. When the OT is bored of treating clients in a clinical setting
C. When it is warm outside
D. None of the above

**(5) What theory or theories are commonly used to guide AT interventions?**

A. Experiential Learning Theory
B. Model of Human Occupation
C. Occupational Adaptation
D. ACB-R Model
E. A and D
F. A and B

**(6) What is the difference between hard and soft skills?**

A. Hard skills are instructional skills, facilitation skills, and organizational skills, whereas soft skills are technical skills, safety skills, and first aid and environment skills.
B. Soft skills are instructional skills, facilitation skills, and organizational skills, whereas hard skills are leadership styles, adherence to profession ethics, and experience-based judgement.
C. Hard skills are technical skills, safety skills, first aid and environment skills, whereas soft skills are instructional skills, facilitation skills, and organizational skills.
D. Soft skills are leadership styles, adherence to profession ethics, and experience-based judgement, whereas hard skills are technical skills, safety skills, and first aid and environment skills.

**(7) Most accidents within AT interventions occur due to which of the following?**

A. Therapist error, lack of rapport, and inappropriate environmental conditions
B. Inappropriate environmental conditions, client actions, and therapist error
C. Client actions, inappropriate environmental conditions, and lack of supplies
D. Therapist error, lack of proper training, and animal attacks

**(8) How do you determine if an AT activity is appropriate to implement with a client?**

A. Activity analysis and occupational profile
B. SWOT analysis
C. Semi-structured interview
D. Chart review and observation

**(9) Reflecting in-action and on-action are critical components of what AT theory/ model?**

A. ABC-R Model
B. CHANGES
C. Experiential Learning Theory
D. Goals, Readiness, Affect, Behavior, Body, and Stage of Development Model

**(10) Would you feel comfortable administering AT to a client who is not responding to traditional therapy services?**

A. Yes
B. No

**Name: ____________________**

**PRE-TEST KEY (Correct Answers are Starred **)**

**Fill out BEFORE seminar on Occupational Therapists' role in Adventure Therapy**

Please circle the letter for the BEST answer to each question.

**(1) What is the formal definition for AT?**

A. There is not a formal definition for AT **
B. Learning that takes place in an outdoor setting
C. Outdoor adventure-based activities to create psychosocial changes within a person
D. All of the above

**(2) AT is mainly directed towards what population?**

A. Old adults with physical disabilities
B. At risk adolescents and youth **
C. Adults with mental health diagnoses
D. Old adults with mental health diagnoses

**(3) Which of the following professions is qualified to administer AT?**

A. Psychiatrist/ Counselor
B. OT
C. PT
D. A and B
E. All of the above **

**(4) When would AT be an effective alternative treatment to traditional therapy services?**

A. When a client is not responding to traditional therapy services **
B. When the OT is bored of treating clients in a clinical setting
C. When it is warm outside
D. None of the above

**(5) What theory or theories are commonly used to guide AT interventions?**

A. Experiential Learning Theory
B. Model of Human Occupation
C. Occupational Adaptation
D. ACB-R Model
E. A and D **
F. A and B

**(6) What is the difference between hard and soft skills?**

A. Hard skills are instructional skills, facilitation skills, and organizational skills, whereas soft skills are technical skills, safety skills, first aid and environment skills
B. Soft skills are instructional skills, facilitation skills, and organizational skills, whereas hard skills are leadership styles, adherence to profession ethics, and experience-based judgement
C. Hard skills are technical skills, safety skills, first aid and environment skills, whereas soft skills are instructional skills, facilitation skills, and organizational skills **
D. Soft skills are leadership styles, adherence to profession ethics, and experience-based judgement, whereas hard skills are technical skills, safety skills, first aid and environment skills

**(7) Most accidents within AT interventions occur due to which of the following?**

A. Therapist error, lack of rapport, and inappropriate environmental conditions
B. Inappropriate environmental conditions, client actions, and therapist error **
C. Client actions, inappropriate environmental conditions, and lack of supplies
D. Therapist error, lack of proper training, and animal attacks

**(8) How do you determine if an AT activity is appropriate to implement with a client?**

A. Activity analysis and occupational profile **
B. SWOT analysis
C. Semi-structured interview
D. Chart review and observation

**(9) Reflecting *in-action* and *on-action* are critical components of what AT theory/ model?**

A. ABC-R Model
B. CHANGES
C. Experiential Learning Theory **
D. Goals, Readiness, Affect, Behavior, Body, and Stage of Development Model

**(10) Would you feel comfortable administering AT to a client who is not responding to traditional therapy services?**

A. Yes
B. No

# Introduction to Adventure Therapy: Presentation One

We will now begin presentation one of six.

## Objectives

- Participants will demonstrate knowledge of the key elements of adventure therapy (AT).
- Participants will demonstrate the ability to differentiate between AT and wilderness therapy.
- Participants will demonstrate knowledge of the occupational therapy (OT) role in AT service delivery.
- Participants will demonstrate knowledge of the OT role in mental health service delivery.

## Adventure Definition

- "An undertaking usually involving danger and unknown risks"
- "An exciting or remarkable experience"

(Merriam-Webster Incorporated, 2018).

(Srivastava, n.d.)

Adventure is at the core of AT practice. It is defined as an undertaking usually involving danger and unknown risks, as well as an exciting or remarkable experience (Merriam-Webster Incorporated, 2018).

According to Gass, Gillis, & Russell (2012), AT is composed of seven key elements, some are, but not limited to: active participation, novel contexts, and group development and cohesion. Additionally, some key elements identified by Bowen and Neill (2013) included learning through experiencing an activity, use of intentional risk, and meaningful engagement in adventure.

Novel contexts often present with unknown risks; therapists can intentionally use these risks to facilitate an adventurous experience that is meaningful to the client. Without the use of novel contexts adventure cannot manifest.

## Adventure Activities

- Adventure activities are experiences that challenge a person physically and psychologically, and occur within a natural environment, whether outdoor or indoor.
  (Richards & Peel, 2005; The Council on Accreditation, 2010)
- Adventure activities may include:
  - Rock climbing and ropes courses
  - Kayaking and surfing
  - Snowshoeing
  - Backpacking and hiking
  - Archery
- A majority of people do not engage in adventure activities on a daily basis, but these types of activities have the potential to facilitate personal change and increase quality of life.
  (Levack, 2003)

Although we have already discussed what adventure is in general, it is also important to understand what an adventure activity is. According to Richards and Peel (2005) and the Council on Accreditation (2010), adventure activities are experiences that challenge a person physically and psychologically, and occur within a natural environment, whether outdoor or indoor. These activities can range from rock climbing, to surfing, to hiking, and so on, as long as they are novel or unique to the person participating in the activity. An adventure activity may require anywhere from an hour to a week of one's time. Since adventure activities are unique to the participant, Levack (2003) stated that a majority of people do not engage in adventure activities on a daily basis, but these types of activities have the potential to facilitate personal change and increase quality of life.

## AT

- AT is "the prescriptive use of adventure experiences provided by mental health professionals, often conducted in natural settings that kinesthetically engage clients on cognitive, affective, and behavioral levels"

  (Gass et al., 2012, p. 1)

- It is important to note that the word prescriptive is utilized to describe the power to heal, restore, or prevent without doing harm while utilizing a mental health approach

  (Gass et al., 2012)

- ***Purpose of AT:*** is to build trust, develop interpersonal or intrapersonal awareness and skills, and develop processing skills to create insight to creating and/or facilitating positive changes to address underlying problems

  (Ritchie, Patrick, Corbould, Harpen & Oddson, 2016; Scheinfeld, Rochlen, & Buser, 2011)

AT lacks a formal definition. A majority of existing definitions do not outline the principles of AT, but rather highlight the program elements and components. Additionally, variability was seen amongst the definitions due to differences in service delivery modes used by mental health practitioners, organizations, and programs (Ritchie, Patrick, Corbould, Harpen & Oddson, 2016). Because so many health care professionals may utilize AT, it is considered to be a set of techniques or tools as opposed to a profession (Jeffery & Wilson, 2017). For example, Jeffrey and Wilson (2017) defined AT as the practice of using outdoor activities for therapeutic benefits, including psychosocial changes for adolescents, whereas Richards and Peel (2005) stated that AT assists clients in identifying and addressing maladaptive patterns by completing challenging experiences in natural environments. Additionally, The Council on Accreditation (2010) defined AT as "day or residential programs that provide an intensive, therapeutic experience based on outdoor, educational, clinical, and other activities that involve physical and psychological change" (p. 1). As a result of the discrepancies in programs, there is still a lack of a formal definition of AT. Therefore, Gass et al. (2012) have created the most commonly known and referenced definition of AT.

## AT Elements

- AT elements are often included in AT definitions to set it apart from and/or link it to other therapeutic approaches

(Gass et al., 2012)

- Examples of AT elements include:
  - Positive role of nature during healing process of therapy
  - Positive use of stress and/or eustress during an adventure activity
  - Direct use of participation of the client, as well as responsibility of a client actively participating
  - Meaningful engagement in adventure activities including natural consequences
  - Facilitator should focus on positive changes that occur during and after intervention
  - Adhere to AT ethics before, during, and after facilitating adventure experience

(Gass et al., 2012)

According to Gass et al. (2012), AT elements are often included in AT definitions to set it apart from and/or link it to other therapeutic approaches, such as wilderness therapy. AT has a variety of elements, including the following defined by Gass et al. (2012):

- Positive role of nature during healing process of therapy
- Positive use of stress and/or eustress during an adventure activity
- Direct use of participation of the client, as well as responsibility of a client actively participating
- Meaningful engagement in adventure activities including natural consequences
- Facilitator should focus on positive changes that occur during and after intervention
- Adhere to AT ethics before, during, and after facilitating adventure experiences

Key elements identified by Bowen and Neill (2013) included: learning through experiencing an activity, the presence of nature, use of intentional risk, meaningful engagement in adventure, solutions focused on creating positive changes, holistic outlook of patients, providing ethical care, and facilitating group-based activities. AT presents with a wide array of challenging activities that occur in natural environments to induce a level of perceived risk (Richards & Peel, 2005). Activities range from outdoor pursuits, such as ropes courses or residential camps to group board games (Bowen & Neill, 2013). According to Scheinfeld et al. (2011), AT activities may be short (i.e., lasts less than one hour) or long (i.e., lasts more than one day). Also, it is important to note that AT interventions do not require extreme activities, such as ropes courses (Norton & Tucker, 2010; Tucker, 2009). Instead, it is important that the AT intervention is focused on the individuals' personal and group goals to facilitate a metaphorical connection to their lives (Norton & Tucker, 2010; Tucker, 2009).

# Theory and Ethics: Presentation Two

We will now begin presentation two of six.

## Objectives

- Participants will demonstrate knowledge of common theories utilized for adventure therapy (AT) interventions.
- Participants will engage in discussion regarding the use of theories when implementing AT interventions.
- Participants will demonstrate knowledge of ethics within occupational therapy (OT) and AT in order to provide clients with safe and ethical services.

Read objective aloud to audience.

# Theory

We are first going to discuss the common theories utilized in conjunction with AT interventions, followed by a discussion of your thoughts and views of the theories and their applicability to AT.

## Common Theories Utilized in AT

1. Occupational Adaptation (OA)
2. Model of Human Occupation (MOHO)
3. ABC-R Model
4. Experiential Learning Theory

This list is not exhaustive, as it is subjective to the creators of this presentation. The ABC-R model and experiential learning theory are most commonly utilized in AT programming. AT is not currently being delivered by occupational therapists (OTs), so the occupation-based theories are suggestions, and are subject to change pending the specific client being treated.

## OA

Concepts

- Relative mastery
- Adaptive capacity
- Press for mastery

(Grajo, 2017)

Assumptions/Principles

Application

**Concepts:** The OA process is a transactive process amongst the three concepts listed. As a person develops, so does the environmental demand and the person's desire to master his or her environment; this facilitates role development, role expectations, and challenges. The challenge of increased demand and increased desire to meet demands is met by responding and adapting to the environment (Grajo, 2017). This transactive process is best known as the press for mastery (Grajo, 2017). Relative mastery cannot occur if the client does not respond to the situational element (i.e., roles, role demands, challenges, and responses). Relative mastery is measured by effective participation, efficiency, and satisfaction (Grajo, 2017). Adaptive capacity is the person's ability respond to challenges by perceiving a need to modify, refine, or change (Grajo, 2017).

**Assumptions/Principles derived from Grajo (2017, pp. 287-311)**

- "The person is an occupational being who has a desire to master the environment"
- "The occupational environment demands mastery from the person"
- "The person's level of mastery and the environments level of demand for mastery creates occupational roles and role demands or expectations, occupational challenges, and responses to the person"
- "To navigate the press for mastery, the person goes through the normative and development process of OA"
- "During participation in occupations within an occupational environment, a person may experience occupational performance breakdown"
- "The most important role of the OT is to elicit an adaptive response from the client"

All in all, the client is the agent of change and the OT is the facilitator of this change. The main assumption is that the client will become more functional through becoming adaptive.

**Application in General:** A constant state of dysadaptation results in OT stepping in, as the most important role of OT is to elicit an adaptive response (Grajo, 2017). OA can be used as a guide to understand what caused the dysadaptation.

**Application to AT:** Similarly to OT, clients seeking AT services are often experiencing dysadaptation. Environments utilized in AT often hone in on the sense of eustress, therefore changing the environmental demand. Through this process the client can respond and adapt. Generalizations can then be made between how the client responded in the treatment environment and how they respond in his or her normal environment(s).

## MOHO

Concepts

- Volition
- Habituation
- Performance Capacity

(Clifford O'Brien, 2017)

Assumptions/Principles

Application

**Concepts derived from Clifford O'Brien (2017)**
Volition refers to individual's motivation and the impact this has on the occupations he or she chooses to engage in, as well as how the individual experiences and interprets the occupation. Volition consists of values, beliefs, and personal causation. Habituation is doing that is organized into routines that regulate behaviors and contribute to personal identity. Performance capacity refers to the physical and cognitive abilities of an individual that shapes his or her occupational performance abilities. Additionally, MOHO considers the physical, social, and cultural environment.

**Assumptions/ Principles derived from Clifford O'Brien (2017, pp. 96-99)**

- "Occupational actions, thoughts, and emotions arise out of the interaction of volition, habituation, performance capacity, and environment." In other words, individuals engage in meaningful occupations based on their thoughts, emotions, and competency.
- "Change in any aspect of volition, habituation, performance capacity, or the environment can result in change in thought, feeling, or doing." These changes may lead to loss of self-confidence or withdrawl from the occupation all together.
- "Volition, habituation, and performance capacity are maintained and changed through what one does and what one thinks and feels about doing."
- "Change requires that novel thoughts, feelings, and actions emerge and are sufficiently repeated in a supportive environment to coalesce into new organized patterns"
- "Occupation is essential to self-organization" and identity.

**Application to AT**: A therapist could choose to utilize MOHO when administering AT interventions because of many reasons. First, MOHO look at the client's volition to participate in a novel AT intervention and the client's habituation of past or current occupational performance to anticipate behaviors (Clifford O'Brien, 2017). Next, the client's performance capacity is considered to match the AT intervention to the client (Clifford O'Brien, 2017), likely utilizing

activity analysis to identify the clients occupational performance strengths and weaknesses. Another reason why MOHO is a good match for AT interventions is the recognition of the fact that the environment affects the client's occupational performance (Clifford O'Brien, 2017). Since AT incorporates novel or unfamiliar environments, this is a huge area to consider when planning or implementing an AT intervention. In addition, MOHO recognizes that giving feedback in a supportive environment encourages the client to positively interpret and learn from the experience (Clifford O'Brien, 2017). This concept of feedback is also acknowledged in the AT principles. Lastly, it is important to recognize that MOHO is occupation-based and designed for occupational therapists (Clifford O'Brien, 2017), as some of the theories we will be discussing today will not be occupation based nor designed specifically for occupational therapists. Therefore, MOHO may be important to utilize to maintain our identity as an occupational therapist when administering AT.

## ABC-R Model

Concepts

- Affect, behavior, cognition, and relationships
- Integrative approach utilized to assess the client, as well as implement a plan of care

(Gass, Gillis, & Russell, 2012)

Assumptions/Principles

Application

The ABC-R model is a model utilized by practitioners who administer AT. Gass, Gillis, and Russell (2012) explained that the ABC-R model guides the AT process by considering the relationship between an individual's affect, behavior, and cognition. Through this model, clients are viewed holistically and are engaged in therapy at their current level of need in order to initiate or trigger thoughts, behaviors, or emotions that need to be focused on during therapeutic interactions (Gass et al., 2012).

**Concepts:** Affect, behavior, and cognition are access points to meet the clients' current needs and wants. ***Affect*** hones in on mental health, as opposed to mental illness by encouraging the client to focus on his or her experience, and how they make sense of the experience (Gass et al., 2012). Practitioners are encouraged to direct the clients' attention to the here or now to prevent rumination on past or future events (Gass et al., 2012). The ***behavior*** access point requires little insight on the part of the client, however it is imperative that the client understands the consequences of negative behaviors and vice versa (Gass et al., 2012). ***Cognitive*** requires the client to identify irrational thinking patterns and/or behaviors to ensure a positive change can be made (Gass et al., 2012). All access points revolve around how the client perceives interpersonal ***relationships***. Understanding of the client's interpersonal relationships, and how the client perceives them will dictate how the client will participate in the AT programming (Gass et al., 2012).

**Assumptions/Principles:** Assumptions and principles are not blatantly outlined. The primary assumption is that multiple access points can be taken into consideration during one and/or multiple sessions to best meet the clients' needs and wants.

**Application in General:** This model serves a guide for initial assessment, as well as assessment during the treatment process. An affect access point may be appropriate for clients who have an

affective or emotional issues, as the practitioner would encourage the client to focus on the here and now (Gass et al., 2012). A cognitive access point may be appropriate for clients who have difficulties with identifying and understanding irrational thoughts or negative thought patterns (Gass et al., 2012). Lastly, purely behavioral access points require reward and/or punishment systems that are straightforward, as understandability may not be high with regard to personal insights into behaviors (Gass et al., 2012).

**Application to AT:** Therapeutic interventions would be selected based upon the presenting symptomatology of the client the occupational therapist is delivering services to. For example, beginning with the affect access point may provide valuable insight when providing treatment to an individual with bipolar disorder, as individuals with bipolar disorder often have difficulties controlling their emotions. Similarly to experiential learning theory, the ABC-R model is not occupation-based, as it is not a therapy utilized by the OT profession. It is recommended that an occupation-based theory is used to supplement this theory when administering AT programming.

## Experiential Learning Theory

Concepts

- Active participation
- Novel activities and environments
- Reflection in-action
- Reflection on-action

Assumptions/Principles

Application to AT

(Merriam, Caffarella, & Baumgartner, 2007)

Although there are many models to choose from when facilitating AT, the experiential learning theory is reported to be the foundational guiding philosophy for AT and is currently the most popular theoretical framework (Jeffrey & Wilson, 2017; Newes & Bandoroff, 2004; Norton et al., 2014). The experiential learning theory is derived from Kolb (1984) and Dewey (1938), stating that learning occurs due to engagement in activities, active reflection, and follow-through (Newes & Bandoroff, 2004; Norton et al., 2014; Tucker, Norton, Itin, Hobson, & Alvarez, 2016) The experiential learning theory aims to develop skills and capacities, create motivation, clarify personal beliefs and values, and increase overall knowledge (Jeffrey & Wilson, 2017; Norton et al., 2014). Jeffrey and Wilson (2017) found that occupational therapists in New Zealand were familiar with the experiential learning theory's concepts from their OT education; however, it is unknown if this model is widely used and recognized within the OT profession.

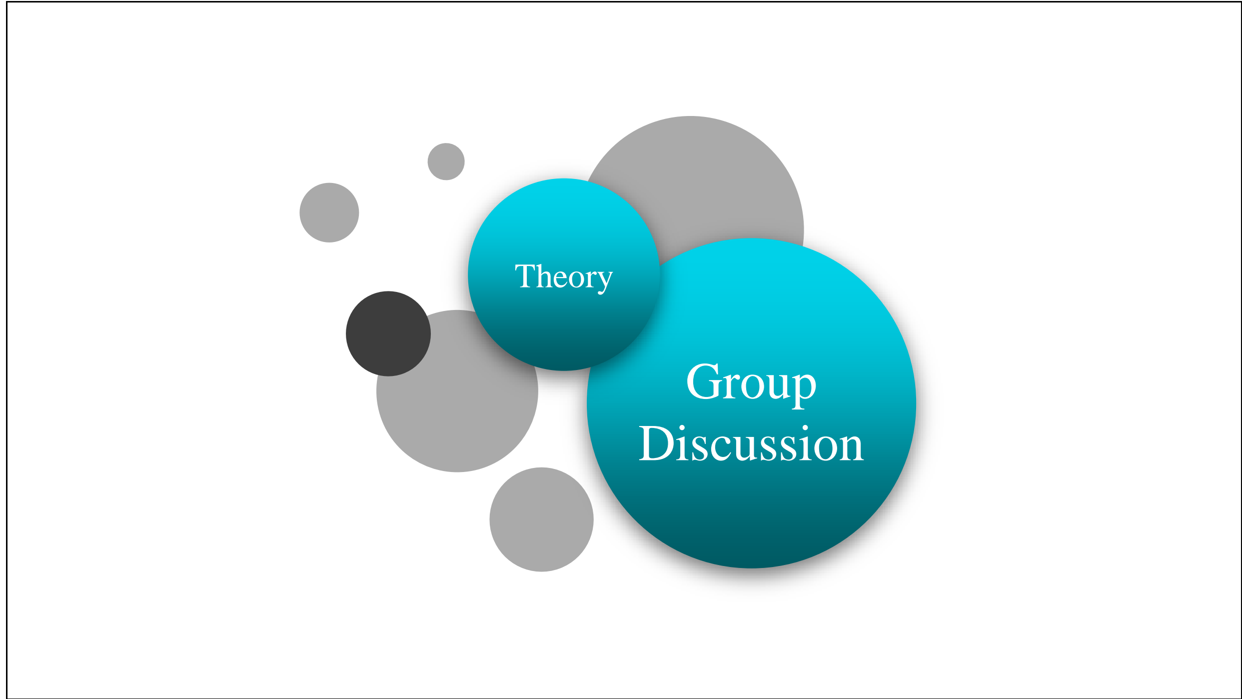
**Concepts**: Active participation requires individuals to be involved in discussion or activities in the moment. Novel activities and environments refer to tasks or contexts that an individual is not familiar with or has not participated in before. Additionally, these concepts may refer to large changes within an activity or environment. Lastly, reflection in-action refers to individuals reflecting on their thoughts and emotions in the moment or while participating in an activity, whereas reflection on-action refers to individuals reflecting on their experience after the fact.

**Assumptions/Principles**: The experiential learning theory believes that all knowledge generation or education derives from experiences that require either one's cognitive, physical, or emotional self, no matter if the outcomes are positive or negative (Merriam, Caffarella, & Baumgartner, 2007). From Dewey's constructivist approach of experiential learning theory, therapists must place emphasis on reflection on-action and reflection in-action (Merriam, 2007). It is through this reflection of experiences that individuals obtain and create new knowledge or meaning (Merriam, 2007). For learning to occur, the therapist must recognize that each

experience is influenced by the quality of past, present, and future experiences, but is also impacted by the current environment or atmosphere. Merriam, 2007, p. 162). Additionally, learning requires a person to be open to novel experiences, to be able to reflect and observe, conceptualize ideas abstractly for generalization, and actively experiment through problem-solving and decision making (Merriam, 2007). Kolb further elaborated on Dewey's constructivist approach to include the following principles (Merriam, 2007, p. 163):

- Learning is a process
- Learning may require relearning
- Learners must engage in reflection, action, feeling, and thinking
- Learning is holistic
- Learning involves both the person and the environment
- Learning is constructivist in nature

**Application to AT:** The experiential learning theory can be applied to AT since many of its concepts and principles are similar to those of AT. To begin, the experiential learning theory and AT both require the client's active engagement in activities and the therapist to be a facilitator of change throughout the learning process (Merriam, 2007). Active reflection is another component that makes the experiential learning theory applicable to AT. Reflection during and after AT interventions is an important part of the learning process, which is why the experiential learning theory aligns well with AT. The transaction between the person and the environment is another important concept that applies to AT interventions to ensure that novel environments meet the capabilities of the client. Since this theory incorporates the client's cognitive, physical, and emotional self (Merriam, 2007), an OT activity analysis and environmental analysis are appropriate to ensure effectiveness of treatment and safety of all individuals involved. Lastly, the experiential learning theory aligns well with occupational therapy's value of holistic assessment and intervention as this is a key principle (Merriam, 2007), allowing AT interventions to be individualized and meaningful for the client. Lastly, it is believed that the experiential learning theory is highly applicable to AT interventions since both the theory and AT are constructivist in nature due to many of the above points (i.e. active participation, reflection, environment) (Merriam, 2007). However, constructivism also recognizes that social activities, past knowledge and experiences, time, and motivation are necessary for learning, all of which are incorporated into AT (Merriam, 2007) and reflective of OT practice.




**Suggested questions to use during group discussion:**

- Currently, do you feel comfortable implementing theory into your practice?
  - Do you understand how to effectively implement theory into your practice?
- What theory do you see yourself utilizing most often when implementing AT interventions?
- Why is it important to change the theory according to each client?
- Would you feel that you would be comfortable using a theory that is not specifically for OT? Why or why not?
- What other theories do you believe could be applied with facilitating an AT interventions?

# Ethics

Now we will begin discussing ethics of OT and AT.

## Ethics in OT

OT Code of Ethics
- Beneficence
- Nonmaleficence
- Autonomy
- Justice
- Veracity
- Fidelity

OT Core Values
- Altruism
- Equality
- Freedom
- Justice
- Dignity
- Truth
- Prudence

("Occupational therapy code of ethics," 2015)

It is important to briefly review ethical standards within OT prior to applying our ethics in AT interventions. The OT Code of Ethics and the OT Core Values are the two main resources utilized as a framework by OTs to guide and ensure ethical practice and care.

**OT Code of Ethics derived from the "Occupational Therapy Code of Ethics" (2015, pp. 2-10)**

- Beneficence- "OT personnel shall demonstrate a concern for the well-being and safety of the recipients of their services"
- Nonmaleficence- "OT personnel shall refrain from actions that cause harm"
- Autonomy- "OT personnel shall respect the right of the individual to self-determination, privacy, confidentiality, and consent"
- Justice- "OT personnel shall promote fairness and objectivity in the provision of OT services"
- Veracity- "OT personnel shall provide comprehensive, accurate, and objective information when representing the profession"
- Fidelity- "OT personnel shall treat clients, colleagues, and other professionals with respect, fairness, discretion, and integrity"

**OT Core Values derived from the "Occupational therapy code of ethics" (2015, p.2)**

- Altruism- "Demonstrating concern for the welfare of others"
- Equality- "treating all people impartially and free of bias"
- Freedom and personal choices- "the values and desires of the client guide our interventions"
- Justice- "state in which diverse communities are inclusive… organized and structured such that all members can function, flourish, and life a satisfactory life"
- Dignity- "treating him or her with respect in all interactions"
- Truth- "providing accurate information in oral, written, and electronic forms"
- Prudence- "Use clinical and ethical reasoning skills, sound judgement, and reflection to make decisions in professional and volunteer roles"

## Ethics in AT

- *Understand* personal values
- *Recognize* client's value system, as well as personal value system
- *Know* and adhere to ethical standards outlined by the profession of OT
- *Practice* decision making that is ethical by reviewing cases that ethically relate to your practice
- Continue to *advance* professional practice by completing continuing education, and through feedback while working clients

(Gass et al., 2012)

Ethics in AT align with OT ethics, as the ultimate goal is to refrain from doing harm to clients while delivering services (Gass et al., 2012). Following the guidelines listed above will assist every practitioner to remain self-aware and ethical when providing treatment to clients of varying backgrounds.

Questions?

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# Education, Training, and Risk Management: Presentation Three

We will now begin presentation three of six. All health professionals who are intending to administer adventure therapy (AT) interventions, including occupational therapists (OTs), have an obligation to develop competencies in multiple areas in order to provide ethical and quality care. According to the Association for Experiential Education, education and training requirements vary due to the immense number of AT activities that can be facilitated (“Training,” n.d.). However, all health professionals who are intending to administer AT interventions need to be trained and educated in the following areas: mental health diagnoses and symptoms, medical necessities such as first aid, interpersonal skills, adventure tools and strategies, wilderness or environmental analysis, weather knowledge, and other professional reasoning skills to ensure effectiveness of the AT intervention and safety of both the professional and the client or client group (“Training,” n.d.). In addition, we recommend that OTs are trained in theoretical assumptions and ethical standards discussed in the last presentation.

## Objectives

- Participants will be able to understand the importance of education and training for AT processes.
- Participants will understand the competencies required within the AT domain.
- Participants will understand the competencies for mental health and specific populations.
- Participants will recognize the importance of risk management training.

## Importance of Education and Training

- No formal certification for AT
- Standards that must be met:
    - Association for Experiential Education
    - Council on Accreditation
    - Joint Commission
    - Others specific to your school or facility
- Lack of education or training leads to:
    - Ethical dilemmas
    - Risks quality of care
    - Decreases client's safety

(Gass, Gillis, & Russell, 2012; "Training," n.d.)

Since there is a lack of a formal certification to administer AT, there has been a large debate regarding if a certification should be created ("Training," n.d.). Nonetheless, there are educational programs that focus on AT and observation/participation in AT interventions being completed in real life ("Training," n.d.). It is crucial that educational programs and facilities practicing AT meet the requirements from the Association for Experiential Education, the Council on Accreditation, the Joint Commission, and others specific to your program or facility (Gass, Gillis, & Russell, 2012).

A lack of training or education presents as an ethical dilemma, risks quality of care, and challenges the competency requirements required to facilitate AT due to lack of risk assessment skills, improper intentional use of activities and intensity levels, and lack of proper management of physical and psychosocial safety of clients (Tucker & Norton, 2013). Although many of the respondents in a research study were not properly trained or educated, a large majority of the respondents indicated that they were interested in being educated and trained on adventure activities and techniques (Tucker & Norton, 2013). It is important to distinguish that knowing an adventure activity from personal experience is highly different than knowing how to facilitate the activity therapeutically in order to obtain optimal outcomes (Tucker & Norton, 2013). All in all, to ensure ethical and effective utilization of the AT modality, training and development of staff are crucial.

## Education and Training Progression

1. Initial education and training courses
   a. Mental health diagnoses and symptoms
   b. Soft Skills
   c. Hard Skills
2. Observation of AT interventions
3. Participating/ facilitating supervised AT interventions
4. Attaining enough competence to practice independently

("Training," n.d.)

According to the Association of Experiential Education, the progression for education and training begins with the initial education and training courses ("Training," n.d.). These courses are then followed by completing periods of observation and then engaging in AT supervised practice ("Training," n.d.). Lastly, individuals should continue to work towards competence until competence is achieved in order to work independently ("Training," n.d.).

## Competency Levels

- **Emerging**: Individuals who have a basic understanding of the theories, procedures, and activities used when facilitating AT
    - Typically not practicing independently and have frequent supervision
- **Competent**: Individuals who can apply their understandings to facilitate standard AT processes and are proficient enough to work independently.
- **Exemplary**: Individuals who are consistent and effective throughout the all of the AT processes, integrate past experiences to make sound decisions, and serve as role models to other professionals who administer AT.

(Gass et al., 2012)

## Adventure Therapy Competencies

**Hard Skills** are technical skills, safety skills, first aid, weather knowledge, and environment skills

**Soft Skills** are instructional skills, facilitation skills, and organizational skills

**Meta-skills** are also necessary and include communication, leadership styles, adherence to professional ethics, problem solving and decision making skills, and experience-based judgement

(Gass et al., 2012; Jeffrey & Wilson, 2017)

AT requires the use of soft skills, hard skills, and meta-skills, so learning these skill sets prior to implementing AT interventions is crucial (Gass et al., 2012; Jeffrey & Wilson, 2017). Jeffrey and Wilson (2017) found that OTs struggled with incorporating soft skills while administrating AT in mental health practice, as OTs are more familiar with utilizing activities to facilitate the therapeutic process. For example, mental health OTs currently utilize cognitive behavioral therapy, motivational interviewing, and positive psychology skills within their standard practice, but reported still lacking complete confidence in these areas when applied to the debriefing phase of AT (Jeffrey & Wilson, 2017). With that being said, the OTs expressed that learning the soft skills utilized in AT would increase their occupational therapy (OT) facilitation skills in general (Jeffrey & Wilson, 2017).

Jeffrey and Wilson (2017) also found that OTs reported struggling with incorporating hard skills while administering AT in mental health practice, as OTs expressed a lack of education and training for basic outdoor skills. For example, education and training of weather knowledge, risk assessment, outdoor first aid, and ensuring safety during the facilitation of AT are not included within the standard OT curriculum. It is important to note that all mental health professions alike lacked the knowledge and training in hard skills as well (Jeffrey & Wilson, 2017). For this reason, researchers suggested that all mental health practitioners' utilizing AT should complete additional hard skills training, in addition to experiencing novel adventure experiences themselves to be a qualified AT facilitator (Gass et al., 2012; Jeffrey & Wilson, 2017). Additionally, OTs should be educated and trained in the basic meta-skills for proper AT individual or group facilitations and to build therapeutic relationships (Gass et al., 2012); however, many of these skills are already taught in occupational therapy curriculum.

## Adventure Therapy Competencies

10 Competencies most related to facilitating AT (Gass et al., 2012)

1. Effective listening and feedback
2. Debriefing and reflection
3. Group development stages
4. Transfer of learning
5. Client assessment
6. Treating difficult patients
7. Experiential learning
8. Processing skills
9. Integration strategies
10. Solution oriented processing

## Adventure Therapy Competencies

Continuum for types of AT intervention:

- Recreation
- Education
- Enrichment
- Adjunctive Therapy
- Primary Therapy

(Gass et al., 2012)

**Recreation-** for leisure pursuits or to add a meaningful and fun activity into a client's life, such as for someone with depression.
**Education-** for social development, inclusion, and role modeling behaviors and social skills
**Enrichment-** for the benefits of cooperation, self-efficacy, problem-solving and decision making, and communication
**Adjunctive Therapy-** refers to supplementing standard occupational therapy services with AT interventions. AT is focused on for only short periods of time rather than the entire focus of therapy
**Primary Therapy-** refers to predominantly focusing on adventure therapy interventions and processes when treating a client

## Mental Health Competencies

- Mental health diagnoses and related symptoms
- Conceptual foundations
- Therapeutic relationships
- Evaluation
- Intervention planning and implementation
- Termination
- Cultural and ethical sensitivity

(Berman & Davis-Berman, 2013; Jeffrey & Wilson, 2017; Gass et al., 2012)

According to Berman and Davis-Berman (2013), mental health practitioners who administer AT do not easily conform to inpatient mental health models without first receiving specialized mental health training, and without practicing within a mental health organization. Therefore, it is important to note that education and training also need to be provided on mental health diagnoses, such as bipolar disorder, depression, and anxiety disorders (Jeffrey & Wilson, 2017; "Training," n.d.). Conceptual foundation include psychotherapy approaches (i.e. cognitive behavioral therapy) and are a key component to correctly administer AT interventions (Gass et al., 2012). Therapeutic relationships and the ability to build and maintain therapeutic rapport is crucial for optimal outcomes (Gass et al., 2012). Evaluation, intervention planning and implementation, and termination are important to ensure client-centered, occupation-based, and individualized treatment. Lastly, cultural and ethical sensitivity are required due to the assurance of ethically sound decision making and culturally sensitive care (Gass et al., 2012).

## Specific Therapeutic Population Competencies

- Admission
- Assessment
- Ongoing treatment planning
- Intervention implementation
- Documentation
- Case management
- Discharge
- Legal, ethical, and professional standards and growth
- Theories, models, and frames of references
- Reflective practice techniques

(Gass et al., 2012)

Many of the specific therapeutic population competencies listed are learned within OT school and with experience as a practicing OT. OTs demonstrate competencies in these areas by passing the National Board of Certification in Occupational Therapy (NBCOT) exam, supervisor feedback, and continuing education. However, some of these areas may be unfamiliar or unpracticed, such as case management. Additionally, these competencies will slightly differ for AT, so it is important to obtain education and training in these areas.

## Risk Management

- Physical Risk
- Psychological Risk
- Medication Risks
- Restraints/ Therapeutic Holds
- Runaways
- Client/Therapist Injuries or Illnesses

(Gass et al., 2012)

Risk management aims to properly use the concept of risk within AT (Gass et al., 2012). It is important to consider what perceived and actual risks may happen during AT interventions as risk level affects the change process, including physical, psychological, and medical risks (Gass et al., 2012). For example, too extreme of risks or improper risks place clients in danger, but may also overwhelm the client to the point that the client cannot manage or facilitate change. However, on the other hand, presenting clients with interventions that have a low level of risk allows the client to keep the same behaviors due to the client not being motivated to change their behavior or perspective (Gass et al., 2012). Therefore, it is important for therapists to individualize risk levels. This skill is arguably one of the most important skill to have when planning and administering AT interventions (Gass et al., 2012).

Lastly, Gass et al. (2012) stated that most accidents within AT interventions occur due to one or more of the following conditions.

- Inappropriate environmental conditions, such as the weather, plants, objects, or faulty equipment
- Unsafe or impulsive actions of the client(s), such as unsafe speeds, participating in unauthorize procedures, or inadequate instruction or supervision
- Therapist error in judgement, such as misperceptions of a client, disregarding instinct, fatigue, distraction, miscommunication

**Physical Risk**- It is important to look at the physical risks that are typically considered (e.g. physical capabilities, environmental barriers). However, Gass et al. (2012) reported that multiple studies have found that AT is approximately 30 times safer than high school football practice. Injury rates due to physical risks are recently reported to be between 0.37-0.52 per 1,000 participants, but it is important to recognize that individuals who are participating in mental

health AT programs typically are placed at a higher risk due to behavioral or mental health diagnoses (Gass et al., 2012).

**Psychological Risk-** Psychological risks must also been considered in order to proactively appraise and reactively address risks (Gass et al., 2012). Gass et al. (2012) reported that therapists need to consider how the client is involved in the topic under discussion, level of emotional arousal, nature of relationships present, and normal boundaries of confidentiality and privacy of the discussion/ activity.

**Medication Risks** (prescribed or non-prescribed drugs) - Medication risks are often disregarded or forgotten, but these risks have potential to cause great risks if not addressed. Medication risks include sunburn or sun sensitivity, lack of core temperature regulation, dehydration, and more (Gass et al., 2012). Therapists must be aware of detox protocols and detox symptoms of patients, regardless whether the medication was prescribed (Gass et al., 2012). Overall, it is important for therapists to research client medications prior to AT intervention and obtain approval by medical professionals, as well as create policies for instances where intervention needs to stop due to drug related issues (Gass et al., 2012).

**Restraints/ Therapeutic Holds, Runaways, Client/Therapist Injuries or Illnesses-** These risks must also be considered, but require additional training for AT intervention. These instances can happen, so it is crucial for therapists to be prepared for these risky situations.

# Questions?

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# Research and the Future of AT: Presentation Four

We will now begin presentation four of six.

## Objectives

- Participants will be able to identify strengths and weaknesses of adventure therapy (AT)
- Participants will demonstrate knowledge of current AT literature

## Current Research

- A majority of existing research is being done within the fields of psychology, social work, counseling, and recreational therapy

(Jeffrey & Wilson, 2017)

- Youth and adolescents are primary populations receiving adventure therapy (AT) interventions within the United States

(Ritchie, Patrick, Corbould, Harper, & Oddson, 2016)

AT is typically implemented by mental health practitioners, such as psychologists, counselors, social workers, and recreational therapists (Jeffrey & Wilson, 2017). There is a lack of occupational therapy (OT) implementation of AT (Jeffrey & Wilson, 2017).

A large majority of existing literature is focused on the adolescent and youth populations, as within the United States a large majority of programs were created to treat at-risk youth (Ritchie, Patrick, Corbould, Harper, & Oddson, 2016). AT has proven to be effective for youth and adolescents who have a mental health diagnosis and/or are at risk for developing a mental health diagnosis (Gillis & Gass, 2010; Lauer, Bathurst, & Richardson, 2017; Norton et al., 2014; Scheinfeld, Rochlen, & Buser, 2011; Tucker, Norton, Itin, Hobson, & Alvarez, 2016).

## The Future of AT

- Accessibility
- Training competencies
- Internal professionalism
- Training
- Risk management
- Recognition by others
- Adherence to ethical standards

(Gass, Gillis, & Russell, 2012)

A SWOT analysis was completed via online survey by H.L. "Lee" Gillis between March and April 2011 (through http://surveymonkey.com). Several themes emerged and are listed on the slide. The survey is extensive, so for the sake of conciseness a few examples specific to each theme will be discussed.

Strengths, weaknesses, opportunities, and threats have the potential to impact the future of AT, both positively and negatively.

**Strengths enhancing outlined themes:** Concrete and tangible therapeutic relationships.

**Weaknesses impacting outlined themes:** Weak research base, lack of awareness, lack of good reputation, lack of licensed programs, low risk tolerance, lack of adequately trained staff, and cater to higher socioeconomic status.

**Opportunities to enhance outlined themes:** Research networks, need for a brand, becoming more accessible, expanding beyond programs for youth, and increased creativity.

**Threats:** Funding, communication of what AT is and what AT practitioners do, deaths in program, and lack of creativity.

## The Future of OT and AT

- Increase recognition by others
- Increase training competencies

Despite a lack of OT implementation of AT, research suggested that occupational therapists (OTs) meet the qualifications to administer AT to individuals with a mental health diagnosis (Jeffrey & Wilson, 2017). It is imperative that OTs who are familiar with AT spread the word to increase recognition of AT within the OT profession.

It is also important that the AT intervention is focused on the individuals' personal and group goals to metaphorically connect with their lives. The clients' emotions and behaviors are being replicated to determine if they need to be resolved or changed (Gass et al., 2012; Tucker, Javorski, Tracy, & Beale, 2013). OTs are uniquely trained to evaluate clients' abilities through activity and environmental analysis and modification, group facilitation, and activity sequencing, which present as an advantage over other professions; however, OTs lack education and training for basic outdoor skills which is an essential component to the AT experience (Jeffrey & Wilson, 2017). Ultimately, extensive training and education on soft and hard skills for OTs who are implementing AT is critical, as a lack of procedural and safety awareness jeopardizes clients' safety.

Questions?

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# Occupational Analyses: Presentation Five

We will now begin presentation five of six.

## Objectives

- Learners will be able to apply their knowledge of presented activity components to successfully complete two activity analyses.
- Learners will be able to participate in group discussions related to each activity analysis as indicated by 90% of learners.
- Learners will demonstrate the ability to successfully utilize newly obtained knowledge while engaging in bouldering and top rope climbing with 80% accuracy.

The objectives for this presentation are as follows.

# Archery

The first adventure activity we will be discussing today is archery.

# Archery

**Objective:** to hit the bullseye of the intended target.

**Key Terms:**

- Armguard
- Release Aid
- Arrow
- Bow
- Draw
- Draw weight
- Eye Dominance
- Nock

The objective of archery is to hit the bullseye of the intended target using a bow and arrow. This activity can be done individually or in a group. This is a list of key terms for archery and we will explain each in further detail in the upcoming slides.

We understand some individuals in this room may have tried archery before and others have not. To ensure everyone has a basic understanding of archery, we will provide a brief overview of the activity and equipment that is utilized.

# Archery

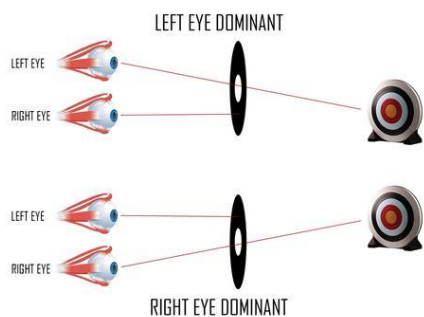
Some types of bow

("Some types of bows," n.d.)

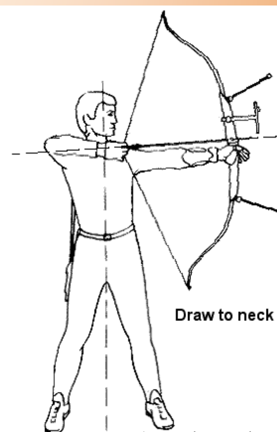
Here are five different types of bows. For the purposes of our presentation today, we would like to direct your attention to the trainer bow. We liked this image because the different shapes and sizes of each bow can easily be observed.

The trainer bow is referred to as a traditional bow. We will be calling it a traditional bow throughout the remainder of our session. For a beginner archer, we recommend that a traditional bow is used. Traditional bows are often used for target archery. A recurve bow can be used, however is not recommended as it is best suited for field archery ("Intro to archery," 2017).

## Archery




(Douglas, 2016)



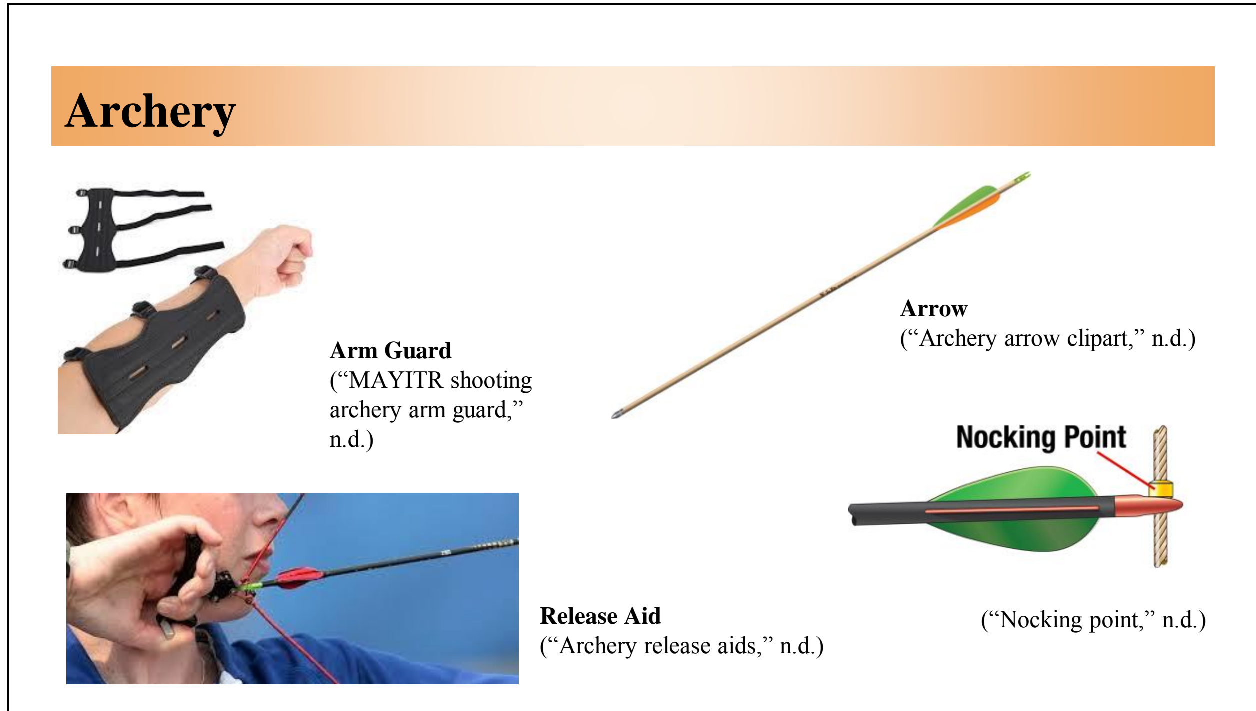

("Archery drawing #22," n.d.)

It is important to determine your eye dominance before attempting to draw and shoot your bow. This can be done by implementing the Porta Test for Eye Dominance.
The steps to this test are as follows:

- Find an object approximately 10 feet away (e.g., a clock on the wall).
- Raise your arm and extend your thumb up towards the ceiling.
- Place your thumb over the object you have selected, with both eyes open.
- Now, close the right eye.
- Your thumb will appear to be in the same location or slightly off to the side of the object.
- Now, close the left eye and open the right eye.
- Your thumb will appear to be in the same location or slightly off to the side of the object.
- If the right eye is open and the thumb remains over the object, you are right eye dominant.
- If the left eye is open and the thumb remains over the object, you are left eye dominant.

How the bow is drawn is dependent on eye dominance, type of bow, and what stance is taken. If you are right eye dominant, you will hold the bow with the left hand. If you are left eye dominant, you will hold the bow with the right hand. Once you have your grip on the bow and have taken your stance, you will raise the bow and draw the bow string with the other hand. Then, you can aim your arrow at the target and release the string when ready.

Draw weight is "the force which must be exerted in order to hold a bow in the drawn position" (David James, 2017b). The draw weight of a traditional bow will increase the further you draw it backwards; however, an adequate amount of draw weight must be applied to properly propel your arrow toward the target.




An arm guard protects the forearm from being scraped or rubbed on by the string when the string is released from the draw. Next, we have a picture of a standard arrow that can be used during archery. Although there are many different types of arrows, we will be referring to the use of a standard arrow. Archers may also use a release aid to increase the stability of the release, improving their target accuracy. Lastly, a nocking point refers to the small bead on the bow's string to mark where the end of the arrow should be placed prior to drawing the string back.

# Occupational Analysis & Application to a Mental Health Scenario

We are now going to discuss the occupational analysis of archery in general. This form is already filled out and can be found within your handouts. After we complete the discussion on the occupational analysis, we will apply archery to a specific mental health scenario. Please feel free to ask questions as they arise throughout this process.

Before presenting evidence supporting the feasibility of individuals with panic disorder participating in archery, we would like to review the symptomatology and characteristics of the diagnosis.

In order to be diagnosed with panic disorder an individual must present with recurrent panic attacks that involve at least four of the symptoms listed on the slide (Bonder, 2015). Symptoms are, but not limited to: palpitations, sweating, shaking, feeling short of breath, chest pain, nausea, dizziness, chills, feelings of unreality (depersonalization), and fear of dying (Bonder, 2015).

Panic disorder is also characterized by a constant fear of having another panic attack, as well as withdrawal from previously enjoyed activities to prevent and/or avoid a panic attack (Bonder, 2015).

## Panic Disorder & Archery

**Supporting Evidence**

- Individuals with panic disorder significantly reduced their symptoms after participating in organized exercise.
- Reduced symptomatology when organized exercise was paired with antidepressant medications.
- Greatly improved symptomatology when occupational therapy and organized exercise were combined.

(Jayakody, Gunadasa, & Hosker, 2014)

- Participants diagnosed with panic disorder demonstrated high neuroticism and low extraversion personality traits when compared to a "healthy" control group.
- Characterization of the personality traits previously listed may be correlated with more comorbidities in general, increased severity of panic disorder in general, as well as more anxiety and depression symptomatology.

(Zugliani, Martin-Santos, Nardi, & Freire, 2017)

We are now going to review the supporting evidence for archery for individuals with panic disorder. Though the literature does not specifically address archery, it can be indirectly applied.

According to Jayakody, Gunadasa, and Hosker (2014) individuals with panic disorder significantly reduced their symptoms after participating in organized exercise, especially when paired with antidepressant medications; however, other individuals with panic disorder greatly improved their symptoms when occupational therapy (OT) and organized exercise were combined. Occupational therapists (OTs) have the knowledge and training to effectively address symptoms and characteristics of panic disorder, and archery is a form of organized exercise. Archery is moderately complex, however can be adapted and individualized. Therefore, a combination of OT intervention, organized activity, and a medication regime will likely result in a positive archery experience for the client whom the OT is delivering services to.

In a study conducted by Zugliani, Martin-Santos, Nardi, and Freire (2017) it was found that participants demonstrated high neuroticism and low extraversion in comparison to their "healthy" counterparts. Neuroticism is characterized by heightened vulnerability to stress, as well as emotional instability and stress (Zugliani et al., 2017). Extraversion prefers to the social preferences of the participant; a low extraversion score is indicative of social anxiety and agoraphobia (Zugliani et al., 2017). Archery could facilitate social participation. It is likely this may be stressful for the client, however through activity analysis an occupational therapist could select the most appropriate approach to the intervention.

## Scenario: Sally

- Sally is a 28 year old journalist who was diagnosed with panic disorder at age 25.
- She was referred to OT because she has been avoiding work due to a recent panic attack.
- Since the panic attack, Sally's workload has decreased but she is still having difficulties meeting her work deadlines.
- Sally is having difficulties participating in leisure activities due to the fear of another panic attack in the community.
- Currently, she spends a majority of time alone at home watching television.

Questions?

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# Archery

***This template is adapted from:***

Occupation-Based: Activity Analysis, Second Edition, SLACK Incorporated, 2015
By Dr. Heather Thomas

## Step 1: Archery Awareness

## Key Terms

- ***Armguard***- "A casing for the forearm and sometimes upper arm of an archer to protect against the effects of the bowstring slapping against the clothing or flesh." (James, 2017b).
- ***Release aid-*** "A mechanical tool used for pulling the bowstring thereby enabling a better release" ("Archery Terms Glossary," 2018).
- ***Arrow-*** "A shaft of wood, carbon or fiberglass sharpened at the front with feathers or vanes at the back, shot from a bow as a weapon or for sport." (James, 2017b).
- ***Bow-*** "A curved piece of wood or fiberglass whose ends are joined with a taut string used for shooting arrows." (James, 2017b).
- ***Draw-*** "The act of pulling a bowstring back in readiness to shoot an arrow." (James, 2017b).
- ***Draw weight-*** "The force which must be exerted in order to hold a bow in the drawn position." (James, 2017b).
- ***Eye Dominance-*** "Refers to the dominant eye of an archer" (James, 2017b).
- ***Nock-*** "The groove at the end of the arrow where it fits onto the bowstring." (James, 2017b).

The objective of archery is to hit the bullseye of intended target. This activity can be done individually or with a group of people.

This activity would be done in a standing position, however it is possible to sit down. The client must stand with feet shoulder width apart. It is important that the client maintains an upright position (i.e., does not lean too far forwards or backwards). It is important that eye dominance is determined prior to participating in archer in order to know which eye to predominately use. The bow is held in the client's non-dominant hand. The string is retracted with the dominate hand. When retracting the string, the client's knuckles are positioned at approximately a 45 degree angle to the floor. The client would use the tip of the arrow to aim the bow. Positioning may vary depending on the type of bow used and the height of the client.

("Archery", n.d.; James, 2017a)

**Step 2: Steps required to complete the activity**

1. Gather the archery equipment and ensure that targets are set up
2. Scan the environment for other people or objects within shooting range to ensure safety
3. Take the preferred archery stance
4. Lift and position the bow
5. Place the arrow on the nock and draw the bow back in order to aim at the target
6. When the archer is aimed at the target, the archer can release and shoot the arrow
7. Repeat steps 2 through 6 until ready to retrieve arrows
8. Before retrieving arrows, it is important that the archer scans the environment again to determine if the range is clear and that other archers are not actively shooting
9. Retrieve arrows
10. Repeat the process as desired

**Step 3: Activity Demands**

***Objects required:*** The archer would need a bow, arrow, target, and an armguard. Also, gloves or a release tab may be beneficial. It is recommended that beginners use a traditional bow. Examples are, but not limited to a longbow and a recurve bow.

("Discover archery," 2018)

***Space required:*** The archer needs enough space to be able to position his or her body and the bow. This space is approximately 4x4 feet. In addition, the space from the archer to the target must also be taken into consideration, as it will vary depending on the difficulty of the target or the skill of the archer.

***Social demands:*** Archery can be completed independently or with others. If completed with others, social communication is required to communicate safety measures. For example, warning other archers that you are going to shoot is important, so that they do not walk in front of you or onto the shooting range. It is also important to demonstrate sportsmanship when in a competition.

***Environments:*** The environment will depend on the type of archery the client is engaging in. The types of archery are as follows: target, field, 3D, traditional, and bow hunting. Target practice could be done indoors or outdoors. If hunting, it is unlikely that you would be at a shooting range. This activity can be done individually or in groups.

(James, 2017a)

***Context:*** Clients can participate in archery throughout the year as it can be done inside or outside. If an individual likes to bow hunt, they will have to review open season guidelines specific to the animal they are wanting to hunt. Archery may take on a cultural meaning depending on if the client engages in target practice to prepare for hunting season and if family values revolve around bow hunting in general. This activity can be virtually simulated.

(James, 2017a)

*Performance Skills:*

| Occupational Therapy Practice Framework (OTPF) Performance Skills | Rationale | Level of Skill Simple to Complex 1 | 2 | 3 |
|---|---|---|---|---|
| **Motor Skills** | | | | |
| ***Positions*** | It is important that the archer is able to position himself or herself at a proper distance from the target, position his or her body in a correct shooting form without requiring to prop himself or herself up, and position the bow correctly in order to maintain safety and result in optimal outcomes. | | X | |
| ***Stabilizes*** | The archer needs to be able to maintain balance of his or her body when shooting and navigating the environment, as well as maintain the balance of the bow. | X | | |
| ***Grips*** | The grip utilized during archery needs to be effective in preventing the bow and arrow from slipping. In addition, the grip needs to be able to hold the bow steady when shooting an arrow at a target. | | X | |
| ***Manipulates*** | The archer needs fine motor finger movements in order to maneuver the string of the bow effectively, preventing accidents (e.g., early arrow release) and ensuring proper performance. | | X | |
| ***Coordinates*** | It is important that the body moves swiftly when drawing the bow and releasing arrows. Fluidity will allow for increased stabilization, increased efficiency, and typically increased accuracy. This is because all of the body parts and archery objects move together as a whole. | | | X |
| **Process Skills** | | | | |
| ***Attends*** | It is crucial that all archers have an adequate attention span, so that the task can be completed safely with regard for self and other individuals engaging in the activity. Archers can take breaks as needed as the activity is flexible (i.e., the archer can take a break after shooting two arrows or shooting eight arrows). | X | | |

| | | | | |
|---|---|---|---|---|
| ***Uses*** | The archer needs to be able to properly utilize archery equipment (i.e., using it as a tool to hit target, not as a weapon to harm others). | | X | |
| ***Heeds*** | It is important that the archer completes the archery activity in the way that was specified by either the occupational therapist or shooting range personnel in order to maintain safety of all individuals, but also to result in successful completion of the activity (i.e., hitting target with arrow). | X | | |
| ***Handles*** | The archer needs to be able to support the archery equipment appropriately in order to prevent damage of the equipment (i.e., knowing how to safely store it when not using or putting away in appropriate case as opposed to setting on ground when done shooting). | | X | |
| ***Paces*** | It is important that the archer maintains a consistent tempo when beginning the sequence of shooting an arrow, as smooth transitions from one step to the next are a crucial component to the success of archery. | | | X |
| **Social Interaction Skills** | | | | |
| ***Regulates*** | It is crucial that the archer regulates his or her emotions, so that impulsive behaviors or unsafe behaviors are prevented. Emotions are likely to be challenged during the activity, especially if the archer is competitive. For example, the archer may become angry if they are not satisfied with his or her performance. | | X | |
| ***Expresses Emotion*** | The archer must be able to display or verbalize emotions appropriately to others when becoming frustrated, overwhelmed, or discouraged by the activity. | | X | |
| ***Questions*** | The archer needs to inquire about information relevant to archery in order to obtain optimal outcomes, maintain safety, and learn the skills of archery in general. | X | | |

***Client Factors (Body Functions and Structure):***

| OTPF Client Functions | Rationale | Level of Skill Simple to Complex 1 | 2 | 3 |
|---|---|---|---|---|
| **Body Functions** *Mental Functions: Higher-level cognitive, attention, memory, perception, thought, mental functions of sequencings complex movement, emotional, experience of self and time.* | | | | |
| ***Attention*** | Attention is required for archers to concentrate on aiming the arrow and maintaining safety. Therefore, archers need to be able to disregard irrelevant distractions. | X | | |
| ***Higher-level Cognitive*** | Higher-level cognitive functions are required, so that the archer can remember instructions, plan how to strategize or aim, and problem-solve to increase performance outcomes. In addition, judgement is required to maintain safety and to strategize how to hit the target. | | X | |
| ***Emotional*** | The archer needs to be able to display appropriate emotions and regulate emotions, such as when he or she is having a difficult time hitting the bullseye. | | X | |
| ***Orientation*** | The archer needs to be oriented to the place, so that he or she can navigate the space and/or land. Orientation to self and others is important because spatial orientation is necessary to maintain safety standards. Lastly, orientation to time is important due to awareness of time of day. | X | | |
| ***Temperament and Personality*** | The archer needs to have self-control and impulse control, emotional stability, and openness to new experiences. | | X | |
| **Sensory functions** | | | | |
| ***Visual*** | The archer needs to have adequate visual acuity, with or without visual correction, to aim at the target from a distance. | X | | |
| ***Vestibular*** | The archer needs to have awareness of his or her position when standing or moving to maintain balance. | X | | |
| ***Proprioception*** | Awareness of the archer's body position in space is important in order to properly execute and participate in archery. | X | | |
| ***Touch*** | Touch is an important sensory function due to the requirement of the archer to manipulate the bow, arrow, bow string, and pay special attention to tactile sensation of the bow string before shooting an arrow. This allows for the archer to withdraw | | X | |

| | | | | |
|---|---|---|---|---|
| | his or her fingers from the string at the appropriate time. | | | |
| ***Hearing*** | The archer needs to have adequate hearing functions in order to detect specific sounds and discriminate sounds, such as the arrow hitting the target, hearing safety whistles, and other individuals or objects within range. | | X | |

**Complexity**: Specific components of archery may be complex pending the client's capabilities. A variety of skills are required to successfully engage in archery and there is a high degree of structure, however the activity can be graded. For this reason, the overall complexity of the activity is moderate depending upon the type of archery selected (target, field, 3D, traditional, bow hunting, etc.) and the client.

**Safety Precautions:** Since a bow and arrow are considered to be a weapon, there are many safety precautions to consider. It is important for an archer to keep the bow string free of loose clothing or jewelry. No matter the environment it is always recommended that each archer knows the predetermined set of whistle calls so that they realize when to draw down their bow, such as in an emergency (Disabled Sports USA, n.d.). In addition, whistle calls will communicate to archers when they can resume shooting or should withdraw from the shooting arena.

("Archery," n.d.)

Another safety precaution is to be mindful of other individuals within the area or on the shooting range. This is important both when shooting an arrow and when retrieving an arrow. In addition, individual's mood stability must be monitored for safety reasons, especially for individuals who have a tendency to be impulsive or have drastic mood swings. Lastly, it is important that archers pay attention to weather conditions, especially when in the wilderness. Strong storms and lightening can pose as major safety risks, so archers should be educated on the important of weather impacts prior to participating in archery.

("Discover archery," 2018)

**Grading the Activity:** Archery can be graded by changing the target difficulty, such as changing the size of the target, distance to the target, or changing the target to be moving rather than static. The bow itself can be graded due to the complexity of the bow chosen, as well as the difficulty of the draw weight. Lastly, the archery experience can be made more challenging by shooting in various weather conditions, such as shooting in moderate wind, fog, cold temperatures, rain or snow. However, special safety precautions should be taken when participating in these weather conditions.

**Adaptations:** Archery can be adapted for clients who have a physical limitation. Archery is commonly completed standing up; however, it can also be completed by sitting or by using a brace or mount to prop the bow in the appropriate position for the client. Self-drawing crossbows and prosthetic devices are also available to increase ease of participation for individuals who have a physical limitation that hinders engagement. Wheelchair platforms or off-roading devices

may also be utilized to increase access to archery ranges. There are many more adaptations that may be implemented that can be found at local archery shops or online.

("Archery," n.d.)

## Step 4: Analysis for Therapeutic Intervention

**Scenario Archery:** Sally is a 28-year-old female who was diagnosed with panic disorder at the age of 25. Sally is in occupational therapy because she has been avoiding going to work as a journalist. She has worked as a journalist for eight years. Over the past 30 days, she has missed 14 days of work. Her employer has been informed of her diagnosis, however stated that he cannot keep allowing her to miss work days, as it is not fair to other employees, and she is not meeting her deadlines. Sally recalls feeling well until a little over a month ago, when she had a panic attack while at work due to increased job demands. Typically, Sally must write approximately eight columns each week. To get the information for her columns, Sally must interview community members, and collaborate with supervisors overseeing her work. Approximately one month ago, Sally's colleague, Donald, transferred over to entertainment due to a higher need for writers on this topic. As a result, Sally was encouraged to take over Donald's columns in addition to her own. Initially, she kept up with her new workload, however had to stop participating in other activities outside of work to ensure she could get all of the columns to her supervisor on time. A new employee has been assigned to Sally's department to offset her workload, however Sally is still fearful she will have another panic attack at work despite the decreased workload. For this reason, she avoids going to work on the days she feels as though she may have a panic attack. Sally stated that having the panic attack at work was one of the most embarrassing experiences to have happened to her. Through evaluation, it becomes clear that Sally highly values her job as a journalist, however her recent panic attack has left fearful of her work environment in general. Additionally, Sally is having difficulties participating in leisure activities, as she is fearful she might have a panic attack while out in the community. She has been spending a majority of her time in her apartment watching TV.

**Rationale/Justification**:

- **Sequencing and Timing:** Sally demonstrates the ability to attend to tasks as she has successfully held the same job and completed work demands for eight years. Despite feeling overwhelmed, Sally successfully prioritized tasks to complete all of the columns assigned to her. Therefore, sequencing the steps and tasks specific to archery will match Sally's skills and abilities.

- **Complexity:** Sally's must demonstrate the ability to organize and prioritize work tasks in order to successfully complete job demands. If work demands are not properly sequenced problems may arise. Sally has not reported having difficulties sequencing tasks, therefore the moderate-difficult complexity of archery matches Sally's abilities.

- **Activity Demands:** Sally demonstrates the ability to manage time, as evidenced by her ability to organize and prioritize work tasks to successfully complete her weekly job demands. Although in the past Sally has successfully met work deadlines, Sally was not budgeting time to participate in leisure activities that she enjoyed. Now, Sally is having difficulties with organizing and prioritizing, therefore, she has not been meeting work

deadlines. Also, Sally is currently not participating in leisure activities, regardless of her decreased job demands. Sally is experiencing these difficulties due to her overwhelming fear and anxiety of having another panic attack when out in the community. Archery can be used to create correlations between how Sally maladaptively copes when she is feeling panicked. For example, the activity is completed with the occupational therapist at a shooting range, so Sally may fear having a panic attack around the therapist and/or other archers at the range. Working through such factors may be physically, mentally, and emotionally challenging. Archery will encourage Sally to channel her fear of a panic attack in a public setting through exploring and implementing adaptive coping strategies.

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Kayaking

The next adventure activity that we will be discussing will be kayaking.

# Kayaking

**Objective:** to maintain three points of contact while maneuvering the kayak about a body of water, with a paddle.

**Key Terms:**

- Paddle
- Paddle leash
- Personal flotation device (Life jacket)
- Spray skirt

The objective of kayaking is to maintain three points of contact while maneuvering the kayak about a body of water, with a paddle. This activity can be done individually or in a group. This is a list of key terms for kayaking and we will explain each in further detail in the upcoming slides.

We understand some individuals in this room may have tried kayaking before and others have not. To ensure everyone has a basic understanding of kayaking, we will provide a brief overview of the activity and equipment that is utilized.

# Kayaking

("Kayaking at pictured rocks," 2018)

("Choosing a portable breakdown paddle for inflatable kayaks," 2014)

First, it is important to distinguish the differences between a kayak and canoe. A kayak is enclosed other than the cockpit for the kayaker to sit in, whereas a canoe is fairly open so an individual would sit on a raised seat or slats across the canoe. For the purposes of this presentation, we will be referring to the recreational kayak when discussing AT. A kayak paddle is the top paddle in the picture on your right hand side. This paddle is utilized to propel and steer the kayak through a body of water.

# Kayaking

**Paddle Leash**

(“Coil style paddle leash,” n.d.)

**Spray Skirt**

(“Spray skirt parts and materials,” n.d.)

A paddle leash is beneficial in instances that the paddle is dropped in the water. The leash allows the kayaker to easily retrieve the paddle and prevents the paddle from floating away. Lastly, a spray skirt may be used to stay dry and warm when kayaking.

# Occupational Analysis & Application to a Mental Health Scenario

We are now going to discuss the occupational analysis of kayaking in general. This form is already filled out and can be found within your handouts. The process will be the same as the last occupational analysis we completed. After we complete the discussion on the occupational analysis, we will apply kayaing to a specific mental health scenario. Again, please feel free to ask questions as they arise throughout this process.

## Borderline Personality Disorder

**Symptomology and Characteristics**

- Instability of mood, relationships, and self-image usually appearing during young adulthood
- Affect is typically inappropriate, as reflected by poor control of anger
- Suicidal ideation & self-mutilation
- Marked Impulsivity
- Paranoid ideation

(Bonder, 2015)

Before presenting evidence supporting the feasibility of individuals with borderline personality disorder participating in kayaking, we would like to review the symptomatology and characteristics of the diagnosis.

In order to be diagnosed with borderline personality disorder an individual must present with the following symptoms: instability of mood, relationships, and self image; inappropriate affect; poor emotional regulation; suicidal ideation and self-harming behaviors; impulsivity; and paranoid ideation (Bonder, 2015).

## Borderline Personality Disorder & Kayaking

**Supporting Evidence**

- Borderline personality disorder symptomatology may be caused by difficulties with emotional regulation, and negative affect is a result of this dysregulation

(Linehan, 1993)

- Intolerance of uncertainty and distress tolerance correlated with an individual's perceived ability to tolerate negative psychological states, specifically negative beliefs resulting in negative psychological states
- A belief that it was not feasible to regulate emotion directly correlated with negative affect and intolerance of uncertainty

(Bottesi, Tesini, Cerea, & Ghisi, 2018)

Any combination of the symptoms listed on the previous slide can result in difficulties with emotional regulation, and emotional dysregulation negatively impacts affect (Linehan, 1993).

In a study conducted by Botessi, Tesini, Cerea, & Ghisi (2017) it was found that participants diagnosed with borderline personality disorder demonstrated higher levels of intolerance of uncertainty, distress tolerance, negative affect, and emotional regulation when compared to their “healthy” counterparts.

Most of the participants did not perceive themselves as in control of their emotions and this directly correlated with intolerance of uncertainty, as well as the ability to engage in emotional regulation (Botessi et al., 2017).

It is likely that kayaking would be unfamiliar to the client. It is also likely that the client would act out due to their inability to self regulate emotions, specifically anxiety and fear in this scenario. Through activity analysis an OT could select the most appropriate approach to the intervention to ensure that the client is safe and demonstrating the ability to practice and acquire coping techniques to increase emotional regulation.

## Scenario: Brittany

- A 21 year old college student who was diagnosed with borderline personality disorder 3 years ago.
- She was enrolled in college and had a 3.4 GPA, but recently she made an impulsive decision to drop out.
- Through evaluation, it becomes clear that Brittany excels in coursework, however struggles with interpersonal relationships and emotional regulation.

Questions?

# References for Kayaking


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# Kayaking

***This template is adapted from:***

Occupation-Based: Activity Analysis, Second Edition, SLACK Incorporated, 2015
By Dr. Heather Thomas

## Step 1: Kayaking Awareness

## Key Terms

- ***Paddle-*** "A shaft with two blades on either end that a paddler uses to maneuver his/her kayak" ("Kayak Terminology," 2018).
- ***Paddle leash-*** A rope or bungee cord that connects your paddle to your kayak or life jacket to secure the paddle in the case of an incident ("Why you want a paddle leash for your kayack," n.d.). For example, if a kayaker drops the paddle, the paddle leash will prevent the paddle from drifting away.
- ***Personal flotation device –*** "Lifejacket" or device to keep you afloat in case the kayak is tipped over or you fall out ("Kayak Terminology," 2018).
- ***Spray skirt-*** "a flexible material with a hole for your torso that attaches to the combing of a closed cockpit kayak. Its purpose is to prevent water from entering the kayak while paddling by creating a watertight barrier" ("Kayak Terminology," 2018).

The objective of kayaking is to maintain three points of contact while maneuvering the kayak about a body of water, with a paddle. This activity can be done individually or in a group.

The kayaker will be seated in the kayak in a long sit, so that their legs are outstretched and relaxed. The feet should be upright, however can be slightly plantar flexed if that is more comfortable. The kayaker will lightly grasp the paddle to prevent excessive flexion of the wrist. The kayaker's arms should be positioned slightly more than shoulder width apart and their knuckles are too align with the blades of the paddle. Positioning of arms will change as muscle groups become fatigued (i.e., can become narrower in distance).

("Animated kayaking technique tutorials," 2014; "Expert advice: Kayaking," 2018)

**Step 2: Steps required to complete the activity**

1. Borrow, rent, or purchase a kayak, paddle, and personal floatation device
2. Gather clothing and personal items
3. Consider safety precautions
4. Launch the kayak into the water
5. Use the paddle to navigate the kayak in the water

**Step 3: Activity Demands**

***Objects required:*** The kayaker will need a kayak, one paddle, paddle leash, signaling whistle, water, snacks, and a personal flotation device. It may also be necessary to obtain a wetsuit and water shoes pending weather conditions, otherwise the kayaker may use a spray skirt if he or she is trained to properly exit the spray skirt in an emergency. It is important that the kayaker packs quick dry clothing for layering. For example, a dry fit shirt, insulated fleece shirt or sweatshirt, rain coat that is wind and water resistant, and a hat. Kayaker will also want to bring a change of clothes in a dry sack depending on how long they intend on being out on the water. Sunglasses, a hat and/or a helmet, and sunscreen are also recommended.

(“Expert advice: Kayaking," 2018; “Kayak gear list", 2018)

***Space required:*** The immediate space required to kayak is related to the length of the kayak, typically around six feet in length (“Expert advice: Kayaking,” 2018). Width is determined by the length of the paddle, which depends on the height of the kayaker. The average length of a paddle is 23 inches (“Paddle sizing guidelines,” n.d.). In addition, space is required to navigate the kayak, which will vary depending on the preference of the kayaker, ranging from a pool or small pond to a large lake or ocean.

***Social demands:*** Kayaking can be done independently or with others. When participating with others, it is important to be able to communicate about kayaking plans, navigation changes, and upcoming obstacles.

***Environments:*** Kayaking can be done in a pool, river, lake, pond, or ocean. This activity can be sedentary or done in a group. It is recommended that kayaking is done during daylight hours. Usually, water temperatures and conditions are more important factors in the environment than the weather itself. With that being said, kayakers should refrain from going out during storms and heat advisories.

(“Expert advice: Kayaking," 2018)

***Context:*** Individuals can participate in this activity across the lifespan. It is best if done in the summer, late spring, or early fall during daylight hours. The kayaker can set the pace and duration of the activity. There is a kayaking culture, as there are multiple kayaking communities across the country.

*Performance Skills:*

| Occupational Therapy Practice Framework (OTPF) Performance Skills | Rationale | Level of Skill Simple to Complex 1 | 2 | 3 |
|---|---|---|---|---|
| **Motor Skills** | | | | |
| ***Positions*** | The kayaker must demonstrate the ability to properly position his or her body inside the kayak, as well as the kayak in general. Proper positioning of the kayak will prevent the kayaker from crashing into other objects in the water. | | X | |
| ***Stabilizes*** | The kayaker must demonstrate ability to maintain upright position to paddle through the water. The inability to stabilize oneself may result in tipping of the kayak or falling out of the kayak. | X | | |
| ***Grips*** | The kayaker's grip on the paddle must be maintained, so that the paddle does not fall into the water. | X | | |
| ***Coordinates*** | The kayaker must coordinate movements of the upper extremities to successfully maneuver the paddle through the water and to propel the kayak forwards. | | X | |
| ***Aligns*** | The kayaker's body alignment should be centered. If the kayaker leans too far to one side of the kayak, the kayak may tip or the kayaker may fall out. | X | | |
| **Process Skills** | | | | |
| ***Attends*** | The kayaker must attend to paddling, and his or her surroundings when paddling the kayak to prevent collisions with other objects in the water. The kayaker can take breaks, however it is important that they continually attend to the environment even when resting, to pick up on any changes within the environment. | | X | |
| ***Initiates*** | The kayaker must maneuver the paddle in a smooth pattern to successfully propel the kayak. Each stroke of the paddle must be initiated without hesitation if the client wants to continually progress in one direction. | X | | |
| ***Navigates*** | The kayaker must have the ability to propel the kayak through the water and successfully avoid or move around obstacles in the water. Obstacles are, | | X | |

| | | | | |
|---|---|---|---|---|
| | but limited to: boats, other kayakers, rocks, and driftwood. | | | |
| ***Uses*** | The kayaker must use paddle appropriately to avoid breaking the paddle or being unable to propel the kayak. | X | | |
| ***Inquires*** | The kayaker must demonstrate the ability to ask questions when unsure of what to do while kayaking. It is important that kayaker is fully oriented to the task before venturing out on their own. | X | | |
| **Social Interaction Skills** | | | | |
| ***Regulates*** | It is crucial that the kayaker regulates his or her emotions, so that impulsive behaviors or unsafe behaviors are prevented. Emotions are likely to be challenged during the activity. For example, if the kayaker prefers to feel in control they may feel vulnerable out in open water. | | X | |
| ***Expresses Emotion*** | The kayaker must be able to display or verbalize emotions appropriately to others when becoming frustrated, overwhelmed, or discouraged by the activity. | X | | |
| ***Questions*** | The kayaker needs to inquire about information relevant to archery in order to obtain optimal outcomes, maintain safety, and learn the skills of kayaking in general. | X | | |

***Client Factors (Body Functions and Structure):***

| OTPF Client Functions | Rationale | Level of Skill Simple to Complex 1 | 2 | 3 |
|---|---|---|---|---|
| **Body Functions** *Mental Functions: Higher-level cognitive, attention, memory, perception, thought, mental functions of sequencings complex movement, emotional, experience of self and time* | | | | |
| ***Attention*** | Kayakers need to have an adequate level of attention to concentrate on navigating around obstacles and executing proper kayaking form; however, kayakers can take breaks as needed. With that being said, when taking a break, a kayaker must still have some attention devoted to dangerous obstacles, such as a boat. | | X | |
| ***Higher-level Cognitive*** | Higher-level cognitive functions are required, so that the kayaker can remember instructions and strategies involved with kayaking, plan a kayaking trip, navigate the water, and problem-solve to increase performance outcomes. | | X | |
| ***Emotional*** | The kayaker needs to be able to regulate emotions that are experienced, as well as display appropriate emotions. For example, it may be difficult to navigate the water due to obstacles, however the kayaker must remain calm and appropriately respond to the situation at hand. | | X | |
| ***Orientation*** | The kayaker must be oriented to the place in order to navigate or follow a predetermined plan, as well as to be able to get back to the starting point. The kayaker must be oriented to time so that he or she can terminate the kayaking activity before dark or before a predetermined time. Lastly, the kayaker must be oriented to self and others to navigate in a group and avoid moving obstacles, such as a boat. | | | X |
| ***Temperament and Personality*** | Self-control over impulsivity, emotional stability, self-expression, and openness to new experiences are needed for a kayaker. In addition, the kayaker needs an adequate amount of confidence since a beginning kayaker may feel vulnerable on the water. | | X | |

| Sensory functions | | | | |
|---|---|---|---|---|
| ***Visual*** | The kayaker must have a have adequate visual acuity, with or without visual correction, to navigate themselves in the water or around obstacles. | X | | |
| ***Vestibular*** | Vestibular functions are important in order to maintain an upright posture, maintain proper lower body positions, and maintain balance to refrain from tipping the kayak over. | | X | |
| ***Proprioception*** | Awareness of the kayaker's body position in space are important in order to properly execute necessary movements to move and steer the kayak in relation to other obstacles or kayakers. | X | | |
| ***Touch*** | Touch functions are important for feeling that the kayaker is in the correct position in the kayak and to grip the paddle. | X | | |

**Complexity**: Specific components of kayaking may be complex pending the client's capabilities. A variety of skills are required to successfully engage in kayaking and there is a moderate degree of structure, however the activity can be graded. For this reason, the overall complexity of the activity is moderate to difficult pending the type of water body, weather patterns, amount of obstacles, and overall capabilities of the client.

**Safety Precautions:** If safety measures are not followed, injury may occur. It is important that kayakers are able to swim. Even if the kayaker is able to swim they should always wear a lifejacket. It is also important that the kayaker plans out their route prior to engaging in the activity. This will either prevent the kayaker from getting lost or assist them in navigating themselves back to the intended route if they do get lost. As a rule of thumb, kayakers should never paddle a distance that they would not be able to swim back to shore. The kayaker should also analyze the terrain before and during kayaking. Dangerous obstacles are, but not limited to: boats, other kayaks, rocks, waves, currents, tides, and vegetation. Lastly, the kayaker must be aware of the weather before and during the activity. Kayaking in extreme heat can result in heat exhaustion and sunburn, whereas cold weather can cause hypothermia if the kayaker falls in or gets wet. The kayaker should also be aware of the water temperature for this reason.

("Expert advice: Kayaking," 2018)

**Grading the Activity:** This activity can be graded through selection of bodies of water. It is recommended that beginners kayak in ponds or lakes, as they are typically calmer than larger bodies of water like rivers or oceans. Also, a tandem kayak can be utilized if the individual is not comfortable kayaking on their own. This decreases the likelihood that the kayaker would get lost during the outing or accidentally tip their kayak. Lastly, the amount of time spent on the outing can be individualized. For example, kayakers with lower endurance can take trips under one hour, whereas kayakers with higher endurance may prefer to go out for two hours.

**Adaptations:** It is important that the kayaker maintains three points of contact while engaging in this activity. The three points are: small of back against seat back, bent knees to either side of the kayak, and pads of feet against pedals or front wall of the kayak. If an individual has difficulties maintaining three points of contact modifications can be made to the kayak or paddle to ensure the kayaker's stability. Kayaking can be adapted to meet the needs of the following individuals: upper and lower extremity amputees, individuals with balance issues, individuals with spinal cord injuries, individuals with total paralysis, and individuals with visual impairments. It is important to note that list is not exhaustive. For amputees, special prostheses can be used, foam and airbags, a hammerhead hand adaptation, and a one armed paddling rig. Each adaptation allows the kayaker to maintain three points of contact. A special seat, outriggers, foam, and airbags may be required for individuals with poor balance or a spinal cord injury to maintain contact. Individuals who are paralyzed would not be able to independently maintain all three points of contact. For this reason, a tandem kayak may be useful. Lastly, it may be necessary to utilize a tandem kayak with an individual who is visually impaired.

("Kayaking," n.d.)

**Step 4: Analysis for Therapeutic Intervention**

**Scenario Kayaking:** Brittany is a 21-year-old female who was diagnosed with borderline personality disorder three years ago. She was attending a four-year college pursing a degree in early childhood education. Recently, she made an impulsive decision to drop out despite having a 3.4 GPA. She reportedly told her mother that her professor for her infant and toddler class routinely kicked her out of class for no reason. Brittany's mother was concerned by Brittany's quick decision to drop out, so she contacted her professor to discuss the incident. The professor stated that Brittany frequently made inappropriate comments during lecture, and frequently became verbally angry with the professor when he asked her to stop making inappropriate comments. Additionally, her friend Denise has moved out of their shared apartment because Brittany frequently got mad at Denise for spending too much time with her boyfriend. This resulted in rapid emotional shifts when Brittany and Denise were together. Through evaluation, it becomes clear that Brittany was doing well in her college courses, but was struggling to maintain interpersonal relationships. Furthermore, she has a low frustration tolerance and her affect is not appropriate to the situation when conflict arises. Brittany values her education and has indicated that she would like to return, however does not believe that she can move forward in her education without having Denise as a friend. Brittany's motor and sensory skills are adequate.

**Rationale/Justification**:

- ***Sequencing and Timing:*** Brittany demonstrates the ability to attend to tasks, as evidenced by successfully completing three years of college coursework. Her recent decision to drop out was not because coursework was difficult, rather due to difficulties with interpersonal relationships. When kayaking, Brittany must be able to attend to maneuvering the kayak about the water, her location before and during the activity, changing weather patterns, and obstacles in the water. Shifting attention from each of the factors listed will match Brittany's ability, as she had successfully attended to multiple classes at a time while enrolled at the university.

- ***Complexity:*** Brittany is intellectually bright, as evidenced by her ability to excel in college coursework for three years, so the unpredictability and complexity of kayaking will match Brittany's ability.

- ***Activity Demands:*** Brittany demonstrates the ability to problem solve, as evidenced by her ability to prioritize and complete the coursework assigned to her while enrolled in college classes. She formed one interpersonal relationship with her friend Denise, however struggled to maintain this relationship due to difficulties with emotional regulation. Due to having difficulty regulating emotions, Brittany often uses anger to express how she is feeling. When Brittany is unable to problem-solve how to resolve a conflict, she acts impulsively. Kayaking can be used to create correlations between how Brittany responds to unpredictable challenges in her everyday life. There are many unpredictable factors to be taken into consideration while kayaking. For example, Brittany will have to problem-solve how to work through changing weather patterns and obstacles in the water. Working through such factors may be physically, mentally, and emotionally challenging. Brittany struggles with impulsivity when challenges arise, so she may decide she wants to give up. Kayaking will encourage Brittany to face

challenges head on and make connections between how she is responding in that moment and how she typically responds to challenges in her everyday life.

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# Bouldering/ Top Rope Climbing

The last adventure activity that we will be discussing today will be bouldering/ top rope climbing. After discussing this activity and completing an activity analysis, we will take a lunch and then head to the local rock gym to participate in top rope climbing.

## Bouldering and Top Rope Climbing

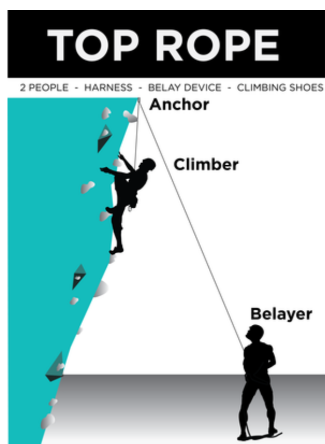
**Objective:** to successfully ascend a predetermined route of hand and footholds.

**Key Terms:**
- Holds
- Harness
- Belay
- Top-roping
- Bouldering
- Rappelling

The objective of bouldering and top rope climbing is to successfully ascend a predetermined route of hand and footholds. This activity can be done individually or with a group of people.

Again, some individuals in this room may have tried bouldering and/or top rope climbing before; however, to ensure everyone has a basic understanding of the activity, we will provide a brief overview of the activity and equipment that is utilized.

# Bouldering and Top Rope Climbing




(“Untitled image of person top rope climbing,” n.d.)

(“Untitled image of person bouldering,” n.d.)

An example of top rope climbing is pictured on the left. Top rope climbing requires two people, unless the facility has a mechanical belay device to replace the need for someone to manage the rope. The rope must be fixed to the ceiling; the belayer or belay device holds one end of the rope while the climber ties off onto the other end (Bridgeman, n.d.). It is recommended that beginners start with top rope when exploring harness/rope climbing (Bridgeman, n.d.).

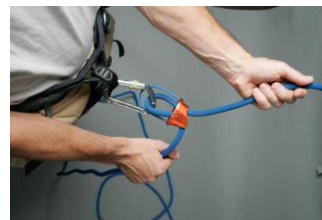
An example of bouldering is pictured on the right. Bouldering does not require the use of a harness or rope, as bouldering routes are near the ground (Bridgeman, n.d.) It is recommended that a spotter is present despite the presence of cushioned mats on the floor; head and neck injuries are always a possibility when engaging in activities that could result in a fall (Bridgeman, n.d.). Bouldering is also recommended for beginners as it allows climbers to focus on building strength and balance (Bridgeman, n.d.)

## Bouldering & Top Rope Climbing

**Harness**

(Ellingson, n.d.)

**Belay**



(Rock and Ice, 2017)

**Holds**

("In the company of climbers," 2017)

Again, a rope and harness are not necessary for bouldering. First, we would like to direct your attention to the harness on the left of the slide. The climber would first want to make sure the waist belt and leg loops are big enough. Then, the climber would step through each loop and pull the harness up. Once the harness is properly positioned the climber would fasten the buckles.

The belay loop is where the climber ties off, and is best illustrated in the image in the top right corner of the slide. For the purposes of this activity it is not necessary to know how to set up the belay, as staff will already have this done or the climber will be attached to an auto belay device; however, the climber must demonstrate knowledge of proper belay stance and hand positioning (Vodjansky, Dotson, & Ahmed, n.d.). The dominant hand is known as the brake hand, whereas the other hand is the guide. The guide hand is extended above the head (comfortably) towards the climber and the brake hand is approximately six inches below the belay device (Vodjansky, Dotson, & Ahmed, n.d.)When belaying a PBUS technique is helpful to use; it stands for pull, brake, under, slide, repeat (Vodjansky, Dotson, & Ahmed, n.d.). Due to a lack of available equipment to demonstrate how to utilize this technique, we will be receiving a demonstration at the rock gym prior to climbing.

Lastly, we would like to provide an overview of hand and footholds. Route difficulty for top rope climbing in indoor climbing facilities is determined by the Yosemite Decimal Rating System. This rating system can also be applied outdoors. The largest hand and footholds are between 5.0 and 5.5; it is recommended that beginners begin between the 5.3 and 5.5 range (Bridgeman, n.d.). For bouldering the V Scale is utilized to gauge route difficulty. The scale begins at VB, where the B stands for beginner. It then increases all the way up to 16 (Bridgeman, n.d.). Similarly to top rope routes, hand and footholds are bigger on the routes that are rated for beginner climbers.

Occupational Analysis & Application to a Mental Health Scenario

We are now going to complete the final occupational analysis, which is on bouldering and top rope climbing. This form can be found within your handouts. This occupational analysis is blank as we would like you to work individually or in pairs to fill out the occupational analysis. After we complete the discussion on the occupational analysis, we will apply this AT intervention to a specific mental health scenario. Again, please feel free to ask questions as they arise throughout this process.

# Major Depressive Disorder

**Symptomology and Characteristics**

- Depressed or irritable mood
- Diminished interest (anhedonia)
- Decreased or increased appetite/weight
- Insomnia/ hypersomnia
- Psychomotor agitation/ retardation
- Fatigue or low energy levels
- Feelings of worthlessness, guilt
- Diminished concentration, indecisiveness
- Suicidal thoughts
- Difficulty with problem solving or making decisions

(Bonder, 2015)

Before presenting evidence supporting the feasibility of individuals with major depressive disorder participating in bouldering and top rope climbing, we would like to review the symptomatology and characteristics of the diagnosis.

In order to be diagnosed with major depressive disorder an individual must present with the following symptoms: depressed or irritable mood, anhedonia, change in appetite or weight, change in sleep patterns, changes in psychomotor patterns, fatigue, low motivation, feelings of worthlessness and guilt, decreased concentration, suicidal ideation, and difficulties with problem solving (Bonder, 2015).

# Major Depressive Disorder

**Supporting Evidence for Bouldering/ Top Rope Climbing**

- Increased self-concept, increased motivation, increased social interaction, and decreased anxiety (Kyriakopoulos, 2011)
- Decreased symptoms, negative thoughts, and behaviors
- Decreased self-criticism, guilt, and pessimism
- Diminished anhedonia
- Increased self-esteem and energy

(Nasstasia et al., 2017)

- Older adults are at an increased risk for depression
- Positive attitudes, social interaction, and engagement in meaningful occupations decreases depression risks

(Vaillant & Western, 2001)

We are now going to review the supporting evidence for bouldering or top rope climbing for individuals with major depression, as well as symptomology of major depression. Though the literature does not specifically address bouldering and top rope climbing, it can be indirectly applied.

According to Kyriakopoulos (2011), individuals with anxiety or depression increased their self-concept and motivation, in addition to overcoming anxiety about participating after participating in an AT intervention. These individuals also amplified their ability to connect with other individuals and felt that their overall sense of well-being had increased as the participants were able to openly share their feelings and explore them in the moment in order to facilitate change (Kyriakopoulos, 2011).

Nasstasia et al. (2017) found significant reductions in depression, negative thoughts, and behavioral activation in individuals with major depressive disorder after participating in structured exercise interventions and motivational interviewing. Individuals also decreased self-criticism, guilt, and pessimism, which also led to significant increases in self-esteem levels (Nasstasia et al., 2017). In addition, individuals reported that their somatic symptoms decreased, such as lack of energy and fatigue (Nasstasia et al., 2017). Although the previous benefits were significant, the largest significant increases were seen in relation to decreasing anhedonia symptoms, as exercise enhanced individuals' pleasure and motivation to participate (Nasstasia et al., 2017).

Older adults with depression will also benefit from AT activities, as these individuals are at a higher risk for withdrawing from leisure activities (Hitch, Wright, & Pepin, 2015). Symptoms of depression typically increase with age due to the decreased participation in valued leisure or occupations, which in turn decreases their overall wellbeing (Hitch, Wright, & Pepin,

2015). Additionally, positive attitudes, social interaction, and engagement in meaningful occupations is found to be linked to a higher level of wellbeing adults (Vaillant & Western, 2001).

## Scenario: Jackson

- Jackson is a 42 year old sales analyst who was diagnosed with major depressive disorder.
- His wife asked for a divorce and moved out approximately 3 months ago.
- Jackson has since stopped doing activities that he used to enjoy like window shopping, working out, and going out for Sunday coffee.
- Through evaluation, it becomes evident that he feels hopeless, as he reports feeling worthless and irritable everyday.
- Despite successfully attending work and family events, he does not have fun and regrets going.
- He repeatedly stated “I just want to feel like myself again.”

Questions?

# References for Top Rope & Bouldering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# Bouldering and Top Rope Climbing

(Within a controlled indoor climbing gym)

***This template is adapted from:***

Occupation-Based: Activity Analysis, Second Edition, SLACK Incorporated, 2015
By Dr. Heather Thomas

## Step 1: Bouldering and Top Rope Climbing Awareness

**Key Terms as defined by:** Disabled Sports USA

- ***Holds:*** "Places on the wall or within the rock where a climber places their hands and feet."
- ***Harness:*** "A security belt that all climbers wear, which loops around both legs and their waist. The harness is connected to the climbing rope via a carabiner."
- ***Belay:*** "A metal device that the climber's rope is threaded through which is used to secure the climber and help ensure a controlled climb and descent. The person controlling the belay is referred to as the belayer."
- ***Top-Roping:*** "A type of climbing where the climbing rope runs through a carabiner attached to a bolt in the ceiling of the gym, or top of the rock climbing wall. Most indoor climbing is done by top-roping."
- ***Bouldering:*** "Close to the ground climbing, without a rope, where the climber only goes as high as they could jump off without risking injury."
- ***Rapelling:*** "A controlled slide down to the ground."

("Rock Climbing," n.d.)

The objective of bouldering and top rope climbing is to successfully ascend a predetermined route of hand and footholds. This activity can be done individually or with a group of people.

The climber starts by placing their feet or hands on the lowest hand or foothold on the wall. They can choose how they want to position their hands or feet and whether they want to use their leg or arm strength to move upwards. The climber stays in a vertical direction throughout the duration of the climb. It is important that the climber stays as close to the wall as they possibly can. Positioning of the body will change as the climber ascends the wall.

**Step 2: Steps Required to Complete the Activity**

1. Put on their climbing shoes and appropriate climbing clothes
2. Chalk hands
3. Analyze the routes and pick a route they would like to climb
4. Follow the route until the climber has reached the top of the rock wall or the end of the selected route
5. Rappel to the bottom
6. Take a rest
7. Continually repeat steps 1-6 until they become fatigued

**Step 3: Activity Demands**

***Objects required:*** The climber needs to be wearing comfortable clothing that is easy to move in, however it is important that clothing is not too baggy. Most climbers wear climbing shoes because it is easier to feel the footholds, but normal tennis shoes can be worn. Some climbers use chalk to increase their grip, however it is not necessary to have. Protective mats line the floors of the gym to fall on when bouldering. If the climber wants to ascend the wall higher than seven feet a harness must be worn. The harness is attached to a pulley system (climbing rope and carabiners). If the climber wants to use the pulley system, they must request help from a friend or another climber at the gym to belay.

(“Rock Climbing,” n.d.; “Getting Started Rock Climbing,” n.d.)

***Space required:*** Approximately a 6x2x7 foot space is needed when bouldering, and approximately a 6x2x30 foot space is needed when top rope climbing. Sufficient lighting is needed when engaged in either type of climbing, so that the climber can see hand and footholds.

(“Climbing Wall Construction FAQ,” n.d.)

***Social demands:*** Climbing can be done individually, however a spotter is always needed. The spotter can either be a friend or an employee at the indoor rock climbing facility. Expectations are that the climber will take turns ascending routes throughout the facility, being respectful to staff when they are assisting with belaying or repelling, and adhering to rules outlined by the facility (e.g., not climbing higher than seven feet when bouldering).

***Environments**:* Climbing, by beginners, is typically done in a rock gym on artificial rock structures, however it can be done outdoors. If a climber decides to boulder outside they would need to bring their own mat to place under the boulder they are climbing. It is recommended that climbing is done during the day; dry rocks are the easiest to climb.

***Context**:* Climbers have referenced the rocks they climb as their “spirituality”. Climbing can be utilized as an escape and help individuals “get out of their heads”. There is also a climbing culture. Communities are formed and members schedule times to climb at the gym or outdoors. Whenever climbing it is important that the climber has a spotter.

(Climbingpsych, 2010)

*Performance Skills:*

| Occupational Therapy Practice Framework (OTPF) Performance Skills | Rationale | Level of Skill Simple to Complex 1 | 2 | 3 |
|---|---|---|---|---|
| **Motor Skills** | | | | |
| ***Positions*** | Arms need to be straight, so that the climber can rely on their skeleton, as opposed to their muscles. Poor positioning of the arms will lead to fatigue after a short duration of time. Additionally, the climber will need to keep their center of gravity in line with the body parts contacting the wall. | | X | |
| ***Endures*** | When on the wall it is important that the climber does not frequently stop to catch their breath or to rest. Frequent breaks will lead to muscle fatigue. | | | X |
| ***Stabilizes*** | Climber must be able to maintain balance when transitioning to different holds on the wall or on the boulder. | | X | |
| ***Flows*** | When ascending and descending the wall the climber must be fluid in their arm and wrist movements to support and maintain their grip on each hand hold. Climber must also demonstrate ability to produce smooth upper extremity movements when belaying others. | | | X |
| ***Grips*** | Climber must have fine motor coordination and strength to grasp onto hand holds when climbing. Climber may also need fine motor abilities to belay others who are scaling the wall. | | X | |
| **Process Skills** | | | | |
| ***Attends*** | The climber needs to be focused on the holds and the route that they are climbing the entire time, otherwise they may lose balance or fall. | | X | |
| ***Initiates*** | Climber must be able to initiate the next hold, otherwise they will not make it up the wall or the boulder. | X | | |

| | | | | |
|---|---|---|---|---|
| ***Sequences*** | The climber has the ability to make changes to their intended route after they have started, however to successfully complete a route they must follow one color all the way up. For this reason, it is important that the climber is able to logically sequence their movements. | | X | |
| ***Searches/Locates*** | Climber will need to search for and locate hand and footholds beyond their immediate environment to successfully ascend or descend the rock wall. | | X | |
| ***Notices/Responds*** | Climber must notice and respond to distances between each hand and foothold, so that he or she does not overshoot the desired hand or foot placement. Also, the climber must notice and respond to damaged hand or footholds and use an alternate route, however it is unlikely that this would occur. | X | | |
| **Social Interaction Skills** | | | | |
| ***Questions*** | Climber should ask questions specific to climbing when more information is needed to complete ascent or descent of selected route. | X | | |
| ***Replies*** | If someone asks the climber questions that pertain to the activity or the climber's overall well-being the climber should appropriately reply. | X | | |
| ***Clarifies*** | If the climber feels as though any information given about climbing or well-being is unclear, climber should seek clarification. Furthermore, if the climber observes that those they are with communicating are not understanding what is being said, he or she should clarify information. | | X | |
| ***Discloses*** | When feeling scared, anxious, indifferent, etc. about the climb and/or during climbing activity the climber should let whoever is with them know. It is important that while disclosing this information that the climber remains socially appropriate (i.e., does not yell or scream, etc.). | | X | |

***Client Factors (Body Functions and Structure):***

| OTPF Client Functions | Rationale | Level of Skill Simple to Complex 1 | 2 | 3 |
|---|---|---|---|---|
| **Body Functions:** *Mental Functions: Higher-level cognitive, attention, memory, perception, thought, mental functions of sequencings complex movement, emotional, experience of self and time* | | | | |
| ***Attention*** | Climber should concentrate on hand and footholds for entire duration of climb. Climber must demonstrate ability to alternate attention from one hand or foothold to the next. Climber should demonstrate ability to avoid distractibility of listening to what is going on below him or her. | | X | |
| ***Perception*** | Climber should rely on visual and tactile senses. Climber may infrequently need to rely on auditory senses if someone is communicating with him or her while climbing. Climber must be able to discriminate between senses throughout duration of climb. | X | | |
| ***Thought*** | Climber must be aware of his or her own reality. To successfully complete climb thought must be logical and coherent. Also, the climber must have control over their thoughts, so that they remain positive throughout the climb. | | X | |
| ***Energy & Drive*** | Climber must have moderate to high energy to successfully complete the route he or she has selected. Furthermore, climber must be motivated to complete initiated route. | X | | |
| ***Sequencing Complex Movements*** | Climber must possess mental functions that allow him or her to successfully complete complex movements. For example, climber must be able to respond to changes in the environment at an appropriate speed to ensure that transition from one hand and/or foothold to the next can be made. | | X | |
| **Sensory functions** | | | | |
| ***Visual Functions*** | Climber must have a high quality of vision to successfully complete selected route. It is important that climber can clearly see each hand and foothold, as well as be visually aware of the environment around them. Additionally, the climber must have depth perception in order to accurately reach hand and foot holds, but also to recognize how far he or she has to reach. | X | | |
| ***Vestibular Functions*** | Climber must maintain an upright posture, keep body close to wall throughout duration of climb, | | X | |

| | | | | |
|---|---|---|---|---|
| | and place arms and legs in proper locations to maintain hand and footholds. | | | |
| ***Proprioceptive Functions*** | Climber must be aware of where his or her body is in space, so that hand and footholds are within reaching distance. Also, being aware of positioning prevents climber from running into other climbers who are also ascending or descending the wall. | | X | |
| ***Touch Functions*** | Climber should have touch functions intact, so that he or she can feel the hand and footholds. | X | | |
| ***Pain*** | Climber should have ability to sense pain, so that he or she can appropriately cease climbing when injured. | X | | |

**Complexity**: Specific components of climbing may be complex pending the client's capabilities. A variety of skills are required to successfully engage in climbing and there is a high degree of structure, however the activity can be graded. For this reason, the overall complexity of the activity is moderate to complex pending the type of climbing selected (bouldering or top rope), the type of route selected (easy, intermediate, or hard), and capabilities of the client.

**Safety Precautions:** Most injuries occur because of overuse, however falling can have serious implications. It is important to use proper body mechanics to prevent injuries to the fingers, elbows, and shoulders. If symptomology from overuse injuries is ignored it can lead to permanent damage to the joints, tendons, ligaments, and capsules. Additionally, the climber may develop calluses, cuts, burns or bruises. It is also important to take weather into consideration when climbing outdoors, as it is best to climb on dry rocks. It is also important that the climber is educated on equipment use and can demonstrate how to properly utilize climbing equipment.

(Cameron & Vaandering, n.d.; Vagy, n.d.)

**Grading the Activity:** The activity could be graded by selecting an easy, intermediate, or hard route to climb. If the climber was looking for more of a challenge they could select a route with smaller/complex holds, whereas the intermediate and easy routes would have larger/simpler holds. The more complex routes would require more grip strength, coordination, and endurance in comparison to the intermediate and easy routes. To make the climb easier the climber could ascend halfway then down climb or drop to the floor, as opposed to making it all the way up the rock wall.

**Adaptations:** Climbing can be adapted for individuals who have physical limitations. The popularity of indoor climbing has increased, and more adaptive equipment has become available as a result. For example, individuals with upper and/or lower extremity amputations can climb without a prosthesis, wear their everyday prosthesis, or purchase a specialty prosthesis. Someone who is just learning to climb may not want to invest in an adaptive prosthesis, however a more advanced climber may prefer one over their everyday prosthesis. Examples of adaptive prosthesis are, but not limited to: climbing knees, specialized feet, and specialized hand grips. The sport of climbing can also be adapted for individuals with spinal cord injuries and complete

paralysis. Depending on his or her level of injury, a climber with a spinal cord injury may find a standard harness in combination with a chest harness to be beneficial, whereas another climber may prefer a seated harness system. Each harness system is uniquely molded to each individual climber to ensure that they are seated in an upright position and not experiencing excessive pressure in any one area, as this could lead to pressure ulcers. Lastly, individuals who are paralyzed may benefit from an ascending device. This slowly assists the climber in reaching the top of the wall. It is important to note that this list of adaptions is not exhaustive. There are many adaptive devices that exist for individuals with a wide variety physical limitations.

(“Rock Climbing," n.d.)

**Step 4: Analysis for Therapeutic Intervention**

**Scenario Rock Climbing:** Jackson is a 42-year-old male who was diagnosed with major depressive disorder. Approximately 3 months ago, Jackson's wife, Jessica, told him that she wanted a divorce and moved out. Jackson suggested they try marriage counseling and Jessica declined stating that she fell in love with someone else. Jackson used to enjoy working out, window shopping, and going out for Sunday coffee. Since his divorce Jackson stated that these activities no longer interest him, as they remind him of Jessica. Jackson's mother referred him to occupational therapy because she has been worried about him. Jackson's mother stated that he goes to work as a sales analyst, and he attends family dinners on Tuesday evenings. Jackson's typical work day entails creating and maintaining sales reports in Excel, as well as presenting sales information to colleagues. Jackson also meets with clients over the phone and in person to discuss sales data trends. Although Jackson is successfully attending work and family dinners, his mother stated that he seems to be "down and out." Through evaluation, it becomes evident that Jackson feels hopeless, as he reports feeling irritable and worthless every day. Also, Jackson appears to be experiencing anhedonia as evidenced by his report of attending work and family events, but not having fun while he's there, and often wishing he would not have gone at all. Despite his lack of interest in his current occupations, Jackson is willing to try suggestions from the occupational therapist as long as it will make him feel better. He repeatedly stated that he "just wants to feel like himself again." The occupational therapist suggested rock climbing and Jackson indicated he has not rock climbed before.

**Rationale/Justification:**

- ***Sequencing and Timing:*** Jackson demonstrates the ability to attend to tasks, as evidenced by successfully attending work and family dinners each week. Difficulties sequencing his routine to successfully attend these events has not be observed nor reported. Also, Jackson had been working out up until Jessica left three months ago. It is likely that he would be aware of his capabilities to appropriately select a climbing route. Despite a lack of motivation, Jackson is still open to trying new activities during therapy. For this reason, Jackson may be more likely to incorporate climbing, or rather occupational therapy into his weekly routine.

- ***Complexity:*** Jackson appears to be intellectually bright, as evidenced by his job title and the duties he is expected to complete at work. Jackson's work activities require prolonged attention and problem solving, therefore participating in rock climbing for one to two hours will match Jackson's ability.

- ***Activity Demands:*** Jackson demonstrates the ability to attend, as evidenced by his ability to successfully complete cognitive tasks at work, such as discussing the specifics of data trends he has observed within the company. Furthermore, Jackson is able to sequence his daily routine to successfully show up to work, and family dinners. Jackson's job requires him to act fast and present information to colleagues in a concise manner. He must draw on problem solving skills frequently throughout the work day, as sales trends are ever-changing and significantly impact the success of the company. For this reason, the high structure, and moderate to difficult complexity level of rock climbing should be a good match for Jackson. The physical demand of rock climbing also matches Jackson's abilities, in that physical difficulties have not been observed nor reported. Also, Jackson

previously enjoyed working out, so rock climbing may be more meaningful to Jackson than it would have been had he not been interested in physical activities. Lastly, Jackson is open to trying new suggestions to make him feel better, and he has not engaged in rock climbing in the past. Engaging in rock climbing addresses Jackson's goal of exploring activities that will "make him feel better". More specifically, rock climbing can be utilized to facilitate motivation to participate in a new activity. Participation may give Jackson a sense of purpose and allow him to attach meaning to rock climbing. Ultimately, rock climbing may serve as a meaningful occupation that Jackson can engage in outside of work.

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# Discussion: Presentation Six

We will now begin presentation six of six. For the purposes of facilitating discussion about the workshop content, Bloom's Taxonomy will be utilized to guide conversation. Questions provided under each cognitive domain are merely examples, and adding questions as the conversation progresses is highly encouraged. This presentation does not need to be projected on a screen, as it was created for the facilitator specifically. This presentation will conclude with a summary of what was covered.

## Knowledge

- What is adventure therapy (AT)?
- What are the key elements of AT?
    - What is isomorphism?
- What are the main assumptions of AT?
- What role does occupational therapy (OT) play in the administration of AT?
- What two theories are commonly utilized in AT?
    - Are they occupation-based?
- What core competencies must a practitioner possess to implement AT?

## Comprehension

- Why is important to be familiar with multiple OT and AT theories?
- Why is metaphor a critical component of the AT process?
- Why is AT different than wilderness therapy or other therapeutic approaches?
- Why can't an OT deliver AT services without possessing, both hard and soft skills?
- How can the appropriateness of an adventure activity be determined?
- Why is there a lack of implementation of AT by OTs in the United States when OTs in other countries (e.g., New Zealand and Australia) are utilizing this treatment approach?

## Application

- List the sequence of events leading up to the end of this workshop:
  - How did feel about implementing AT into your practice prior to attending?
  - How did you feel during the indoor rock climbing activity?
  - How do you feel now?
- Is it likely that new knowledge from this workshop will stick with you for an extended period of time?

## Analysis

- What kind of person would best implement AT into his or her OT practice?
  - Why do you think this?
- How would you feel implementing AT into your practice?
  - Do you feel more confident implementing AT after attending this workshop?
  - Why do you feel this way?

## Synthesis

- How could this workshop be changed in order to make you feel more prepared or rather more likely to implement AT in your OT practice?
- Would it be easier to do in one setting over another (i.e., community-based, outpatient, inpatient, etc.)?
- How could you adapt the AT therapeutic process to meet each client's specific needs and wants?

## Evaluation

- Imagine you are writing a review for this workshop.
  - What type of audience(s) would enjoy this workshop?
  - Why is this information relevant to OTs practicing in mental health settings?
  - What improvements would you suggest?

## Summary

- Review objectives
- Highlight key takeaways from each presentation

Questions?

# References

Bloom, B. S. (1956). "Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain." New York: David McKay Co Inc.

**Name: ____________________**

**POST-TEST**

**Fill out AFTER seminar on Occupational Therapists' role in Adventure Therapy**

Please circle the letter for the BEST answer to each question.

**(1) What is the formal definition for AT?**

A. There is not a formal definition for AT
B. Learning that takes place in an outdoor setting
C. Outdoor adventure-based activities to create psychosocial changes within a person
D. All of the above

**(2) AT is mainly directed towards what population?**

A. Old adults with physical disabilities
B. At risk adolescents and youth
C. Adults with mental health diagnoses
D. Old adults with mental health diagnoses

**(3) Which of the following professions is qualified to administer AT?**

A. Psychiatrist/ Counselor
B. OT
C. PT
D. A and B
E. All of the above

**(4) When would AT be an effective alternative treatment to traditional therapy services?**

A. When a client is not responding to traditional therapy services
B. When the OT is bored of treating clients in a clinical setting
C. When it is warm outside
D. None of the above

**(5) What theory or theories are commonly used to guide AT interventions?**

A. Experiential Learning Theory
B. Model of Human Occupation
C. Occupational Adaptation
D. ACB-R Model
E. A and D
F. A and B

**(6) What is the difference between hard and soft skills?**

A. Hard skills are instructional skills, facilitation skills, and organizational skills, whereas soft skills are technical skills, safety skills, and first aid and environment skills.
B. Soft skills are instructional skills, facilitation skills, and organizational skills, whereas hard skills are leadership styles, adherence to profession ethics, and experience-based judgement.
C. Hard skills are technical skills, safety skills, first aid and environment skills, whereas soft skills are instructional skills, facilitation skills, and organizational skills.
D. Soft skills are leadership styles, adherence to profession ethics, and experience-based judgement, whereas hard skills are technical skills, safety skills, and first aid and environment skills.

**(7) Most accidents within AT interventions occur due to which of the following?**

A. Therapist error, lack of rapport, and inappropriate environmental conditions
B. Inappropriate environmental conditions, client actions, and therapist error
C. Client actions, inappropriate environmental conditions, and lack of supplies
D. Therapist error, lack of proper training, and animal attacks

**(8) How do you determine if an AT activity is appropriate to implement with a client?**

A. Activity analysis and occupational profile
B. SWOT analysis
C. Semi-structured interview
D. Chart review and observation

**(9) Reflecting in-action and on-action are critical components of what AT theory/ model?**

A. ABC-R Model
B. CHANGES
C. Experiential Learning Theory
D. Goals, Readiness, Affect, Behavior, Body, and Stage of Development Model

**(10) Would you feel comfortable administering AT to a client who is not responding to traditional therapy services?**

A. Yes
B. No

**Name: ____________________**

**POST-TEST KEY (Correct Answers are Starred **)**

**Fill out AFTER seminar on Occupational Therapists' role in Adventure Therapy**

Please circle the letter for the BEST answer to each question.

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B. CHANGES
C. Experiential Learning Theory **
D. Goals, Readiness, Affect, Behavior, Body, and Stage of Development Model

**(10) Would you feel comfortable administering AT to a client who is not responding to traditional therapy services?**

A. Yes
B. No

# RESOURCES FOR ADVENTURE THERAPY

## ARTICLES


- Bowen, D. J., & Neill, J. T. (2013). A meta-analysis of adventure therapy outcomes and moderators. *The Open Psychology Journal*, 6(1), 28–53. doi.org/10.2174/1874350120130802000
- Jeffrey, H., & Wilson, L. (2017). New Zealand occupational therapists use of adventure therapy in mental health practice. *New Zealand Journal of Occupational Therapy, 64*(1), 32-38.


## BOOKS


- Gass, M.A., Gillis, H. L., & Russell, K.C. (2012). *Adventure therapy: Theory, research, and practice.* New York: Routledge.
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# Implementation of Workshop: Participant Handouts

# Contact Information

If you have any questions or if you are interested in finding out more information, you may contact:

**Ashley Cambronne, MOTS**

ashley.cambronne@und.edu

**Mikaela Karpen, MOTS**

mikaela.karpen@und.edu

# Occupational Therapy with an Adventurous Twist: A Workshop for Occupational Therapists

**Name: ____________________**

**PRE-TEST**

**Fill out BEFORE seminar on Occupational Therapists' role in Adventure Therapy**

Please circle the letter for the BEST answer to each question.

**(1) What is the formal definition for AT?**

A. There is not a formal definition for AT
B. Learning that takes place in an outdoor setting
C. Outdoor adventure-based activities to create psychosocial changes within a person
D. All of the above

**(2) AT is mainly directed towards what population?**

A. Old adults with physical disabilities
B. At risk adolescents and youth
C. Adults with mental health diagnoses
D. Old adults with mental health diagnoses

**(3) Which of the following professions is qualified to administer AT?**

A. Psychiatrist/ Counselor
B. OT
C. PT
D. A and B
E. All of the above

**(4) When would AT be an effective alternative treatment to traditional therapy services?**

A. When a client is not responding to traditional therapy services
B. When the OT is bored of treating clients in a clinical setting
C. When it is warm outside
D. None of the above

**(5) What theory or theories are commonly used to guide AT interventions?**

A. Experiential Learning Theory
B. Model of Human Occupation
C. Occupational Adaptation
D. ACB-R Model
E. A and D
F. A and B

**(6) What is the difference between hard and soft skills?**

A. Hard skills are instructional skills, facilitation skills, and organizational skills, whereas soft skills are technical skills, safety skills, and first aid and environment skills.
B. Soft skills are instructional skills, facilitation skills, and organizational skills, whereas hard skills are leadership styles, adherence to profession ethics, and experience-based judgement.
C. Hard skills are technical skills, safety skills, first aid and environment skills, whereas soft skills are instructional skills, facilitation skills, and organizational skills.
D. Soft skills are leadership styles, adherence to profession ethics, and experience-based judgement, whereas hard skills are technical skills, safety skills, and first aid and environment skills.

**(7) Most accidents within AT interventions occur due to which of the following?**

A. Therapist error, lack of rapport, and inappropriate environmental conditions
B. Inappropriate environmental conditions, client actions, and therapist error
C. Client actions, inappropriate environmental conditions, and lack of supplies
D. Therapist error, lack of proper training, and animal attacks

**(8) How do you determine if an AT activity is appropriate to implement with a client?**

A. Activity analysis and occupational profile
B. SWOT analysis
C. Semi-structured interview
D. Chart review and observation

**(9) Reflecting in-action and on-action are critical components of what AT theory/ model?**

A. ABC-R Model
B. CHANGES
C. Experiential Learning Theory
D. Goals, Readiness, Affect, Behavior, Body, and Stage of Development Model

**(10) Would you feel comfortable administering AT to a client who is not responding to traditional therapy services?**

A. Yes
B. No

# Introduction to Adventure Therapy: Presentation One

## Objectives

- Participants will demonstrate knowledge of the key elements of adventure therapy (AT).
- Participants will demonstrate the ability to differentiate between AT and wilderness therapy.
- Participants will demonstrate knowledge of the occupational therapy (OT) role in AT service delivery.
- Participants will demonstrate knowledge of the OT role in mental health service delivery.

## Adventure Definition

- "An undertaking usually involving danger and unknown risks"
- "An exciting or remarkable experience"

(Merriam-Webster Incorporated, 2018).

(Srivastava, n.d.)

## Adventure Activities

- Adventure activities are experiences that challenge a person physically and psychologically, and occur within a natural environment, whether outdoor or indoor.
(Richards & Peel, 2005; The Council on Accreditation, 2010)
- Adventure activities may include:
  - Rock climbing and ropes courses
  - Kayaking and surfing
  - Snowshoeing
  - Backpacking and hiking
  - Archery
- A majority of people do not engage in adventure activities on a daily basis, but these types of activities have the potential to facilitate personal change and increase quality of life.
(Levack, 2003)

## AT

- AT is "the prescriptive use of adventure experiences provided by mental health professionals, often conducted in natural settings that kinesthetically engage clients on cognitive, affective, and behavioral levels"
(Gass et al., 2012, p. 1)
- It is important to note that the word prescriptive is utilized to describe the power to heal, restore, or prevent without doing harm while utilizing a mental health approach
(Gass et al., 2012)
- ***Purpose of AT:*** is to build trust, develop interpersonal or intrapersonal awareness and skills, and develop processing skills to create insight to creating and/or facilitating positive changes to address underlying problems
(Ritchie, Patrick, Corbould, Harpen & Oddson, 2016; Scheinfeld, Rochlen, & Buser, 2011)

## AT Elements

- AT elements are often included in AT definitions to set it apart from and/or link it to other therapeutic approaches
(Gass et al., 2012)
- Examples of AT elements include:
  - Positive role of nature during healing process of therapy
  - Positive use of stress and/or eustress during an adventure activity
  - Direct use of participation of the client, as well as responsibility of a client actively participating
  - Meaningful engagement in adventure activities including natural consequences
  - Facilitator should focus on positive changes that occur during and after intervention
  - Adhere to AT ethics before, during, and after facilitating adventure experience

(Gass et al., 2012)

## Wilderness Therapy (WT)

- Extensive outdoor adventures or expeditions used to promote personal change and growth

(Tucker & Norton, 2013)

- Encourages rehabilitation, therapy, education, personal reflection, primitive skills, and personal and interpersonal development

(Russell, 2001)

- ***Purpose of WT:*** to therapeutically address client problems by removing them from destructive environments that contribute to behaviors or other problems

(Russell, 2001)

## WT Elements

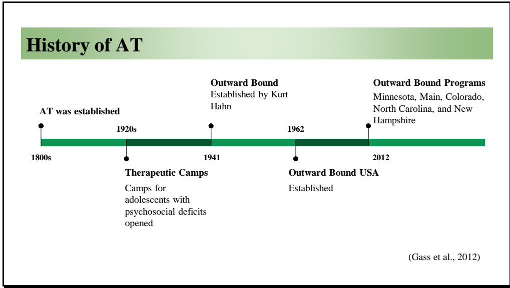
- Risk association
- Reflection and discussion
- Unfamiliar wilderness environments
- Natural consequences
- Physical exercise
- Survival skills and diet

(Russell, 2001)

## AT versus WT

**Similarities**

- Both lack a widely accepted definition
- Service delivery to adolescent mental health populations
- Overseen by a mental health practitioner
- Administered in individual and group settings




## AT Assumptions and Principles

- **Use of therapeutic metaphor**
  - Spontaneous
  - Analogous
  - Structured
- **Isomorphically framing the experience**

(Gass et al., 2012)

- **Reflection**
  - In action
  - On action
- **Novel Experiences**
  - Eustress

(Merriam, Caffarella, & Baumgartner, 2007)

## OT Assumptions/ Principles

- **Client-centered**
  - Power sharing
  - Listening and communicating
  - Partnership
  - Choice
  - Hope

(Sumsion & Law, 2006)

- **Occupation-based**
  - Function, form, and performance
    - Framework that guides clinical reasoning

(Hocking, 2001)

## Mental Health and AT

- AT was developed by the professions of psychotherapy, psychology, and counselling
- AT services are typically delivered by:
  - Psychologists, counselors, social workers, recreational therapists
- Occupational therapists are administering AT in New Zealand and Australia

(Jeffrey & Wilson, 2017)

- AT interventions aim to improve the following client skill sets:
  - Coping skills and insight
  - Intra and interpersonal skills
  - Self-efficacy and motivation
  - Problem solving

(Gass et al., 2012)

## Mental Health and OT

- Wide variety of practice settings for mental health
- Diverse range of mental health populations and diagnoses

("Occupational therapy's distinct value," 2017)

- OT Interventions improve occupational performance and performance skills
  - (Gibson, D'Amico, Jaffe, & Arbesman, 2011; Ikiugu, Nissen, Bellar, Maassen, & Van Peursem, 2017; "Occupational therapy's distinct value," 2017; Swarbrick & Noyes, 2018).

## OT Role in AT

- Unique training in activity analysis and environmental analysis
- Group facilitation skills
- Activity sequencing
- Occupation-based activities in a large variety of settings
- Education and training regarding psychology concepts

(Jeffrey & Wilson, 2017)

## Questions?

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# Theory and Ethics: Presentation Two

## Objectives

- Participants will demonstrate knowledge of common theories utilized for adventure therapy (AT) interventions.
- Participants will engage in discussion regarding the use of theories when implementing AT interventions.
- Participants will demonstrate knowledge of ethics within occupational therapy (OT) and AT in order to provide clients with safe and ethical services.

## Theory

## Common Theories Utilized in AT

1. Occupational Adaptation (OA)
2. Model of Human Occupation (MOHO)
3. ABC-R Model
4. Experiential Learning Theory

## OA

Concepts

- Relative mastery
- Adaptive capacity
- Press for mastery

(Grajo, 2017)

Assumptions/Principles

Application

## MOHO

Concepts

- Volition
- Habituation
- Performance Capacity

(Clifford O'Brien, 2017)

Assumptions/Principles

Application

## ABC-R Model

Concepts

- Affect, behavior, cognition, and relationships
- Integrative approach utilized to assess the client, as well as implement a plan of care

(Gass, Gillis, & Russell, 2012)

Assumptions/Principles

Application

## Experiential Learning Theory

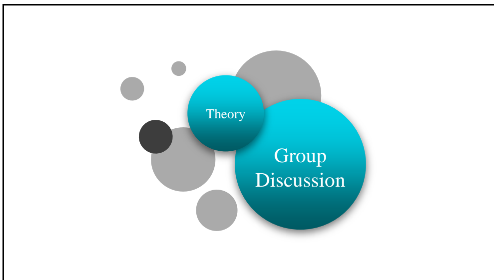
Concepts

- Active participation
- Novel activities and environments
- Reflection in-action
- Reflection on-action

Assumptions/Principles

Application to AT

(Merriam, Caffarella, & Baumgartner, 2007)



# Ethics

## Ethics in OT

OT Code of Ethics
- Beneficence
- Nonmaleficence
- Autonomy
- Justice
- Veracity
- Fidelity

OT Core Values
- Altruism
- Equality
- Freedom
- Justice
- Dignity
- Truth
- Prudence

("Occupational therapy code of ethics," 2015)

## Ethics in AT

- *Understand* personal values
- *Recognize* client's value system, as well as personal value system
- *Know* and adhere to ethical standards outlined by the profession of OT
- *Practice* decision making that is ethical by reviewing cases that ethically relate to your practice
- Continue to *advance* professional practice by completing continuing education, and through feedback while working clients

(Gass et al., 2012)

## Questions?

## References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# Education, Training, and Risk Management: Presentation Three

## Objectives

- Participants will be able to understand the importance of education and training for AT processes.
- Participants will understand the competencies required within the AT domain.
- Participants will understand the competencies for mental health and specific populations.
- Participants will recognize the importance of risk management training.

## Importance of Education and Training

- No formal certification for AT
- Standards that must be met:
  - Association for Experiential Education
  - Council on Accreditation
  - Joint Commission
  - Others specific to your school or facility
- Lack of education or training leads to:
  - Ethical dilemmas
  - Risks quality of care
  - Decreases client's safety

(Gass, Gillis, & Russell, 2012; "Training," n.d.)

## Education and Training Progression

1. Initial education and training courses
    a. Mental health diagnoses and symptoms
    b. Soft Skills
    c. Hard Skills
2. Observation of AT interventions
3. Participating/ facilitating supervised AT interventions
4. Attaining enough competence to practice independently

("Training," n.d.)

## Competency Levels

- **Emerging**: Individuals who have a basic understanding of the theories, procedures, and activities used when facilitating AT
    - Typically not practicing independently and have frequent supervision
- **Competent**: Individuals who can apply their understandings to facilitate standard AT processes and are proficient enough to work independently.
- **Exemplary**: Individuals who are consistent and effective throughout the all of the AT processes, integrate past experiences to make sound decisions, and serve as role models to other professionals who administer AT.

(Gass et al., 2012)

## Adventure Therapy Competencies

**Hard Skills** are technical skills, safety skills, first aid, weather knowledge, and environment skills

**Soft Skills** are instructional skills, facilitation skills, and organizational skills

**Meta-skills** are also necessary and include communication, leadership styles, adherence to professional ethics, problem solving and decision making skills, and experience-based judgement

(Gass et al., 2012; Jeffrey & Wilson, 2017)

## Adventure Therapy Competencies

10 Competencies most related to facilitating AT (Gass et al., 2012)

1. Effective listening and feedback
2. Debriefing and reflection
3. Group development stages
4. Transfer of learning
5. Client assessment
6. Treating difficult patients
7. Experiential learning
8. Processing skills
9. Integration strategies
10. Solution oriented processing

## Adventure Therapy Competencies

Continuum for types of AT intervention:

- Recreation
- Education
- Enrichment
- Adjunctive Therapy
- Primary Therapy

(Gass et al., 2012)

## Mental Health Competencies

- Mental health diagnoses and related symptoms
- Conceptual foundations
- Therapeutic relationships
- Evaluation
- Intervention planning and implementation
- Termination
- Cultural and ethical sensitivity

(Berman & Davis-Berman, 2013; Jeffrey & Wilson, 2017; Gass et al., 2012)

## Specific Therapeutic Population Competencies

- Admission
- Assessment
- Ongoing treatment planning
- Intervention implementation
- Documentation
- Case management
- Discharge
- Legal, ethical, and professional standards and growth
- Theories, models, and frames of references
- Reflective practice techniques

(Gass et al., 2012)

## Risk Management

- Physical Risk
- Psychological Risk
- Medication Risks
- Restraints/ Therapeutic Holds
- Runaways
- Client/Therapist Injuries or Illnesses

(Gass et al., 2012)

## Questions?

## References


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# Research and the Future of AT: Presentation Four

## Objectives

- Participants will be able to identify strengths and weaknesses of adventure therapy (AT)
- Participants will demonstrate knowledge of current AT literature

## Current Research

- A majority of existing research is being done within the fields of psychology, social work, counseling, and recreational therapy

(Jeffrey & Wilson, 2017)

- Youth and adolescents are primary populations receiving adventure therapy (AT) interventions within the United States

(Ritchie, Patrick, Corbould, Harper, & Oddson, 2016)

## The Future of AT

- Accessibility
- Training competencies
- Internal professionalism
- Training
- Risk management
- Recognition by others
- Adherence to ethical standards

(Gass, Gillis, & Russell, 2012)

## The Future of OT and AT

- Increase recognition by others
- Increase training competencies

## Questions?

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# Archery

***This template is adapted from:***

Occupation-Based: Activity Analysis, Second Edition, SLACK Incorporated, 2015
By Dr. Heather Thomas

## Step 1: Archery Awareness

## Key Terms

- ***Armguard***- "A casing for the forearm and sometimes upper arm of an archer to protect against the effects of the bowstring slapping against the clothing or flesh." (James, 2017b).
- ***Release aid-*** "A mechanical tool used for pulling the bowstring thereby enabling a better release" ("Archery Terms Glossary," 2018).
- ***Arrow-*** "A shaft of wood, carbon or fiberglass sharpened at the front with feathers or vanes at the back, shot from a bow as a weapon or for sport." (James, 2017b).
- ***Bow-*** "A curved piece of wood or fiberglass whose ends are joined with a taut string used for shooting arrows." (James, 2017b).
- ***Draw-*** "The act of pulling a bowstring back in readiness to shoot an arrow." (James, 2017b).
- ***Draw weight-*** "The force which must be exerted in order to hold a bow in the drawn position." (James, 2017b).
- ***Eye Dominance-*** "Refers to the dominant eye of an archer" (James, 2017b).
- ***Nock-*** "The groove at the end of the arrow where it fits onto the bowstring." (James, 2017b).

The objective of archery is to hit the bullseye of intended target. This activity can be done individually or with a group of people.

This activity would be done in a standing position, however it is possible to sit down. The client must stand with feet shoulder width apart. It is important that the client maintains an upright position (i.e., does not lean too far forwards or backwards). It is important that eye dominance is determined prior to participating in archer in order to know which eye to predominately use. The bow is held in the client's non-dominant hand. The string is retracted with the dominate hand. When retracting the string, the client's knuckles are positioned at approximately a 45 degree angle to the floor. The client would use the tip of the arrow to aim the bow. Positioning may vary depending on the type of bow used and the height of the client.

("Archery", n.d.; James, 2017a)

**Step 2: Steps required to complete the activity**

11. Gather the archery equipment and ensure that targets are set up
12. Scan the environment for other people or objects within shooting range to ensure safety
13. Take the preferred archery stance
14. Lift and position the bow
15. Place the arrow on the nock and draw the bow back in order to aim at the target
16. When the archer is aimed at the target, the archer can release and shoot the arrow
17. Repeat steps 2 through 6 until ready to retrieve arrows
18. Before retrieving arrows, it is important that the archer scans the environment again to determine if the range is clear and that other archers are not actively shooting
19. Retrieve arrows
20. Repeat the process as desired

**Step 3: Activity Demands**

***Objects required:*** The archer would need a bow, arrow, target, and an armguard. Also, gloves or a release tab may be beneficial. It is recommended that beginners use a traditional bow. Examples are, but not limited to a longbow and a recurve bow.

(“Discover archery,” 2018)

***Space required:*** The archer needs enough space to be able to position his or her body and the bow. This space is approximately 4x4 feet. In addition, the space from the archer to the target must also be taken into consideration, as it will vary depending on the difficulty of the target or the skill of the archer.

***Social demands:*** Archery can be completed independently or with others. If completed with others, social communication is required to communicate safety measures. For example, warning other archers that you are going to shoot is important, so that they do not walk in front of you or onto the shooting range. It is also important to demonstrate sportsmanship when in a competition.

***Environments:*** The environment will depend on the type of archery the client is engaging in. The types of archery are as follows: target, field, 3D, traditional, and bow hunting. Target practice could be done indoors or outdoors. If hunting, it is unlikely that you would be at a shooting range. This activity can be done individually or in groups.

(James, 2017a)

***Context:*** Clients can participate in archery throughout the year as it can be done inside or outside. If an individual likes to bow hunt, they will have to review open season guidelines specific to the animal they are wanting to hunt. Archery may take on a cultural meaning depending on if the client engages in target practice to prepare for hunting season and if family values revolve around bow hunting in general. This activity can be virtually simulated.

(James, 2017a)

*Performance Skills:*

| Occupational Therapy Practice Framework (OTPF) Performance Skills | Rationale | Level of Skill Simple to Complex 1 | 2 | 3 |
|---|---|---|---|---|
| **Motor Skills** | | | | |
| ***Positions*** | It is important that the archer is able to position himself or herself at a proper distance from the target, position his or her body in a correct shooting form without requiring to prop himself or herself up, and position the bow correctly in order to maintain safety and result in optimal outcomes. | | X | |
| ***Stabilizes*** | The archer needs to be able to maintain balance of his or her body when shooting and navigating the environment, as well as maintain the balance of the bow. | X | | |
| ***Grips*** | The grip utilized during archery needs to be effective in preventing the bow and arrow from slipping. In addition, the grip needs to be able to hold the bow steady when shooting an arrow at a target. | | X | |
| ***Manipulates*** | The archer needs fine motor finger movements in order to maneuver the string of the bow effectively, preventing accidents (e.g., early arrow release) and ensuring proper performance. | | X | |
| ***Coordinates*** | It is important that the body moves swiftly when drawing the bow and releasing arrows. Fluidity will allow for increased stabilization, increased efficiency, and typically increased accuracy. This is because all of the body parts and archery objects move together as a whole. | | | X |
| **Process Skills** | | | | |
| ***Attends*** | It is crucial that all archers have an adequate attention span, so that the task can be completed safely with regard for self and other individuals engaging in the activity. Archers can take breaks as needed as the activity is flexible (i.e., the archer can take a break after shooting two arrows or shooting eight arrows). | X | | |

| | | | | |
|---|---|---|---|---|
| ***Uses*** | The archer needs to be able to properly utilize archery equipment (i.e., using it as a tool to hit target, not as a weapon to harm others). | | X | |
| ***Heeds*** | It is important that the archer completes the archery activity in the way that was specified by either the occupational therapist or shooting range personnel in order to maintain safety of all individuals, but also to result in successful completion of the activity (i.e., hitting target with arrow). | X | | |
| ***Handles*** | The archer needs to be able to support the archery equipment appropriately in order to prevent damage of the equipment (i.e., knowing how to safely store it when not using or putting away in appropriate case as opposed to setting on ground when done shooting). | | X | |
| ***Paces*** | It is important that the archer maintains a consistent tempo when beginning the sequence of shooting an arrow, as smooth transitions from one step to the next are a crucial component to the success of archery. | | | X |
| **Social Interaction Skills** | | | | |
| ***Regulates*** | It is crucial that the archer regulates his or her emotions, so that impulsive behaviors or unsafe behaviors are prevented. Emotions are likely to be challenged during the activity, especially if the archer is competitive. For example, the archer may become angry if they are not satisfied with his or her performance. | | X | |
| ***Expresses Emotion*** | The archer must be able to display or verbalize emotions appropriately to others when becoming frustrated, overwhelmed, or discouraged by the activity. | | X | |
| ***Questions*** | The archer needs to inquire about information relevant to archery in order to obtain optimal outcomes, maintain safety, and learn the skills of archery in general. | X | | |

***Client Factors (Body Functions and Structure):***

| OTPF Client Functions | Rationale | Level of Skill Simple to Complex 1 | 2 | 3 |
|---|---|---|---|---|
| **Body Functions** *Mental Functions: Higher-level cognitive, attention, memory, perception, thought, mental functions of sequencings complex movement, emotional, experience of self and time.* | | | | |
| ***Attention*** | Attention is required for archers to concentrate on aiming the arrow and maintaining safety. Therefore, archers need to be able to disregard irrelevant distractions. | X | | |
| ***Higher-level Cognitive*** | Higher-level cognitive functions are required, so that the archer can remember instructions, plan how to strategize or aim, and problem-solve to increase performance outcomes. In addition, judgement is required to maintain safety and to strategize how to hit the target. | | X | |
| ***Emotional*** | The archer needs to be able to display appropriate emotions and regulate emotions, such as when he or she is having a difficult time hitting the bullseye. | | X | |
| ***Orientation*** | The archer needs to be oriented to the place, so that he or she can navigate the space and/or land. Orientation to self and others is important because spatial orientation is necessary to maintain safety standards. Lastly, orientation to time is important due to awareness of time of day. | X | | |
| ***Temperament and Personality*** | The archer needs to have self-control and impulse control, emotional stability, and openness to new experiences. | | X | |
| **Sensory functions** | | | | |
| ***Visual*** | The archer needs to have adequate visual acuity, with or without visual correction, to aim at the target from a distance. | X | | |
| ***Vestibular*** | The archer needs to have awareness of his or her position when standing or moving to maintain balance. | X | | |
| ***Proprioception*** | Awareness of the archer's body position in space is important in order to properly execute and participate in archery. | X | | |
| ***Touch*** | Touch is an important sensory function due to the requirement of the archer to manipulate the bow, arrow, bow string, and pay special attention to tactile sensation of the bow string before shooting an arrow. This allows for the archer to withdraw | | X | |

| | his or her fingers from the string at the appropriate time. | | | |
|---|---|---|---|---|
| ***Hearing*** | The archer needs to have adequate hearing functions in order to detect specific sounds and discriminate sounds, such as the arrow hitting the target, hearing safety whistles, and other individuals or objects within range. | | X | |

**Complexity**: Specific components of archery may be complex pending the client's capabilities. A variety of skills are required to successfully engage in archery and there is a high degree of structure, however the activity can be graded. For this reason, the overall complexity of the activity is moderate depending upon the type of archery selected (target, field, 3D, traditional, bow hunting, etc.) and the client.

**Safety Precautions:** Since a bow and arrow are considered to be a weapon, there are many safety precautions to consider. It is important for an archer to keep the bow string free of loose clothing or jewelry. No matter the environment it is always recommended that each archer knows the predetermined set of whistle calls so that they realize when to draw down their bow, such as in an emergency (Disabled Sports USA, n.d.). In addition, whistle calls will communicate to archers when they can resume shooting or should withdraw from the shooting arena.

("Archery," n.d.)

Another safety precaution is to be mindful of other individuals within the area or on the shooting range. This is important both when shooting an arrow and when retrieving an arrow. In addition, individual's mood stability must be monitored for safety reasons, especially for individuals who have a tendency to be impulsive or have drastic mood swings. Lastly, it is important that archers pay attention to weather conditions, especially when in the wilderness. Strong storms and lightening can pose as major safety risks, so archers should be educated on the important of weather impacts prior to participating in archery.

("Discover archery," 2018)

**Grading the Activity:** Archery can be graded by changing the target difficulty, such as changing the size of the target, distance to the target, or changing the target to be moving rather than static. The bow itself can be graded due to the complexity of the bow chosen, as well as the difficulty of the draw weight. Lastly, the archery experience can be made more challenging by shooting in various weather conditions, such as shooting in moderate wind, fog, cold temperatures, rain or snow. However, special safety precautions should be taken when participating in these weather conditions.

**Adaptations:** Archery can be adapted for clients who have a physical limitation. Archery is commonly completed standing up; however, it can also be completed by sitting or by using a brace or mount to prop the bow in the appropriate position for the client. Self-drawing crossbows and prosthetic devices are also available to increase ease of participation for individuals who have a physical limitation that hinders engagement. Wheelchair platforms or off-roading devices

may also be utilized to increase access to archery ranges. There are many more adaptations that may be implemented that can be found at local archery shops or online.

("Archery," n.d.)

## Step 4: Analysis for Therapeutic Intervention

**Scenario Archery:** Sally is a 28-year-old female who was diagnosed with panic disorder at the age of 25. Sally is in occupational therapy because she has been avoiding going to work as a journalist. She has worked as a journalist for eight years. Over the past 30 days, she has missed 14 days of work. Her employer has been informed of her diagnosis, however stated that he cannot keep allowing her to miss work days, as it is not fair to other employees, and she is not meeting her deadlines. Sally recalls feeling well until a little over a month ago, when she had a panic attack while at work due to increased job demands. Typically, Sally must write approximately eight columns each week. To get the information for her columns, Sally must interview community members, and collaborate with supervisors overseeing her work. Approximately one month ago, Sally's colleague, Donald, transferred over to entertainment due to a higher need for writers on this topic. As a result, Sally was encouraged to take over Donald's columns in addition to her own. Initially, she kept up with her new workload, however had to stop participating in other activities outside of work to ensure she could get all of the columns to her supervisor on time. A new employee has been assigned to Sally's department to offset her workload, however Sally is still fearful she will have another panic attack at work despite the decreased workload. For this reason, she avoids going to work on the days she feels as though she may have a panic attack. Sally stated that having the panic attack at work was one of the most embarrassing experiences to have happened to her. Through evaluation, it becomes clear that Sally highly values her job as a journalist, however her recent panic attack has left fearful of her work environment in general. Additionally, Sally is having difficulties participating in leisure activities, as she is fearful she might have a panic attack while out in the community. She has been spending a majority of her time in her apartment watching TV.

**Rationale/Justification**:

- **Sequencing and Timing:** Sally demonstrates the ability to attend to tasks as she has successfully held the same job and completed work demands for eight years. Despite feeling overwhelmed, Sally successfully prioritized tasks to complete all of the columns assigned to her. Therefore, sequencing the steps and tasks specific to archery will match Sally's skills and abilities.

- **Complexity:** Sally's must demonstrate the ability to organize and prioritize work tasks in order to successfully complete job demands. If work demands are not properly sequenced problems may arise. Sally has not reported having difficulties sequencing tasks, therefore the moderate-difficult complexity of archery matches Sally's abilities.

- **Activity Demands:** Sally demonstrates the ability to manage time, as evidenced by her ability to organize and prioritize work tasks to successfully complete her weekly job demands. Although in the past Sally has successfully met work deadlines, Sally was not budgeting time to participate in leisure activities that she enjoyed. Now, Sally is having difficulties with organizing and prioritizing, therefore, she has not been meeting work

deadlines. Also, Sally is currently not participating in leisure activities, regardless of her decreased job demands. Sally is experiencing these difficulties due to her overwhelming fear and anxiety of having another panic attack when out in the community. Archery can be used to create correlations between how Sally maladaptively copes when she is feeling panicked. For example, the activity is completed with the occupational therapist at a shooting range, so Sally may fear having a panic attack around the therapist and/or other archers at the range. Working through such factors may be physically, mentally, and emotionally challenging. Archery will encourage Sally to channel her fear of a panic attack in a public setting through exploring and implementing adaptive coping strategies.

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# Kayaking

***This template is adapted from:***

Occupation-Based: Activity Analysis, Second Edition, SLACK Incorporated, 2015
By Dr. Heather Thomas

## Step 1: Kayaking Awareness

### Key Terms

- ***Paddle-*** "A shaft with two blades on either end that a paddler uses to maneuver his/her kayak" ("Kayak Terminology," 2018).
- ***Paddle leash-*** A rope or bungee cord that connects your paddle to your kayak or life jacket to secure the paddle in the case of an incident ("Why you want a paddle leash for your kayack," n.d.). For example, if a kayaker drops the paddle, the paddle leash will prevent the paddle from drifting away.
- ***Personal flotation device –*** "Lifejacket" or device to keep you afloat in case the kayak is tipped over or you fall out ("Kayak Terminology," 2018).
- ***Spray skirt-*** "a flexible material with a hole for your torso that attaches to the combing of a closed cockpit kayak. Its purpose is to prevent water from entering the kayak while paddling by creating a watertight barrier" ("Kayak Terminology," 2018).

The objective of kayaking is to maintain three points of contact while maneuvering the kayak about a body of water, with a paddle. This activity can be done individually or in a group.

The kayaker will be seated in the kayak in a long sit, so that their legs are outstretched and relaxed. The feet should be upright, however can be slightly plantar flexed if that is more comfortable. The kayaker will lightly grasp the paddle to prevent excessive flexion of the wrist. The kayaker's arms should be positioned slightly more than shoulder width apart and their knuckles are too align with the blades of the paddle. Positioning of arms will change as muscle groups become fatigued (i.e., can become narrower in distance).

("Animated kayaking technique tutorials," 2014; "Expert advice: Kayaking," 2018)

**Step 2: Steps required to complete the activity**

6. Borrow, rent, or purchase a kayak, paddle, and personal floatation device
7. Gather clothing and personal items
8. Consider safety precautions
9. Launch the kayak into the water
10. Use the paddle to navigate the kayak in the water

**Step 3: Activity Demands**

***Objects required:*** The kayaker will need a kayak, one paddle, paddle leash, signaling whistle, water, snacks, and a personal flotation device. It may also be necessary to obtain a wetsuit and water shoes pending weather conditions, otherwise the kayaker may use a spray skirt if he or she is trained to properly exit the spray skirt in an emergency. It is important that the kayaker packs quick dry clothing for layering. For example, a dry fit shirt, insulated fleece shirt or sweatshirt, rain coat that is wind and water resistant, and a hat. Kayaker will also want to bring a change of clothes in a dry sack depending on how long they intend on being out on the water. Sunglasses, a hat and/or a helmet, and sunscreen are also recommended.

(“Expert advice: Kayaking," 2018; “Kayak gear list", 2018)

***Space required:*** The immediate space required to kayak is related to the length of the kayak, typically around six feet in length (“Expert advice: Kayaking,” 2018). Width is determined by the length of the paddle, which depends on the height of the kayaker. The average length of a paddle is 23 inches (“Paddle sizing guidelines,” n.d.). In addition, space is required to navigate the kayak, which will vary depending on the preference of the kayaker, ranging from a pool or small pond to a large lake or ocean.

***Social demands:*** Kayaking can be done independently or with others. When participating with others, it is important to be able to communicate about kayaking plans, navigation changes, and upcoming obstacles.

***Environments:*** Kayaking can be done in a pool, river, lake, pond, or ocean. This activity can be sedentary or done in a group. It is recommended that kayaking is done during daylight hours. Usually, water temperatures and conditions are more important factors in the environment than the weather itself. With that being said, kayakers should refrain from going out during storms and heat advisories.

(“Expert advice: Kayaking," 2018)

***Context:*** Individuals can participate in this activity across the lifespan. It is best if done in the summer, late spring, or early fall during daylight hours. The kayaker can set the pace and duration of the activity. There is a kayaking culture, as there are multiple kayaking communities across the country.

*Performance Skills:*

| Occupational Therapy Practice Framework (OTPF) Performance Skills | Rationale | Level of Skill Simple to Complex 1 | 2 | 3 |
|---|---|---|---|---|
| **Motor Skills** | | | | |
| ***Positions*** | The kayaker must demonstrate the ability to properly position his or her body inside the kayak, as well as the kayak in general. Proper positioning of the kayak will prevent the kayaker from crashing into other objects in the water. | | X | |
| ***Stabilizes*** | The kayaker must demonstrate ability to maintain upright position to paddle through the water. The inability to stabilize oneself may result in tipping of the kayak or falling out of the kayak. | X | | |
| ***Grips*** | The kayaker's grip on the paddle must be maintained, so that the paddle does not fall into the water. | X | | |
| ***Coordinates*** | The kayaker must coordinate movements of the upper extremities to successfully maneuver the paddle through the water and to propel the kayak forwards. | | X | |
| ***Aligns*** | The kayaker's body alignment should be centered. If the kayaker leans too far to one side of the kayak, the kayak may tip or the kayaker may fall out. | X | | |
| **Process Skills** | | | | |
| ***Attends*** | The kayaker must attend to paddling, and his or her surroundings when paddling the kayak to prevent collisions with other objects in the water. The kayaker can take breaks, however it is important that they continually attend to the environment even when resting, to pick up on any changes within the environment. | | X | |
| ***Initiates*** | The kayaker must maneuver the paddle in a smooth pattern to successfully propel the kayak. Each stroke of the paddle must be initiated without hesitation if the client wants to continually progress in one direction. | X | | |
| ***Navigates*** | The kayaker must have the ability to propel the kayak through the water and successfully avoid or move around obstacles in the water. Obstacles are, | | X | |

| | | | | |
|---|---|---|---|---|
| | but limited to: boats, other kayakers, rocks, and driftwood. | | | |
| ***Uses*** | The kayaker must use paddle appropriately to avoid breaking the paddle or being unable to propel the kayak. | X | | |
| ***Inquires*** | The kayaker must demonstrate the ability to ask questions when unsure of what to do while kayaking. It is important that kayaker is fully oriented to the task before venturing out on their own. | X | | |
| **Social Interaction Skills** | | | | |
| ***Regulates*** | It is crucial that the kayaker regulates his or her emotions, so that impulsive behaviors or unsafe behaviors are prevented. Emotions are likely to be challenged during the activity. For example, if the kayaker prefers to feel in control they may feel vulnerable out in open water. | | X | |
| ***Expresses Emotion*** | The kayaker must be able to display or verbalize emotions appropriately to others when becoming frustrated, overwhelmed, or discouraged by the activity. | X | | |
| ***Questions*** | The kayaker needs to inquire about information relevant to archery in order to obtain optimal outcomes, maintain safety, and learn the skills of kayaking in general. | X | | |

***Client Factors (Body Functions and Structure):***

| **OTPF Client Functions** | **Rationale** | **Level of Skill Simple to Complex** 1 | 2 | 3 |
|---|---|---|---|---|
| **Body Functions** *Mental Functions: Higher-level cognitive, attention, memory, perception, thought, mental functions of sequencings complex movement, emotional, experience of self and time* | | | | |
| ***Attention*** | Kayakers need to have an adequate level of attention to concentrate on navigating around obstacles and executing proper kayaking form; however, kayakers can take breaks as needed. With that being said, when taking a break, a kayaker must still have some attention devoted to dangerous obstacles, such as a boat. | | X | |
| ***Higher-level Cognitive*** | Higher-level cognitive functions are required, so that the kayaker can remember instructions and strategies involved with kayaking, plan a kayaking trip, navigate the water, and problem-solve to increase performance outcomes. | | X | |
| ***Emotional*** | The kayaker needs to be able to regulate emotions that are experienced, as well as display appropriate emotions. For example, it may be difficult to navigate the water due to obstacles, however the kayaker must remain calm and appropriately respond to the situation at hand. | | X | |
| ***Orientation*** | The kayaker must be oriented to the place in order to navigate or follow a predetermined plan, as well as to be able to get back to the starting point. The kayaker must be oriented to time so that he or she can terminate the kayaking activity before dark or before a predetermined time. Lastly, the kayaker must be oriented to self and others to navigate in a group and avoid moving obstacles, such as a boat. | | | X |
| ***Temperament and Personality*** | Self-control over impulsivity, emotional stability, self-expression, and openness to new experiences are needed for a kayaker. In addition, the kayaker needs an adequate amount of confidence since a beginning kayaker may feel vulnerable on the water. | | X | |

| Sensory functions | | | | |
|---|---|---|---|---|
| ***Visual*** | The kayaker must have a have adequate visual acuity, with or without visual correction, to navigate themselves in the water or around obstacles. | X | | |
| ***Vestibular*** | Vestibular functions are important in order to maintain an upright posture, maintain proper lower body positions, and maintain balance to refrain from tipping the kayak over. | | X | |
| ***Proprioception*** | Awareness of the kayaker's body position in space are important in order to properly execute necessary movements to move and steer the kayak in relation to other obstacles or kayakers. | X | | |
| ***Touch*** | Touch functions are important for feeling that the kayaker is in the correct position in the kayak and to grip the paddle. | X | | |

**Complexity**: Specific components of kayaking may be complex pending the client's capabilities. A variety of skills are required to successfully engage in kayaking and there is a moderate degree of structure, however the activity can be graded. For this reason, the overall complexity of the activity is moderate to difficult pending the type of water body, weather patterns, amount of obstacles, and overall capabilities of the client.

**Safety Precautions:** If safety measures are not followed, injury may occur. It is important that kayakers are able to swim. Even if the kayaker is able to swim they should always wear a lifejacket. It is also important that the kayaker plans out their route prior to engaging in the activity. This will either prevent the kayaker from getting lost or assist them in navigating themselves back to the intended route if they do get lost. As a rule of thumb, kayakers should never paddle a distance that they would not be able to swim back to shore. The kayaker should also analyze the terrain before and during kayaking. Dangerous obstacles are, but not limited to: boats, other kayaks, rocks, waves, currents, tides, and vegetation. Lastly, the kayaker must be aware of the weather before and during the activity. Kayaking in extreme heat can result in heat exhaustion and sunburn, whereas cold weather can cause hypothermia if the kayaker falls in or gets wet. The kayaker should also be aware of the water temperature for this reason.

("Expert advice: Kayaking," 2018)

**Grading the Activity:** This activity can be graded through selection of bodies of water. It is recommended that beginners kayak in ponds or lakes, as they are typically calmer than larger bodies of water like rivers or oceans. Also, a tandem kayak can be utilized if the individual is not comfortable kayaking on their own. This decreases the likelihood that the kayaker would get lost during the outing or accidentally tip their kayak. Lastly, the amount of time spent on the outing can be individualized. For example, kayakers with lower endurance can take trips under one hour, whereas kayakers with higher endurance may prefer to go out for two hours.

**Adaptations:** It is important that the kayaker maintains three points of contact while engaging in this activity. The three points are: small of back against seat back, bent knees to either side of the kayak, and pads of feet against pedals or front wall of the kayak. If an individual has difficulties maintaining three points of contact modifications can be made to the kayak or paddle to ensure the kayaker's stability. Kayaking can be adapted to meet the needs of the following individuals: upper and lower extremity amputees, individuals with balance issues, individuals with spinal cord injuries, individuals with total paralysis, and individuals with visual impairments. It is important to note that list is not exhaustive. For amputees, special prostheses can be used, foam and airbags, a hammerhead hand adaptation, and a one armed paddling rig. Each adaptation allows the kayaker to maintain three points of contact. A special seat, outriggers, foam, and airbags may be required for individuals with poor balance or a spinal cord injury to maintain contact. Individuals who are paralyzed would not be able to independently maintain all three points of contact. For this reason, a tandem kayak may be useful. Lastly, it may be necessary to utilize a tandem kayak with an individual who is visually impaired.

("Kayaking," n.d.)

**Step 4: Analysis for Therapeutic Intervention**

**Scenario Kayaking:** Brittany is a 21-year-old female who was diagnosed with borderline personality disorder three years ago. She was attending a four-year college pursing a degree in early childhood education. Recently, she made an impulsive decision to drop out despite having a 3.4 GPA. She reportedly told her mother that her professor for her infant and toddler class routinely kicked her out of class for no reason. Brittany's mother was concerned by Brittany's quick decision to drop out, so she contacted her professor to discuss the incident. The professor stated that Brittany frequently made inappropriate comments during lecture, and frequently became verbally angry with the professor when he asked her to stop making inappropriate comments. Additionally, her friend Denise has moved out of their shared apartment because Brittany frequently got mad at Denise for spending too much time with her boyfriend. This resulted in rapid emotional shifts when Brittany and Denise were together. Through evaluation, it becomes clear that Brittany was doing well in her college courses, but was struggling to maintain interpersonal relationships. Furthermore, she has a low frustration tolerance and her affect is not appropriate to the situation when conflict arises. Brittany values her education and has indicated that she would like to return, however does not believe that she can move forward in her education without having Denise as a friend. Brittany's motor and sensory skills are adequate.

**Rationale/Justification**:

- ***Sequencing and Timing:*** Brittany demonstrates the ability to attend to tasks, as evidenced by successfully completing three years of college coursework. Her recent decision to drop out was not because coursework was difficult, rather due to difficulties with interpersonal relationships. When kayaking, Brittany must be able to attend to maneuvering the kayak about the water, her location before and during the activity, changing weather patterns, and obstacles in the water. Shifting attention from each of the factors listed will match Brittany's ability, as she had successfully attended to multiple classes at a time while enrolled at the university.

- ***Complexity:*** Brittany is intellectually bright, as evidenced by her ability to excel in college coursework for three years, so the unpredictability and complexity of kayaking will match Brittany's ability.

- ***Activity Demands:*** Brittany demonstrates the ability to problem solve, as evidenced by her ability to prioritize and complete the coursework assigned to her while enrolled in college classes. She formed one interpersonal relationship with her friend Denise, however struggled to maintain this relationship due to difficulties with emotional regulation. Due to having difficulty regulating emotions, Brittany often uses anger to express how she is feeling. When Brittany is unable to problem-solve how to resolve a conflict, she acts impulsively. Kayaking can be used to create correlations between how Brittany responds to unpredictable challenges in her everyday life. There are many unpredictable factors to be taken into consideration while kayaking. For example, Brittany will have to problem-solve how to work through changing weather patterns and obstacles in the water. Working through such factors may be physically, mentally, and emotionally challenging. Brittany struggles with impulsivity when challenges arise, so she may decide she wants to give up. Kayaking will encourage Brittany to face challenges head on and make connections between how she is responding in that moment and how she typically responds to challenges in her everyday life.

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# Bouldering and Top Rope Climbing

(Within a controlled indoor climbing gym)

***This template is adapted from:***

Occupation-Based: Activity Analysis, Second Edition, SLACK Incorporated, 2015
By Dr. Heather Thomas

## Step 1: Bouldering and Top Rope Climbing Awareness

**Key Terms as defined by:** Disabled Sports USA

- ***Holds:*** "Places on the wall or within the rock where a climber places their hands and feet."
- ***Harness:*** "A security belt that all climbers wear, which loops around both legs and their waist. The harness is connected to the climbing rope via a carabiner."
- ***Belay:*** "A metal device that the climber's rope is threaded through which is used to secure the climber and help ensure a controlled climb and descent. The person controlling the belay is referred to as the belayer."
- ***Top-Roping:*** "A type of climbing where the climbing rope runs through a carabiner attached to a bolt in the ceiling of the gym, or top of the rock climbing wall. Most indoor climbing is done by top-roping."
- ***Bouldering:*** "Close to the ground climbing, without a rope, where the climber only goes as high as they could jump off without risking injury."
- ***Rapelling:*** "A controlled slide down to the ground."

("Rock Climbing," n.d.)

The objective of bouldering and top rope climbing is to successfully ascend a predetermined route of hand and footholds. This activity can be done individually or with a group of people.

The climber starts by placing their feet or hands on the lowest hand or foothold on the wall. They can choose how they want to position their hands or feet and whether they want to use their leg or arm strength to move upwards. The climber stays in a vertical direction throughout the duration of the climb. It is important that the climber stays as close to the wall as they possibly can. Positioning of the body will change as the climber ascends the wall.

## Step 2: Steps Required to Complete the Activity

## Step 3: Activity Demands

***Objects required:***

***Space required:***

***Social demands:***

***Environments***:

***Context***:

*Performance Skills:*

| **Occupational Therapy Practice Framework (OTPF) Performance Skills** | **Rationale** | **Level of Skill Simple to Complex**<br>**1** | **2** | **3** |
|---|---|---|---|---|
| **Motor Skills** | | | | |
| ***Positions*** | | | | |
| ***Endures*** | | | | |
| ***Stabilizes*** | | | | |
| ***Flows*** | | | | |
| ***Grips*** | | | | |
| **Process Skills** | | | | |
| ***Attends*** | | | | |
| ***Initiates*** | | | | |
| ***Sequences*** | | | | |
| ***Searches/Locates*** | | | | |
| ***Notices/Responds*** | | | | |

| Social Interaction Skills | | | | |
|---|---|---|---|---|
| ***Questions*** | | | | |
| ***Replies*** | | | | |
| ***Clarifies*** | | | | |
| ***Discloses*** | | | | |

***Client Factors (Body Functions and Structure):***

| **OTPF Client Functions** | **Rationale** | **Level of Skill Simple to Complex** 1 | 2 | 3 |
|---|---|---|---|---|
| **Body Functions:** *Mental Functions: Higher-level cognitive, attention, memory, perception, thought, mental functions of sequencings complex movement, emotional, experience of self and time* | | | | |
| ***Attention*** | | | | |
| ***Perception*** | | | | |
| ***Thought*** | | | | |
| ***Energy & Drive*** | | | | |

| | | | | |
|---|---|---|---|---|
| ***Sequencing Complex Movements*** | | | | |
| **Sensory functions** | | | | |
| ***Visual Functions*** | | | | |
| ***Vestibular Functions*** | | | | |
| ***Proprioceptive Functions*** | | | | |
| ***Touch Functions*** | | | | |
| ***Pain*** | | | | |

**Complexity**:

**Safety Precautions:**

**Grading the Activity:**

**Adaptations:**

**Step 4: Analysis for Therapeutic Intervention**

**Scenario Rock Climbing:** Jackson is a 42-year-old male who was diagnosed with major depressive disorder. Approximately 3 months ago, Jackson's wife, Jessica, told him that she wanted a divorce and moved out. Jackson suggested they try marriage counseling and Jessica declined stating that she fell in love with someone else. Jackson used to enjoy working out, window shopping, and going out for Sunday coffee. Since his divorce Jackson stated that these activities no longer interest him, as they remind him of Jessica. Jackson's mother referred him to occupational therapy because she has been worried about him. Jackson's mother stated that he goes to work as a sales analyst, and he attends family dinners on Tuesday evenings. Jackson's typical work day entails creating and maintaining sales reports in Excel, as well as presenting sales information to colleagues. Jackson also meets with clients over the phone and in person to discuss sales data trends. Although Jackson is successfully attending work and family dinners, his mother stated that he seems to be "down and out." Through evaluation, it becomes evident that Jackson feels hopeless, as he reports feeling irritable and worthless every day. Also, Jackson appears to be experiencing anhedonia as evidenced by his report of attending work and family events, but not having fun while he's there, and often wishing he would not have gone at all. Despite his lack of interest in his current occupations, Jackson is willing to try suggestions from the occupational therapist as long as it will make him feel better. He repeatedly stated that he "just wants to feel like himself again." The occupational therapist suggested rock climbing and Jackson indicated he has not rock climbed before.

**Rationale/Justification:**

- ***Sequencing and Timing:***

- ***Complexity:***

- ***Activity Demands:***

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# Discussion: Presentation Six

## Knowledge

- What is adventure therapy (AT)?
- What are the key elements of AT?
  - What is isomorphism?
- What are the main assumptions of AT?
- What role does occupational therapy (OT) play in the administration of AT?
- What two theories are commonly utilized in AT?
  - Are they occupation-based?
- What core competencies must a practitioner possess to implement AT?

## Comprehension

- Why is important to be familiar with multiple OT and AT theories?
- Why is metaphor a critical component of the AT process?
- Why is AT different than wilderness therapy or other therapeutic approaches?
- Why can't an OT deliver AT services without possessing, both hard and soft skills?
- How can the appropriateness of an adventure activity be determined?
- Why is there a lack of implementation of AT by OTs in the United States when OTs in other countries (e.g., New Zealand and Australia) are utilizing this treatment approach?

## Application

- List the sequence of events leading up to the end of this workshop:
  - How did feel about implementing AT into your practice prior to attending?
  - How did you feel during the indoor rock climbing activity?
  - How do you feel now?
- Is it likely that new knowledge from this workshop will stick with you for an extended period of time?

## Analysis

- What kind of person would best implement AT into his or her OT practice?
  - Why do you think this?
- How would you feel implementing AT into your practice?
  - Do you feel more confident implementing AT after attending this workshop?
  - Why do you feel this way?

## Synthesis

- How could this workshop be changed in order to make you feel more prepared or rather more likely to implement AT in your OT practice?
- Would it be easier to do in one setting over another (i.e., community-based, outpatient, inpatient, etc.)?
- How could you adapt the AT therapeutic process to meet each client's specific needs and wants?

## Evaluation

- Imagine you are writing a review for this workshop.
  - What type of audience(s) would enjoy this workshop?
  - Why is this information relevant to OTs practicing in mental health settings?
  - What improvements would you suggest?

## Summary

- Review objectives
- Highlight key takeaways from each presentation

## Questions?

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**Name: ____________________**

**POST-TEST**

**Fill out AFTER seminar on Occupational Therapists' role in Adventure Therapy**

Please circle the letter for the BEST answer to each question.

**(1) What is the formal definition for AT?**

E. There is not a formal definition for AT
F. Learning that takes place in an outdoor setting
G. Outdoor adventure-based activities to create psychosocial changes within a person
H. All of the above

**(2) AT is mainly directed towards what population?**

E. Old adults with physical disabilities
F. At risk adolescents and youth
G. Adults with mental health diagnoses
H. Old adults with mental health diagnoses

**(3) Which of the following professions is qualified to administer AT?**

F. Psychiatrist/ Counselor
G. OT
H. PT
I. A and B
J. All of the above

**(4) When would AT be an effective alternative treatment to traditional therapy services?**

E. When a client is not responding to traditional therapy services
F. When the OT is bored of treating clients in a clinical setting
G. When it is warm outside
H. None of the above

**(5) What theory or theories are commonly used to guide AT interventions?**

G. Experiential Learning Theory
H. Model of Human Occupation
I. Occupational Adaptation
J. ACB-R Model
K. A and D
L. A and B

**(6) What is the difference between hard and soft skills?**

E. Hard skills are instructional skills, facilitation skills, and organizational skills, whereas soft skills are technical skills, safety skills, and first aid and environment skills.
F. Soft skills are instructional skills, facilitation skills, and organizational skills, whereas hard skills are leadership styles, adherence to profession ethics, and experience-based judgement.
G. Hard skills are technical skills, safety skills, first aid and environment skills, whereas soft skills are instructional skills, facilitation skills, and organizational skills.
H. Soft skills are leadership styles, adherence to profession ethics, and experience-based judgement, whereas hard skills are technical skills, safety skills, and first aid and environment skills.

**(7) Most accidents within AT interventions occur due to which of the following?**

E. Therapist error, lack of rapport, and inappropriate environmental conditions
F. Inappropriate environmental conditions, client actions, and therapist error
G. Client actions, inappropriate environmental conditions, and lack of supplies
H. Therapist error, lack of proper training, and animal attacks

**(8) How do you determine if an AT activity is appropriate to implement with a client?**

E. Activity analysis and occupational profile
F. SWOT analysis
G. Semi-structured interview
H. Chart review and observation

**(9) Reflecting in-action and on-action are critical components of what AT theory/ model?**

E. ABC-R Model
F. CHANGES
G. Experiential Learning Theory
H. Goals, Readiness, Affect, Behavior, Body, and Stage of Development Model

**(10) Would you feel comfortable administering AT to a client who is not responding to traditional therapy services?**

C. Yes
D. No

# RESOURCES FOR ADVENTURE THERAPY

## ARTICLES


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