

# Cross-Country Skiing as a Self-Efficacy Intervention with an Adolescent Female: An Innovative Application of Bandura's Theory to Therapeutic Recreation

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Bandura's theory of self-efficacy can be a useful tool in developing theory based therapeutic recreation interventions. This case report used Bandura's theory as a basis for designing a therapeutic recreation intervention for a 15 year-old female with severe depression and oppositional defiant disorder (ODD) in a long term residential treatment facility for adolescents. Cross-country skiing was used as a modality to facilitate an increase in self confidence. The intervention also aided her in discovering positive ways to manage her anger by helping her make stronger efficacy judgments about herself. These outcomes seemed to generalize to improved relations with family members.

**KEY WORDS:** *Cross-Country Skiing, Depression, Learned Helplessness, Oppositional Defiant Disorder, Self-Efficacy Theory, Theory Based Programming*

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Adolescent depression and oppositional defiant disorder (ODD) are major concerns among those who treat America's youth. "By one estimate, mild to severe depression affects 36.3% of adolescents" (Hodgman & McAnarney, 1992, p. 73). Kovacs (1989) indicated that the effects of adolescent depression are now thought to be longer lasting than originally suspected, and Blackman (1995) reported that more than 30% of adolescents attending psychiatric clinics have been diagnosed with depression. Yet this illness is under diagnosed in the adolescent population according to Hodgman and McAnarney.

ODD is characterized by frequently losing one's temper, being argumentative with adults, actively defying or refusing adult requests, blaming others for their mistakes, becoming easily annoyed, being angry, annoying people deliberately, and/or being spiteful and vengeful. This list of behaviors makes young people with ODD difficult to deal with, especially by their parents (Horne & Sayger, 1990; Riley, 1997). Unfortunately there may be as many as 5-8% of adolescents who have this disorder (Barkley & Benton, 1998).

The incidence of depression in the adolescent population is of great concern as effective treatment interventions seem to elude professionals. Combinations of therapy and medication are commonly used to treat depression in adults. The use of medications to treat adolescents, however, is controversial (National Institute of Mental Health [NIMH], 2000). Tricyclic antidepressants have not demonstrated long term effectiveness with adolescents and have been deemed appropriate only in cases where there has been no response to psychotherapy according to NIMH. The NIMH further states that selective use of serotonin reuptake inhibitors has been shown safe and effective; however, since many doctors are hesitant to use them there is a continuing search for better ways to treat depressed youth without using medications. As a result, psychotherapy remains the treatment of preference.

Psychotherapy is also the preferred method

of treatment for ODD in conjunction with medications being used only in extreme cases (Riley, 1997). Consequently, when depression and ODD present comorbidly, psychotherapy may be used exclusively without the use of medication. This was the case with the female student who was the participant in this case report.

Albert Bandura's (1986) theory of self-efficacy was used as a theoretical base for therapeutic recreation intervention with the participant in this report. Self-efficacy is a component of Bandura's social learning theory. He views personality as the dynamic interaction between behavior, situation and personal variables. His theory stresses the importance of observational learning and self-efficacy. Liebert and Spiegler (1990) defined observational learning as follows:

Observational learning is the process through which the behavior of . . . an observer changes as a result of merely being exposed to the behavior of another. By observing the behavior of others in specific situations people make judgments as to how they might behave or perform were they in the same situation. The person's belief in how well they might perform provides the basis of a self-efficacy judgment (p. 452).

"Self-efficacy" is sometimes confused with self-concept or self-esteem. Self-efficacy is distinct from these terms, however. Bandura defined self-efficacy as "a person's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). Liebert and Spiegler (p. 452) put it more simply by stating that self-efficacy "is the conviction that one can successfully perform the behavior needed to produce a desired outcome." Self-concept, say Liebert and Spiegler, is a view constructed of one's self, which is developed through direct experience and evaluations adopted from significant others. Self-

esteem, on the other hand, is a personal evaluation of one's self worth.

In Bandura's theory, decisions involving following social rules, making goals, and interacting with people all require a person to make efficacy judgments. The more a person judges that they can be successful in an area such as goal setting, the stronger is their perceived self-efficacy. As self-efficacy increases a person will judge that they can set and achieve higher personal goals. Conversely, the weaker the efficacy judgment, the more situations, tasks, and learning experiences will be avoided if these are believed to exceed one's abilities.

Bandura (1986) describes four principal sources from which people glean self-efficacy information: enactive attainment, vicarious experience, verbal persuasion and physiological state. The most influential source is called "enactive attainment" which is the actual completion of a task for oneself. Vicarious experience involves watching someone of a similar skill level to yourself perform a desired task and believing that you can perform the same task. Verbal persuasion is a technique in which a participant is encouraged or persuaded by another person to believe that they can perform a particular task. This is most successful when the persuasion is specific, realistic and believable. The final information source is relying on one's physiological state to gain efficacy information. A distance runner who wakes up feeling rested and vigorous on the day of a marathon is more likely to believe he can succeed. All of these sources of self-efficacy are explored in relation to the case report of an adolescent with ODD utilizing a programmatic intervention of cross-country skiing.

### **Biographical and Demographic Information Related to the Case**

Molly (a pseudonym) was a 15-year-old female. She was single and had grown up in California with her mother, father, an older brother, and a younger sister. Her parents were

Israeli and moved to the United States several years before Molly was born. In her own words, Molly's chief complaint upon admission was, "I got depressed last year and got behind in school." Molly's parents described her as being slow in learning to speak when she was very young, "She seemed like she simply did not want to talk." She habitually practiced "learned helplessness" (Peterson, Maier & Seligman, 1993) as a small child which won her the aid and attention of others. Her parents also reported that she had a difficult time making and keeping friends. When the recreation therapist interviewed Molly, she related that dance and gymnastics were among her favorite interests when she was young, but she discontinued both of them because "you had to work too hard" to keep up.

At age 14 Molly began being promiscuous with boys, smoking, experimenting with drugs, refusing to help with chores at home or to baby-sit her little sister. She refused to go to school for approximately six months unless her mother drove her because she was "depressed." She tried to commit suicide twice with pills and was hospitalized both times. She began individual counseling one year before being admitted to an adolescent treatment facility but had not responded well to treatment. She was admitted to Provo Canyon School after running away with a 22 year old male.

Provo Canyon School, located in Orem, Utah, is a long term, for-profit, residential treatment program for adolescents. The school serves boys and girls, ages 12-18. Clients are separated by gender with a campus for boys and one for girls. The length of stay generally ranges between 6 and 12 months. The school is located very close to a national forest and several public parks providing therapists with many sites to engage in outdoor activities of all types. Cross-country skiing is just one available modality with therapeutic potential.

### **Case Content**

Upon admission, Molly underwent several evaluations, including the Kaufman Test of

Educational Achievement (Kaufman & Kaufman, 1997), which was used for academic placement purposes. Molly's initial assessment also included the Self-Esteem Index (Brown & Alexander, 1991) which was administered by a unit psychologist. The recreation therapist (a CTRS) administered a brief, facility specific, recreation therapy questionnaire. The psychiatrist gave Molly a physical examination and interviews were conducted by other members of the treatment team including the social worker and nurse who developed social and medical histories for her. Based on this battery of assessments and information from the DSM-IV (American Psychiatric Association, 1994), Molly was diagnosed with major depression and recurrent, severe oppositional defiant disorder (ODD).

The admitting psychiatrist recorded that Molly's intake interview revealed many problems and left the impression that she was not a good historian, was oppositional, had low self esteem, was very dramatic, had difficulty in following limits, and was manipulative to achieve goals. Test results on the Self-Esteem Index (Brown & Alexander, 1991) indicated that she had a very low level of self-esteem.

A recreation therapist who also interviewed Molly found that she had an emotional need to identify positive self-traits to improve her self-esteem. She also needed to be able to discover appropriate outlets for her anger and positive ways to deal with her depression. She identified one of her strengths as being dramatic and acting, and one of her deficiencies was that she could not think very well.

As a student at Provo Canyon School Molly avoided many responsibilities, like completing her chores while she was at home, or even participating in groups at the school. She exhibited a significant level of learned helplessness by saying that she "couldn't" do her chores because she was "given too much work," or she could not participate in a group because she did not trust her peers.

Molly was assigned to a primary therapist (a social worker) who was responsible for making an overall assessment, developing a

master treatment plan for her and then monitoring the plan through the course of her treatment. In addition to interviewing Molly, he also reviewed the assessments of all the other treatment team members before writing the master treatment plan. The initial treatment plan focused on finding constructive ways to treat Molly's depression, build her self-esteem and find appropriate outlets for her anger.

## **Intervention Plan**

Initially, Molly was placed in a family issues group and a relations group that were both conducted by her primary therapist. She was also placed in a self-esteem recreation therapy group facilitated by a recreation therapist.

The progress notes for Molly indicated that peers did not accept her. She would set others up by getting them to break unit rules so they would receive a "consequence" or punishment for negative behavior. Sometimes she would lie about her peers to staff. She continued her manipulative behavior for some time and was defensive when confronted. In treatment groups, she would deny her problems at home with her family and in her relationships with males generally.

Because her treatment was not progressing, Molly's primary therapist decided to develop a new treatment plan for her and he consulted with each member of the treatment team including the recreation therapist. A few days prior to the discussion between the primary therapist and the recreation therapist, Molly had been part of a cross-country skiing treatment group, which took place at a county park. The group was what Provo Canyon School calls a "caseload activity." These are recreation activities that occur monthly. Each primary therapist works with a recreation therapist to plan a treatment oriented activity involving every person on their caseload. The group for this particular activity was made up of all the patients that Molly's primary therapist carried on his caseload. The activity was co-facilitated by the recreation therapist and the primary therapist. Before the activity, each

student was given an assignment related to her treatment goals.

Molly had demonstrated a pattern of relying completely on her peers to help her complete difficult tasks in unfamiliar situations. If she was not immediately successful, or if her peers did not help her complete a task, she would compensate by complaining loudly about the activity, the staff, other patients, etc. Molly was instructed, before the activity by the primary therapist that, no matter what happened, she was not to complain, talk negatively or ask for help while skiing.

At the park the students were first instructed in basic cross-country skiing technique. The group then skied behind the recreation therapist on a small tour of the park. Both therapists noticed that Molly struggled to stay upright on her skis. She fell numerous times and each time she had great difficulty getting up again. She skied clumsily and she was a full 20 minutes behind the rest of the group at the end of the tour. She appeared both frustrated and exhausted as she finally joined the group at the point where they had originally started. Yet, through it all she had obeyed the primary therapist's instructions and had not complained or sought help from peers. During the group meeting at the end of the activity she said in a convincing way that she "could never learn to ski!"

Because Molly complied with the instructions she was given and completed a specific assignment related to her treatment goals without coaching or prompting, the primary therapist and the recreation therapist discussed using cross-country skiing as a possible treatment intervention in Molly's new treatment plan to be developed. Together the primary and recreation therapists decided to couple cross-country skiing with Bandura's theory of self-efficacy to help improve Molly's confidence level in accomplishing other tasks. They theorized that through verbal persuasion and vicarious experience, Molly could achieve enactive attainment and become proficient at cross-country skiing (which she believed was an unattainable goal). They felt that as her

sense of self-efficacy improved she might also show improvement in four other areas of behavior. The four anticipated areas of improvement were: (a) to develop the insight to understand that she could get along better with her family and peers; (b) to find different ways to positively manage her anger; (c) to be willing to try new, unknown, and challenging activities; and (d) to be persistent when working on a difficult task. The process of development in these four areas would be observed over time as the cross-country skiing intervention was implemented and noted in Molly's chart.

### **Implementation of the Intervention Strategy**

The primary therapist and recreation therapist devised a plan to take Molly cross-country skiing for one hour, two times a week until the next caseload activity which was still nearly a month away. During each of these outings, a new cross-country skiing skill was to be taught to her. She was to practice each new skill until she was proficient at it.

Molly's proficiency level was determined during the outings in one of two ways. Either she would state verbally that she felt comfortable with the skill or the recreation therapist would observe her level of competence and determine that the skill had been mastered. Molly was instructed to work in these sessions on coping appropriately with her frustration. She was not allowed to complain or talk negatively. If she did not follow through with either of these requirements, she would be given a verbal warning. For a second offense she would be given a consequence such as having some privilege taken away for a period of time.

Molly had seven sessions with the recreation therapist to ski and practice her skills before the next caseload activity took place. She was first taught how to glide properly on her skis without using her poles. Next, she was taught how to get up again after falling. She practiced these skills during the first two sessions on the school campus because of snowy

conditions in the area. The recreation therapist used verbal persuasion to help Molly believe she could perform these skills which had been so frustrating for her originally. Her own enactive attainment of the skills seemed to increase her confidence and elevate self-efficacy considerably.

Molly built on her new skills in the third session, learning to turn around by moving her skis in a circle several degrees at a time. She practiced gliding, turning and getting up after falling. She learned the correct use of her ski poles in session four and she also learned to use the poles for balance and for pushing off while skiing. In session five the kick turn was introduced, where one ski is lifted perpendicular to the ground and turned outward 180 degrees so as to be facing the opposite direction from the second ski. The second ski is then brought around parallel to the first ski. The kick turn proved to be very difficult for Molly. After several haphazard attempts, which resulted in her falling to the ground, she refused to try the kick turn again. The recreation therapist demonstrated the kick turn a few times (vicarious experience) and employed verbal persuasion. She was offered support so she would not fall but she refused that. She was finally given a consequence for complaining and refusing to comply with directions and the session was cut short.

At session six Molly practiced the kick turn in the gymnasium with mats beneath her. This time the practice condition was warm and dry. The recreation therapist demonstrated the kick turn and Molly learned the skill quite easily. The adaptation of the session made by the recreation therapist was successful as far as helping Molly to master a critical skill for cross-country skiing. Theoretically speaking, vicarious experience and verbal persuasion resulted in enactive attainment.

At the seventh and final session Molly put all the skills together and had a race with her primary therapist and the recreation therapist. Surprisingly, at the end of the session she admitted that she had even had some fun. In this case Molly's efficacy judgment was that

she had sufficient skills to be successful and she experienced a physiological state where she felt she could compete with two other skiers. This led to a decision to race and proved to be an enjoyable experience.

The next caseload activity was again a cross-country skiing trip. The primary therapist and the recreation therapist agreed to ask Molly to be the leader of the group for the activity. Following the skiing, as the group processed the events of the day back at the school, both therapists and peers made comments to Molly about how much she had improved in the month since the last activity. They praised her on her performance as group leader as well.

## Evaluation

Had Molly's efficacy judgment of herself increased according to Bandura's theory? Did she continue to try when she was afraid? Was she a positive influence in her family? Would she be courageous and persistent in the face of unknown or difficult tasks or challenging activities? These were major questions for Molly's primary therapist and the recreation therapist who theorized that heightened self-efficacy would lead to improvement in these areas.

During individual, group, and family therapy her primary therapist observed Molly closely to see if she made increased effort to participate. The recreation therapist also interviewed her. Molly was happy she had learned a new skill and that she had not given up. She stated that she was excited to take her family cross-country skiing with her the next time they came to visit. She followed through on her statement and was proud to show her family her new skill. Her family in turn responded positively to Molly's enthusiasm.

Molly was observed being persistent during a challenging initiative activity in her self-esteem therapeutic recreation group. The activity required her to place trust in her peers to support her body while she was lifted a few feet above the ground. Initially, she was very hesitant to participate, but she did complete

the task without incident. She commented afterwards that it felt good to be able to trust her peers. She also expressed relief that she was able to do her part as a member of the group.

As Molly prepared for her family to visit again a few weeks later, she participated in the same initiative activity in her family issues group. Her therapist asked her to try to stand up and balance herself with her peers holding onto her. She did try and fell over. She was not hurt but was afraid and teary-eyed. She decided not to try the task again herself but she did continue to support her peers within the group as they tried the task. Based on previous experiences, if this scenario would have played out before the cross-country skiing intervention, Molly would very likely have sat out of the activity and been angry that she had been eliminated for the remainder of the group. Her decision to remain in the group this time was evidence of positive self-management and possible behavior change.

Molly's family again came to visit her, very shortly after this incident. While they were at the school the primary therapist had the whole family participate in an initiative activity together. During the processing portion of the activity Molly was able to share her feelings appropriately with her family and was able to work with family members without arguing. She also took a self-initiated leadership role in completing the family's experimental task. Prior to this visit her behavior had always been to set the family up for an argument and then sit back and watch while they argued. Her participation would be sullen as she let her parents do everything for her. The change in Molly was noticeable enough that her mother commented on her increased confidence, her ability to complete tasks, and her willingness to work with the family during group tasks rather than sabotaging every family exercise.

### **Author's Discussion**

Bandura's theory of self-efficacy was applied with Molly by taking a specific recreation task (cross-country skiing), and using

enactive attainment (practicing the activity herself), vicarious experience and verbal persuasion (demonstration and encouragement from a recreation therapist), to help her become confident that she could become a proficient cross-country skier. The therapists felt that the confidence Molly obtained from becoming a proficient cross-country skier would generalize to other areas of her life. For example, by developing confidence in her skiing abilities, she might also develop confidence in setting age appropriate boundaries and positive relationships with males without having sexual relations. She might become more confident that she could be a positive influence within her family.

Molly showed substantial improvements in her self-confidence, in her ability to trust her peers and in her willingness to work with her family after one month of learning how to cross-country ski. It appeared that her ability to be successful at learning one specific skill had generalized to other areas of her life. Her self-efficacy judgment increased significantly as she was able to succeed at a task which she initially thought to be impossible. While this does not prove a cause and effect relationship between the cross-country skiing intervention and her improved efficacy judgments, the fact that she was not receiving medication does mean that the improvements were not chemically induced or influenced. This provides encouragement that cross-country skiing can be an effective intervention in the treatment of adolescents who present with both depression and ODD.

The theory of self-efficacy has great potential as an approach to treatment intervention when working to increase a person's self-confidence while decreasing depression and oppositional defiance. As in the case of Molly, after a person has discovered that they are able to succeed at one task, they may be more willing to try a new task over and over again without displaying such frustration and anger as before. They may also generalize their ability to be successful from one task to another, not just in recreation but in broader life skill

areas. In this case it appeared that a generalization was made from (a) being able to cross-country ski to being able to confidently lead a group of cross-country skiers; (b) to being supportive to peers after failing an initiative task; (c) to being able to remain in a group; and (d) to being able to work positively with family members in an experiential exercise.

By using theory-based interventions such as this one, recreation therapists can develop a common language with which to communicate with other recreation therapists. They can also increase their repertoire of activity intervention because self-efficacy theory can be applied to virtually any recreational activity. The repeated use of self-efficacy theory is one avenue to bring the field of therapeutic recreation closer to having a common practice as called for during the past decade (Connolly & Keogh-Hoss, 1991; Ferguson, 1997).

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