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An Examination of the Relationship Between Adventure Recreation and Adolescent Identity Development

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RAFTING, HIKING, AND SELF-REFLECTING: EXAMINING THE
RELATIONSHIP BETWEEN ADVENTURE RECREATION
AND ADOLESCENT IDENTITY DEVELOPMENT

by

Mathew D. Duerden

A thesis submitted to the faculty of

Brigham Young University

in partial fulfillment of the requirements for the degree of

Master of Science

Department of Recreation Management and Youth Leadership

Brigham Young University

August 2006

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BRIGHAM YOUNG UNIVERSITY

GRADUATE COMMITTEE APPROVAL

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ABSTRACT

RAFTING, HIKING, AND SELF-REFLECTING: AN EXAMINATION OF THE RELATIONSHIP BETWEEN ADVENTURE RECREATION AND ADOLESCENT IDENTITY DEVELOPMENT

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Master of Science

The purpose of this study is to examine, using both quantitative and qualitative methods, the effect of a two-week adventure recreation program on early adolescent identity development. The study also investigates the influence of gender and the parent-adolescent relationship on this process. Participants in this study included 44 males and 47 females, ages 11-17 ($M = 13.4$, $SD = 1.03$), from three western states. Twenty-two males and 23 females participated in the treatment group and the remaining 22 males and 24 females served as controls. The treatment group completed a two-week adventure recreation program, Camp WILD. The program consisted of three different activity areas: backpacking, exploration (e.g., mountain biking, leadership training, wilderness skills, and environmental education) and white water rafting. The quantitative results supported the hypothesis that the adventure recreation program would promote positive adolescent

identity development. The data also indicated only limited differences between the developmental impact of the program on males and female participants and that the child-parent relationship exerted only a slight influence on the interaction between the program and identity development. The qualitative data provided further insight into the mechanisms underlying the positive relationship between the adventure recreation program and participants' identity development.

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Running head: RAFTING, HIKING, AND SELF-REFLECTING

Rafting, Hiking, and Self-Reflecting: Examining the Relationship between
Adventure Recreation and Adolescent Identity Development

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Abstract

The purpose of this study is to examine, using both quantitative and qualitative methods, the effect of a two-week adventure recreation program on early adolescent identity development. The study also investigates the influence of gender and the parent-adolescent relationship on this process. Participants in this study included 44 males and 47 females, ages 11-17 ($M = 13.4$, $SD = 1.03$), from three western states. Twenty-two males and 23 females participated in the treatment group and the remaining 22 males and 24 females served as controls. The treatment group completed a two-week adventure recreation program, Camp WILD. The program consisted of three different activity areas: backpacking, exploration (e.g., mountain biking, leadership training, wilderness skills, and environmental education) and white water rafting. The quantitative results supported the hypothesis that the adventure recreation program would promote positive adolescent identity development. The data also indicated only limited differences between the developmental impact of the program on males and female participants and that the child-parent relationship exerted only a slight influence on the interaction between the program and identity development. The qualitative data provided further insight into the mechanisms underlying the positive relationship between the adventure recreation program and participants' identity development.

Key Words: identity development, adventure recreation, early adolescents, youth development

Introduction

Healthy identity development during adolescence facilitates a smooth transition from childhood to adulthood (Erikson, 1959, 1963, 1968). Successful identity development requires adolescents to participate in activities and explore domains that allow them to express their individuality and receive subsequent feedback and validation from society (Erikson). Identity represents an intricate blend of goals, beliefs, attitudes, and roles (Erikson). Researchers suggest that identity development is facilitated by self-expression, feedback from society, new experiences, social development, skill acquisition, and self-reflection (Kivel, 1998; Kleiber & Kirshnit, 1990, 1991).

The nature of recreational activities provides an ideal context for identity development facilitators to occur. To date, only a handful of studies have specifically examined the interaction between recreation and identity development (Kleiber & Kirshnit, 1991; Kleiber & Kirshnit, 1991; Munson & Widmer, 1997; Shaw, Kleiber, & Caldwell, 1995). Even fewer studies address the effect of adventure recreation on identity development (Anderson-Hanley & Ellis, 1996; Bennett, 1997; Taylor, 1990). The purpose of this study is to examine the effect of a two-week adventure recreation program on early adolescent identity development using a mixed methods approach. The study also investigates potential gender differences and the influence of the parent-adolescent relationship on this process.

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Review of Literature

Identity

The formation of a stable identity is the key developmental task of adolescence (Erikson, 1959, 1963, 1968; Finkenauer, Engels, Meeus, & Oosterwegel, 2002; Marcia, 1966, 1980). A well developed identity provides a bridge between adolescence and adulthood, creates a structure to organize and unify behavior across different contexts, and provides a direction and focus for behavior that reinforces an individual's identity (Waterman, 1984). Problems with identity formation during adolescence can lead to difficulties that may carry over into adulthood.

Identity development is the fifth stage of Erikson's (1959, 1963, 1968) eight stage psychosocial growth model. In the most basic form, identity is self-perception (Groff & Kleiber, 2001; Marcia, 1993; Mitchell, 1992; Rangell, 1994). This perception changes over time and contexts, and facilitates both integration with and differentiation from society (Erikson; Lavoie, 1994; Marcia, 1994; Mitchell, 1992; Weiss, 2001). Marcia (1993), in an effort to clarify and expound on Erikson's work, proposes three main features of identity: structural, phenomenological, and behavioral.

Structurally, identity represents one link of a larger developmental chain. Erikson's (1959, 1963, 1968) developmental model consists of eight dialectic links: trust vs. mistrust, autonomy vs. shame, initiative vs. guilt, industry vs. inferiority, identity vs. identity diffusion, intimacy vs. isolation, generativity vs. stagnation, and integrity vs. despair (Erikson; Marcia, 1993). These links or stages build upon one another, meaning that the success of any individual stage is predicated upon the successes of the preceding

stages (Marcia). Identity development, the fifth link, occurs during adolescence and creates a developmental link between childhood and adulthood (Erikson).

The phenomenological aspect of identity refers to an individual's core (Marcia, 1993). This core develops through a process of exploration of and commitment to specific identity elements (i.e., roles, beliefs, values, etc.) (Grotevant & Cooper, 1998; Marcia, 1966, 1980; Waterman, 1992). Exploration is the process whereby individuals investigate and appraise different identity elements (Phoenix, 2001). Through the process of exploration individuals make commitments to identity elements (Phoenix). The consolidation of selected elements forms the core of an individual's identity (Grotevant & Cooper; Marcia, 1980; Waterman, 1984, 1985). Exploration and commitment are the driving forces behind identity development. Varied combinations of these two characteristics can lead to one of four statuses: foreclosure, diffusion, moratorium, and achievement (Marcia, 1966).

Each of the identity statuses represents a specific combination of exploration and commitment (Adams & Archer, 1994; Csikszentmihalyi, Larson, & Prescott, 1977; Marcia, 1966, 1980; Phoenix, 2001). *Foreclosure* represents commitment to specific identity elements without any prior exploration. For example, an adolescent who decides to follow in his or her father's occupational footsteps without exploring other vocational opportunities would fall in the identity foreclosure status. *Identity diffusion* represents lack of both exploration and commitment. Youth in this status apathetically fail to explore or commit to any identity elements. *Moratorium* represents a state of current exploration that has not yet led to any commitments. For example, a youth experimenting

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with a variety of recreation activities (e.g., mountain biking, rock climbing, skateboarding, etc.) who has not yet singled a particular activity as their favorite could be classified into the moratorium status. When individuals have explored and committed to different identity elements *identity achievement* occurs.

Behavior, the third aspect of identity, is a direct result of commitment to identity elements (Marcia, 1993; Waterman, 1990). As the inner-core forms, the individual chooses to act in accordance with the values associated with the identity elements of the inner-core (Phoenix, 2001). Marcia notes that behavior resulting from commitments to identity elements represents the only quantifiable aspect of identity. Together the structural, phenomenological, and behavioral aspects create a framework for an individual's identity.

Timing of Identity Development during Adolescence

Even though most individuals establish stable identities during their early 20's (Archer & Waterman, 1994), the process of identity development begins during early adolescence (Adams & Archer, 1994; Lavoie, 1994; Wires, Barocas, & Hollenbeck, 1994). Individuals transition from childhood to early adolescence as a result of the physical, emotional, and mental changes associated with puberty and exposure to new environments and opportunities (Brinthaupt & Lipka, 2002; Roeser & Lau, 2002). Early adolescents also experience increased cognitive abilities that make identity development possible (Roeser & Lau). This life stage serves as a time when youth begin to engage in identity development, thereby laying the foundation of their future adult identities.

The nature of early adolescent identity development and the factors that influence this process represent an area of ongoing scholarly exploration. A deeper understanding of identity development and the timing of this process during early adolescence may help researchers and practitioners explain and more effectively influence this process. For example, the exposure to catalysts of positive identity development (e.g., role models, exploration of identity elements, and democratic parenting) (Waterman, 1982) during early adolescence may have a profound impact on the completion of identity development during late adolescence.

Gender and Identity Development

The effect of gender on adolescent identity development remains a subject of debate. Critics of Erikson's work suggest that females and males develop identity differently (Gilligan, 1982; Gilligan, Ward, Taylor, & Bardige, 1988; Miller, 1976). Proponents of Erikson's work argue that no major differences exist between male and female identity development (Streitmatter, 1993). The gender and identity development literature will be addressed in three distinct areas: process, timing, and domains.

The identity development process requires that individuals learn to differentiate themselves from those around them (Mitchell, 1992). Gilligan (1982) suggests that females value their relationships with others more than their ability to establish a sense of independence through differentiation. If correct, this priority difference between genders might mean that females and males engage in different identity development processes (Gilligan, 1979). For example, women may focus on developing intimate relationships before they focus on identity development, thus altering the order of Erikson's identity

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and intimacy stages. In contrast to this claim, the studies that specifically address gender and identity suggest little or no differences between male and female identity development processes (Archer, 1989, 1985; Streitmatter, 1993; Waterman, 1982, 1985, 1999).

Identity development timing refers to both when an individual begins and ends the processes of exploration and commitment (Archer, 1989). Research tends to show little or no differences in regards to identity development timing between males and females (Archer, 1989; Waterman, 1999). Since timing differences between males and females exist in puberty, with females beginning this process, on average, one to two years earlier than males (Katchadourian, 1977), similar timing differences may exist with identity development as well. Marcia (1980) suggests the female focus on relationships lengthens the identity development process. Research findings not only fail to support Marcia's claims, but also suggest that females may proceed through identity development more quickly than males (Archer; Waterman).

Identity domains represent the one area where slight differences between males and females appear in the research (Archer, 1989; Waterman, 1985, 1993, 1999). Identity domains such as religion and family roles, have a strong influence on identity development (Archer). Research findings seem to indicate slight differences between genders across some identity domains such as family roles, social roles, and politics (Archer; Waterman, 1985, 1999). For example, findings suggest that females focus more on social roles, while males have a more fully developed political ideology (Waterman, 1985). Studies that attempt to investigate gender and identity development should employ

instruments that consider both intrapersonal (i.e., ideologies) and interpersonal (i.e., relationships) domains (Streitmatter, 1993). Although identity domains represent one area where slight gender differences exist, most findings suggest that males and females progress through identity development in a similar fashion (Waterman, 1985, 1999). This study attempts to further investigate the relationship between gender and identity development in an adventure recreation context.

Importance of Adolescent Identity Development

Successful identity development during adolescence provides a strong foundation for future health and well-being. Unsuccessful identity development during adolescence may result in maturation deficiencies. Research suggests that adolescents who struggle with identity formation are often impulsive decision makers, more apt to experiment with drugs, alcohol, and unprotected sex, and exhibit higher instances of psychosocial and behavioral problems (Finkenauer et al., 2002; Hernandez & DiClemente, 1992; Jones, 1992; Jones & Hartmann, 1988; Waterman & Waterman, 1974; Wires et al., 1994). As a result of the cross-sectional nature of most of these studies, a cause and effect relationship between problems with identity development and adolescent deviance cannot be claimed; nonetheless, the body of research suggests a strong relationship between identity development struggles and deviant behavior.

Healthy identity development appears to be associated with reflective decision making and moral reasoning, intimacy, and cultural sophistication (Waterman & Waterman, 1974). Adolescents with stable identities also exhibit fewer signs of psychiatric problems (Waterman, 1999; Waterman & Waterman). and have higher levels

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of self-esteem, goal-directed activity, optimal psychological functioning, and socially constructive behavior (Waterman, 1992).

Parent-adolescent Relationships

Adolescents' relationships with their parents play an important developmental role during adolescence. These relationships affect adolescents' behavior and non-familial relationships (Baumrind, 1991; Collins & Laursen, 2004). This section will review the literature regarding how parents and adolescents interact, the outcomes of these relationships, and how the parent-adolescent relationship may also impact identity development.

Baumrind (1991) has identified three different styles used by parents when interacting with their children: authoritarian, authoritative, and permissive. Authoritative parents expect age appropriate behavior from their children, but they also involve them in family rule and decision making. They encourage individuation as well as responsibility. Permissive parents allow unrestricted freedom, and make little or no demands for age appropriate behavior. Lastly, Authoritarian parents closely monitor and control behavior and activities. They are not supportive of their children's independence and use psychological control to manipulate their children (Barber & Harmon, 2002; Baumrind).

Baumrind's (1991) parenting styles receive theoretical support from Barber and Harmon's (2002) review of research concerning parental psychological control of their children. Psychological control is defined as "parental behaviors that are intrusive and manipulative of children's thoughts, feelings, and attachments to parents" (Barber, p. 15). Research also shows that although children and adolescents suffer under psychological

control, they need parents to exercise a certain level of behavioral control (Barber & Harmon). For example, it appears that adolescents associate with more positive peer groups when their parents monitor their behavior and friendships (Brown, Mounts, Lamborn, & Steinberg, 1993).

Research focusing on the affect of parent-adolescent relationships on adolescents' behavior has produced interesting findings. For example, research regarding psychological control has increased greatly over the last decade and a half, and this growing body of literature continues to confirm the negative effects of psychological control on children and adolescents (Barber & Harmon, 2002). Additionally, research findings regarding Baumrind's (1991) parenting styles show that little or no differences exist between the behavior patterns of children of authoritarian and permissive parents (Baumrind). These children exhibit more behavior problems, lower academic performance, and lower levels of social intelligence than children of authoritative parents (Baumrind). These findings suggest that adolescents need parents who expect them to act responsibly, but also allow them to experience monitored levels of independence and individuality (Baumrind).

In addition to influencing adolescent behavior, research findings suggests that the family system impacts adolescents' ability to develop friendships (Ladd & Le Sieur, 1995). Ladd and Le Sieur present a detailed review of the research in this area, with the conclusion that both indirect and direct family processes play a role in adolescent peer relationship formation. It appears that adolescents develop social competencies in the family, and that these social competencies facilitate the development of peer relationships

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(Ladd & Le Sieur). For example, youth often imitate parents' social behavior, in their adolescent peer relationships (Ladd & Le Sieur).

Research conducted by Brown et al. (1993) further illuminates the relationships between parental impact and adolescent peer relationships. In a study of almost 4,000 high school students, Brown et al. found that parents' indirectly affect their children's peer groups affiliations. It appears that adolescents gain acceptance into different peer groups as a result of previously established behaviors. In other words, adolescents often do not develop associated peer group behaviors after gaining membership in a particular group, but rather youth gravitate towards peer groups that espouse behaviors similar to their own. Adolescents' behavior patterns develop in large part in the home, and are impacted both positively and negatively by parents. These findings place further import on the role parents play in the social development of their children. According to the findings of Brown et al., parents can help their children develop behaviors that will influence future peer group affiliations.

Considering the important role social feedback plays in the identity development process (Kleiber & Kirshnit, 1991) it would seem logical that the strong influence of the parent-adolescent relationship would also impact adolescence identity development. Research findings confirm the assumption that parent-adolescent relationships affect the identity development process (Lucas, 1997; Sartor & Youniss, 2002). For example, it appears that parental monitoring and emotional support promote adolescent identity development (Sartor & Youniss). Findings also suggest that positive parental feedback is associated with identity achievement among later adolescents (Lucas). This study will

focus on how the parent-adolescent relationship affects the interaction between identity development and adventure recreation.

Recreation and Identity Development

Kroger (1993) suggests a greater understanding is needed regarding the role of contexts in identity development in order to determine those contexts that affect the greatest positive impact on this process. The inherent qualities of recreation make it perhaps the most effective context to positively influence identity development (Haggard & Williams, 1992; Mannell & Kleiber, 1997). Recreation provides opportunities for exploration, commitment, interrelatedness, and feedback; all of which serve essential identity development functions (Mannell & Kleiber).

Recreation appears to be an important developmental domain, especially for adolescents. Kleiber et al., (1986) suggest that structured recreation activities can play an important transitional role as adolescents work to become functioning adults. Structured recreation activities (e.g., sports, games, etc.) as opposed to relaxed leisure (e.g., television, eating, etc.), require effort and concentration while still allowing for perceived freedom and intrinsic motivation (Kleiber et al.). Additional research findings validate the positive role of structured recreation by suggesting that intellectual and creative recreation activities positively impact occupational identity development (Munson & Widmer, 1997). Shaw et al. (1995) also propose that sports participation positively impacts identity development for females.

Recreation contexts are important for adolescents because they create opportunities for exploration of identity elements such as roles, beliefs, values, etc.

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(Kleiber & Kirshnit, 1991; Mannell & Kleiber, 1997). Recreation can play an especially important development role for early adolescents because it provides a context to experience a number of the antecedents to identity development identified by Waterman, such as exposure to identity alternatives and successful role models (1982). Wires et al. (1994) also suggest that activities that promote independence, a byproduct of many recreational activities, play an important role in identity development.

Research findings appear to agree that the social aspect of recreation (i.e., the opportunity to interact with and receive feedback from others) is one of the main reasons this context positively impacts individuals' identity development (Kivel, 1998; Mannell & Kleiber, 1997; Weiss, 2001). This feedback process is especially obvious when individuals take part in recreation activities that are observed by other participants or spectators who then provide the individual with reactions to their performance (Kleiber & Kirshnit, 1991; Weiss). Recreation contexts can also strengthen and develop skills and attributes of recreation identities (e.g., rock climber, backpacker, etc.) (Donnelly & Young, 2001; Haggard & Williams, 1991, 1992; Mannell & Kleiber). Individuals may even select certain types of recreation based on the identity elements associated with particular activities (Haggard & Williams).

Recreation provides a prime context for individuals to identify different interests and skills they enjoy and want to further pursue. For instance, one of the key tasks in developing occupational identity is to identify areas of skills and interests (Munson & Widmer, 1997). It would be difficult for youth to directly explore many occupations. Recreation, however, is incredibly diverse and offers an endless array of opportunities

across varied settings (e.g., arts, crafts, sports, automotive, computer, science, outdoor recreation, etc). It also appears that recreation activities that are challenging and require concentration assist adolescents as they transition to more structured adult contexts (Kleiber et al., 1986). The endless opportunities for exploration and learning in recreation create an ideal context for youth to engage in identity development related tasks.

Research findings from studies focused specifically on adolescent identity development suggest a positive relationship exists between recreation and identity development (Kivel, 1998). Groff and Kleiber (2001) found that youth who participated in an adapted sports program, began to focus less on their disabilities and more on the identity development process. Findings also suggest that sports participation positively impacts female identity development (Shaw et al., 1995).

The Shaw et al. (1995) study suggests that sports participation had a positive association with identity development for females but not for males. The researchers hypothesize that the observed gender difference may exist because sports are stereotypically seen as non-traditional activities for females (Shaw et al.). Expanding upon this explanation, Shaw et al. suggest that non-traditional activities may provide both males and females with opportunities for exploration that could positively impact identity development. This hypothesis presents a new avenue for identity development research, specifically focusing on what types of non-traditional activities have the greatest developmental impact. Adventure recreation represents a non-traditional activity for many individuals. Further research in this area may provide added insights into the developmental impact of different adventure recreation activities.

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Adventure Recreation

Adventure recreation describes challenging activities situated in the outdoors that involve risk (Ewert, 1987, 1989). Adventure recreation activities require high levels of concentration and effort. Although these activities expose participants to risk, individuals can use their personal abilities to influence the end result of the experience (Ewert).

Adventure recreation's inherent qualities have led to its popularity as a therapeutic setting and intervention (Gass, 1993). Csikszentmihalyi and Csikszentmihalyi (1990) note that adventure recreation provides opportunities for optimal experiences (i.e., experiences where individuals feel a balance between their personal skill level and the challenge of the activity). Additional research supports this claim (Jones, Hollenhorst, Perna, & Selin, 2000). Optimal experiences bear many similarities with Waterman's (1990) concept of personal expressiveness. Waterman (1992) defines personal expressiveness as:

- (a) an unusually intense involvement in an undertaking, (b) a feeling of special fit or meshing with an activity that is not characteristic of most daily tasks, (c) a feeling of intensely being alive, (d) a feeling of being complete or fulfilled while engaged in an activity, (e) an impression that this is what the person was meant to do, (f) a feeling that this is who one really is. (p. 58)

When individuals experience personal expressiveness during exploration of an identity element it fosters a stronger identity commitment to that element (Waterman). The positive relationship between personal expressiveness and identity development is unique because it is independent of external feedback. The positive affirmation originates from within the individual, not from outside observers. It appears that adventure recreation's

ability to provide optimal experiences as well as opportunities for social feedback, make it a prime context to positively impact identity development.

Challenge is an inherent aspect of adventure recreation, and one that may lead to optimal experiences (Csikszentmihalyi & Csikszentmihalyi, 1990), increases in perceived competence, and identity development (Mitchell, 1992). Challenge arises during adventure recreation as a result of the interplay between the inherent risk of a situation and an individual's perceived competence (Priest, 1992). The wilderness environment that many adventure recreation activities occur in can also create challenges such as adverse weather conditions, and cooking and sleeping outdoors. Research shows that prolonged, successful participation in adventure recreation leads to increases in individuals' perceptions of personal competence (Priest). It appears that increased competence in structured adventure recreation generalizes to non-recreation activities, such as academic performance (Widmer, Taniguchi, Duerden, & Freeman, 2005). Erickson (1963) suggests that competence serves as a prerequisite to identity development. Meeting and overcoming challenges also appears to act as a catalyst for identity development (Mitchell). Although intriguing parallels exist between the benefits of adventure recreation and these potential catalysts of identity development, little research has examined this area.

Summary and Hypothesis

Identity development has received multi-disciplinary attention over the last half century. The current body of literature in this area has firmly established the importance of identity development during adolescence. Gaps and limitations in the research leave

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some important and interesting questions unexplored. Two specific areas meriting further investigation include those contexts that have the greatest positive impact on identity development and the influence that gender has on this process (Archer, 1989; Larson, 1994; Shaw et al., 1995). Additionally, questions remain regarding whether or not the parent-adolescent relationship affects the impact different contexts have on adolescent identity development.

This study seeks to address unanswered identity development questions and thereby contribute to the current body of research on the relationship between adventure recreation and adolescent identity development. Adolescence is a tumultuous time, and healthy identity development during this period of life is essential. The dangers associated with disrupted identity development highlight the need for additional research in this area (Jones, 1992; Jones & Hartmann, 1988). Identifying interventions that facilitate the promotion of identity development represents a valuable contribution to the literature and to programming applications. The findings of this study may provide greater understanding of the role of adventure recreation in identity development and help improve youth recreation programs that promote healthy youth development. In an effort to answer these questions the following hypothesis were addressed:

Hypothesis 1. Treatment group scores on the EPSI industry, identity, and intimacy subscales and the ISI-6G information, normative, and commitment subscales will significantly ($p < .05$) increase and treatment group scores on the ISI-6G diffuse scale will significantly decrease between pre- and post program administrations.

Hypothesis 2. Control group scores on the EPSI industry, identity, and intimacy subscales and the ISI-6G information, normative, and commitment subscales will not significantly ($p < .05$) increase and control group scores on the ISI-6G diffuse scale will not significantly decrease between pre- and post program administrations.

Hypothesis 3. Treatment group mean-change scores on all EPSI subscales and the ISI-6G information, normative, and commitment subscales will be significantly ($p < .05$) greater than the control group mean-change scores. Treatment group mean-change scores on the ISI-6G-diffuse subscale will be significantly ($p < .05$) smaller than the control group mean-change scores.

Hypothesis 4. No significant ($p < .05$) differences in the change scores will be found between female and male treatment-group participants on EPSI and ISI-6G subscales.

Hypothesis 5. No significant ($p < .05$) differences will be found between treatment group scores from post-activity area (e.g., rafting, backpacking, and exploration) administrations of the EPSI subscales. .

Hypothesis 6. No significant ($p < .05$) relationships will be found between parental relationship subscale scores and treatment group mean-change scores from the EPSI and ISI-6G subscales.

Methods

Participants

Participants included 44 males and 47 females, ages 11-17 ($M = 13.4$, $SD = 1.03$), from three western states. Seventy-three percent were Caucasian, 21% were Hispanic,

and the remaining 6% represented other ethnicities. Twenty-two males and 23 females participated in the treatment group, and the remaining 22 males and 24 females served as controls. Although no randomization occurred during treatment and control group assignment a non-equivalent control group (Babbie, 2001) was used, meaning that the control group and treatment group were drawn from similar, but not identical, populations. For this study the control group was recruited from two of the same middle schools that produced the treatment group. The homogeneity of the treatment and control groups is addressed in the analysis and results sections. The Wilderness Instruction and Leadership Development (W.I.L.D.) Foundation recruited participants through newspaper articles, flyers, and middle school newsletters and assemblies. The treatment group consisted of youth recruited by the researcher and the W.I.L.D. Foundation. The W.I.L.D. Foundation seeks to provide wilderness opportunities for disadvantaged youth.

Instrumentation

Recently, some scholars have argued for the use of “mixed methods,” or the collection of both quantitative and qualitative data simultaneously (Viadero, 2005). In an effort to benefit from this methodology, both quantitative and qualitative approaches were used in this study. The use of mixed methods created a richer base of knowledge concerning the processes of identity development (Viadero, 2005).

Quantitative methods. Identity was measured using two instruments. The Erikson Psychosocial Stage Inventory (EPSI) that consists of six subscales measuring progression through the first six stages of Erikson’s developmental model (Rosenthal, Gurney, & Moore, 1981). The stages of Erikson’s model build upon one another so that the success

of any individual stage is predicated upon the successes of the preceding stages (Marcia, 1993). For this reason, in addition to the industry subscale from the EPSI, the subscales from the stages both before and after identity (i.e., industry and intimacy) were also used in this study.

The subscales for industry and identity from the EPSI each consist of 12 five-point Likert scale items (0 = strongly disagree, 2 = somewhat disagree, 3 = unsure, 4 = somewhat agree, 5 = strongly agree), and the intimacy subscale consists of 11 questions on a five point Likert-type scale. A previous study reported the following internal consistency estimates for the scales: .79 for industry, .78 for identity, and .73 for intimacy (Rosenthal et al., 1981). This same study found correlations between the industry, identity, and intimacy EPSI subscales and the work, identity, tolerance subscales from the Personal Maturity Index (Greenberger & Sorensen, 1974) of $r = .64$ for industry, $r = .56$ for identity, and $r = .48$ for intimacy, providing criterion-related evidence of validity (Rosenthal et al.). Internal consistency estimates for the current study's sample were .80 for industry, .81 for identity, and .62 for intimacy.

The sixth grade reading level version of the Identity Styles Inventory (ISI-6G) was also used for this study. The ISI-6G is a revision of the original ISI (Berzonsky, 1989) designed to be more accessible to early and middle adolescents (White, Wampler, & Winn, 1998). Data collected from the EPSI subscales and the ISI-6G was used in an attempt to provide a comprehensive representation of identity development. The EPSI subscales provide an overall identity score, while the ISI-6G provides specific identity style scores. Although The ISI-6G and the EPSI address both inter- and intrapersonal

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issues, they do not focus entirely on specific identity domains. Instead they provide an overall picture of identity development. This approach more effectively match the study's sample because many of the identity domains (e.g., politics, occupation, and gender roles) are more pertinent to later rather than early adolescents (S. J. Schwartz, personal communication, March 16, 2005).

The ISI-6G consists of 40 items using a five point Likert-type scale. Scores from the ISI-6G indicate the individual's cognitive identity style: information, normative, or diffuse/avoidant (White et al., 1998). The identity styles represent different cognitive approaches to identity development (Berzonsky, 1989; White et al.). An information style involves exploration; characterized by introspective and open processing and evaluation of new information (Berzonsky; White et al.). Normative style individuals rely heavily on the expectations and standards of peers and significant others when making decisions (Berzonsky; White et al.). Individuals who reluctantly face decisions and problems demonstrate a diffuse/avoidant identity style (Berzonsky, 1989; White et al.).

Identity styles are related to Marcia's (1980) identity statuses (Berzonsky, 1990). For example, the information style corresponds with the achievement and moratorium statuses, the normative style corresponds with the foreclosure status, and diffuse/avoidant corresponds with the diffusion status (Berzonsky). The ISI-6G contains 10 items that address commitment issues that allow for differentiation between moratorium and achievements statuses within the information style category (Berzonsky, 1989; White et al., 1998).

Evidence supporting the reliability and the validity of inferences of the ISI-6G has been reported (White et al., 1998). White et al. reported alpha coefficients for the identity styles (information $\alpha = .59$, normative $\alpha = .64$, diffuse/avoidant $\alpha = .78$) Researchers also found expected correlations between the ISI-6G and levels of alcohol consumption, expressed optimism, codependence, and religiosity supporting criterion-related evidence of validity (White et al., 1998). Alpha coefficients for the current study's sample for all four subscales were reported as follows: .70 for information, .67 for normative, .68 for diffuse/avoidant, and .64 for commitment.

Data were also collected to evaluate the participants' perceptions of their relationships with their parents. A five-item scale was used to assess adolescent report of parental monitoring (Brown et al., 1993) a three-item scale was used to measure adolescent report of parental responsiveness, a four-item scale to evaluate adolescent report of parental psychological control, and one item to assess adolescent report of parental rejection (e.g., "makes me feel I am not wanted"). Participants completed all items for both their mothers and their fathers. Internal consistency estimates for this study's sample were .75 for mother monitoring, .86 for mother responsiveness, .74 for mother psychological control, .90 for father monitoring, .78 for father responsiveness, and .75 for father psychological control.

Data was also collected on treatment group participants' prior adventure recreation experience. Participants reported on the number of times they had participated in camping, backpacking, and rafting (1 = never, 2 = 1 to 5 times, 3 = 6 to 10 times, 4 = 10 to 20 times, 5 = more than 20 times) before attending the program. Treatment group

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participants also indicated their swimming ability (1 = can't swim, 2 = beginner, 3 = I'm a good swimmer) and level of physical activity (1 = never, 2 = sometimes, 3 = very active).

Scoring procedures. The quantitative data from the pre- and posttest questionnaires were scored and analyzed using the statistical software package SPSS (SPSS Inc., Chicago, IL). Individual mean scores were calculated for the EPSI and ISI-6G subscales and the parental relationship measures from the pre- and post program questionnaires. For each subscale, scores were calculated using mean scores rather than summed scores, in order to deal more effectively with missing values. Change scores were then calculated from pre- and post program mean scores for both the treatment and control groups (see Table 1) and for males and females within the treatment group (see Table 2).

Qualitative methods. Qualitative data were gathered in order to gain additional insights into the mechanisms underlying the hypothesized relationship between the adventure recreation program and treatment group participants' identity development. Small focus group discussions were conducted during both the male and female sessions of camp. Dyadic interviews with approximately 80% of the youth from each session occurred. Both the focus groups and individual interviews were audio recorded. Prompt questions (see Appendix A-1c) were designed to encourage self-reflection and open discussion of experiences in the program. The questions also elicited information regarding identity development issues. The interviews provided participants an opportunity to reflect on what they had learned about themselves during different stages

of the program, as well as how the experience affected their perceptions of themselves and those around them.

Both the focus group and dyadic interviews were transcribed into Microsoft Word document format and Rich Text Format. Names and other identifiers were replaced with pseudonyms during the transcription process to insure the anonymity of research participants. QSR NVivo, a qualitative data analysis program, was used to code and organize the transcribed data.

To examine the “trustworthiness,” of the transcribed data and subsequent analysis, member checking and independent evaluations of the data analysis process were employed. Trustworthiness is similar to gathering evidence of the reliability and validity of inferences of psychometric measures (Lincoln & Guba, 1985). Member checking establishes credibility (i.e., validity) and involves research participants reviewing the completed analysis to ascertain if it correctly reflects their personal perceptions (Lincoln & Guba). External reviewers provided feedback on the research in order to substantiate the dependability and confirmability of the codes, categories, and overall data analysis process (Lincoln & Guba).

Procedures

This study employed a quasi-experimental design with a non-equivalent control group (Pedhazur & Schmelkin, 1991) in combination with a qualitative investigation. The treatment group completed a two-week adventure recreation program, Camp WILD. The camp was a collaborative venture between university researchers and the W.I.L.D.

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Foundation. Young adolescent females attended the program from July 11 – 23, 2005 and young adolescent males attended camp from July 25 – August 6, 2005.

The program consisted of three different activity areas: backpacking, white water rafting, and exploration (e.g., mountain biking, leadership training, wilderness skills, and environmental education). During the program, participants learned and applied new skills such as guiding a raft through white water rapids. Participants were assigned to teams of four youth, each under the supervision of one male and one female staff members. Staff taught participants wilderness skills, as well as positive character strengths (e.g., love of learning, perseverance, social intelligence, etc.) (Seligman, 2002). Different character strengths served as the theme of each day. After every meal staff members would engage their teams in discussions and activities designed to highlight the character strength of the day. Additionally, all staff committed to adhere to a code of conduct (e.g., abstinence from alcohol, illegal drugs, smoking, and profanity) designed to model responsible social behavior.

The treatment group completed the EIPQ, ISI-6G, and the parental relationship instruments the first and last day of the two-week adventure recreation program in order to measure the dependent variable, identity development, in the context of the hypotheses. The treatment groups also completed the EIPQ subscales (i.e., industry, identity, and intimacy) after completing each of the three-and-a-half-day activity areas. The additional administrations of the EIPQ provided added information regarding the impact of each activity area on identity development.

The treatment group also took part in focus-group discussions after completing each activity area. Focus group discussions lasted, on average, between 30 and 45 minutes. These discussions focused on the groups' experiences from the just completed activity area. Prompt questions such as "what was the funniest thing that happened during the activity," "what did you learn about yourself during the activity," and "what did you learn about your group during the activity" were asked during the focus group discussions. Additionally, individual interviews were conducted with participants throughout the program.

Attempts were made to interview all youth individually but time constraints did not allow for this. The majority of the dyadic interviews were conducted towards the end of each camp session and usually lasted between 5 and 15 minutes. Interviewees were asked about their overall impression of the program, what their favorite parts were, and if they had learned anything about themselves. In total, approximately 24 focus-group interviews (three to four participants) and 40 individual interviews were conducted. Some individuals were interviewed more than once to gain further insights on their comments from initial interviews. The control group participated in their regularly scheduled summer activities. They did not participate in the WILD adventure recreation program and were not interviewed, but they did complete the EIPQ, ISI-6G, and the parental relationship instruments twice over a similar interval as the treatment groups. Control group data was collected during the summer and fall of 2005. Control group participants' summer activities were not monitored.

Analysis

Homogeneity of variance between the treatment and control groups on all pre-program subscale scores and for age, gender, and ethnicity was examined using a Levene's test. Hypotheses one and two addressed whether or not significant differences existed between pre- and post program questionnaire scores for the treatment and control groups and were evaluated using paired *t* tests. Hypothesis three looked at possible significant differences between treatment and control group change scores and was tested using independent *t* tests. The fourth hypothesis predicted no significant differences would result between male and female change scores in the treatment group and was assessed using independent *t* tests. ANOVA's were used to test Hypothesis five, that no significant differences would be found between activity area EPSI subscale scores. The last hypothesis predicted that no significant associations existed between treatment group identity subscale change scores and parental-relationship pretest scores and was tested using regression analysis.

Results

The result section contains both quantitative and qualitative findings. The quantitative section begins with an examination of the homogeneity of the sample. The six hypotheses serve as an organizational framework for the remainder of the quantitative results. The qualitative data offer additional insights into the topics addressed by the quantitative findings. Participants' comments suggest that a number of specific aspects of the program may have facilitated the identity development process.

Quantitative Results

No significant ($p < .05$) differences in variance existed between treatment and control groups on the identity scales (EPSI-industry $p = .30$; EPSI-identity $p = .16$; EPSI-intimacy $p = .26$; ISI-information $p = .54$; ISI-normative $p = .86$; ISI-diffuse $p = .56$; ISI-commitment $p = .57$), the parental relationships scales (Mother monitoring $p = .56$; Father monitoring $p = .89$; Mother Responsiveness $p = .70$; Father Responsiveness $p = .465$; Mother Psych. Control $p = .89$; Father Psych. Control $p = .44$) or demographic variables (age $p = .18$; gender $p = .85$). A significant difference, however, did exist between the treatment and controls for ethnicity ($p < .001$), due to a higher number of Hispanic respondents in the control group. A Levene's test was conducted to examine homogeneity of variance between males and females in the treatment group. The only significant differences resulted for the EPSI-industry scale ($p = .002$) and the Father Psych. Control scale ($p < .001$).

Hypothesis 1 was supported by the results from all measures but one. The hypothesis predicted treatment group scores on all EPSI subscales and the ISI-6G information, normative, and commitment subscales would significantly ($p < .05$) increase between pre- and postprogram administrations. The hypothesis also predicted a significant decrease would occur on the ISI-6G diffuse scale between administrations. Results from paired t tests (see Table 3) indicated predicted increases on all EPSI subscales (industry $t = 4.20$, $p < .001$; identity $t = 3.00$, $p = .002$; intimacy $t = 2.70$, $p = .005$) and on the ISI-information ($t = 2.21$, $p = .02$) and commitment ($t = 2.67$, $p = .01$) subscales, predicted decreases on the ISI-diffuse scale ($t = -3.77$, $p < .001$), and that the

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ISI-normative scale was the only subscale that did not experience a significant predicted change.

Hypothesis 2 was fully supported. Control group scores on all EPSI subscales and the ISI-6G information, normative, and commitment subscales did not significantly ($p < .05$) increase between pre- and post program administrations. The prediction that a significant decrease would not occur on the ISI-6G diffuse scale between administrations was supported. Paired t tests results (see Table 4) showed that no significant increases or decreases resulted on any of the identity subscales.

Hypothesis 3 was partially supported. This hypothesis predicted significant ($p < .05$) increases in the EPSI and ISI-6G information, normative, and commitment measures over the control group. The same hypothesis predicted a negative change score in the ISI-6G-diffuse subscale compared to the control. Independent t tests were performed to test this hypothesis (see Table 5). Results indicated that treatment mean-change scores were significantly greater than the control mean-change scores for the EPSI-industry ($t = 3.42$, $p < .001$), identity ($t = 3.16$, $p = .001$), and intimacy ($t = 2.34$, $p = .01$) subscales. Results also revealed a significant negative treatment mean-changes score in comparison to the controls on the ISI-diffuse subscale ($t = -2.05$, $p = .02$). Treatment change scores were not significantly greater than the controls on the ISI-information, normative, and commitment subscales.

Hypothesis 4, that there would be no mean change score differences would exist between males and females in the treatment group, was partially supported by the results. Independent t tests revealed no significant ($p < .05$) differences between the male and

female change scores within the treatment group on all but one measure (see Table 6). No significant differences existed on the EPSI industry and identity scales or the ISI subscales. The only significant difference resulted in the EPSI-intimacy subscale ($t = -2.13, p = .04$), with males reporting a greater mean-change score.

Hypothesis 5 was fully supported in the results. The hypothesis predicted no significant ($p < .05$) differences would exist between EPSI subscale mean scores from three separate, post-activity area (i.e., backpacking, exploration, and rafting) administrations. ANOVA results (see Table 7) confirmed the predicted lack of differences between all activity areas for all EPSI subscales.

Hypothesis 6 was partially supported by the results. The hypothesis predicted that no significant ($p < .05$) relationships would be found between treatment group reports of parental relationship subscale prescores and treatment group identity-measure mean-change scores. To examine this prediction, multiple regressions were run using first the mother-subscale scores (i.e., monitoring, responsiveness, psychological control, and rejection) and then the same father-subscale scores as independent variables and the identity-measure mean-change scores as dependent variables (see Tables 8 and 9).

Of the 14 models run, only three models were significant. The models regressing mother-subscale scores on the EPSI-identity mean change scores ($\text{Adj. } R^2 = .16, p = .03$), mother-subscale scores on the ISI-information mean change score ($\text{Adj. } R^2 = .23, p = .01$), and father-subscale scores on the ISI-information mean change score ($\text{Adj. } R^2 = .17, p = .02$) were significant. Results from the first model suggest that each one unit increase in mother-monitoring is associated with a .61 decrease in participant's EPSI identity

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mean change score, and that each one unit increase in mother-responsiveness is associated with a .38 increase in participant's EPSI identity mean change score.

Coefficients from the second model indicate that each one unit increase on the mother-rejection scale (higher scores indicate lower levels of mother-rejection) is associated with a .29 mean change score increase on the ISI-information scale. The third model's results show that each one unit increase on the father-monitoring scale is associated with a .33 mean change score decrease on the ISI-information scale, and that each one unit increase on the father-responsiveness scale is expected to result in a .25 mean change score increase on the ISI-information scale.

Qualitative Results

The quantitative findings suggest that the treatment group experienced change in identity formation while participating in the adventure recreation program. The qualitative data illuminate the processes that may account for the possible positive relationships between the adventure recreation program and participants' identity development. Qualitative findings, related to identity development, are grouped into four areas: (a) identity development, (b) perceived challenge, (c) the staff, and (d) the interaction of challenge and the staff.

Identity development. In the focus group and individual interviews, participants were asked if they had learned anything or recognized changes about themselves during the adventure recreation program. Approximately 87% of the participants affirmed that they had discovered or developed new personal attributes and abilities. For example, 16 youth out of 44 commented that they successfully accomplished activities that they did

not believe they were capable of completing. A female from this group said, "I've achieved a lot of things that I never would have thought I could." Other youth made comments regarding increased confidence (12), ability to make friends (8), persistence (7) and patience (4).

The realizations of previously unrecognized personal potential and competence appear to have led some participants to reevaluate self-perceptions, thereby facilitating identity development. Groff and Kleiber (2001) suggest that gaining competence and confidence in one's abilities plays an important role in identity development. The following statement from one of the females illustrates this point:

Sometimes...because I'm heavier, some of the things that I think that other people can do, like sometimes I feel like I can't do it and I can't complete it. But today and the past few days I felt like that I can do what other people do if I just keep on trying on hard and taking risk[s] and even though you think you can't do it you really can and you just keep on trying.

Similar comments, linking new self-perceptions and challenge, were made by over one-third of the participants. It appears from this and other insights that at least one of the facilitators of changes in self-perception was the challenging adventure recreation activities experienced by the youth.

Perceived challenge. Qualitative data suggest that the youth in the treatment group experienced challenge during the adventure recreation program. Approximately 60% of the treatment group participants commented that they experienced challenge during their two weeks in the program. The literature suggests that meeting and

overcoming challenges is a facilitator of identity development (Mitchell, 1992). One male participant made the following comment regarding backpacking, “It was really hard and it was kind of a challenge to get there and to not like stop and ask for a million breaks.” Another female youth, while recounting her mountain biking experience, said, “it was really challenging . . . it was really kind of hard to go up hill.” These comments are typical of those shared by other participants who also perceived challenge in the program.

In addition to the challenging nature of many of the activities, perceptions of challenge may also have occurred because of some participants’ lack of adventure recreation experience. For example, on the intake questionnaire 78% of the females and 55% of the males reported they had never been rafting. On the same questionnaire, 61% of the females reported they had never been backpacking, and 64% of the males reported having been backpacking only five times or less. This lack of experience led some of the youth to doubt their ability to complete certain activities during the program. For example, approximately 36% of the treatment group commented that they felt they did not possess the necessary skills to complete some of the program’s activities. One female participant stated, “I don’t know, at first I was kinda like, I don’t know if I could go mountain biking and all this stuff, because I didn’t think I was an outdoorsy person.”

The staff. Fifty-six percent of all treatment group participants made positive comments about the staff. No negative comments about the staff were expressed in the focus group discussion or individual interviews. Remarks about the staff dealt with topics ranging from positive staff attributes to how the staff helped facilitate meaningful experiences for the youth.

Participant's comments suggest a number of staff qualities that the youth perceived as important. Eight youth commented that the staff members were nice. Six other youth used words such as friendly, loving, and caring to describe the staff. For example, one male participant said, "They're [the staff] just so like loving and like they're so supportive of us and tell us to keep going." Eighteen participants commented that staff members were fun and or funny. Five youth noticed that staff members were laid back yet still effective. One male youth shared the following observation, "The staff is really cool . . . everyone's laid back and easy but they all still get everything done, they still follow the rules."

As they reflected on their experiences in the program, approximately 38% of the youth mentioned different ways the staff helped make their experience in the program positive. For example, seven youth made comments about how the caring nature of the staff. Remarks concerning the staff's ability to motivate and encourage were made by seven participants. In summing up his feelings about the staff, one male youth said, "they're just so friendly . . . they're always there for you when you need their help . . . they'll do whatever it takes to get you happy."

The interaction of challenge and the staff. Although challenges can result in either success or failure, the supportive nature of the staff allowed participants to succeed more often than fail. Staff members did not remove all challenge from the activities for the participants, but rather the staff did their best to assure that kids who did not perform well initially, eventually succeeded. For example, on a mountain bike ride, one female participant experienced a particularly nasty fall and was not able to continue. The next

day, a staff member accompanied the girl back to the scene of the crash and allowed her to complete the ride, thereby turning her initial failure into a success. During focus groups and interviews, youth made frequent mention of the important role the staff played during the program.

The qualitative data appear to support the study's quantitative findings, that participants in the adventure recreation program experienced identity development. Participants' comments suggest that two of the key issues of this developmental process were the presence of challenge in the program and the staff. These findings will be further evaluated in the discussion section.

Discussion

The purpose of this study was to understand the impact of an adventure recreation program on adolescent identity development. The study's quantitative and qualitative findings suggest the adventure recreation program positively impacted participants' identity development. These findings lend support to previous research regarding the developmental benefits that can result from participation in structured recreation (Kleiber et al., 1986; Munson & Widmer, 1997; Shaw, 1995). The quantitative data established that the treatment group experienced significant identity development in comparison to the control group, and the qualitative data provided further insight into the process behind this development. The following sections provide additional analyses of the study's results. Although additional research is needed to further understand the relationship between adventure recreation and identity development, this study's findings present a strong case for the positive developmental influence of adventure recreation.

Quantitative Discussion

It appears that adventure recreation within a supervised camp experience results in some of the same benefits (e.g., perceived freedom, intrinsic motivation, and preparation for adult activities and responsibilities) Kleiber et al. (1986) ascribed to structured leisure activities. The majority of the quantitative data support the view that adventure recreation programs can promote positive identity development. The treatment group experienced significant increases on all but one identity-measure between pre- and post-administrations, whereas the control group experienced no significant increases. Treatment group participants were introduced to a new environment, completely independent of influence from home, school, and peers. The adventure recreation program facilitated the discovery of unrealized abilities and potential as well as exploration of skills and interests (Phoenix, 2001).

It appears that the EPSI subscales were more sensitive to change in the treatment group than the ISI-6G subscales. For example, the only significant difference on the ISI between the treatment group and the control group occurred on the diffuse subscale, whereas significant differences between the treatment and control groups occurred on all three EPSI subscales. The sensitivity differences between the two scales may have arisen because the EPSI returns one general identity score, whereas, the ISI-6G attempts to differentiate between different identity styles. Additionally, although a sixth grade reading level of the ISI was administered, the participants' may not have correctly understood some of the questions asked on the ISI-6G.

The treatment group results from the EPSI subscales fit the chronology of Erikson's (1959, 1963, 1968) developmental model. According to the model, early adolescents are completing the industry stage and preparing to develop their identities. Consequently, the greatest positive change among the treatment group would be expected to occur on the industry subscale. Furthermore, because the stages are theoretically dependent, growth in a precursor stage, such as industry, should trickle down to the following stages of identity and intimacy. The empirical data support the theory. The greatest change for the treatment group occurred in the industry subscale (.34), followed by identity (.31), and intimacy (.23). It appears that the adventure recreation program helped participants fulfill the needs of the industry stage, productivity and competence, thereby facilitating industry growth and initial identity and intimacy stage development.

Although some researchers (Shaw et al., 1995) have hypothesized that sports and other activities viewed as non-traditional for females would have a greater impact on girls' identity development, boys and girls in this program experienced similar levels of growth. The only significant difference between males and females occurred on the EPSI-intimacy scale, with males reporting a higher mean-change score. It could be argued that a ceiling effect might have accounted for low female intimacy change scores, meaning that females entered the program with higher intimacy scores than the males and thus could not experience as dramatic changes as the males, but Levene's tests showed no significant differences between male and female pre-test intimacy scores. It appears the adventure recreation program provided males with a unique opportunity to develop close friendships with peers and adult role models. Many of the activities required participants

to work together in teams (e.g., river rafting, building a rope bridge, etc.). Additionally, participants associated with the same group of individuals for a two-week period. The experience of working together as a team over a long period of time may have contributed to this finding.

The impact of the program's different activity areas (i.e., rafting, backpacking, and exploration) was also an area of interest. ANOVA results suggest that no one activity area had a greater impact on the participants' identity development. Although the activities presented a variety of different challenges, risks, and opportunities, the findings suggest that the program's activity areas contributed equally to the participants' experience. The similarity of scores may be due to the composite nature of the overall experience. In other words, the combination of activities, supportive staff members, new friends, new contexts, and all other aspects of the experience combined to affect change, rather than any one individual component leading to more significant outcomes.

Certain aspects of the parent-adolescent relationship appear to have influenced the interaction between the adventure recreation program and participants' identity development. Significant positive associations existed between mother-responsiveness scores and EPSI identity mean change scores, mother-rejection scores and EPSI information mean change scores, and father-responsiveness scores and EPSI information mean changes scores. Significant negative associations were found between mother-monitoring scores and EPSI identity mean change scores, and father-monitoring scores and ISI information mean change scores.

The positive relationships between high levels of mother and father responsiveness and identity development are not unexpected, as well as the positive relationship between identity development and low levels of mother-rejection. What was unexpected is the finding that higher levels of parental monitoring were negatively associated with positive identity development in the treatment group. It may be that children whose parents closely monitor their behavior lack the requisite freedom needed to engage in the exploration and commitment process. Another explanation could be that youth with higher monitoring parents did not experience as great of a change during the program because they entered with higher identity scores.

Partial support was given to this second explanation by the results of a significant model (Adj. $R^2 = .14$, $p = .002$), regressing mother-subscale scores on EPSI-identity mean scores. Within the model, a significant mother-monitoring coefficient ($B = .63$, $p = .001$) suggests that youth with higher monitoring mothers reported higher pretest scores on the EPSI-identity subscale. Consequently, these same youths' identity-measure change scores were not as dramatic as those who entered the program with lower identity scores. Interestingly enough, the same regression, using father-subscale scores, resulted in a non-significant model. It appears that treatment group participants' relationships with their mothers had a greater influence on the identity development process. The reasons behind this difference between mothers and fathers remain unclear; perhaps the youth in this study interact more frequently with their mothers than their fathers. Further research would be needed regarding the amount and quality of time each parent spent with their child to better address this question.

From the quantitative findings it appears that taking part in the adventure recreation program positively impacted participants' identity development. Data from the EPSI indicate that the growth experienced by the participants support the chronology of Erikson's stages (1968). Males and females in the treatment group appear to have benefited from the program in a similar manner, except that males experienced greater intimacy stage growth. The program's activity areas did not appear to impact participants' identity development differently. Lastly, the data suggest that participants who felt their parents were responsive to their needs and who had mothers who did not reject them experienced greater identity development growth while in the program. It also appears that the level of parental monitoring affects the adventure recreation programs ability to impact identity development, but the exact impact of parental monitoring remains unclear. Although the quantitative data suggest a positive relationship exists between program participation and identity development, the processes that facilitate this interaction require further illumination. The qualitative data provide some preliminary insights into how and why treatment group participants experienced identity development.

Qualitative Discussion

The qualitative data suggest that the positive identity development experienced by treatment group participants is partly related to the program's challenging nature and staff. These two components, challenge and the staff, also seem to have interacted with one another to create perceptions of a positive experience for the participants. Twenty-six comments were made by the participants regarding how the staff motivated, encouraged,

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and helped the youth succeed. The frequency of these comments suggests that without the support of the staff, participants might not have easily overcome challenges experienced during the program. According to Mitchell (1992) if participants had not successfully overcome challenges identity development would not have occurred. Challenge, it appears, plays a facilitating role in the positive relationship between the adventure recreation program and identity development.

Accordingly, a decline in positive outcomes might have occurred had the program provided supportive staff without providing challenge. If the youth did not experience challenge they would not have a reason or need to rely on a staff member for support and encouragement. If this support was not sought, then positive interactions between the staff and the participants would not have occurred as frequently.

As participants' comments suggest, the adventure recreation program created an environment that pushed and challenged the youth and also provided them the necessary support needed to succeed. Approximately 34% of participants commented that without the help of peers and staff the more challenging activities would have been difficult to successfully complete. Both the quantitative and qualitative data from this study suggest that one of the outcomes of this process was identity development.

As noted in the results section, 87% of the youth commented about how the adventure recreation program changed aspects of their self-perceptions. This process of participating in the program's activities and thereby discovering new personal qualities and attributes resembles Marcia's (1966; 1980) model of identity development. As indicated earlier, Marcia's (1980) work focuses on the dual process of exploration and

commitment that drive identity development. It appears the adventure recreation program provided abundant opportunities (i.e., new experiences, challenges, relationships, and activities) for exploration.

For example, approximately 22% of the youth made comments regarding new experiences they had at camp and approximately 64% mentioned making friends with peers and the staff. As participants successfully participated in the program, some gained new self-perceptions and set new resolutions, a process comparable to Marcia's (1980) concept of commitment. One male commented, "I used to just mess around and not really do anything at home and stuff, but now I'm thinking of all these things that I should go and do instead." Another male, while reflecting on his experience in the program, resolved to "help my mom out a lot more after this camp."

This simple explanation of how challenge and the staff interacted to facilitate identity development contains some weaknesses. First of all, failure is not addressed sufficiently in this analysis. One reason for this omission is that participants made very few negative comments regarding their experiences in the program. The lack of negative comments may have resulted because no prompt questions dealt directly with possible negative aspects of the youths' experiences.

Another interesting issue is that although approximately 56% of the youth made positive comments about the staff there was a large difference in the number of males and females who made these comments. Approximately 91% of the males talked about the staff, while only 21% of the females commented on the staff. In contrast to these percentages, approximately 56% of the females made comments about friends and

making friends at camp. It appears that female participants relied on their peers for the support and friendship that male participants sought more often from staff members.

The reasons for this gender difference are not immediately clear. While it appears that both male and female participants relied on others for support during the program, they went to different sources. Adolescent males may have mentioned the staff more frequently because they found it easier to ask for help from the staff as opposed to their peers. In contrast, perhaps females relied initially on their peers for support, and only enlisted the staff's help when their peers' assistance was inadequate. Support for this assumption could be gained through future interviews with the staff in order to gain their perspective on participant/staff interactions. Further research is needed to better understand this potential gender difference.

In summary, the qualitative data provide preliminary insights into possible reasons why the adventure recreation program facilitated positive identity development. It appears that the program challenged participants and that staff and peers assisted in overcoming these challenges, thereby contributing to the identity development that occurred. It would be hoped that this study's findings act as a catalyst for additional research into the relationship between adventure recreation programs and adolescent development.

Practical Implications and Suggestions for Further Research

The findings of this study support previous findings that suggest the effectiveness of adventure recreation programs in promoting positive growth and development (Cason & Gillis, 1994; Hattie, Marsh, Neill, & Richards, 1997; Wells, Widmer, & McCoy, 2004;

Widmer et al., 2005). The data from this study suggest that adventure recreation programs may be ideal contexts for positively impacting adolescent identity development. This program appears to have provided participants with challenge and supportive relationships. The interaction between these two components may positively impact adolescent identity development.

Relationships, it seems, played an important facilitating role in participants' identity development. Adventure recreation professionals should consider how to create environments conducive to the development of positive relationships. It may be that peers and staff are the key component to adventure recreation program's ability to affect change, while the activities are simply vehicles for relationship development.

Further research may elucidate the role relationships play in the interaction between adventure recreation programs and identity development. More specifically, the reasons why male participants appeared to rely more on staff members for support, while female members relied more on their peers requires additional consideration. Answers to these questions could lead to more effective staff selection and training as well as the development of programs more conducive to relationship development.

This study only examined the outcome of one particular adventure recreation program. The lack of randomization and the great variety of adventure recreation programs somewhat limits the external validity of the findings. Additional programs need to be evaluated in order to test if the findings from this study are replicable. Improvements could also be made to this study's qualitative methodology in order to facilitate the collection of both positive and negative data.

This study represents an initial attempt to investigate the relationship between adventure recreation and adolescent identity development; hopefully, these findings will encourage additional research regarding the impacts of adventure recreation contexts on adolescents. This growing body of research would serve as a powerful resource for those individuals and organizations who are seeking to promote positive youth development.

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Table 1

Treatment and Control Descriptive Statistics

Scale	Group	N	Pre <i>M</i>	<i>SD</i>	Post <i>M</i>	<i>SD</i>	<i>M</i> Change	
							Score	<i>SD</i>
EPSI-Industry	Treatment	45	3.83	.65	4.17	.51	.34	.08
	Control	46	3.94	.55	3.93	.66	-.01	.06
EPSI-Identity	Treatment	45	3.74	.74	4.05	.58	.31	.10
	Control	46	4.00	.53	3.21	.67	-.09	.08
EPSI-Intimacy	Treatment	45	3.49	.60	3.72	.52	.23	.09
	Control	46	3.50	.51	3.46	.65	-.04	.08
ISI-Information	Treatment	45	3.28	.57	3.44	.52	.16	.07
	Control	46	3.34	.57	3.37	.52	.02	.08
ISI-Normative	Treatment	45	3.31	.61	3.43	.58	.11	.08
	Control	45	3.56	.62	3.55	.54	-.01	.06
ISI-Diffuse	Treatment	45	2.80	.64	2.52	.67	-.28	.08
	Control	46	2.70	.61	2.64	.54	.05	.08
ISI-Commitment	Treatment	45	3.55	.57	3.75	.68	.20	.07
	Control	46	3.74	.52	3.79	.55	.05	.06

Table 2

Male and Female (Treatment Group) Descriptive Statistics

Scale	Group	N	Pre <i>M</i>	<i>SD</i>	Post <i>M</i>	<i>SD</i>	<i>M</i> Change	
							Score	<i>SD</i>
EPSI-Industry	Female	23	3.97	.44	4.22	.39	.42	.09
	Male	22	3.68	.80	4.11	.62	.65	.14
EPSI-Identity	Female	23	3.74	.67	4.02	.57	.50	.10
	Male	22	3.74	.83	4.09	.61	.86	.18
EPSI-Intimacy	Female	23	3.63	.57	3.69	.51	.51	.11
	Male	22	3.35	.61	3.80	.53	.60	.13
ISI-Information	Female	23	3.30	.53	3.46	.47	.34	.07
	Male	22	3.26	.61	3.42	.58	.58	.12
ISI-Normative	Female	23	3.33	.56	3.42	.60	.45	.09
	Male	22	3.30	.57	3.44	.58	.65	.14
ISI-Diffuse	Female	23	2.80	.70	2.50	.60	.61	.13
	Male	22	2.81	.59	2.54	.74	.38	.08
ISI-	Female	23	3.56	.58	3.67	.73	.42	.19
Commitment	Male	22	3.55	.57	3.82	.63	.55	.12

Table 3

Treatment Group Paired t-test Results

Scale	Pre <i>M</i>	Pre <i>SD</i>	Post <i>M</i>	Post <i>SD</i>	<i>t</i>	<i>p</i> (one-tailed)
EPSI-Industry	3.83	.65	4.17	.51	4.20	<.001
EPSI-Identity	3.74	.74	4.05	.58	3.00	.002
EPSI-Intimacy	3.49	.60	3.72	.52	2.70	.005
ISI-Information	3.28	.58	3.44	.52	2.21	.016
ISI-Normative	3.31	.61	3.43	.58	1.40	.085
ISI-Diffuse	2.80	.64	2.52	.67	-3.77	<.001
ISI-Commitment	3.55	.57	3.74	.68	2.67	.006

Table 4

Control Group Paired t test Results

Scale	Pre <i>M</i>	Pre <i>SD</i>	Post <i>M</i>	Post <i>SD</i>	<i>t</i>	<i>p</i> (two-tailed)
EPSI-Industry	3.94	.55	3.93	.66	-.169	.87
EPSI-Identity	4.00	.54	3.91	.67	-1.21	.23
EPSI-Intimacy	3.50	.51	3.46	.65	-.48	.63
ISI-Information	3.34	.57	3.67	.52	.28	.78
ISI-Normative	3.56	.62	3.55	.54	-.16	.87
ISI-Diffuse	2.70	.60	2.64	.54	-.60	.55
ISI-Commitment	3.74	.52	3.79	.54	.75	.46

Table 5

Treatment vs. Control Mean-Change Score Independent t test Results

Scale	Treatment	Treatment	Control	Control	<i>t</i>	<i>p</i> (one-tailed)
	<i>MCS</i> ^a	<i>SD</i>	<i>MCS</i> ^a	<i>SD</i>		
EPSI-Industry	.34	.55	-.01	.44	3.42	<.001
EPSI-Identity	.31	.69	-.09	.49	3.16	.001
EPSI-Intimacy	.23	.58	-.04	.52	2.34	.011
ISI-Information	.16	.47	.02	.57	1.21	.116
ISI-Normative	.11	.55	-.01	.40	1.24	.110
ISI-Diffuse	-.28	.50	-.05	.57	-2.05	.022
ISI-Commitment	.20	.49	.05	.43	1.52	.065

^aMean-Change Score

Table 6

Male vs. Female (Treatment Group) Mean-Change Score Independent t test Results

Scale	Female		Male		<i>t</i>	<i>p</i> (two-tailed)
	<i>MCS</i> ^a	<i>SD</i>	<i>MCS</i> ^a	<i>SD</i>		
EPSI-Industry	.25	.43	.44	.65	-1.12	.27
EPSI-Identity	.28	.50	.34	.86	-.31	.76
EPSI-Intimacy	.06	.51	.41	.60	-2.13	.04
ISI-Information	.16	.34	.15	.58	.07	.94
ISI-Normative	.09	.45	.14	.65	-.25	.80
ISI-Diffuse	-.30	.61	-.27	.38	-.17	.86
ISI-Commitment	.11	.42	.28	.55	-1.09	.28

^aMean-Change Score

Table 7

Activity Area EPSI Subscale Analysis of Variance Results

Scale	<i>DF</i>	<i>F</i>	<i>p</i>
EPSI-Industry	2	.05	.95
EPSI-Identity	2	2.03	.14
EPSI-Intimacy	2	.34	.10

Table 8

Summary of Regression Analysis for Mother Relationship Subscales Predicting EPSI and ISI-6G Mean-change Scores

Dependent Variable	Mother Monitoring		Mother Responsiveness		Mother Psych. Control		Mother Rejection		Adj. R^2	F	p
	B	$SE B$	B	$SE B$	B	$SE B$	B	$SE B$			
EPSI-Industry MCS ^a	-.15	.24	.25*	.11	-.01	.11	.05	.11	.04	1.45	.24
EPSI-Identity MCS ^a	-.61*	.28	.38*	.13	-.19	.13	.06	.13	.16	3.12	.03
EPSI-Intimacy MCS ^a	-.46	.25	.11	.12	-.12	.11	.09	.11	.09	2.03	.11
ISI-Information MCS ^a	-.05	.18	.12	.09	-.07	.09	.29*	.09	.23	4.19	.01
ISI-Normative MCS ^a	.07	.24	.08	.12	-.21	.11	.12	.11	.01	1.16	.35
ISI-Diffuse MCS ^a	-.12	.22	.18	.10	-.15	.10	-.02	.10	.04	1.49	.22
ISI-Commitment MCS ^a	-.42	.22	.13	.10	-.05	.10	.14	.10	.03	1.38	.26

^aMean-Change Score

* $p < .05$

Table 9

Summary of Regression Analysis for Father Relationship Subscales Predicting EPSI and ISI-6G Mean-change Scores

Dependent Variable	Father Monitoring		Responsiveness		Father Psych. Control		Father Rejection		Adj. R^2	F	P
	B	SE B	B	SE B	B	SE B	B	SE B			
	EPSI-Industry MCS ^a	-.34	.20	.15	.13	-.004	.11	.20			
EPSI-Identity MCS ^a	-.28	.26	.05	.17	-.24	.15	.11	.13	-.008	.92	.46
EPSI-Intimacy MCS ^a	-.26	.20	.17	.14	.22	.12	-.16	.10	.09	2.01	.11
ISI-Information MCS ^a	-.33*	.16	.25*	.11	.06	.09	.22	.08	.19	3.46	.02
ISI-Normative MCS ^a	-.14	.20	.13	.14	-.23	.12	.10	.10	.02	1.17	.34
ISI-Diffuse MCS ^a	-.29	.19	.21	.12	-.16	.11	.07	.09	.02	1.12	.33
ISI-Commitment MCS ^a	-.03	.18	.11	.12	-.14	.11	.003	.09	-.002	.978	.43

^aMean-Change Score* $p < .05$

Appendix A
Prospectus

Chapter 1

Introduction

The existence of a unique transitional period between childhood and adulthood has received recognition across time and cultures (Katchadourian, 1977; Lerner & Steinberg, 2004). The term *adolescence* first appeared during the 15th century to describe this stage of life (Katchadourian, 1977; Lerner & Steinberg, 2004). Research findings show that youth experience increased social, mental, and physical difficulties during adolescence (Arnett, 1999; Simmons & Blyth, 1987; Susman & Rogol, 2004). In spite of these difficulties, adolescence serves as a developmental bridge between childhood and adulthood (Erikson, 1959, 1963).

Erikson (1959, 1963, 1968) identifies identity development as the key task adolescents must accomplish in order to experience a healthy transition to adulthood. Self-esteem has also received support as the key to adolescent development, but the one-dimensional construct of self-esteem focuses solely on feeling good about oneself (Seligman, 1996). The self-esteem movement has led many educators to focus on helping kids feel good, instead of helping them perform well (Seligman, 1996). Seligman (1996) sees a backwardness to this logic, and argues that feeling good should result from first doing well. Identity, in contrast to self-esteem, develops as a result of commitments made to different identity elements (e.g., beliefs, goals, and values)(Marcia, 1993), commitments that are made for reasons above and beyond what makes an individual feel good. Successful identity development requires adolescents to participate in activities and

explore domains that allow them to express their individuality and receive subsequent feedback and validation from society (Erikson, 1959). Active participation is much more of a key to the development of identity than self-esteem. Identity represents who someone is, not merely how they feel.

To date, only a few studies have looked specifically at the interaction between identity development and recreation (Kleiber & Kirshnit, 1991; Munson & Widmer, 1997; Shaw, Kleiber, & Caldwell, 1995). Even fewer studies have looked at the effects of adventure recreation on identity development (Anderson-Hanley & Ellis, 1996; Bennett, 1997; Taylor, 1990). This study seeks to examine, both quantitatively and qualitatively, the ability of adventure recreation contexts to provide adolescents with experiences that promote identity development. The study will also consider the possible mediating role that parental monitoring styles play in this process.

Additionally, the study seeks to consider the possibility of gender differences in the relationship between identity development and adventure recreation. Although Erikson (1968) developed his concept of human development from a male perspective, he acknowledges that differences between male and female development most likely exist. The research to date regarding gender and identity development remains inconclusive. This study has the potential to increase the understanding of the impact of gender on identity development.

This study, a component of a larger research project, will examine the effects of a two week, adventure recreation program, Camp Wild, on the identity development of male and female adolescents. The program consists of three different activity areas,

backpacking, exploration (e.g., mountain biking, leadership training, wilderness skills, and environmental education) and white water rafting, that each last approximately three and a half days. Participants will be assigned to teams of four under the supervision of one male and one female counselor. The program is conducted collaboratively between faculty and students from a major western university and the Wilderness Instruction and Leadership Development (W.I.L.D.) Foundation 501(c)3.

The program will involve a highly structured, as well as supportive, environment, with very little downtime for participants. Staff will teach participants wilderness skills, as well as positive behavior attributes (e.g., honesty, perseverance, social intelligence, etc.) and servant leadership skills. Participants will have opportunities to serve as team leaders during the different activity rotations. All staff agree to a strict code of conduct (e.g., no alcohol, drugs, inappropriate behavior), and are expected to act as positive role models at all times.

Statement of the Problem

The focus of the study is to examine the effect of a two-week adventure recreation program on the identity development of adolescent boys and girls. Adventure recreation presents a context that has the ability to provide opportunities for exploration and commitment, self-expression, feedback from society, new experiences, social development, skill development, and self-reflection; all qualities that may promote identity development (Kleiber & Kirshnit, 1991; Kivel, 1998). The study seeks to answer the following questions:

1. What effect, if any, does adventure recreation have on adolescent identity development?
2. If adventure recreation affects adolescent identity development, is the effect similar across gender?
3. Do different adventure recreation contexts (e.g., rafting, backpacking, and exploration) impact adolescent identity development differently?
4. Do parental monitoring styles mediate the relationship between adventure recreation and adolescent identity development?

Purpose of the Study

The purpose of the study is to better understand the relationship between adventure recreation and adolescent identity development. Additionally, the effectiveness of different components of an adventure recreation program in affecting identity developed will be evaluated. Too often evaluations of adventure recreation programs have looked only at the program as a whole, without considering the differing impact of the program's components (Hattie, Marsh, Neill, & Richards, 1997). The study also investigates the effects of gender on the interaction between recreation and identity development. Increased understanding of these relationships will generate more effective developmental recreation programming and research.

Need for the Study

Identity development during adolescence plays an essential developmental role because a strong sense of identity fosters a successful transition from childhood to adulthood (Erikson, 1959, 1963, 1968). The implications of adolescent identity

development have lifelong consequences. Adolescents who struggle with identity development often exhibit impulsive decision making, increased experimentation with drugs, alcohol, unprotected sex, and higher instances of psychosocial and behavior problems (Finkenauer, Engels, Meeus, & Oosterwegel, 2002; Hernandez & DiClemente, 1992; Jones, 1992; Jones & Hartmann, 1988; Waterman & Waterman, 1974; Wires, Barocas, & Hollenbeck, 1994). Adolescents who develop stable identities are reflective decision makers and demonstrate higher levels of moral reasoning, intimacy, and cultural sophistication (Waterman & Waterman, 1974). Adolescents with stable identities also exhibit fewer signs of psychiatric problems (Waterman, 1999; Waterman & Waterman, 1974). These individuals appear to have higher levels of self-esteem, goal-directed activity, optimal psychological functioning, and socially constructive behavior (Waterman, 1992).

Identifying characteristics of programs that facilitate the promotion of adolescent identity development represents a valuable contribution to the literature and to programming applications. Along with assessing the ability of an adventure recreation program to impact identity development, a great understanding of how adventure recreation impacts male and female identity development will also help prove valuable to adolescent recreation providers. The importance of healthy identity development for adolescents and the dangers associated with disrupted identity development make apparent the importance of studying the elements and contexts that impact this development.

Recreation contexts allow individuals to separate themselves from the stresses of day-to-day life and experience intrinsically motivated feelings of involvement, concentration, sense of control, and challenge (Csikszentmihalyi, 1990). The self-expressive and exploratory aspects of recreation, along with the ability to receive clear feedback from self and others, make recreation a powerful context for identity development (Groff & Kleiber, 2001; Mannell & Kleiber, 1997; Munson & Widmer, 1997; Shaw et al., 1995). Adventure recreation represents a recreation context that may positively impact adolescent identity development. To date, little research has addressed the effect of adventure recreation on identity development (Anderson-Hanley & Ellis, 1996; Bennett, 1997; Taylor, 1990).

Research has shown that adventure recreation can promote positive efficacy development (Archer, 1989; Balisteri, Busch-Rossnagel, & Geisinger, 1995; Bandoroff & Scherer, 1994; Ewert, Galloway, & Estes, 2001; Huff, Widmer, McCoy, & Hill, 2003; Priest, 1998; Propst & Koesler, 1998; Sachs & Miller, 1992; Wells, Widmer, & McCoy, 2004). For example, studies have shown a positive correlation between challenging recreation and family communication and problem solving (Huff et al., 2003; Wells et al., 2004). Recent studies have shown that adventure recreation programs have the ability to positively impact adolescent development (Cason & Gillis, 1994). This study will seek to examine the effects of adventure recreation on adolescent identity development. The findings of this study should lead to a greater understanding of adolescent identity development and more effective youth recreation intervention programs that target successful identity development.

Delimitations

The scope of the study will be delimited to:

1. A group of 24 male and 24 female adolescents between the ages of 12 to 15 years from a western state who will attend a two-week wilderness program July 2005.
2. A group of 24 male and 24 female adolescents between the ages of 12 to 15 not attending the wilderness program from a western state will serve as the controls.
3. The subjects will be assigned to treatment (T^1 , T^2) ($n = 48$) and control groups (C^1 , C^2) ($n = 48$).
4. The use of the industry, identity, and intimacy scales from the Erikson Psychosocial Inventory Scale (EPSI) (Rosenthal, Gurney, & Moore, 1981) (industry $\alpha = .79$, identity $\alpha = .78$, intimacy $\alpha = .73$) (industry $r = .64$, identity $r = .56$) and a sixth grade revision of the Identity Style Inventory (ISI-6G) (White, Wampler, & Winn, 1998) (information $\alpha = .59$, normative $\alpha = .64$, diffuse/avoidant $\alpha = .78$) to assess individuals' identity statuses.
5. Focus group and dyadic interviews conducted with the treatment group during the adventure recreation program. Dyadic interviews will be conducted throughout camp, and focus groups will occur with each team after each activity rotation.
6. Data from the treatment group and control group will be collected between July 2005 and August 2005.

Limitations

The study will be limited to the following characteristics:

1. The sample size of the study will be ($n = 96$).

2. Non-randomization assignment to treatment and control groups.

3. External validity is limited because of the sample size and lack of randomization.

Assumptions

The assumption of the study will be:

1. Identity development is a key developmental task during adolescence.

Hypotheses

The study will test the following hypotheses:

H1: Participant (T^1 , T^2) scores on the EPSI industry, identity, and intimacy subscales and the ISI-6G will significantly ($p < .05$) increase between pre- and post program administrations.

H2: No significant ($p < .05$) increase in scores on the EPSI industry, identity, and intimacy subscales and the ISI-6G will occur between pre- and post program administrations for the controls (C^1 , C^2).

H3: No significant ($p < .05$) differences in the change scores will be found between female and male participants (T^1 , T^2) on EPSI industry, identity, and intimacy subscales and the ISI-6G.

H4: No significant ($p < .05$) differences between the activity area EPSI subscale scores will be found.

H5: No significant ($p < .05$) correlations will be found between parental monitoring scores and scores from the EPSI subscales and the ISI-6G.

Definition of Terms

Adolescence. The pivotal developmental period that occurs between the ages of ten to twenty (Lerner & Steinberg, 2004).

Adventure Recreation. “A variety of self-initiated activities utilizing an interaction with the natural environment, that contain elements of real or apparent danger, in which the outcome, while uncertain, can be influenced by the participant and circumstances” (Ewert, 1988, p. 6). Adventure recreation includes a wide spectrum of activities with varying degrees of risk. Many adventure recreation activities are fairly common and relatively safe (e.g., hiking), while other activities present more extreme levels of risk (e.g., ice climbing). This study focuses on adventure recreation activities that while presenting certain risks, occur in very structured and monitored settings (e.g., white water rafting with professional guides).

In addition to actual risks, perceived risks are an important part of the adventure recreation experience. Research findings suggest that an individual’s perception of risk has a greater bearing on their adventure recreation experience than actual risk (Taniguchi, 2004). Additionally, perceived risks can differ widely, from life-threatening to activities that present potentially awkward situations (Taniguchi, 2004).

Commitment. A decision to act in accordance with a selected domain’s beliefs and values (Phoenix, 2001).

Daimon. A construct consisting of an individual’s ultimate potentials, those shared by all of humanity, and more importantly, those potentials unique to each individual (Waterman, 1992).

Domain. Life contexts, such as religion, politics, and family roles, that influence identity development (Archer, 1989).

Eudaimonia. When individuals pursue activities in which they are developing talents, skills, and abilities, in congruence with their personal daimon, they experience *eudaimonia*, or true happiness (Aristotle, 1986). Waterman (1992) also uses the term, *personal expressiveness*, to describe this construct.

Exploration. The process whereby individuals investigate and appraise the different beliefs and values of various domains (Phoenix, 2001).

Identity. An individual's mental perception of him or herself (Groff & Kleiber, 2001; Marcia, 1993; Mitchell, 1992)

Identity Development. The process whereby an individual creates a sense of self through the consolidation of past development and the exploration of and commitment to various identity elements.

Identity Statures. A model developed to describe the process of identity development in context of the interaction between exploration and commitment that assigns individuals to the following statures: foreclosure, diffusion, moratorium, and achievement (Curry & Weiss, 1989; Marcia, 1966, 1980).

Non-Traditional Activities. Activities not normally participated in by a particular individual (Shaw et al., 1995).

Previous Experience. The experience level an individual has in a particular activity.

Timing. The time period when identity development occurs for a particular individual (Archer, 1989).

Chapter 2

Review of Literature

The purpose of this study is to investigate the effects of adventure recreation on identity development of adolescent boys and girls. To address this question the literature dealing with identity, identity development, and the relation between recreation and identity development is reviewed. The literature will be presented for the following topics: (a) Identity; (b) Identity Development during Adolescence; (c) Timing of Identity Development during Adolescence; (d) Gender and Identity Development; (e) Importance of Adolescent Identity Development; (f) Recreation and Identity Development; (g) Adventure Recreation; and (h) Summary.

Identity

Erikson (1959, 1963, 1968) introduced the concept of identity to modern psychology. Erikson presents identity development as part of a larger developmental system conducive to empirical investigation (Marcia, 1993). Identity development represents the fifth stage of Erikson's eight stage psychosocial growth model (Erikson, 1959, 1963, 1968; Marcia, 1993). In its most basic form, identity represents an individual's self-perception (Groff & Kleiber, 2001; Marcia, 1993; Mitchell, 1992; Rangell, 1994). This perception changes over time and contexts, and facilitates both integration and differentiation from society (Erikson, 1959; Lavoie, 1994; Marcia, 1994; Mitchell, 1992; Weiss, 2001). Marcia (1993) proposes three identity component areas: structural, phenomenological, and behavioral.

Structurally, identity represents one link of a larger developmental chain.

Erikson's developmental model has eight dialectic links: trust vs. mistrust, autonomy vs. shame, initiative vs. guilt, industry vs. inferiority, identity vs. identity diffusion, intimacy vs. isolation, generativity vs. stagnation, and integrity vs. despair (Erikson, 1959, 1963, 1968; Marcia, 1993). These links or stages build upon one another so that the success of any individual stage is predicated upon the successes of the preceding stages (Marcia, 1993). Identity development, the fifth link, occurs during adolescence and creates a developmental link between childhood and adulthood (Erikson, 1959, 1963).

The phenomenological component of identity refers to an individual's "inner-core" (Marcia, 1993). The inner-core represents a consolidation of identity elements (e.g., beliefs, values, abilities, drives, and demographic elements) (Grotevant & Cooper, 1998; Marcia, 1980; Waterman, 1984, 1985). This consolidation of identity elements can be self-constructed or conferred upon an individual from an outside source (e.g. gender, race, economic status, etc.) (Grotevant, 1993; Grotevant & Cooper, 1998; Marcia, 1993). Active identity construction leads to a stronger sense of self as opposed to relying upon conferred identity elements (Marcia, 1993). Conferred identity elements may act as constraints to identity development if they inhibit an individual's opportunities for exploration and commitment (Grotevant & Cooper, 1988, 1998). For example, Grotevant and Cooper (1998) suggest that not knowing your biological parents (e.g., adopted children) may lead to struggles with identity development. Regardless of origin, these phenomenological identity elements directly influence the third component area, behavior (Marcia, 1993; Waterman, 1990).

An individual's commitment to a particular identity element also entails that the individual behave in accordance with that element (Marcia, 1993; Waterman, 1990). Marcia (1993) notes that behavior resulting from commitments to identity elements represents the only aspect of identity that can be empirically tested. When combined, the structural, phenomenological, and behavioral components of identity create a framework that allows the individual to interface with society.

Identity integrates the self and society, and society with the self (Josselson, 1994a, 1994b). Individuals with a healthy identity experience a sense of continuity between personal self-perceptions and feedback from society (Archer, 1994; Erikson, 1959; Josselson, 1980; Marcia, 1994). A strong identity also enables individuals to recognize differences (i.e., differentiation) and similarities (i.e., interrelatedness) between themselves and those around them (Marcia, 1980; Mitchell, 1992).

A balance between identity differentiation and interrelatedness allows individuals to become part of society and still retain a sense of their uniqueness (Kleiber & Kirshnit, 1991; Mitchell, 1992). Some social groups, such as gangs, force conformity upon their members that may adversely affect individuals' ability to form differentiated identities (Josselson, 1994b). Differentiation facilitates feedback from society concerning an individual's uniqueness, a critical identity need (Erikson, 1959). Differentiation establishes uniqueness; uniqueness garners feedback, and feedback reinforces identity (Kleiber & Kirshnit, 1991; Mitchell, 1992). Interrelatedness also plays a necessary role in the feedback loop, because without some similarity and connection with society, no feedback will occur (Kleiber & Kirshnit, 1991).

Individuals with weak identities often experience an imbalance between their levels of differentiation and interrelatedness, and as a result, develop unhealthy relationships with society. A differentiation/interrelatedness imbalance often leads to either extreme differentiation (e.g., eccentric or misanthropic behaviors) or extreme interrelatedness (i.e., conformity) (Erikson, 1959, 1963, 1968; Mitchell, 1992). Individuals must constantly work to maintain a balance between self-perceptions and society's perceptions, what Kroger (1996) calls "the balance between self and other" (pp. 8-9).

The dynamic nature of identity makes maintaining a balance between the self and other a lifelong task (Groff & Kleiber, 2001; Grotevant & Cooper, 1998; Marcia, 1980; Waterman, 1999). Identity evolves over time as individuals encounter new challenges, opportunities, relationships, and environments (Grotevant & Cooper, 1998; Weiss, 2001). Identity elements vary in degrees of salience depending on the context (i.e., domain); in other words, a work context may elicit a different collage of identity elements than a family context (Finkenauer et al., 2002). The sum total of chosen identity elements, linked together by some level of continuity, creates a sense of overall identity (Finkenauer et al., 2002; Weiss, 2001).

Identity provides an individual with a sense of predictability and continuity regarding their behavior and beliefs amidst constantly changing life contexts (Erikson, 1959, 1968; Grotevant & Cooper, 1998; Lavoie, 1994; Mitchell, 1992). Without a common thread of identity continuity over time and in varying contexts, an individual's sense of self weakens. The philosopher and psychologist William James (1981) also

suggests that continuity of the self is essential for the existence of personal identity.

James proposes that the self is made up of the “me” and the “I”. The “me” represents the known aspects of the self of which the “I” is self reflectively aware. Although the “me” continually changes, as long as the change is gradual the “I” will continue to recognize the sameness of the changing “me” and personal identity remains stable (James, 1981). In order to develop stable identities, individuals must establish a balance between identity continuity and change (Mitchell, 1992).

The complexities of identity require a sense of equilibrium between the seemingly oppositional forces of continuity and change, and differentiation and interrelatedness. A balance between these elements fosters structural, phenomenological, and behavioral identity development that in turn allows an individual to interact and connect with society. Although developing an identity is a lifelong, dynamic process, Erikson (1959, 1963, 1968) suggests that the most essential developmental period occurs during adolescence.

Identity Development during Adolescence

Adolescence exposes youth to new environments, roles, and life challenges (Finkenauer et al., 2002; Marcia, 1980). Increased physical and cognitive abilities develop during the transition from childhood to adolescence, and make possible developmental preparation for adulthood (Marcia, 1980). The main developmental task of adolescence consists of developing a sense of identity (Erikson, 1959, 1963, 1968; Finkenauer et al., 2002; Groff & Kleiber, 2001; Kivel, 1998; Lavoie, 1994; Marcia, 1966, 1980).

Over the last 50 years several identity development models have arisen. Among the most well known are Erikson's psychosocial approach, Blos's psychoanalytical perspective, Kohlberg's Cognitive Developmental model, Loevinger's Ego Stages, and Kegan's Constructive-Developmental approach (Kroger, 1996; Lavoie, 1994). All five of these approaches view identity formation as a developmental process (Kroger, 1996). This review focuses on the work of Erikson and efforts to build on his model of human development.

Erikson's work describes adolescent development specifically, and human development as a whole. Erikson identified eight stages of development to chronicle human psychological growth (Erikson, 1963). These stages, beginning with basic trust vs. mistrust during infancy, build upon each other. According to Erikson, healthy development hinges upon successful completion of each developmental stage (Erikson, 1963). The fifth stage of the model, identity vs. role confusion, occurs during adolescence.

Erikson (1959) views identity development as a bridge between childhood and adulthood. Identity development occurs as adolescents consolidate their cumulative childhood development in preparation for the transition to adulthood (Erikson, 1959). This "bridge" forms through exploration and commitment to roles, beliefs, and values (Grotevant & Cooper, 1998; Marcia, 1966, 1980; Waterman, 1992). These commitments allow adolescents to create an identity that can receive affirmation from society (Kroger, 1996).

If adolescents struggle with identity development they may lack opportunities for societal affirmation and role confusion occurs (Erikson, 1963). An inability to successfully develop an identity during adolescence can lead to delinquency and psychological problems (Erikson, 1963, 1968). In response to this confusion, adolescents often turn to peer relationships, one of the most important influential factors, for both good and bad, during adolescence (Erikson, 1963). These relationships can assist or exacerbate the process of developing a sense of identity (Erikson, 1959, 1963, 1968).

During adolescence youth confront new environments, relationships, and roles that lead to the consideration of new identity elements (Erikson, 1963; Waterman, 1984). The exploration of new identity elements eventually results in commitments to selected elements. The interplay between exploration and commitment, the two main driving forces behind adolescent identity development, led Marcia (1966, 1980) to expand upon Erikson's work in an attempt to describe the exact processes of identity development.

Role exploration plays a critical function in facilitating commitments to specific identity components (Marcia, 1980). Exploration describes the process whereby individuals investigate and appraise the different beliefs and values of various domains (Phoenix, 2001). After exploration occurs, an individual makes commitments to certain elements (Phoenix, 2001). In doing so, the individual also commits to act in accordance with the values associated with the selected elements (Phoenix, 2001). Marcia (1966, 1980) used the concepts of identity exploration and commitment to develop four identity statuses: foreclosure, identity diffusion, moratorium, and identity achievement. These

statuses quantify the process of identity development, specifically *identity achievement* and *identity diffusion* the two poles of Erikson's (1963) fifth stage of development.

Each of the identity statuses represent a specific composition of exploration and commitment (Adams & Archer, 1994; Csikszentmihalyi, Larson, & Prescott, 1977; Marcia, 1966, 1980; Phoenix, 2001). *Foreclosure* represents commitment to identity elements without any prior exploration. For example, an adolescent who decides to follow in his or her father's occupational footsteps without exploring other vocational opportunities would fall in the identity foreclosure status. *Identity diffusion* represents lack of both exploration and commitment. Youth in the identity diffusion status apathetically refuse to explore or commit to any identity elements. *Moratorium* represents a state of current exploration that has not yet led to any commitments. When individuals have explored and committed to different identity elements *identity achievement* occurs. Marcia (1966) supported the validity of the identity statuses with the use of a semi-structured interview. The majority of identity development studies have built upon and further supported Marcia's theory (Schwartz, Mullis, Waterman, & Dunham, 2000). One of the most ardent supporters of Marcia's work and the identity statuses is Waterman (1999).

Although Waterman (1992) agrees with Marcia and Erikson, he also suggests the need for a third component of identity development in addition to exploration and commitment. This third identity component focuses on the passion or energy behind identity commitments. Waterman (1992) quantifies this concept of passionate commitments with the term *personal expressiveness*. The addition of personal

expressiveness to exploration and commitment create an identity perspective that suggests individual identity strength relies not only on the commitments that form the identity's foundation, but also on the passion behind those commitments (Waterman, 1992). Waterman (1992) defines personal expressiveness as:

- (a) an unusually intense involvement in an undertaking, (b) a feeling of special fit or meshing with an activity that is not characteristic of most daily tasks, (c) a feeling of intensely being alive, (d) a feeling of being complete or fulfilled while engaged in an activity, (e) an impression that this is what the person was meant to do, (f) a feeling that this is who one really is. (p. 58)

When individuals make commitments to identity components that foster feelings of personal expressiveness, their overall sense of identity becomes stronger.

The feelings associated with personal expressiveness arise out of a connection between the development of skills, talents, and potentials in a particular domain and an individual's innate potential (Waterman, 1984, 1990, 1992, 1993). The construct of true self is rooted in the Greek ideal of daimon. The daimon, which Aristotle (1986) discusses in *Nichomachean Ethics*, represents an individual's ultimate potential. When individuals pursue activities that develop talents, skills, and abilities, in congruence with their personal daimon, they experience *eudaimonia*, or true happiness (Aristotle, 1986). Waterman (1984) suggests that the purpose of identity development lies in discovering and actualizing personal daimons. The feelings associated with *eudaimonia* (i.e., personal expressiveness) play an important role in adolescent identity formation. These feelings

can facilitate exploration that promotes identity development and self-understanding that more closely coincides with one's self (Waterman, 1984, 1990).

Marcia and Waterman's work on identity development has expanded and quantified Erikson's original writings on the matter. Marcia's (Marcia, 1966, 1980) ego identity statuses provide further insight into the interaction between exploration and commitment, and the importance of this interaction during identity development. Waterman's (Adams & Archer, 1994; Waterman, 1990, 1992, 1993) writings on personal expressiveness, and its role in creating passionate identity commitments, make identity development more accessible by identifying emotions tied to experiences that can positively impact an individual's identity development. The combined efforts of Erikson, Marcia, and Waterman create a clear theory of identity development that lends itself to empirical investigation.

Timing of Identity Development during Adolescence

Even though most adolescents establish stable identities during their college years (Archer & Waterman, 1994), the process of identity development begins during early adolescence (Adams & Archer, 1994; Lavoie, 1994; Wires et al., 1994). Structurally, identity development is linked to childhood development (Lavoie, 1994). Early adolescence marks a developmental transition out of childhood as a result of the physical, emotional, and mental changes associated with puberty and exposure to new environments and challenges (Brinthaupt & Lipka, 2002; Roeser & Lau, 2002). Early adolescents also experience increased cognitive abilities that make identity development

possible (Roeser & Lau, 2002). Early adolescence serves as a time when adolescents begin to lay a foundation for the development of their young adult identities.

Research findings show that identity development begins during early adolescence (Jones & Streitmatter, 1987; Wires et al., 1994). Most early adolescents begin the identity development process in the diffusion status (Archer, 1982; Meilman, 1979); from that point, progression through the identity statuses differs between individuals and among domains (Waterman, 1985). Domains represent different life, relationship, and ideological contexts such as work, family, and religion (Waterman, 1985). Individuals' identity commitments and the strength of those commitments may vary between different contexts (Waterman, 1985). For example, an adolescent may have a strong family identity, but a weak school identity. It may also be assumed that domains can interact with one another, meaning that domain specific identity development progression or digression in one domain has the ability to generalize to other domains. During identity development, periods of regression may occur when individuals face challenges to or doubts about their chosen identities (Waterman, 1985). Research shows that identity status regression decreases with increased maturity as identity commitments strengthen and foreclosure and identity achievement statuses become more stable (Waterman, 1999).

The nature of early adolescent identity development and the factors that influence this process deserve further investigation. A deeper comprehension of identity development during early adolescence may help researchers and practitioners understand and more effectively influence outcomes of identity development during late

adolescence. For example, the exposure to antecedents of positive identity development (e.g., role models, exploration of identity alternatives, democratic parenting) (Waterman, 1982) during early adolescence may have a profound impact on the completion of identity development during late adolescence. The creation of identity development measurements designed and tested for use with early adolescents (Jones & Streitmatter, 1987; White et al., 1998) makes the study of this population possible. Greater understanding of identity development during early adolescence will positively contribute to the current body of identity development research.

Gender and Identity Development

Gender represents an important identity and overall developmental domain. The development of gender can be viewed from a number of different theoretical perspectives. Biological theories suggest that gender differences arise as a result of hormones and genes, Socialization theories argue the gender roles are learned, Cognitive theories explore the relationship between cognitive and gender development, and Developmental Systems theories recognize that individuals are members of multiple contexts (e.g., family, peers, school, ethnic groups, mass media) that influence the developmental of gender (Galambos, 2004).

Regardless of how gender develops, gender differences do exist (Galambos, 2004). Gender differences are apparent in occupational and educational contexts (Galambos, 2004). Adolescent females tend to exhibit lower levels of self-esteem and body-image satisfaction, and higher levels of depression (Galambos, 2004). Males show higher levels of physical aggression, whereas females show higher levels of relational

aggression (Galambos, 2004). Although further gender differences have been found in other areas (e.g., risk-taking, peer relations, positive development, etc.), recent analyses have found that many of these differences are not as great as once assumed (Galambos, 2004).

The effect of gender on adolescent identity development remains a subject of debate. Critics of Erikson's work suggest that females and males develop identity differently (Gilligan, 1982; Gilligan, Ward, Taylor, & Bardige, 1988; Miller, 1976). Supporters of Erikson's developmental model argue that no major differences exist between male and female identity development (Streitmatter, 1993). In order to evaluate the merit of these viewpoints more clearly the gender and identity development research will be divided into three separate areas: process, timing, and domains.

The process of identity formation refers to an individual's use of exploration and commitment to develop an identity (Archer, 1989). This process requires that individuals learn to differentiate themselves from those around them (Mitchell, 1992). Gilligan (1982) suggests that females value their relationships with others more than their ability to establish a sense of independence through differentiation. This possible difference of abilities and priorities between males and females concerning differentiation might suggest that females and males engage in different identity development processes (Gilligan, 1979). For example, women may focus on developing intimate relationships before they focus on identity development, thus altering the order of Erikson's identity and intimacy stages. In contrast to this claim, the studies that specifically address gender and identity suggest little or no differences between male and female identity

development processes (1989; Archer, 1985; Streitmatter, 1993; Waterman, 1982, 1985, 1999).

Research tends to show little or no differences in regards to identity development timing between males and females (Archer, 1989; Waterman, 1999). Identity development timing refers to both when an individual begins the processes of exploration and commitment and the duration of the overall development process (Archer, 1989). Since timing differences in regards to puberty exist between males and females, with females entering puberty one year earlier on average than males (Katchadourian, 1977), one could infer that similar identity development timing differences exist as well. Marcia (1980) suggests that identity development takes longer for females because of their supposed relationship focus. Research findings not only fail to support Marcia's claims, but suggest that in some situations females proceed through identity development quicker than males (Archer, 1989; Waterman, 1999).

Identity domains represent the one area where slight differences between males and females have appeared in the research (Archer, 1989; Waterman, 1985, 1993, 1999). Identity domains such as religion, politics, and family roles, have a strong influence on identity development (Archer, 1989). Research findings show slight differences among some populations between genders in regards to relationship, sex roles, and political ideology domains (Archer, 1989; Waterman, 1985, 1999). For example, findings suggest that females focus more on social roles, while males have more fully developed political ideology (Waterman, 1985).

In evaluating the findings concerning gender and identity development it becomes clear that this area requires additional study, with consistent instrumentation (Archer, 1989; Streitmatter, 1993). Although it appears that the research findings refute Erikson's critics, the different instruments employed in the various studies make it difficult to group and collectively interpret these findings (Streitmatter, 1993). While some instruments take into account interpersonal domains (Grotevant & Adams, 1984), others do not (Adams, Shea, & Fitch, 1979). Studies that attempt to investigate gender and identity development questions need to employ instruments that consider both intrapersonal (i.e., ideologies) and interpersonal (i.e., relationships) domains (Streitmatter, 1993).

Additionally, recreation provides a viable context for evaluating the relationship between gender and identity development. Although it appears that recreation affects males and females differently (Shaw et al., 1995), the reasons behind these findings remain unclear. A number of studies have addressed this area (Kleiber, Larson, & Csikszentmihalyi, 1986; Shaw et al., 1995), but have failed to produce conclusive answers. This study will attempt to address this issue in an effort to increase the understanding of the relationship between gender and identity development.

Importance of Adolescent Identity Development

Successful identity development during adolescence provides a strong foundation for future health and well-being. A well developed identity provides a bridge between childhood and adulthood, creates a structure to organize and unify behavior among different contexts, and provides a direction and focus for behavior that reinforces an individual's identity (Waterman, 1984). Without a firm identity adolescence can be a

difficult developmental stage of life, and one that can detrimentally affect adult development.

Unsuccessful development of identity during adolescence may result in maturation deficiencies. Research suggests that adolescents who struggle with identity formation often are impulsive decision makers, more apt to experiment with drugs, alcohol, and unprotected sex, and exhibit higher instances of psychosocial and behavior problems (Finkenauer et al., 2002; Hernandez & DiClemente, 1992; Jones, 1992; Jones & Hartmann, 1988; Waterman & Waterman, 1974; Wires et al., 1994). Although a conclusive cause and effect relationship cannot be unequivocally claimed, the body of research does suggest a strong relationship between identity development struggles and deviant behavior.

Normal identity development leads to adolescents who are reflective decision makers and demonstrate higher moral reasoning, intimacy, and cultural sophistication (Waterman & Waterman, 1974). Adolescents with stable identities also exhibit fewer signs of psychiatric problems (Waterman, 1999; Waterman & Waterman, 1974). These individuals appear to have higher levels of self-esteem, goal-directed activity, optimal psychological functioning, and socially constructive behavior (Waterman, (1992).

Identifying characteristics of programs that facilitate the promotion of identity development represents a valuable contribution to the literature and to programming applications. Considering the importance of healthy identity development for adolescents and the dangers associated with identity development struggles, it is important to study the elements and domains that impact this development.

Recreation and Identity Development

Kroger (1993) suggests that further research is needed to investigate the role of contexts in identity development, in order to determine those contexts that have the greatest developmental impact. The inherent qualities of recreation make it prime identity development context (Haggard & Willams, 1991, 1992; Mannell & Kleiber, 1997). Recreation provides opportunities for exploration, commitment, interrelatedness, and feedback, all of which serve essential identity development functions. Recreational activities provide a unique environment conducive to exploration and growth. The self-expressive and exploratory aspects of recreation, along with the ability to receive clear feedback from self and others, make recreation a powerful context for identity development (Groff & Kleiber, 2001; Haggard & Willams, 1991; Kivel, 1998; Kleiber & Kirshnit, 1991; Larson, 1994; Mannell & Kleiber, 1997; Munson & Widmer, 1997; Phoenix, 2001; Shaw et al., 1995; Weiss, 2001).

Of course, not all recreation is beneficial; in fact, many types of recreation can be detrimental (Bunton, Green, & Mitchell, 2004). For example, purple recreation classifies activities that are harmful to self and others (e.g., substance abuse, truancy, and vandalism) (Russell, 1996). Csikszentmihalyi, Larson, and Prescott's (1977) findings suggest that some forms of television viewing may promote delinquent behaviors. Many of society's shortcuts to pleasure (i.e., methods of obtaining optimal benefits with minimal effort) are recreation activities such as watching television, eating, drugs, etc. (Seligman, 2002).

Fortunately, many recreation activities exist that promote personal and psychological development (Seligman, 2002). Research suggests that recreation is an important identity development domain, especially for adolescents. Kleiber, Larson, and Csikszentmihalyi (1986) suggested that structured recreation activities can play an important transitional role as adolescents work to become functioning adults. Recreation contexts are especially important for adolescents because they create opportunities for exploration of identity elements (Kleiber & Kirshnit, 1991; Mannell & Kleiber, 1997). Recreation can play an especially important development role for early adolescents because it provides a context to experience a number of the antecedents to identity development (e.g., exposure to identity alternatives and successful role models) identified by Waterman (1982). Wires et al. (1994) also suggest that activities that promote independence, a quality of many recreational activities, play an important role in identity development.

Although exploration fits very well into recreation contexts, commitment does not occur as readily. In fact, strong commitments to recreation identities may impede further identity formation (Kleiber & Kirshnit, 1991). At the same time, recreation contexts offer unique opportunities for feedback and affirmation, which can strengthen identity (Weiss, 2001). This feedback process is especially obvious when individuals participate in recreation activities that are observed by other participants or spectators who then provide the individual with reactions to their performance (Kleiber & Kirshnit, 1991; Weiss, 2001). This feedback then either validates or weakens the individual's identity relative to the activity (Weiss, 2001). Recreation contexts can also strengthen and develop skills and

attributes of recreation identities (Donnelly & Young, 2001; Haggard & Williams, 1991, 1992; Mannell & Kleiber, 1997). Accordingly, recreation contexts seem especially suited to allow individual's to experience feelings of personal expressiveness because of the high level of autonomy associated with most recreation activities (Waterman, 1984, 1990, 1992, 1993).

Research that has focused specifically on adolescent identity development also suggests a positive relationship between recreation and identity development (Caldwell, 2001; Evans & Poole, 1991; Groff & Kleiber, 2001; Kivel, 1998; Kleiber et al., 1986; Larson, 1994; Shaw et al., 1995; Silbereisen & Todt, 1994; Taylor, 1990). Larson (1994) also suggests that development that occurs during recreation activities transfers easily to other domains.

In a study of adolescents participating in an adapted sports program (Groff & Kleiber, 2001), researchers found that participants developed a sense of competence, decreased awareness of their disabilities, and connecting with their true potential. A study, addressing the role of juvenile jazz bands, found that the bands provided female adolescents with safe social space that fostered social interaction (Grieves, 1989). Findings from Shaw et al.'s (1995) study suggest that sports participation has a positive association with identity development for females. The researchers hypothesize that the observed gender difference may have occurred because sports are stereotypically seen as a non-traditional activity for females (Shaw et al., 1995). Extrapolating upon this hypothesis, Shaw et al. (1995) suggest that non-traditional activities may provide both males and females with opportunities for exploration that could positively impact the

developmental process. This hypothesis presents a new avenue for the research of identity development, specifically the types of non-traditional recreation that have the greatest developmental impact. Adventure recreation represents a non-traditional recreation category for many individuals.

Adventure Recreation

Adventure recreation describes challenging activities situated in the outdoors that involve risk (Ewert, 1987, 1989). Although these activities expose participants to risk, they also allow individuals to influence the overall outcome of the activity (Ewert, 1987, 1989). The nature of adventure recreation makes it a widely implemented therapeutic intervention (Gass, 1993). Marriage and family therapists use adventure recreation to facilitate healthy family functioning (Gillis & Gass, 1993). Research has shown that adventure recreation programs promote positive behavior modification and development, increases in trust, social integration, and self-efficacy (Anderson, 1994; Bandoroff & Scherer, 1994; Ewert et al., 2001; Priest, 1998; Propst & Koesler, 1998; Sachs & Miller, 1992; Taylor, 1990). Recent studies have also shown that shared adventure recreation positively impacts family functioning (Balisteri et al., 1995; Huff et al., 2003; Wells et al., 2004) The qualities that make adventure recreation an effective therapeutic intervention may also positively influence adolescent identity development.

Certain elements of adventure recreation fulfill basic identity development needs. Csikszentmihalyi and Csikszentmihalyi (1990) note that adventure recreation provides opportunities for optimal experiences (i.e., experiences where individuals feel a balance between their personal skill level and the challenge of the activity). Additional research

supports this claim (Jones, Hollenhorst, Perna, & Selin, 2000). Optimal experiences bear many similarities with Waterman's (1990) concept of personal expressiveness. When individuals experience personal expressiveness during exploration of an identity element it fosters stronger identity commitment (Waterman, 1992).

The challenging nature of adventure recreation represents one of the main reasons why optimal experiences occur so often during these activities (Csikszentmihalyi & Csikszentmihalyi, 1990). Challenge arises during adventure recreation as a result of the interplay between the inherent risk of a situation and an individual's perceived competence (Priest, 1992). Correct perceptions of both personal competence and situational risk produce enjoyable adventure recreation experiences (Ewert & Hollenhorst, 1989; Priest, 1998). Meeting and overcoming challenges also serves as a key catalyst to adolescent identity development (Mitchell, 1992). Research also shows that prolonged participation in adventure recreation leads to increases in individuals' perceptions of personal competence (Priest, 1992). Erickson (1963) suggests that competence serves as a prerequisite to identity development.

The positive development qualities of adventure recreation led to the inclusion of such activities in various intervention programs. Development that occurs during adventure recreation programs can be applied to real life situations (Gass, 1991; Gass & Priest, 1993; Gillis & Gass, 1993; Smith, 1997). This suggestion coincides with Larson's (1994) hypothesis that identity development that occurs during sport participation generalizes to other identity domains. Although intriguing parallels exist between the

benefits of adventure recreation and the needs of identity development, further research is required to more fully understand this relationship.

Summary

Identity and identity development have received multi-disciplinary attention over the last half century. The current body of literature in this area has firmly established the importance of identity development during adolescence. Gaps and limitations in the research leave some important and interesting questions unexplored. Two specific areas that require further exploration include the role of gender on identity development and the types of non-traditional activities that have the greatest impact on identity development (Archer, 1989; Larson, 1994; Shaw et al., 1995).

This study seeks to address these questions and contribute to the current body of research on the relationship between adventure recreation and adolescent identity development. Additionally, research in this area stands to increase the current understanding of how gender influences adolescent identity development. Adolescence is a tumultuous time, and developing a strong identity during this period of life is essential. The findings of this study will help lead to the development of more effective youth recreation intervention programs targeting successful identity development.

Chapter 3

Methods

The purpose of the study is to examine the effect of adventure recreation, specifically a two-week wilderness camp, on the identity development of adolescent boys and girls. This chapter outlines the structure and methods of the study. The following areas are covered: (a) selection of subjects, (b) instrumentation, (c) procedure, and (d) data analysis.

Selection of the Subjects

A convenience sample of 48 males and 48 females ($N = 96$), between the ages of 12 to 15 years, will be recruited from middle schools in a western state. Half of the male ($n = 24$) and female ($n = 24$) subjects will receive assignment to the treatment groups (T^1 , T^2). The other half of the males ($n = 24$) and the females ($n = 24$) will serve as controls (C^1 , C^2). Although no randomization will occur during treatment and control group assignments, all subjects will come from similar populations, thus creating a non-equivalent control group (Babbie, 2001). The sample will be composed of youth recruited, interviewed, and selected by the researcher and employees of the Wilderness Instruction and Leadership Development (W.I.L.D.) Foundation 501(c)3. Youth will be recruited from middle and junior high schools from three Western states.

Instrumentation

Identity development has been empirically researched for over 40 years. In an effort to test the ego identity status theory Marcia (1966) created a semi-structured interview. The interview focused on the interaction between exploration and commitment

in the intrapersonal domains of occupational choice, religion, and politics (Marcia, 1966). Marcia (1980) later suggests that identity instruments should also consider interpersonal domains (e.g., relationships). Grotevant, Thorbecke, and Meyer (1982) responded to this suggestion and added the domains of friendship, dating, and sex roles to Marcia's interview. Archer (1989) later added the domain of family roles to the interview, furthering the investigation of the role of interpersonal domains in identity formation.

A number of self-reporting instruments have also been designed to measure development through the identity statuses. The Objective Measure of Ego Identity Status (OM-EIS) uses 24 Likert items to assess development in the domains of religion, occupation and politics (Adams et al., 1979) Grotevant and Adams (1984) expanded upon the OM-EIS and created the Extended Objective Measure of Ego-Identity Status (EOM-EIS). In addition to the domains of religion, occupation, and politics, the EOM-EIS also addressed friendships, dating, sex roles, philosophical styles, and recreation (Grotevant & Adams, 1984).

The EOM-EIS has proven applicable to a wide range of populations including early adolescents (Jones & Streitmatter, 1987). Bennion and Adams (EOMEIS-2, 1986) further revised the EOM-EIS to improve the measurements interpersonal items. Although numerous studies have implemented the OM-EIS, EOM-EIS, and the EOMEIS-2 (Adams, 1998) certain weaknesses exist. The instrument's scoring system often fails to assign identity statuses to all research participants and fails to consistently differentiate between diffused and moratorium statuses (Balisteri et al., 1995; Jones, Akers, & White, 1994; Schwartz, 2004).

Other measures approach identity development from perspectives other than Marcia's (Marcia, 1966, 1980) ego identity statuses. The Erikson Psychosocial Stage Inventory (EPSI) measures progression through the first six stages of Erikson's developmental model (Rosenthal et al., 1981). The identity subscale, consisting of 12 items, from the EPSI has shown signs of identity development among early adolescents (Schwartz, Pantin, Guillermo, Sullivan, & Szapocznik, in press). Berzonsky (1989) developed the Identity Style Inventory (ISI), in an attempt to look at the relationship between cognitive problem solving abilities and identity development.

A sixth grade reading level revision of the ISI (ISI-6G) increased the instruments range of testable populations (White et al., 1998). Research has shown the identity styles from the ISI to correlate with the EOM-EIS's identity statuses (White et al., 1998). The ISI-6G and the EPSI do not address specific identity domains. Instead they provide an overall picture of identity development. This approach better fits the study's sample because many of the identity domains (e.g., politics, occupation, and gender roles) are not relevant to early adolescents (S. J. Schwartz, personal communication, March 16, 2005).

The industry, identity, and intimacy subscales from the Erikson Psychosocial Inventory Scale (EPSI) (Rosenthal et al., 1981) and the sixth grade reading level version of the Identity Style Inventory (ISI-6G) (White et al., 1998) will be used to measure the dependent variable, identity. The subscales for industry and identity from the EPSI each consist of 12 Likert scale items, and the intimacy subscale consists of 11 Likert scale items (see Appendix A). According to Erikson's model, early adolescents must establish a sense of industry in order to transition into the identity development stage (Erikson,

1963). Therefore, scores from the industry subscale will be used to make inferences regarding participants' ability to address identity development issues, and scores from the identity subscale will be used to make inferences about participants' actual identity development. Erikson (1963) further reasoned that a stable identity facilitates the development of intimacy. Accordingly, intimacy subscale scores will provide insight into the stability of individuals' identity development as well as possible sequential development differences between genders (Marcia, 1980).

Internal consistency estimates for the scales are .79 for industry, .78 for identity, and .73 for intimacy (Rosenthal et al., 1981). Correlations between the industry and identity EPSI subscales and the work and identity subscales from the Personal Maturity Index (Greenberger & Sorensen, 1974) are $r = .64$ for industry and $r = .56$ for identity, providing criterion-related evidence of validity. A factor analysis of the identity subscale items revealed two separate factors: identity coherence (eigenvalue 3.68) and identity confusion (eigenvalue 2.32) (Schwartz et al., in press). Schwartz et al. found alpha coefficients of .83 for identity coherence and .69 for identity confusion.

In addition to the EPSI subscales, the ISI-6G will also be used to quantify identity development (See Appendix A). The ISI-6G is a revision of the original ISI (Berzonsky, 1989). The revision was made in order to make the instrument more accessible to early and middle adolescents and individuals with lower reading abilities (White et al., 1998). The ISI-6G consists of 40 Likert scale items that address various identity issues. Scores from the ISI-6G assign individuals to three different cognitive identity styles: information, normative, diffuse/avoidant (White et al., 1998).

The identity styles represent different cognitive approaches to identity development (Berzonsky, 1989; White et al., 1998). Individuals with an information style involve themselves in exploration; they are introspective and open to processing and evaluating new information (Berzonsky, 1989; White et al., 1998). Normative style individuals rely heavily on the expectations and standards of peers and significant others when making decisions (Berzonsky, 1989; White et al., 1998). Individuals who reluctantly face decisions and problems demonstrate a diffuse/avoidant identity style (Berzonsky, 1989; White et al., 1998). The identity styles correlate with the identity statuses from the EOMEIS-2 (Berzonsky, 1990). The information style corresponds with achievement and moratorium statuses, the normative style corresponds with the foreclosure status, and diffuse/avoidant corresponds with diffusion status (Berzonsky, 1990). The ISI-6G contains 10 items that address commitment issues that allow for differentiation between moratorium and achievements statuses within the information style category (Berzonsky, 1989; White et al., 1998).

Researchers established both the reliability and the validity of the ISI-6G (White et al., 1998). Coefficient alphas for the identity styles (information $\alpha = .59$, normative $\alpha = .64$, diffuse/avoidant $\alpha = .78$) from the ISI-6G show an acceptable level of reliability for the instrument (White et al., 1998). Researchers also found expected correlations between the ISI-6G and levels of alcohol consumption, expressed optimism, codependence, and religiosity that demonstrate criterion validity (White et al., 1998).

Data collected from the EPSI subscales and the ISI-6G will provide a comprehensive picture of identity development. The EPSI subscales provide an overall

identity score, while the ISI-6G provides specific identity style/identity status scores.

Both instruments address interpersonal and intrapersonal identity development domains making them appropriate to evaluate gender differences (Streitmatter, 1993).

Recently, some scholars have argued for the use of “mixed methods,” or the collection of both quantitative and qualitative data simultaneously (Viadero, 2005). In an effort to benefit from this methodology, qualitative methods will be employed in addition to quantitative methods. The use of mixed methods will create a richer base of knowledge concerning the processes of identity development (Viadero, 2005). Small focus group interviews will be conducted and recorded during both the male and female sessions of camp. Dyadic interviews with youth from each session will also take place.

The development of an interview format will involve creating prompt questions based on the quantitative instruments used in the study. The prompt questions will encourage self-reflection and open discussion of experiences during the program; the questions will also illicit information regarding identity development issues. The interviews will provide participants an opportunity to reflect on what they learn about themselves as they progress through the program, as well as how the experience affects their perceptions of themselves and those around them. Interview items will be reviewed and revised based on feedback provided by trained graduate students and adolescents.

Both the focus group and individual interviews will be transcribed into Microsoft Word document format and Rich Text Format. Documents will be identified according to individual and focus group ID numbers. Names and other identifiers will be replaced with ID numbers during the transcription process to insure the anonymity of research

participants. QSR NVivo, a qualitative data analysis program, will be used to code and organize the transcribed data. The researchers' memos, taken during the interview process, will also be transcribed and used to analyze the interview data.

Procedure

This study will use a single factor, four group, non-equivalent control group design (Pedhazur & Schmelkin, 1991). The treatment groups will complete a two-week adventure recreation program conducted as a collaborative effort between Recreation Management faculty and students and employees of the W.I.L.D. Foundation. The treatment groups will participate in three different activity areas during the program: white water rafting, backpacking, and exploration (e.g., rock climbing, environmental education, and survival skills).

Treatment groups will complete identity-measurement questionnaires before and after participating in the two week adventure recreation program in order to test the dependent variable, identity development, in the context of the hypotheses. The treatment groups will also complete the EIPQ subscales (i.e., industry, identity, and intimacy) after completing each of the three and a half day activity areas. The additional administrations of the EIPQ will provide additional data regarding the impact of each activity area on the development of the research participants. Research participants will also take part in focus groups after each activity area rotation. Additionally, individual interviews will be conducted with participants throughout the duration of the program. In total the qualitative data will consist of approximately twenty-four focus group interviews (3-4 participants) and forty individual interviews.

Control groups will complete pre- and posttests over the same period of time as the treatment groups, but will not participate in the adventure recreation program. All research subjects will receive parental consent forms, and assent forms (see Appendix B). Collection of consent and assent forms will occur prior to the administration of the pretest questionnaire. Participant recruitment will be conducted by employees of the W.I.L.D. Foundation through newsletters, newspaper articles, flyers, and assemblies. Potential participants will then be interviewed and selected based on exposure to identified risk factors (Garbarino, 1995). Female subjects (n = 24) will attend Camp Wild from July 11 – 23, 2005 and male subjects (n = 24) will attend camp from July 25 – August 6, 2005. A sample of male (n = 24) and female (n = 24) middle school students, recruited from the same schools as the treatment group, will serve as the controls (n = 48).

Treatment group subjects will receive assignments to one of six different teams. Each team will consist of four youth and two counselors. Two teams will participate in each activity area at the same time. The teams will rotate to a different activity area every four days. Counselors will focus on creating leadership opportunities for the youth. For example, the participants will learn how to guide a raft through white water, lead a backpacking trip, and teach someone to rock climb. The program will expose treatment-group subjects to challenging activities designed to foster identity development (Mitchell, 1992).

Data Analysis

The quantitative data from the pre- and posttest questionnaires will be scored and analyzed using the statistical software package SPSS (SPSS Inc., Chicago, IL) in order to

test the hypotheses. Scores from the EPSI subscales will provide overall industry, identity, and intimacy scores. Scores from the ISI-6G will be analyzed as raw scores and as z score transformations (White et al., 1998). Z score transformations assure an equal distribution of individuals to the three identity statuses (White et al., 1998). The additional use of raw scores from the ISI-6G account for the sample bias created by the use of z scores (White et al., 1998).

T tests will be employed to determine if significant changes exist between pre- and posttest scores for both instruments. F tests will be used to compare the variances between pre- and posttest scores in order to determine whether equal or unequal variance t tests should be conducted. Change scores between pre- and posttests will be calculated for both the treatment and controls. T tests will evaluate significance ($p < .05$) between treatment (T^1, T^2) and control (C^1, C^2) group mean-change scores. T tests will also evaluate significance ($p < .05$) between male (T^1) and female (T^2) treatment group mean-change scores.

The analysis of qualitative data involves open and axial coding in order to uncover reoccurring concepts, motifs, expressions, and images (Strauss & Corbin, 1998). Open coding occurs as the researchers analyze the data line-by-line in order to identify and group reoccurring phenomena into categories or codes (Glaser, 1978; Strauss & Corbin, 1998). After the development of specific phenomenological categories, axial coding takes place (Strauss & Corbin, 1998). Axial coding involves looking for connections and commonalities between identified categories (Strauss & Corbin, 1998). For example, the youth might frequently mention their counselors when talking about

why they enjoyed camp. When identified, these connections become subcategories (Strauss & Corbin, 1998). The identification of categories and subcategories leads to selective coding and the eventual emergence of theories to describe the occurrence of the observed phenomena (Strauss & Corbin, 1998).

To examine the “trustworthiness,” of the transcribed data and subsequent analysis, member checking and independent evaluations of the data analysis process will be employed. Trustworthiness is similar to gathering evidence of the reliability and validity of inferences of psychometric measures (Lincoln & Guba, 1985). Member checking establishes credibility (i.e., validity) and involves research participants reviewing the completed analysis to ascertain if it correctly reflects their personal perceptions (Lincoln & Guba, 1985). Member checking will occur after the completion of the program and after the analysis of the transcribed data. Individuals, not associated with the study, will be asked to review and provide feedback on the research in order to establish the dependability and confirmability of the codes, categories, and overall data analysis process (Lincoln & Guba, 1985).

The data analysis process identifies typifications (Schutz, 1970). Typifications arise out of individuals’ application of stocks of knowledge (e.g., certain values, attitudes, expectations, and images) to experiences (Holstein & Gubrium, 1994; Schutz, 1970). These typifications allow individuals to recognize and interpret experiences (Holstein & Gubrium, 1994). The typifications identified in the qualitative data will serve to illuminate the interaction between adventure recreation and the processes of identity development.

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Appendix A-1a
Thesis Questionnaire

16.	The important things in life are clear to me.	1 2 3 4 5
17.	I've got it together.	1 2 3 4 5
18.	I know what kind of person I am.	1 2 3 4 5
19.	I can't decide what I want to do with my life.	1 2 3 4 5
20.	I have a strong sense of what it means to be female/male.	1 2 3 4 5
21.	I like myself and am proud of what I stand for.	1 2 3 4 5
22.	I don't really know what I'm on about.	1 2 3 4 5
23.	I find I have to keep up a front when I'm with people.	1 2 3 4 5
24.	I don't really feel involved.	1 2 3 4 5

Directions: Please circle a number between “1” and “5” that best reflects how much you “disagree” or “agree” with the sentence. There are no right or wrong answers.

YOUR FIRST REACTION TO EACH QUESTION SHOULD BE YOUR ANSWER.

1 2 3 4 5
Strongly **somewhat** **unsure (u)** **somewhat** **Strongly**
Disagree (SD) **disagree (d)** **(SA)** **agree (a)** **Agree**

1.	I know what I believe about religion.	1 2 3 4 5
2.	I've spent a lot of time thinking about what I should do with my life.	1 2 3 4 5
3.	I'm not sure what I'm doing in life.	1 2 3 4 5
4.	I act the way I do because of the values I was brought up with.	1 2 3 4 5
5.	I've spent a lot of time reading and/or talking to others about religious ideas.	1 2 3 4 5
6.	When I talk with someone about a problem, I try to see their point of	1 2 3 4 5

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	view.	
7.	I know what I want to do with my future.	1 2 3 4 5
8.	I don't worry about values ahead of time; I decide things as they happen.	1 2 3 4 5
9.	I'm not really sure what I believe about religion.	1 2 3 4 5
10.	I was brought up to know what to work for.	1 2 3 4 5
11.	I'm not sure which values I really hold.	1 2 3 4 5
12.	I know where the government and country should be going.	1 2 3 4 5
13.	If I don't worry about my problems they usually work themselves out.	1 2 3 4 5
14.	I'm not sure what I want to do in the future.	1 2 3 4 5
15.	I feel like the work I do (or have done in the past) is right for me.	1 2 3 4 5
16.	I've spent a lot of time reading about and/or trying to understand political issues.	1 2 3 4 5
17.	I'm not thinking about my future now--it's still a long way off.	1 2 3 4 5
18.	I've spent a lot of time talking to people to find a set of beliefs that works for me.	1 2 3 4 5
19.	I've never had any serious doubts about my religious beliefs.	1 2 3 4 5
20.	I'm not sure what job is right for me.	1 2 3 4 5
21.	I've known since I was young what I wanted to be.	1 2 3 4 5
22.	I have a strong set of beliefs that I use when I make decisions.	1 2 3 4 5
23.	It's better to have a firm set of beliefs than to be open to different ideas.	1 2 3 4 5
24.	When I have to make a decision, I wait as long as I can to see what will happen.	1 2 3 4 5
25.	When I have a problem, I do a lot of thinking to understand it.	1 2 3 4 5
26.	It's best to get advice from experts (preachers, doctors, lawyers, teachers) when I have a problem.	1 2 3 4 5
27.	I don't take life too serious. I just try to enjoy it.	1 2 3 4 5

28.	It's better to have one set of values than to consider other value options.	1 2 3 4 5
29.	I try not to think about or deal with problems as long as I can.	1 2 3 4 5
30.	My problems can be interesting challenges.	1 2 3 4 5
31.	I try to avoid problems that make me think.	1 2 3 4 5
32.	Once I know how to solve a problem, I like to stick with it.	1 2 3 4 5
33.	When I make decisions I take a lot of time to think about my choices.	1 2 3 4 5
34.	I like to deal with things the way my parents said I should.	1 2 3 4 5
35.	I like to think through my problems and deal with them on my own.	1 2 3 4 5
36.	When I ignore a potential problem, things usually work out.	1 2 3 4 5
37.	When I have to make a big decision, I like to know as much as I can about it.	1 2 3 4 5
38.	When I know a problem will cause me stress, I try to avoid it.	1 2 3 4 5
39.	People need to be committed to a set of values to live a full life.	1 2 3 4 5
40.	It's best to get advice from friends or family when I have a problem.	1 2 3 4 5

How much does your MOTHER (or most involved mother figure) really know about...(circle one answer for each)

	Doesn't know	Knows a little	Knows a lot
1. Who your friends are?	1	2	3
2. Where you go at night?	1	2	3
3. How you spend your money?	1	2	3
4. What you do with your free time?	1	2	3
5. Where you are most afternoons after school?	1	2	3

How much does your FATHER (or most involved father figure) really know about...(circle one answer for each)

	Doesn't know	Knows a little	Knows a lot
6. Who your friends are?	1	2	3
7. Where you go at night?	1	2	3
8. How you spend your money?	1	2	3
9. What you do with your free time?	1	2	3
10. Where you are most afternoons after school?	1	2	3

My MOTHER (or most involved mother figure):

	Very unlike my mother	Somewhat unlike my mother	Somewhat like my mother	Very like my mother
11. Appears to understand my problems and worries	1	2	3	4
12. Tries to control everything I do	1	2	3	4
13. Invades my privacy	1	2	3	4
14. Enjoys talking things over with me	1	2	3	4
15. Does not seem to understand what I need or want	1	2	3	4
16. Lets me decide things for myself	1	2	3	4
17. Makes me feel I am not wanted	1	2	3	4
18. Doesn't talk to me very much	1	2	3	4
19. Is overprotective of me	1	2	3	4

My FATHER (or most involved father figure):

	Very unlike my father	Somewhat unlike my father	Somewhat like my father	Very like my father
20. Appears to understand my problems and worries	1	2	3	4
21. Tries to control everything I do	1	2	3	4
22. Invades my privacy	1	2	3	4
23. Enjoys talking things over with me	1	2	3	4
24. Does not seem to understand what I need or want	1	2	3	4
25. Lets me decide things for myself	1	2	3	4
27. Makes me feel I am not wanted	1	2	3	4
28. Doesn't talk to me very much	1	2	3	4
29. Is overprotective of me	1	2	3	4

Appendix A-1b

Consent and Assent Forms

Consent to Participate as a Research Subject

PROJECT WILD 2005

Dear Parent and Volunteer,

Dr. Mark Widmer, Associate Professor in Therapeutic Recreation at Brigham Young University, and Mat Duerden, the Director of the WILD Foundation are conducting a research study about the effects of an outdoor program on identity development among teenagers.

Children who enroll in the WILD outdoor program, and who are over the age of 12, are invited to voluntarily participate in this study. As a research participant, your child will be asked to complete questionnaires and respond to open ended questions on the first and last day of the program. It will take approximately 20 minutes to complete. The questionnaire asks about your child's perceptions of his/her identity. There is a possibility that your child could experience discomfort from answering questions about his perceived abilities. These risks, however, are considered to be minimal. Your child will also be asked to participate in discussion groups to vocalize his or her personal feelings and perceptions of each of the activities. The researcher will maintain confidentiality concerning personal information given out by your child in this study. There is a risk that others may violate the confidentiality of what he or she shares amongst others in the study. To minimize this risk, all participants of this study will be asked, by the researchers, to respect this confidentiality. The focus group discussions will be tape-recorded for transcription and analysis purposes only by the researchers.

The WILD Program is being conducted as a collaborative effort between BYU and WILD Foundation to provide a wonderful experience for you child at little or not cost to you, and to allow opportunities for unique research. The program involves running rivers, swimming, backpacking, and wildlife identification. Your child will spend 2 weeks in the outdoors learning outdoor skills. A variety of inherent risks are associated with outdoor recreation, including, cuts and bruises, burns, blisters, exposure and drowning. A safety program and emergency plan is in place in an effort to protect your child and provide care should he be injured. For your child to participate in the WILD Program, WILD Foundation requires you to sign an assumption of risk waiver.

Your child's involvement in this study is completely voluntary. Your child may refuse to participate or withdraw from the research and/or the wilderness program at any time without penalty. If your child withdraws from the research component of the program, he will still be allowed to continue the WILD Program if he chooses to do so. Your child's answers to research questions will be kept strictly private. All data and tapes

of interviews will be labeled with code numbers and stored in secure facilities to strictly maintain confidentiality.

If you have any questions or concerns regarding your child's participation in this study you may contact Dr. Mark Widmer at (801) 422-3381, 273 Richards Building, Provo, UT 84602, or Mat Duerden at 1-801-375-4111, If you have any questions regarding your rights or your child's rights as a participant in a research project you may contact Dr. Renea Beckstrand, Chair of the Institutional Review Board, Brigham Young University, phone (801) 422-3873.

I have read, understood, and received a copy of the above consent, and willingly consent to participate and allow my child to participate in this study.

Child's Name

Parent or Guardian of Children

Date

Minor Assent Form

WILD Program

Dear Volunteer,

Dr. Mark Widmer, Associate Professor in Therapeutic Recreation at Brigham Young University, and Mat Duerden, the Director of the WILD Foundation are doing a study about outdoor programs and identity development among teenagers.

Teenagers who enroll in the WILD outdoor program, and who are over the age of 12, are invited to voluntarily take part in this study. As a research participant, you will be asked to complete questionnaires and respond to open ended questions on the first and last day of the program. It will take about 20 minutes to complete. These questionnaires ask questions about your identity. There is a possibility that you could experience discomfort from answering questions about your abilities. These risks, however, are small.

BYU and the WILD Foundation are working together to provide a wonderful experience for you. The program involves running rivers, swimming, backpacking, and wildlife identification. You will spend 2 weeks in the outdoors learning outdoor skills. A variety of risks are part of doing outdoor recreation, including, cuts and bruises, burns, blisters, exposure and drowning. A safety program and emergency plan is in place in an effort to protect you and provide care should you be injured.

Doing this study is completely voluntary. You may refuse to participate or stop at any time without penalty. If you withdraw from the research, you will still be allowed to continue the WILD camp experience. Your answers to research questions will be kept strictly confidential. Labeling all data and tapes of interviews with a code numbers and storing them in a locked filing cabinet will strictly maintain confidentiality.

If you have any questions or concerns regarding your participation in this study you may contact Dr. Mark Widmer at (801) 422-3381, 273 Richards Building, Provo, UT 84602, or Mat Duerden at 1-801-375-4111, If you have any questions regarding your rights or as a participant in a research project you may contact Dr. Renea Beckstrand, Chair of the Institutional Review Board, Brigham Young University, phone (801) 422-3873.

I have read, understood, and received a copy of the above assent form, and willingly choose to take part in this study.

Participant (Minor)

Date

Appendix A-1c

Prompt Questions

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Prompt Questions (Initial Interview)

Objectives: Establish a relationship between interviewer and interviewees.

What part of camp are you most excited about?

What are you most nervous about?

Why did you want to come to camp?

How would you describe the kind of person are you?

What's most important to you in life?

What do you hope to gain from coming to camp?

How do you think this experience will affect you?

Prompt Questions (Post-Activity Interview)

Objectives: Gather thick descriptions of the youths' experiences during the different activities.

What was the funniest thing that happened during the activity?

What was the most memorable/important part of the activity for you?

What did you learn about yourself during the activity?

What did you learn about your team during the activity?

How do you feel about yourself after completing the activity?