

AN EXAMINATION OF THE BENEFITS THAT ADVENTURE AND WILDERNESS  
THERAPY HAS ON YOUNG ADULT CANCER FIGHTERS AND SURVIVORS

A Senior Project

presented to

the Faculty of the Recreation, Parks, & Tourism Administration Department

California Polytechnic State University, San Luis Obispo

In Partial Fulfillment

of the Requirements for the Degree

Bachelor of Science

by

Anna Wagner

March, 2014

© 2014 Anna Wagner

ABSTRACT

AN EXAMINATION OF THE BENEFITS THAT ADVENTURE AND WILDERNESS  
THERAPY HAS ON YOUNG ADULT CANCER FIGHTERS AND SURVIVORS

ANNA WAGNER

MARCH 2014

It has been shown that young adult cancer fighters and survivors suffer from various mental and physical barriers after being diagnosed with cancer. It is common for cancer fighters and survivors at this age group, 18-39 years old, to feel a sense of depression from the lack of support available for their therapeutic needs. Studies have shown that adventure therapy has valuable benefits that cancer fighters and survivors can transfer into their daily lives. The purpose of this study was to find outcomes of participants in First Descents, a non-profit organization. This study was conducted using means-end theory to examine attributes, consequences, and values of camp experiences. The data were then inter-coded to find reliability and validity. Conclusions were made that values were significant, and young adult cancer fighters and survivors can immensely benefit from adventure therapy programs. Recommendations were made utilizing this research and furthering this type of study.

Keywords: adventure therapy, wilderness therapy, young adult cancer fighters and survivors, means-end theory

## TABLE OF CONTENTS

	PAGE
ABSTRACT.....	ii
TABLE OF CONTENTS.....	iii
LIST OF TABLES.....	v
LIST OF FIGURES .....	vi
Chapter 1 INTRODUCTION AND REVIEW OF LITERATURE.....	1
Background of Study .....	1
Review of Literature .....	3
Purpose of the Study .....	13
Research Questions.....	13
Delimitations.....	13
Chapter 2 METHODS .....	15
Description of Subjects.....	15
Description of Instrument .....	15
Description of Procedures.....	17
Method of Data Analysis .....	18
Chapter 3 PRESENTATION OF THE RESULTS.....	20
Demographics .....	20
Summary .....	27
Chapter 4 DISCUSSION AND CONCLUSIONS.....	28
Summary .....	28
Discussion.....	29

Conclusions.....	33
Recommendations.....	34
REFERENCES .....	35
APPENDIXES .....	41

## LIST OF TABLES

	PAGE
Table 1. Attributes, Consequences, and Values Codes .....	20

## LIST OF FIGURES

	PAGE
Figure 1. Hierarchical Value Map. All Participants in First Descents .....	22
Figure 2. Hierarchical Value Map. Male Participants in First Descents .....	24
Figure 3. Hierarchical Value Map. Female Participants in First Descents .....	25

## Chapter 1

### INTRODUCTION AND REVIEW OF LITERATURE

#### Background of Study

By using the outdoors to introduce challenges, adventure and wilderness therapy programs provide opportunities for participants to discover that fears can be conquered, and perceived limitations are often self-imposed (Luckner, 1989). The unique experience of participating in one of these activities for the first time, and pushing through physical and mental barriers, can be extremely empowering. Participating in these programs encourages people “to do things they might not ordinarily do; to leave their safe, familiar, comfortable, and predictable world and enter into an uncomfortable new territory” (Nadler & Luckner, 1992, p. 59). Not only do these activities have infinite lessons to learn from, but they also create opportunities to encounter the wilderness, relax, reflect, and rejuvenate. Spending time in wild places gives a peace and comfort that cannot be found anywhere else. Researchers concluded that people who have participated in wilderness trips “experience positive changes as a result of their wilderness experience, changes such as increased self-confidence, increased likelihood of pursuing new challenges, and increased appreciation of diversity” (McAvoy, Holman, Goldenberg, & Klenosky, 2006, p. 25).

The benefits that outdoor education and adventure have on the mental and physical healing and well being of young adult cancer fighters and survivors is one that deserves attention. Extreme benefits come from encountering nature and the lessons to be learned while trying a new sport can be carried into the fight for life. There are camps

across the United States that facilitate experiences for people with cancer of all ages. These camps include day long guided tours, to weeklong retreats that provide support groups, to family camps. Each one provides a unique experience (Stupid Cancer, 2013).

First Descents is a non-profit organization that offers “young adult cancer fighters and survivors a free outdoor adventure experience designed to empower them to climb, paddle and surf beyond their diagnosis, defy their cancer, reclaim their lives and connect with others doing the same” (First Descents, 2014). First Descents facilitates an experience where a group of young adult cancer patients come together for a week and learn an extreme sport, encounter nature, and meet like-minded individuals that have experienced similar journeys. The support and community that the participants take away from an experience like this is unparalleled and can be lifesaving.

This study aimed to raise awareness that programs like First Descents are vital. A study of 167,096 cancer survivors that proved there was a “sharp decline in both physical and mental health-related quality of life scores for individuals” (Baker, Denniston, Smith, & West, 2005, p. 3031) who were recently diagnosed with cancer. For cancer patients who are 18-39, classified as young adults, this journey is extraordinarily difficult. Not only is it a realization of having a possibly deadly disease, but it was also discovered that there are not as many support groups for this age group, and the feeling of isolation can be a huge undertaking (Rabin, Morrow, Pinto, & Simpson, 2011). While pediatric cancer survivors make up 1% of the total cancer population, young adults make up 5% (Saunders, 2012). For young pediatric cancer survivors and fighters, there are 76 different cancer camps offered. For people ages 18-39, who make up five times more of the cancer population than pediatrics, there are only six camps or retreats that are offered (Saunders,

2012). Every year, 70,000 young adults, ages 18-39, are diagnosed with cancer (American Cancer Society, 2010, as cited in Saunders, 2012). There needs to be more support group and camp rehabilitation opportunities that are targeted for the young adult age group, as they will gain life changing outcomes from these experiences.

This research project helped to raise awareness that there has been very limited research and published literature on the benefits that adventure therapy has for young adult cancer survivors, and no research or published literature on First Descents, in particular. Research and published literature would prove the necessary benefits of adventure therapy, and would help oncologists and other health care professionals make recommendations to their patients about the benefits of attending a program like First Descents (Belanger, McGowan, Lang, Bradley, & Courneya, 2013). The outcomes that First Descents participants discovered while at camp revived their hope for their future, and empowered them to bring their experience back home. Every cancer fighter and survivor deserves to know about an experience like this.

### Review of Literature

Research for this review of literature was conducted at Robert E. Kennedy Library on the campus of California Polytechnic State University, San Luis Obispo. In addition to books and other resources, the following online databases were utilized: Academic Search Elite, psycINFO, Academic OneFile, Sage Journals, Ebsco Host, and Proquest. Adventure therapy, the challenges of researching adventure and wilderness therapy, benefits of adventure therapy, mental effects of young adults with cancer,

programs for young adults with cancer, means-end theory, and a conclusion are all included in the review of literature.

Adventure therapy. Adventure therapy is any adventure experience with diagnosed clients or participants reporting a specified therapeutic outcome (Neill, 2003). Adventure therapy practitioners help provide an experience that is a “combination of nature, group and adventure activities (that) provide a rich source of healing potential” which has the ability to go way beyond what traditional, conventional therapy has to offer (Gilbert, Gilsdorf, & Ringer, 2004, p. 31). It goes beyond commodities and material goods that provide a rich environment for personal change (Ewert & McAvoy, 2000).

Wilderness therapy is defined as “a therapeutic experience that takes place in a wilderness setting where focus is placed on naturally occurring challenges and consequences” (Gass, 1993, as cited in Neill, 2003, p. 1). Wilderness and adventure therapy have a central focus of incorporating human contact with nature (Carpenter & Pryor, 2004), a use of adventure, and the importance of groups and communities within these therapeutic and educational experiences (Carpenter, Pryor, Townsend, & Townsend, 2005). Researchers concluded those participants’ bodies and emotions are engaged and challenged through the use of adventure, and providing the context of small groups creates a support system that can offer a holistic “body-mind-emotional-social-environmental experience for participants” (Carpenter et al., 2005, para. 7). Engaging in adventure and wilderness therapy forces participants to challenge themselves and push past perceived limitations, all while being encouraged by a support group.

When asked about his adventure therapy experience, a participant concluded, “this experience has helped me in finding myself, I now am able to better understand

myself and what type of person I want to be. I feel like I know myself now in a way I never did before” (Paxton & McAvoy, 2000, p. 204). In the early 2000’s, wilderness and adventure therapy was just starting to be explored. It was not until then that wilderness and other undeveloped landscapes were even thought to have valuable, redeeming characteristics (Jenseth & Lotto, 1996; Nash, 1982), and became widely accepted as a place for enjoyment rather than desolation and hardship (Ewert & Hollenhorst, 1990). Today, wilderness areas are sought out by thousands of private groups, and are used by a growing number of organizations for personal growth and therapeutic opportunities (Easley & Passineau, 1990; Gager, Hendee, Kinzinger, & Krumpe, 1998). It is estimated that these types of programs are becoming more popular and sought after, growing at a rate of 15 percent per year (Gager et al., 1998). Previous research on these types of programs has focused on the immediate benefits of wilderness programs, but very little studies have been done on the long-term outcomes that participants take away into their lives (Paxton & McAvoy, 2000).

Challenges of researching adventure therapy and wilderness therapy. The outcomes of these types of programs have proven to be enlightening and worthwhile for participants, but also extremely difficult to measure and document for researchers. The most dominant challenges that researchers face are the same factors that make adventure therapy and wilderness programs so meaningful; the environment, the small group dynamics, and the participant’s personal experience. Bringing research equipment into the wilderness can be a challenging task. Groups are usually limited to 6-10 people to encourage a supportive and positive group dynamic, and also to minimize impact on wilderness areas (Ewert & McAvoy, 2000). This gives the researcher a couple of

different obstacles. First, the researcher is not part of the small group's journey. The researcher does not have the same relationship and trust that the participants have built with each other. To take time out of the program to interview participants could impede on the genuine impact that the program and the relationships that are being built have on the participants. An additional challenge with small groups is the small sample size. In order to get a sample size that is significant enough for a reliable study, the researcher has to work with a number of different groups that are spread out over time. Another reason why this is a difficult subject to examine is because when the researcher passes out surveys or conducts interviews, the study has the potential to interfere with the genuine camp experience (Ewert & McAvoy, 2000). It can also be very confusing to get a clear picture of adventure therapy outcomes because of the "limited amount, variable quality, and difficult availability of adventure therapy research literature" (Neill, 2003, p. 317). The adventure therapy field has been noted to be "undermined by a lack of well-organized, definitive, and widespread knowledge about the effectiveness of different types of adventure therapy programs" (p. 317). This is understandable, because every program varies and every person responds, processes, and talks about their experiences differently. Finding a proficient and effective technique to quantify such qualitative data can be a difficult task.

Benefits of adventure therapy. Aldo Leopold, an American author, scientist, ecologist, forester, and environmentalist, once stated "the wilderness gave them their first taste of those rewards and penalties for wise and foolish acts which every [woods person] faces daily, but against which civilization has built a thousand buffers" (Ewert & McAvoy, 2000, p. 13). Leopold's quote supports that intentional contact with nature, and

the challenges that one might face, provide profound experiences (Carpenter et al., 2005). In a study of 700 people who participated in a variety of two to four week wilderness excursions, 90 percent described “an increased sense of aliveness, well-being, and energy,” and 90 percent reported that the experience helped promote a healthier lifestyle (Frumkin, 2001, p. 238). Wilderness adventure therapy treatment programs create an experience that brings physical activity, contact with nature, and social connection together. This experience is not only proven to decrease depressive symptoms (Crisp & Hinch, 2004) but also to positively affect mood state by reducing stress and tension, assist recovery from mental fatigue, and boost self-confidence, among many other psychological benefits (Ibbott, 1999; Kaplan & Kaplan, 1989; Leather, Pyrgas, Beale, & Lawrence, 1998; Lewis, 1996).

Three common benefits of adventure therapy are self-efficacy, transference, and stewardship of the land (McAvoy, Holman, Goldenberg, & Klenosky, 2006). Self-efficacy is described as self-confidence, self-esteem, belief in self, and a measure of self-worth. Increased self-efficacy and confidence proves to help achieve tasks in the future (Paxton & McAvoy, 2000). Kurt Hahn, the founder of Outward Bound, believed that through the process of trying to succeed at accomplishing difficult and sometimes intimidating challenges, individuals build a sense of self-worth, self-esteem and self-confidence (Neill, 2003). After an all-women wilderness camp, one participant reported a sense of increased self-efficacy when she stated, “I have begun feeling more confident in my abilities as a person, stronger, that I am capable of a lot and have the power to do it” (Ewert & McAvoy, 2000, p. 19). The same participant also concluded that “I can trust my decisions and I am more motivated and determined by my own belief in myself” (p. 19).

Pohl (1998) conducted in-depth interviews with a number of women who embarked on wilderness therapy trips for various lengths of time. She found that wilderness recreation can lead to an increase in self-sufficiency, empowerment, problem solving skills, connections to others, and mental clarity (Ewert & McAvoy, 2000).

Research shows that self-efficacy increased in participants immediately following a wilderness adventure program and was maintained one year later (Pohl, 1998). Another study demonstrated that a significant increase in self-confidence occurred not only during a 21 day wilderness course, but kept increasing up to six months later (Paxton & McAvoy, 2000). Once their camp experience is over, participants can carry their increase in self-efficacy to other parts of their lives.

A second common benefit of adventure therapy is the transference of knowledge from a participant's camp experience into their daily life. Studies have shown that adventure therapy and wilderness programs have major life changing influences on participants (Hattie, Marsh, Neill, & Richards, 1997) and the benefits gained, lessons learned, and challenges overcome, can be transferred into their everyday lives (Ewert & McAvoy, 2000; Gass, 1993, Paxton & McAvoy, 2000; Pohl, 1998). Increased feelings of competence, acceptance of failure as a learning opportunity, and the personal control that was discovered in these experiences are being carried into the personal, social, and work spheres of participants lives. Transference, or the ability to take home what happened in the wilderness, is how a participant can keep their experiences alive.

A third common benefit of adventure therapy is a renewed belief in good stewardship of the land. After spending an extended period of time in the wilderness, participants came away from their trips with a renewed appreciation and view of

importance for natural environments and wildlife (McAvoy et al., 2006). The participants interviewed expressed that their time in the outdoors opened their eyes to new discoveries and increased understanding of wildlife, which they valued. “These outcomes transferred into the participants having a deeper appreciation for the beauty and diversity of wilderness and a deeper commitment to preserve these wilderness areas and wildlife resources” (McAvoy et al., 2006, pp. 30-31).

After a wilderness adventure course, the participants that were interviewed expressed the desire to be active in the wilderness in their future. They all displayed feelings of stewardship for the land, especially where their course took place. One participant said, “I feel a bond to the land, I want to always feel this so I decided that I need to take care of that land any way I can” (Paxon & McAvoy, 2000, p. 204). These studies prove that wilderness adventure courses have lasting impressions and impacts on participants regarding their connection to wilderness and their ideas of themselves.

Mental effects of young adults with cancer. Cancer has been recognized as a life threatening illness that can directly result in posttraumatic stress disorder (Cella & Tross, 1986; Cordova, Andrykowski, Kenady, McGrath, Sloan, & Redd, 1995; Kangas, Henry, & Bryant, 2002), and has severely detrimental effects on the patient’s quality of life (Bar-Sela, Atid, Danos, Gabay, & Epelbaum, 2007). Cancer has the potential to cause loss, crisis, fear and anxiety (Deimling, Kahana, Bowman, & Schaefer, 2002). It has been proven that along with fatigue, emotional distress from treatment can be major. Twenty-five percent of cancer patients meet diagnostic criteria for major depression or anxiety disorders (Bar-Sela Atid, Danos, Gabay, & Epelbaum, 2007).

In a survey of 1,083 cancer survivors, young survivors were found to have significantly higher levels of anxiety compared to the control group (Mehnert & Koch, 2007). In a study of 450 young adult cancer survivors, major depression affected 15 percent of men and 22 percent of women (Soliman & Agresta, 2008), which is three to four times higher than individuals who have not been diagnosed with cancer (Stein, Syrjala, & Andrykowski, 2008). Research shows that posttraumatic stress disorder (PTSD) affects 12 to 15 percent of young adult survivors, which is significantly higher than the prevalence of PTSD in the general population (Mehnert & Koch, 2008; Soliman & Agresta, 2008). Another study notes that younger cancer patients, ages 18 to 54, reported experiencing three more problems on average than older patients (Baker, Denniston, Smith, & West, 2005). In times of such desperation, it is difficult to stay positive. In the Phase of Experiential Theory, it is noted that a huge step in fighting cancer is enduring a flood of stress, where shutting out negativity and maintaining hope can become nearly impossible (Walsh, Radcliffe, Castillo, Kumar, & Broschard, 2007). However, studies show that “patients who feel better about themselves and are more hopeful live longer with cancer” (Lane, 2006, p. 74), and this is found to be easier if one is able to find a positive meaning in their cancer experience (Park, Chmielewski, & Blank, 2010).

Programs for young adults with cancer. A majority of young adults with cancer have expressed a desire to participate in programs with other cancer survivors their own age (Rabin et al., 2011; Soliman & Agrata, 2008; Zebrack, Bleyer, Albritton, Medearis, & Tang, 2006). In a survey of 20 young adult survivors, 15 participants spoke of a need for greater emotional support throughout their cancer experience (Rabin et al., 2011). The

participants stated that others, like their family and friends, could not relate to their cancer experience. One cancer survivor stated, “I have people around me and just nobody understands what I’m going through” (p. 800).

The problem is that these programs are not widely known throughout the population of young adults with cancer. It has been acknowledged that the young adult cancer survivor age group has been understudied and very neglected (Bleyer, 2002). In a survey of 20 young adult cancer survivors, 12 stated that they were not aware of programs for cancer survivors because the programs were not well advertised. One young adult survivor stated, “I really had to do a lot of work myself to find out about things (resources)... but I don’t feel it should be that way, because your mind is clouded so much already, that those (resources) should just be available through your doctor” (Rabin et al., 2011, p. 801). This information shows that there is a recognized need for these programs, but that need is not met by their ease of accessibility.

It has been documented that these camps are proven to be effective in decreasing stress and enhancing coping strategies (Balen, 1996; Epstein, Stinson, & Stevens 2005; Smith, Gotlieb, Gurwitch, & Blotcky, 1987; Wellisch, Crater, Wiley, Belin & Weinstein, 2006; Zebrack et al., 2006). Camp Mak-A-Dream is well known for serving the young adult population and Livestrong is working on ways to develop more support groups for young adults (Saunders, 2012). Dragon boat racing, a team sport where a group paddles in sync to the finish line, has become an attraction for women with breast cancer. It has been found that the impact of dragon boat racing on these women “has been overwhelming, the physical changes barely keeping pace with the changes in psyche” (Unruh & Elvin, 2004, p. 377). There are established and effective programs that are

offered for young adults with cancer. But, the opportunity and availability is not nearly as vast as it should be.

Means-end theory. Means-end theory is an applicable research theory that investigated participants' values of an experience. This technique has been used for a variety of different studies, and has proven to be reliable. Through means-end research, the researcher is able to “learn more about the role and meaning of benefits associated with an activity” (Goldenberg, Klenosky, O’Leary, & Templin, 2000, p. 209). It is able to find relationships between an attribute of camp, the consequences of that attribute, and the outcomes that the participant learned or valued from the experience. The ‘means’ are tangible, easily recognizable attributes about camp that a participant valued. They can be thought of as tangible objects, services, or antecedent variables (Goldenberg, Klenosky, McAvoy, & Holman, 2002). An attribute could be anything from hiking, learning to kayak, the natural environment, or the other participants. Consequences are less tangible and more abstract. A consequence comes from the attribute, and could be characterized as anything from: learning a new skill was a challenge, new friendships were made, the group was supportive, or new perspectives were seen. Consequences bridge the attribute to the value (Klenosky, Gengler, & Mulvey, 1993). The value is seen as the ‘ends’ in means-end theory (Goldenberg et al., 2000), which is the ultimate outcome or personal value that was important to the individual. Values are the most abstract. They could be anything from: a raise in awareness, the importance of warm relationships with others, a transference of knowledge into life after camp, or the value in finding fun and enjoyment in life.

Conclusion. Adventure and wilderness therapy programs have proven to be challenging to research, but have also proven to be exceedingly beneficial to the participant. Young adults with cancer make up an age group that has been under studied and neglected. This population has a need for these types of programs, where each participant can be pushed in a supportive environment, and then carry their lessons into their fight for life. Means-end theory is the technique of research that is often used in conducting studies in these types of fields.

#### Purpose of the Study

The purpose of this study was to assess the outcomes of participation in First Descents camps.

#### Research Questions

This study attempted to answer the following research questions:

1. What were the demographics of the First Descents participants?
2. What were the predominant attributes, consequences, and values of the First Descents participants?
3. Does gender impact outcomes associated with First Descents participation?

#### Delimitations

This study was delimited to the following parameters:

1. Information on participant outcomes was gathered from First Descents participants using means-end theory.

2. Participants' attributes, consequences, values, and demographics were analyzed.
3. The data were collected during the summer and analyzed during fall of 2013 and winter of 2014.
4. Information for this study was gathered using a person-to-person interview method.

## Chapter 2

### METHODS

The purpose of this study was to assess the outcomes of participation in First Descents camps. Participants who went to a First Descents camp were voluntarily interviewed to find what they valued out of their experience. This section includes the description of subjects, description of instrument, description of procedures, and method of data analysis.

#### Description of Subjects

The subjects were voluntary participants of First Descents camps. They were all young adult cancer fighters or survivors, ranging from the ages of 18-39. They were of different ethnicities, male and female, single, married, or undeclared, and were diagnosed with various types of cancer. Seventy participants volunteered to be interviewed at the end of camp by convenience. Each subject participated in one of six different camps. There were two rock climbing camps (one in Moab, Utah, and the other in Estes Park, Colorado) two whitewater kayaking camps (both in Jackson Hole, Wyoming) and two surf camps (both in Santa Barbara, California).

#### Description of Instrument

The instrument used was an interview script administered by Dr. Goldenberg (see Appendix A). The interview was designed to measure the participants' outcomes from their camp experience. The participant interviewed would first mention an attribute about

camp that was important to them, leading to the consequence of that outcome, and then what they valued because of that certain experience. The researcher would ask the participant to think of three to four outcomes of camp. She then would ask the participant to rank each outcome from most important to least important, and then ask about each one. She would ask, “why is (outcome #1) important to you?” and then continue asking why was (blank) important, until the participant came to a concluding value. This final outcome was the value that the participant got, learned, or realized from camp, which they would bring into their daily lives after camp. This system of questioning is called laddering (Reynolds & Gutman, 1988). This system of questioning did not need a pilot study because it has been tested for reliability and validity from previous studies (Allman, Mittelstaedt, Martin & Goldenberg, 2010; Goldenberg et al., 2000; Goldenberg et al., 2002, Goldenberg McAvoy, & Klenosky, 2005, Klenosky et al., 1993).

First Descents collected the subjects’ demographic information. This information was then given to the researcher upon request (see Appendix B). The participants were told that every part of this study was completely voluntary and they could stop participating at any point without any sort of penalty.

The consent letter explained the details of the questionnaires and how the interviews would be facilitated. It explained that the information collected would remain completely confidential and there were no risks anticipated by participating in the study. It gave contact information so participants would know whom to contact if they had questions, and asked for signatures at the bottom of the page.

### Description of Procedures

Dr. Goldenberg initiated contact with First Descents in October of 2012. She made arrangements with the First Descents Headquarters throughout the Spring of 2013 to organize which camps she would visit. During August and September of 2013, she visited six different First Descents camps in Colorado, California, Wyoming, and Utah. Two camps were white water kayaking, two included rock climbing, and two were surfing camps. All camps were First Descents 1 (FD1) experiences; meaning that each camp was composed of first time participants to First Descents. Dr. Goldenberg arrived at the particular site during the second to last day of camp and conducted interviews when it was convenient for the camp. Dr. Goldenberg would find a quiet place to record and conduct the interview, which was often in the house that the participants stayed for the week.

Interviews used means-end theory, which examines the linkages between the means, or the service, and the ends, or the consequences and values important to the individual (Allman et al., 2010). The means-end data was collected using a technique known as laddering. The researcher asked a series of open-ended questions that led to the participant's values. She started out asking for a list of attributes they found to be important during camp, and then focused on each attribute, asking why it was important to them. The previous questions led to a participant's ending value. Examples of attributes included: interactions with others, new environment, and learning a new activity. Examples of consequences included: relaxation, awareness, or new friendships. Values, often abstract, refer to users' desired end-states of being. Examples of values

included: fun and enjoyment of life, empowerment, warm relationships with others, and transference of knowledge to other areas of the participant's life. The interviews were recorded and lasted 10-20 minutes depending on how the participant responded to the questions.

### Method of Data Analysis

After the interviews were conducted and data were collected, transcriptions were made, and researchers coded the interview data to identify attributes, consequences, and values. Two researchers worked together to establish the codes. Intercoder reliability was then conducted to ensure validity of results. Disagreements in the codes between the intercoder and the two researchers were resolved by the original researchers. Data was then entered into a computer program called LadderMap (Gengler & Reynolds, 1995) to be analyzed. The researcher entered a series of attributes, consequences, and values into LadderMap. The coded data was then analyzed in relation to the research questions. The first research question found the demographics of the participants. The second research question, the attributes, consequences, and values of First Descents participation, was found through analyzing the interview script of open-ended questions and ladders. The third question, did differences in outcomes exist between males and females, was analyzed through the LadderMap software by examining the demographic data compared to the different ladders. The third research question, does gender impact outcomes associated with First Descents participation, was examined by comparing gender and outcomes through the LadderMap software.

Implication matrixes were created to determine the number of times concepts were

linked. An implication matrix depicted how strong the relationship between certain attributes, consequences, and values were (Goldenberg et al., 2005). Attributes, consequences, and values were then depicted based on their relationships to each other in a hierarchical value map (HVM). An HVM presents the three concepts in circles linked by the web of the implication matrix. The different circle sizes were based on how often respondents referred to a certain attribute, consequence, or value (Goldenberg et al., 2005). The circle size showed the significance of that certain attribute, consequence, or value; the larger the circle, the more common a certain theme was. The line-width that connects the circles showed the significance of the linkage between circles; the thicker the line, the more common it was for one theme to lead to another. The color of the circle represents if the theme was an attribute (white), consequence (grey), or a value (black).

## Chapter 3

### PRESENTATION OF THE RESULTS

The purpose of this study was to assess the outcomes of participation in First Descents camps. A total of 70 participants were interviewed after six different First Descents camps. Two of the camps were whitewater kayaking focused, two were climbing, and two were surfing camps. Interviews were conducted, researchers sorted the data onto LadderMap, and then inter-coded the results. The inter-coder reliability had an agreement of 78.8%. This chapter includes the participants' demographic information and HVM models that show the relationships between attributes, consequences, and values.

#### Demographics

Participants were between 20 to 40 years old. The average age was 31.2, and the median age was 29. Females composed 69% ( $n = 48$ ) of the subjects and 31% ( $n = 22$ ) were males. Of the participants, 54% ( $n = 39$ ) were single, 43% ( $n = 30$ ) were married, and 3% ( $n = 2$ ) were divorced. Most of the participants were white (89%,  $n = 62$ ), 7% ( $n = 5$ ) were Hispanic, 1% ( $n = 1$ ) were Asian, and 3% ( $n = 2$ ) marked other. The subjects that were actively fighting cancer was 37% ( $n = 26$ ).

The following table illustrates the attributes, consequences, and values, of the participants of the First Descents camps. The first column is made of the attributes, the second column is composed of the consequences, and the third is the values.

Table 1. Attributes, Consequences, and Value Codes

Attributes	Consequences	Values
Cancer experience	Awareness	Empowerment
Climbing	Challenge	Fun and enjoyment of life
First Descents experience	Connection	Renewed hope
First Descents participants	<i>Community</i>	Self-awareness
Kayaking	<i>New friendships</i>	Self-esteem
Natural environment	Fun	Sense of accomplishment
Self-doubt	Heal/healthy	Transference
Surfing	Letting go	Warm relationships with others
	New knowledge	
	New perspectives	
	Support	

Figure 1 is the HVM for all 70 participants who participated in the research study. The attributes with the most responses were the other *First Descents participants*, and the overall *First Descents experience*. *Awareness*, *connection*, *challenge*, *new perspectives*, and *support* were the most common consequences. For the values, *warm relationships with others*, *transference*, and *self-awareness* had the most responses. Based on the HVM, the strongest links were *First Descents experience* leading to a *connection*, a *connection* leading to *awareness*, and the value of *self-awareness* leading to *transference*. The HVM in Figure 1 depicts the overall trends in the ladder responses. The white circles are attributes, the grey circles are consequences, and the black circles are values.

The size of the circle directly correlates with the frequency it was stated; the larger the circle, the more common that attribute, consequence, or value was. The lines between the circles represent the linkages between each circle; the thicker the line, the more frequently the first circle led to the next circle.

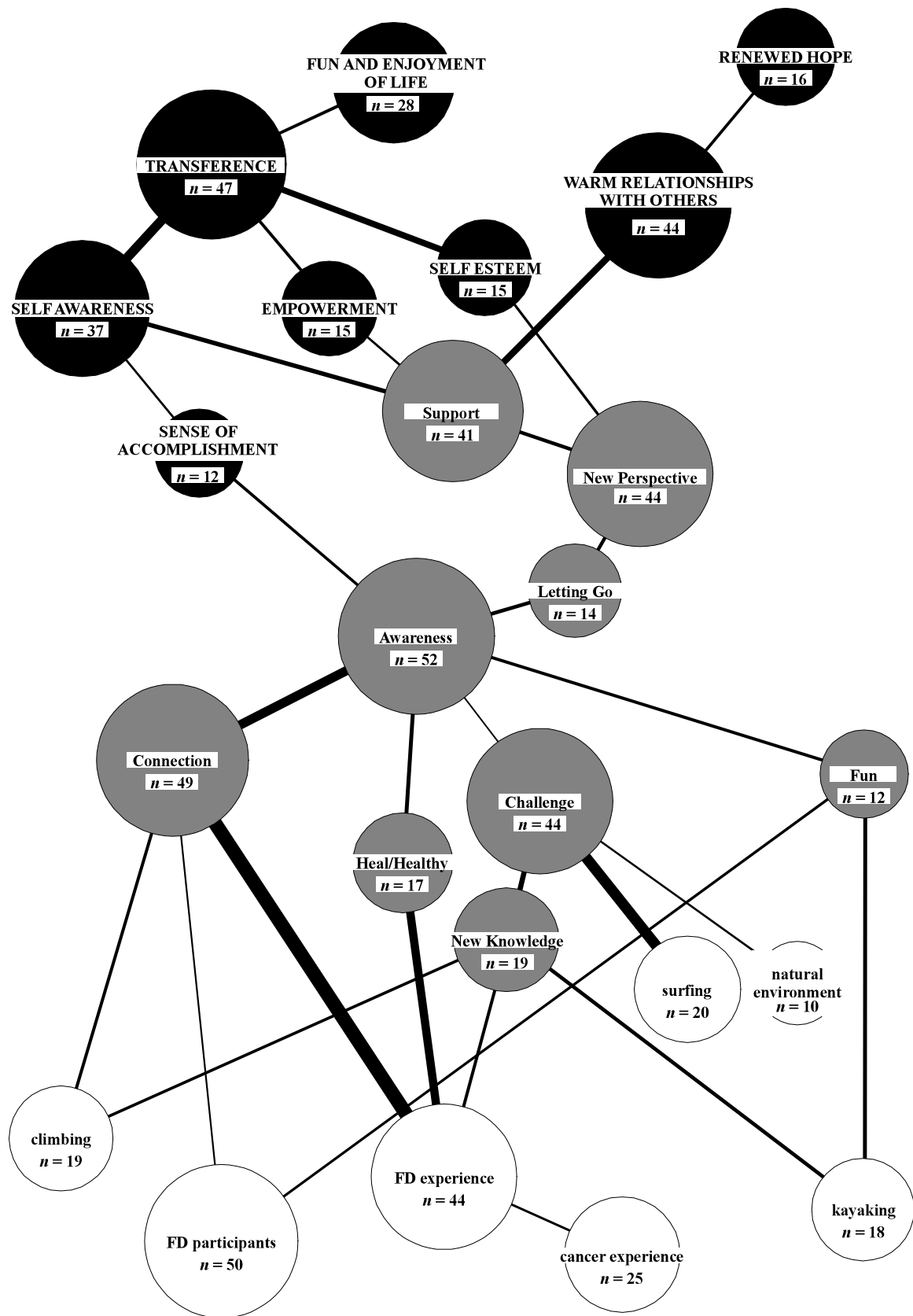


Figure 1. Hierarchical Value Map. All Participants in First Descents ( $n = 70$ )

Figures 2 and 3 are the HVM's that demonstrate the male ( $n = 22$ ), and female ( $n = 48$ ) responses. The male group was a much smaller sample size. For males, the most common attribute was *First Descents participants*. Another significant attribute was *First Descents experience*. The most dominant linkage was from *First Descents participants* going to *connections*. Another dominant consequence was *awareness*, and the most common value was *warm relationships with others*. *Self-doubt* was only an attribute that males mentioned, which always led to a value of *self-esteem* and *transference*. Other significant values that the males mentioned were *transference*, *self-awareness*, and *fun and enjoyment of life*.

The most common attributes that the women noted were the *First Descents participants* and the *First Descents experience*. It was common for a *connection* to result from the *First Descents experience*. *Connection*, *challenge*, *new perspectives*, *support*, and *awareness* were all common consequences. *Support* was much more common of a consequence for the women than the men. *Awareness* often resulted because of a *challenge*. The women's most common value was *transference*. It was also common for *warm relationships with others* and *self-awareness* to be valued.

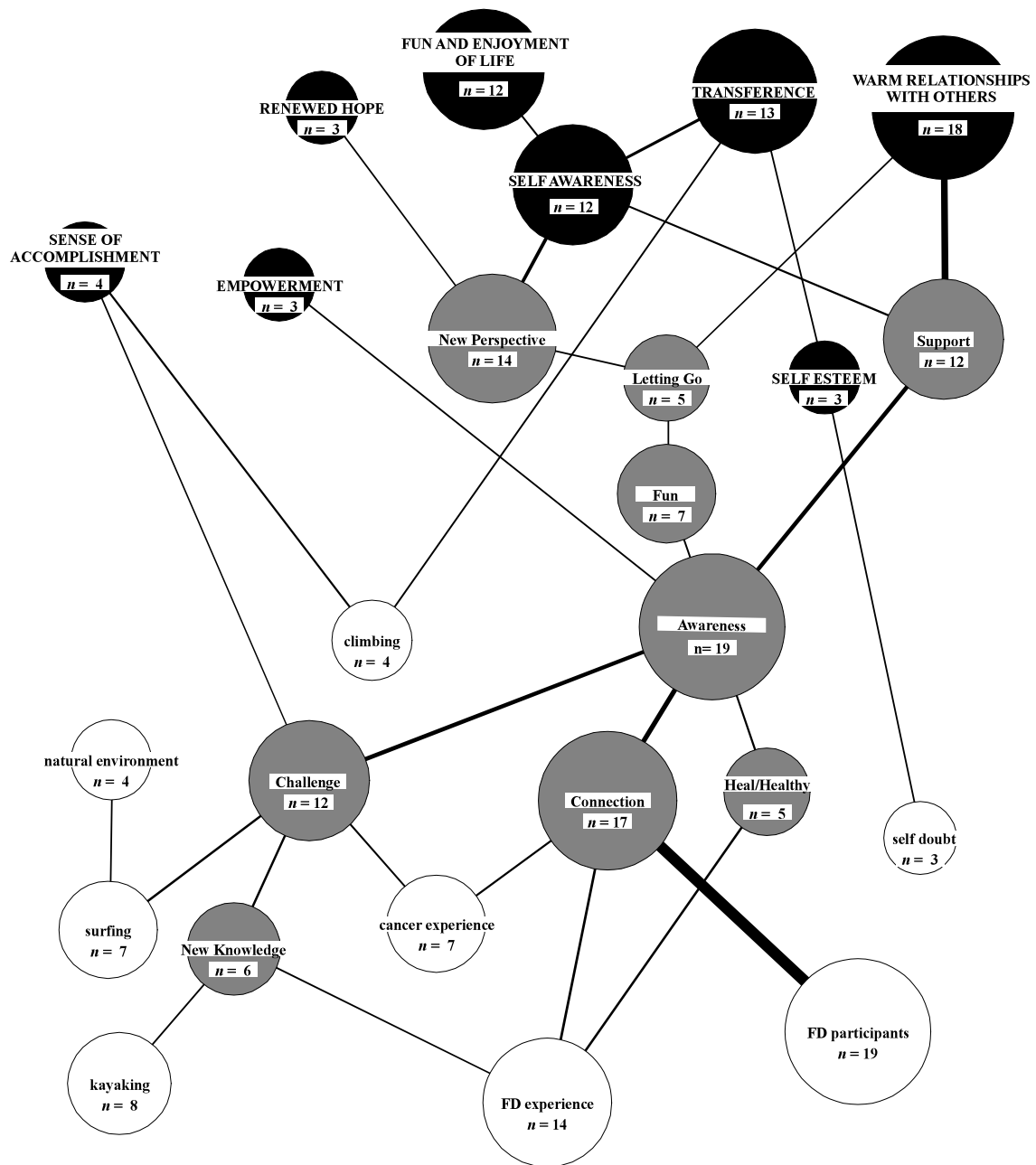


Figure 2. Hierarchical Value Map. Male Participants in First Descents ( $n = 22$ )

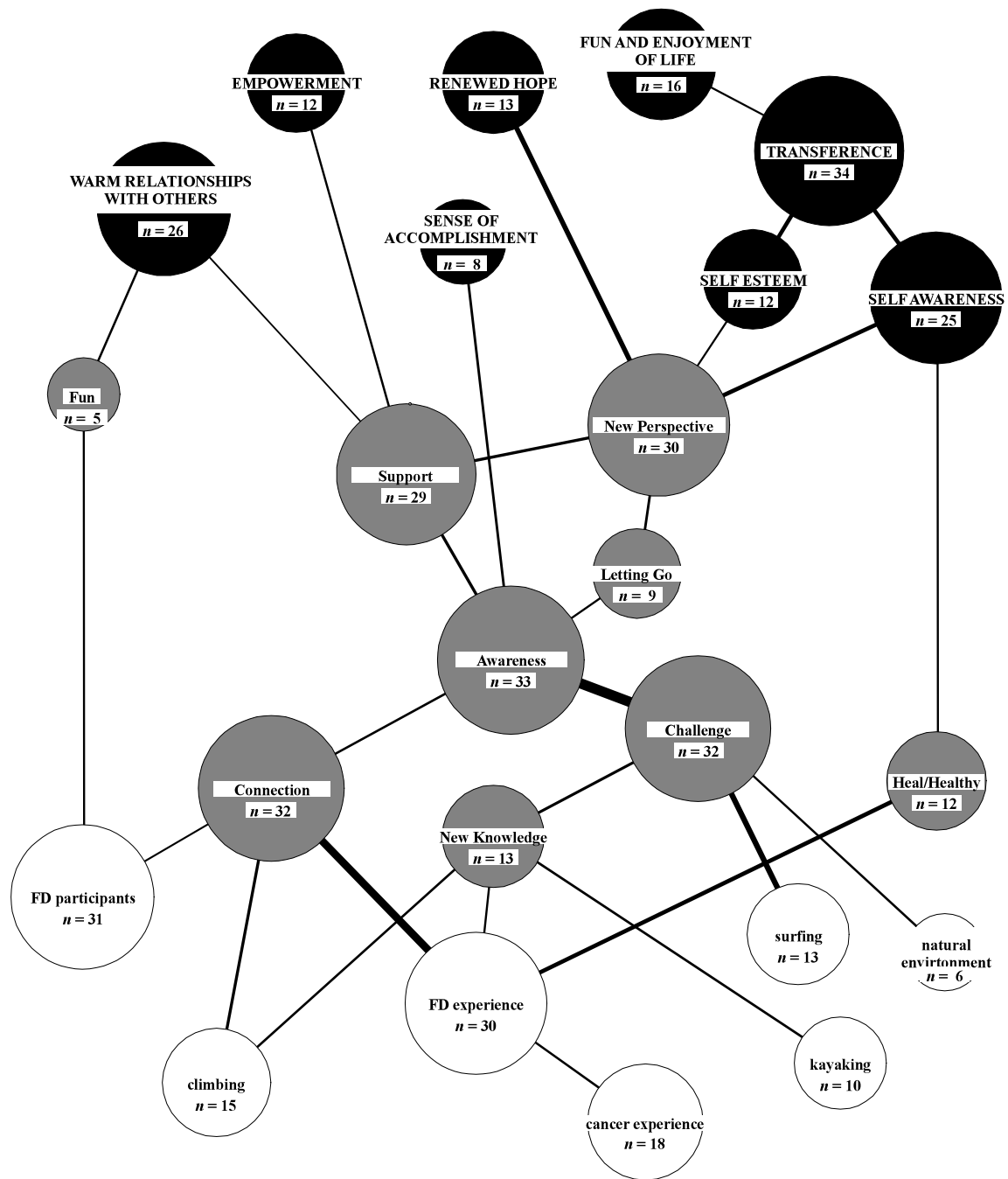


Figure 3. Hierarchical Value Map. Female Participants in First Descents ( $n = 48$ )

## Summary

The results presented in this chapter demonstrate the attributes, consequences, and values of certain aspects of the First Descents program. The HVM with male data, and the HVM with female data show that men and women may value different attributes, consequences, and outcomes from an experience. A detailed summary and discussion of the findings will follow in chapter 4.

## Chapter 4

### DISCUSSION AND CONCLUSIONS

This study shows the importance of adventure therapy programs for individuals in the young adult age group who are cancer fighters or survivors. These types of programs, such as First Descents, provide support groups and a sense of community, as well as an opportunity to challenge oneself and raise an individual's sense of self-awareness and self-confidence. This concluding chapter will include the following: a summary of the study, a discussion of the findings, limitations, conclusions based on research questions, implications of the findings, and recommendations for future research.

#### Summary

The purpose of this study was to assess the outcomes of participation in First Descents camps. First Descents is an adventure therapy program that offers young adults, ages 18-39, both cancer fighters or survivors, an experience to learn an extreme skill like whitewater kayaking, surfing, or rock climbing. These experiences offer opportunities to challenge oneself physically and mentally, that help the participant push past perceived limitations. This can be a life changing experience for young adults with cancer for several reasons, such as being in a support group that naturally forms. Getting diagnosed with cancer at this age is a non-normative life event that can result in depression and feelings of isolation. The natural community and support group that forms is an important part of adventure and wilderness therapy programs that also makes conducting research difficult. Adventure and wilderness therapy have been proven to be difficult to research,

but have also proven to be extremely beneficial. Participants can take what they have learned in the wilderness, like a feeling of empowerment or rise in self-esteem, and apply their new perspectives into their daily lives.

Participants of First Descents were interviewed by using means-end theory in order to find the outcomes that they valued from their camp experience. Means-end theory seeks to find the attributes, consequences, and values that the participant found important in their camp experience. The researcher interviewed 70 participants at six different First Descents camps. Participants that were interviewed volunteered to be part of the research that was conducted. Based on the data collected, hierarchical value maps were created in order to find predominant attributes, consequences, and values, and the strength in correlation between each.

The hierarchical value maps (HVMs) showed that the most predominant attributes were *First Descents participants* and the *First Descents experience*, the most common consequences were *awareness*, *connection*, and *challenge*, and the most common values were *warm relationships with others*, *awareness*, and *transference*. The male HVM and female HVM showed that gender does impact the outcomes associated with First Descents participation.

## Discussion

The demographics of the subjects showed that the only requirement to participate in First Descents was for the participant to be a young adult, ages 18-39, and to be fighting or to have fought cancer. The findings from the HVMs revealed that each participant benefitted from the First Descents camp experience in a way that will

continue to impact them in their daily lives, since several mentioned transference as an outcome. The attributes that the participants learned from were *climbing, kayaking, surfing, the natural environment, First Descents participants*, and the *First Descents experience*. The consequences were *new knowledge, heal/healthy, challenge, fun, connection, awareness, letting go, new perspectives*, and *support*. The values that were gained from camp were *sense of accomplishment, self-esteem, empowerment, renewed hope, fun and enjoyment of life, warm relationships with others*, and *transference*. There was a strong connection between *First Descents experience* and feeling a *connection*, and between *connection* and *awareness*. There was also a strong correlation between *surfing* and *challenge*. The value of *self-awareness* often led to *transference*, and the consequence of *support* often led to *warm relationships with others*. These attributes, consequences and values showed that the participants learned from their experiences in a way that was bigger than just a new skill learned. The participants took what they learned from their experiences as a metaphor for facing real life challenges and struggles, especially fighting and living with cancer.

The male HVM and the female HVM showed that there was a difference in outcomes between males and females. It is interesting to note that *self-doubt* was only an attribute that males mentioned, which led to a value of *self-esteem* and *transference*, and *support* was a more significant consequence for the woman than it was for the men. Having *warm relationships with others* was the most common value for the men, and *transference* was the most common value for the women. Previous research shows that *transference* and *warm relationships with others* are significant values (McAvoy et al.,

2006), but there is no research that has been done to find the differences between male and female values.

Findings from the First Descents research were consistent with previous research. Experiences, such as First Descents, have not only decreased depressive symptoms (Crisp & Hinch, 2004) but have positively affected mood state by reducing stress and tension, assisting recovery from mental fatigue, and boosting self-confidence, among other psychological benefits (Ibbott, 1999; Kaplan & Kaplan, 1989; Leather et al. 1998; Lewis, 1996). Research also showed that being diagnosed with cancer can cause depression, stress, isolation, fear, and anxiety (Bar-Sela et al., 2007). Many of the participants recognized that these were huge barriers in their previous cancer experience. Because they participated in First Descents, these participants found that their barriers were all challenges that could be overcome, just like learning how to stand up on a surf board, reaching the top of a difficult climb, or running a class II or class III rapid in a kayak. These resolutions resulted in powerful values like renewed hope, empowerment, self-esteem, transference, and warm relationships with others.

Most of the participants stated that participating in First Descents with cancer fighters and survivors their own age was an important attribute, which was stated in multiple previous studies (Rabin et al., 2011; Soliman & Agrata, 2008; Zebrack et al., 2006). Experiencing all aspects of camp in a group was an important reminder that life, especially cancer, does not have to be experienced alone. Participants came together to talk about varying treatments, ask questions about medicine, and share life stories. Through encouragement and support of each other and the First Descents staff, participants were able to accomplish difficult physical activities and push past barriers

that seemed impossible. This was an important reminder that community is crucial to get through challenging times and to celebrate excitement.

Transference was the most predominant value that the interviewed participants took from their First Descents experience. Previous research stated that transference is a strong value that participants should take from adventure and wilderness therapies (Ewert & McAvoy, 2000; Gass, 1993; Paxton, 1998; Pohl, 1998). Transference is a value that recognizes lessons learned, new perspectives, knowledge, or awareness, and the desire to take what was learned into life after camp. It could be anything from getting inspired to stay healthy after camp, to recognizing how important relationships with others is, and getting inspired to connect more with family after camp. This showed that it was common for the participants to gain a valuable life lesson through many aspects of the camp experience.

The implications of these findings are crucial. First, this research showed that adventure and wilderness therapy programs are valuable for young adults with cancer. The physical challenges they overcame and lessons they learned throughout the week can be transferred to their fight for life. When diagnosed with cancer, there is hardly any energy left for a patient to search for alternative therapy programs (Rabin et al., 2011). So, these types of multidimensional experiences need to be more accessible and readily available to this target market. They should be easy to find out about, affordable, and readily available. These types of programs are effective and life changing, and every cancer fighter and survivor should have the opportunity to partake in one, if desired.

Studying the outcomes of adventure therapy is extremely difficult to measure. Not only is it difficult because of sensitive group dynamics and physical reasons (Ewert &

McAvoy, 2000), but it is also difficult to sort the information. To put into words what a participant is just discovering, nonetheless take notes on it, analyze it, interpret it, and then put it in a category where sufficient participants responded similarly for the outcome to be significant was a challenge. It was a limitation and challenge not to lose meaning behind what each participant stated.

### Conclusions

Based on the findings of this study, the following conclusions are drawn:

1. The demographics of the First Descents participants were 20-40 years old the average age was 31.2, and the middle age was 29, 69% were females and 31% were males, 54% of the participants were single, the remaining were married with a few being divorced, 89% of the participants were White, 7% were Hispanic, 1% were Asian, 3% marked other, and 37% of the subjects were actively fighting cancer.
2. The predominant attributes in First Descents participation were other *First Descents participants, the First Descents experience, and one's personal cancer experience*; the most common consequences were *awareness, connection, challenge, new perspectives, and support*; the predominant values that participants took away from their First Descents experience were *warm relationships with others, transference, and self-awareness*.
3. Gender does impact the outcomes associated with First Descents participation in the attributes, consequences, and values that they found to be important from their camp experience.

## Recommendations

Based on the conclusions of this study, the following recommendations are made:

1. These findings should be utilized by First Descents.
2. This research needs to be easily attained by doctors and young adults with cancer, so that they are able to find out about supportive and therapeutic programs.
3. The researcher should continue to conduct means-end theory with these participants to see if outcomes change, increase, or decrease, as time goes by.
4. More research should be conducted on adventure therapy and young adults with cancer so that findings become stronger.
5. Research should be done on other programs to find if data varies depending on the program.
6. Examinations comparing male and female participants should continue in order to find more ways to better serve each participant.

## REFERENCES

## REFERENCES

- Allman, T. L., Mittelstaedt, R. D., Martin, B., Goldenberg, M. A., (2010). Exploring the motivations of base jumpers: Extreme sport enthusiasts. *Journal of Outdoor Recreation, Education, and Leadership*, 2, 9-13.
- Baker, F., Denniston, M., Smith, T., & West, M. M. (2005). Adult cancer survivors: how are they faring? *Cancer*, 104, 2565-2576. doi: 10.1002/cncr.21488
- Balen, R. (1996). Activity Camps for Children with Cancer. Research Review. *Children & Society*, 10, 317-323.
- Bar-Sela, G., Atid, L., Danos, S., Gabay, N., & Epelbaum, R. (2007). Art therapy improved depression and influenced fatigue levels in cancer patients on chemotherapy. *Psycho-oncology*, 16, 980-984. doi: 10.1002/pon.1175
- Belanger, L. J., McGowan, E., Lang, M., Bradley, L., & Courneya, K. S. (2013). Psycho-Oncology. [Abstract]. *Adventure Therapy: A Novel Approach to Increasing Physical Activity and Physical Self-Concept in Young Adult Cancer Survivors*. 3-70
- Bleyer, W. A. (2002). Cancer in older adolescents and young adults: epidemiology, diagnosis, treatment, survival, and importance of clinical trials. *Medical and Pediatric Oncology*, 38, 1-10.
- Carpenter, C., & Pryor, A. (2004). A confluence of cultures: Wilderness adventure therapy practice in australia and new Zealand. In S. Bendoroff & S. Newes (Eds.), *Coming of age: The evolving field of adventure therapy* (pp. 224-239). Boulder, CO: Association of Experiential Education.
- Carpenter, C., Pryor, A., Townsend, & Townsend, M. (2005). Outdoor education and bush adventure therapy: a socioecological approach to health and wellbeing. *Australian Journal of Outdoor Education*, 3. Retrieved from [http://go.galegroup.com.ezproxy.lib.calpoly.edu/ps/i.do?id=GALE%7CA146935734&v=2.1&u=calpolyw\\_csu&it=r&p=AONE&sw=w&asid=e56a0f0169f01b93343254a1cc946b7b](http://go.galegroup.com.ezproxy.lib.calpoly.edu/ps/i.do?id=GALE%7CA146935734&v=2.1&u=calpolyw_csu&it=r&p=AONE&sw=w&asid=e56a0f0169f01b93343254a1cc946b7b)
- Cella, D. F., & Tross, S. (1986). Psychological adjustment to survival from Hodgkin's disease. *Journal of Consulting and Clinical Psychology*, 54, 616-622.
- Cordova, M. J., Andrykowski, M. A., Kenady, D. E., McGrath, P. C., Sloan, D. A., & Redd, W. H. (1995). Frequency and correlates of posttraumatic-stress-disorder-like symptoms after treatment for breast cancer. *Journal of Consulting and Clinical Psychology*, 63, 981-986. doi: 10.1037/0022-006X.63.6.981

- Crisp, S., & Hinch, C. M. (2004). *Treatment effectiveness of wilderness adventure therapy: Summary findings*. Clifton Hill, Australia: Neo Psychology.
- Deimling, G. T., Kahana, B., Bowman, K. F., & Schaefer, M. L. (2002). Cancer survivorship and psychological distress in later life. *Psycho-oncology*, 11, 479-494 doi: 10.1002/pon.614
- Easley, A. T., & Passineau, J. F. (1990). *The use of wilderness for personal growth, therapy, and education*. Fort Collins, CO: Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station.
- Epstein, I., Stinson, J., & Stevens, B. (2005). The effects of camp on health-related quality of life in children with chronic illnesses: a review of the literature. *Journal of Pediatric Oncology Nursing : Official Journal of the Association of Pediatric Oncology Nurses*, 22, 89-103.
- Ewert, A. W., & Hollenhorst, S. J. (1990). Risking it on wildlands: the evolution of adventure recreation. *Journal of Environmental Education*, 21, 29-36.
- Ewert, A., & McAvoy, L. (2000). The effects of wilderness settings on organized groups: a state-of-knowledge paper. *USDA Forest Service Proceedings*, 3, 13-26.
- First Descents. (2014) Retrieved from <http://firstdescents.org>
- Frumkin, H. (2001). Beyond Toxicity human health and the natural environment. *American Journal of Preventive Medicine*, 20, 234-240.
- Gager, D., Hendee, J., Kinzinger, M., & Krumpe, E. (1998). What managers are saying and doing about wilderness experience programs. *Journal of Forestry*, 96, 33-37.
- Gas, M. (1993). *Adventure therapy: therapeutic applications of adventure programming*. Dubuque, IA: Kendall/Hunt.
- Gengler, C. E. & Reynolds, T. J., (1995). *Laddermap*. Camden, NJ: Means-End Software.
- Gilbert, B., Golsdorf, R., & Ringer, M. (2004). Playing with ideas about adventure therapy: Applying principles of Gestalt, narrative and psychodynamic approaches to adventure therapy. In S. Bendoroff & S. Newes (Eds.), *Coming of age: The evolving field of adventure therapy* (pp. 31-55). Boulder, CO: Association of Experiential Education.
- Goldenberg, M., Klenosky, D., McAvoy, L., & Holman, T. (2002). Using means-end theory to understand the outdoor adventure experience. *Journal of Research in Outdoor Education*, 6, 40-47.

- Goldenberg, M. A., Klenosky, D. B., O'Leary, J. T., & Templin, T.J. (2000). A means-end investigation of ropes course experiences. *Journal of Lesure Research*, 32, 208-224.
- Goldenberg, M. A., McAvoy, L., & Klenosky, D. B. (2005). Outcomes from the components of an Outward Bound experience. *Journal of Experiential Education* 28, 123-46.
- Hattie, J., Marsh, H. W., Neill, J., & Richards, G. (1997). Adventure education and outward bound: Out-of-class experiences that make a lasting difference. *Review of Educational Research*, 76, 43-87.
- Ibbott, K. (1999). Wilderness therapy. *Psychotherapy in Australia*, 5, 6-10. Retrieved from <http://search.informit.com.au/documentSummary;dn=549716585863571;res=IELHEA>
- Jenseth, R., & Lotto, E. (Eds.). (1996). *Constructing nature: Readings from the American experience*. Upper Saddle River, NJ: Pearson College Div.
- Kaplan, R., & Kaplan, S. (1989). *The experience of nature: A psychological perspective*. Cambridge, NY: Cambridge University Press.
- Kangas, M., Henry, J. L., & Bryant, R. A. (2002). Posttraumatic stress disorder following cancer: A conceptual and empirical review. *Clinical Psychology Review*, 499-524, doi: 10.1016/S0272-7358(01)00118-0
- Klenosky, D. B., Gengler, C., & Mulvey, M. (1993). Understanding the factors influencing ski destination choice: A means-end analytic approach. *Journal of Leisure Research* 25, 362-79.
- Lane, M. R. (2006). Arts in health care: a new paradigm for holistic nursing practice. *Journal of Holistic Nursing: Official Journal of the American Holistic Nurses' Association*, 24, 70-75. doi: 10.1177/089801010582465
- Leather, P., Pyrgas, M., Beale, D., & Lawrence, C. (1998). Windows in the workplace. *Environment & Behavior*, 30, 739-763.
- Lewis, C. A. (1996). *Green nature/human nature: The meaning of plants in our lives*. Chicago: University of Illinois Press.
- Luckner, J. (1989). Altering locus of control of individuals with hearing impairments by outdoor-adventure courses. *Journal of Rehabilitation*, 55, 62-67.
- McAvoy, L., Holman, T., Goldenberg, M., & Klenosky, D. (2006). Wilderness and Persons with Disabilities Transferring the Benefits to Everyday Life. *International Journal of Wilderness*, 12, 23-35.

- Mehnert, A., & Koch, U. (2007). Prevalence of acute and post-traumatic stress disorder and comorbid mental disorders in breast cancer patients during primary cancer care: a prospective study. *Psycho-oncology*, *16*, 181-188. doi: 10.1002/pon.1057
- Nadler, R. S., & Luckner, J. L. (1992). Processing the adventure experience: Theory and practice. Dubuque, IA: Kendall/Hunt
- Nash, R. (1982). *Wilderness and the American mind*. New Haven, CT: Yale University Press.
- Neill, J. T., (2003). Reviewing and benchmarking adventure therapy outcomes: applications of meta-analysis. *Journal of Experiential Education*, *25*, 316-321.
- Park, C. L., Chmielewski, J., & Blank, T. O. (2010). Post-traumatic growth: finding positive meaning in cancer survivorship moderates the impact of intrusive thoughts on adjustment in younger adults. *Psycho-oncology*, *19*, 1139-1147. doi: 10.1002/pon.1680
- Paxton, T., & McAvoy, L. (2000). Social psychological benefits of a wilderness adventure program. *USDA Forest Service Proceedings*, *3*, 202-206.
- Pohl, S. (1998). *Women, wilderness and everyday life: An examination of the connection between wilderness recreation and women's liberation*. (Unpublished masters thesis). Missoula, MT: University of Montana
- Rabin, C., Morrow, K., Pinto, B., & Simpson, N. (2011). Behavioral and psychosocial program needs of young adult cancer survivors. *Qualitative Health Research*, *21*, 796- 806.
- Reynolds, T. J., & Gutman J. (1988). Laddering theory, method, analysis, and interpretation. *Journal of Advertising Research* *28*, 11-31.
- Saunders, E. (2012). Cancer survivor camps: Programming for young adult cancer survivors. (Unpublished masters thesis). University of Oregon, Eugene, OR.
- Smith, K. E., Gotlieb, S., Gurwitch, R. H., & Blotcky, A. D. (1987). Impact of a summer camp experience on daily activity and family interactions among children with cancer. *Journal of Pediatric Psychology*, *12*, 533-542.
- Soliman, H., & Agresta, S. V. (2008). Current issues in adolescent and young adult cancer survivorship. *Cancer Control*, *15*, 55-62.
- Stein, K. D., Syrjala, K. L., & Andrykowski, M. A. (2008). Physical and psychological long-term and late effects of cancer. *Cancer*, *112*, 2577-2592.

- Stupid Cancer. (2013). Get me Outta Here! Retrieved from <http://stupidcancer.org/directories/retreats.shtml>
- Unruh, A. M., & Elvin, N., (2004). In the eye of the dragon: Women's experience of breast cancer and the occupation of dragon boat racing. *Revue Canadienne D'ergotherapie*, 71, 138-149.
- Walsh, S. M., Radcliffe, S., Castillo, L. C., Kumar, A. M., & Broschard, D. M. (2007). A Pilot Study to Test the Effects of Art-Making Classes for Family Caregivers of Patients With Cancer. *Oncology Nursing Forum*, 34, 9-16.
- Wellisch, D. K., Crater, B., Wiley, F. M., Belin, T. R., & Weinstein, K. (2006). Psychosocial impacts of a camping experience for children with cancer and their siblings. *Psycho-oncology*, 15, 56-65.
- Zebrack, B., Bleyer, A., Albritton, K., Medearis, S., & Tang, J. (2006). Assessing the health care needs of adolescent and young adult cancer patients and survivors. *Cancer*, 107, 2915-2923. doi: 10.1002/cncr.22338

## APPENDIXES

Appendix A  
Instrument

## Insights of a First Descents Participants Interview Script

Participation Number: \_\_\_\_\_ 1. Male or Female

Introduction: Good morning/afternoon/evening. I'm \_\_\_\_\_, talking to you on behalf of California Polytechnic State University. I am interested in understanding what you got from your First Descents experience. Would you be willing to participate in a 10-minute interview?

*(If they agree to participate - hand them an Informed Consent Letter as a reminder that they have already signed it previously).*

As you know the purpose of this interview is to find out what your outcomes of participating in a First Descents experience. There are no right or wrong answers to these questions. I want you to feel comfortable talking with me and answering my questions. Please be assured that all of your responses will remain completely confidential. Also, when answering a question please refer only to your most recent First Descents experience rather than any other previous outdoor experiences you might have had. Any questions for me? OK, let's begin?

### SECTION 1 – General Questions

2. Would you return to this area with your family and/or friends?

3. I am interested in what you feel you have gotten from your First Descents experience. That is, I would like you to think about the things you learned and the outcomes you received from your participation this past week. Please tell me some of the outcomes that you received. Any others? (TRY TO GET AT LEAST 3-4... BUT ALLOW FOR MORE)

List of Outcomes:	Ranking:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

8. Now, I want you to think about the importance of each of these outcomes. Which of the outcomes you mentioned would you say is the most important to you? Which is the next most important? (REPEAT TILL ALL ARE RANKED)

### SECTION 2 – Laddering the Outcomes

Now, I am going to ask you about some outcomes that you mentioned. You should know that some of my questions will seem obvious or repetitive to you. It is not that I don't understand the obvious, it's just that I need to hear things in your own words to know exactly what you mean. Are you ready to begin?

OUTCOME #1:

Now you mentioned that (outcome #1) \_\_\_\_\_ was something that you got out of your First Descents experience. Why is \_\_\_\_\_ important to you? ...And why is that important to you?

OUTCOME #2:

Now you mentioned that (outcome #2) \_\_\_\_\_ was something that you got out of your First Descents experience. Why is \_\_\_\_\_ important to you? ...And why is that important to you?

OUTCOME #3:

Now you mentioned that (outcome #3) \_\_\_\_\_ was something that you got out of your First Descents experience. Why is \_\_\_\_\_ important to you? ...And why is that important to you?

**THANK YOU FOR YOUR TIME!!**

Appendix B  
Consent Form

**Informed Consent Form to Participate in a Research Project:  
Participation Outcomes of *First Descents*: An Outdoor Adventure  
Therapy Program for Young Adults with Cancer**

A research project on participation in *First Descents* programs is being conducted by Dr. Marni Goldenberg in the Department of Recreation, Parks, and Tourism Administration and Liz Gill, a graduate student, in the Kinesiology Department at Cal Poly, San Luis Obispo. The purpose of the study is to understand the outcomes associated with participating in *First Descents*, a non-profit organization that provides free week-long outdoor adventure therapy programs to young adults with cancer.

You are being asked to take part in this study by participating in 2 10-minute informal interviews and fill out a packet of questionnaires that should take approximately 15 minutes (Total time of approximately 35 minutes). The questions you will be asked concern demographic factors, your cancer and treatment, physical activity, your *First Descents* experience, sleep, work, and self-efficacy. You will be asked to complete the questionnaires and interview prior to your *First Descents* experience, as well as immediately after completion and during a follow up interview. Please be aware that you are not required to participate in this research and you may discontinue your participation at any time without penalty. You may also omit/not respond to any questions that you prefer not to answer.

There are no risks anticipated with participating in this study. Your responses will be provided confidentially to protect your privacy. A coding system will be used on research records and data will be kept secured by the researchers. Your name will not be used in any reports or this research without your permission. Potential benefits associated with the study include adding to the body of research on programs for young adult cancer survivors. This research will help clarify the outcomes and benefits of participating in *First Descents*, and may be used by organizations that develop programs for young adult cancer survivors ranging from outdoor to exercise programs.

If you have questions regarding this study or would like to be informed of the results when the study is completed, please feel free to contact Marni Goldenberg at (805) 756-7627 or mgoldenb@calpoly.edu. If you have concerns regarding the manner in which the study is conducted, you may contact Dr. Steve Davis, Chair of the Cal Poly Human Subjects Committee, at (805) 756-2754, sdavis@calpoly.edu, or Dr. Dean Wendt, Interim Dean of Research, at (805) 756-1508, dwendt@calpoly.edu.

If you agree to voluntarily participate in this research project as described, please indicate your agreement by signing below. Please keep one copy of this form for your reference, and thank you for your participation in this research.

---

Signature of Volunteer

---

Date

---

Signature of Researcher

---

Date