THE DEVELOPMENT OF SOCIAL SUPPORT
THROUGH ADVENTURE EDUCATION BETWEEN
FATHERS AND SONS

by

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Chapter 1

Introduction

Experiences in Adventure Education (AE) have long been suspected to enhance variables such as interpersonal relationships and social support (Priest, 1986). AE programming strives to encourage individual growth and development through the intentional planning and implementation of educational processes, including perceived or actual risk, and many times, using the outdoors as a programmatic setting (Ewert & Garvey, 2007). Through these shared experiences, trials, and accomplishments, groups often become cohesive units that are able to solve complex problems and attain high levels of functioning (Ewert & Heywood, 1991). The degree to which these AE experiences enhance social support, however, and how long-lasting these potential outcomes become, remains largely unknown.

Gaining insight into the construct of social support and how it is enhanced during AE experiences could contribute significantly to understanding the development of similar relationship formations that happen elsewhere. For example, these insights into other areas of similar experiences where people become cohesive groups through common endeavors may apply to other communities, such those found among military personnel, expedition team members, astronauts, and gang memberships. This study helps provide insight into how those groups form, and what type of impact they may have for people invested in those social support networks, with a focus on male bonding. Understanding how AE programming fosters social support can have a profound impact on how AE is designed and implemented, as well as how teams and groups form under parallel or related circumstances. Additionally, social support levels between fathers and sons are significant because it contributes to healthy youth development, as well as provides a specific function for AE (Lamb, 2004).
This study focuses on one version of social support which exists between fathers and sons of a family unit. One lens to view the development of social support between these fathers and sons is the Social Development Model (SDM; Catalano, 1996). Because of its focus on communication patterns within families as well as its focus on increasing pro-social behaviors it was chosen as the theoretical basis for this study. As suggested by SDM, healthy communication processes used by families often provide adolescents with the context to learn appropriate inter- and intra-personal behaviors, develop more effective problem-solving skills, and increase acceptance of personal responsibility.

The author of this study became interested in this phenomenon working at Summit Adventure, an AE program located in California. Summit Adventure offers unique experiences for fathers and sons (as well as fathers and daughters) to participate as teams in an AE program. In these courses, social support systems are enhanced through what is considered as meaningful adventure. While on a five-day course, for example, the pairs spend their time rock climbing, rappelling, hiking, and sharing a “duo” experience (as opposed to “solo,” duo here refers to where the father and son spend a significant amount of time isolated together). These courses are specifically designed and facilitated to enhance trust and communication between the father-son pairs, thus enhancing social and familial support. In a pilot study conducted by the researcher and others in 2010, levels of communication between participants were found to have significantly increased after these father-son programs (Davidson & Overholt, 2011).

**Statement of the Problem**

Prior research has not examined whether a significant change in trust, communication, and social support occurs between father and son dyads after participating in five-day AE programs. Currently, it is unclear to what extent an AE experience contributes to the
development of social support and relationship enhancement of participants in these programs. These unknowns contribute to a void in understanding the social and psychological dynamics of participants engaging in these experiences and similar endeavors.

*Purpose of the Study*

The purpose of this study is twofold. First, it examines the impact of participation in a five-day, father-son adventure course on reported levels of trust, communication, and social support. Second, the findings from this study are expected to further understanding of the nature of AE courses and their influence on fathers and sons in particular. Not only does this study provide insight into the specific programmatic design of father-son courses, it also expands the comprehension of AE courses in general by revealing information on how social support and familial rapport may be enhanced during these experiences.

*Significance of the Study*

Despite the growing body of research examining AE, only a limited number of studies have examined adventure-based experiences as a way to enhance communication and relationships within families (Hill, Freeman, & Huff, 2001). A need therefore exists to further identify the effect of AE on such social support. In addition, this research is relevant because adolescence typically brings a variety of challenges for youth that often manifest in important issues such as relationships with siblings and parents (Duerden & Witt, 2010; Huff, Widmer, McCoy, & Hill, 2003). Research has consistently shown that characteristics of unhealthy relationships between family members are often linked to higher rates of depression, delinquency, substance and alcohol abuse, and lower performance in school (Reis, Collins, & Berscheid, 2000; Sammet, 2010).
One of the major foci of this study is the formation and development of social support within the context of the father-son relationship. Social support has been defined as “the degree to which individuals have access to social resources, in the form of relationships, on which they can rely” (Johnson & Sarason, 1979). While AE research has often utilized social support as an outcome variable attendant to participation in extended outdoor adventure trips (Neill & Dias, 2001), these measurements tend to refer to support formed within a group of peers that will only exist for the duration of the course itself. When participants return home, they may continue to feel supported by members of their groups, but they will likely have very limited contact with them thereafter (if at all). Conversely, the majority of the father-son dyads who are enrolled in this study will return home together and thus have a greater ability to apply what they have learned in their course to the home and extended family and friends. The opportunity to experience an AE program with a partner from the participant’s home environment exists in very few AE settings, and a better understanding is needed regarding how the father-son relationship in this case may change throughout course participation, and how these changes may then be transferred to life at home and elsewhere.

This study consisted of 17 fathers and eight sons, there were more fathers included in the analysis because nine of the fathers participating in the study brought their daughters as course partners. This confounding variable is acknowledged in the limitations of the study and is addressed in the discussion section. As much more research has been conducted on father-daughter in contrast to the father-son dynamics, this research project is significant because of its specific focus on fatherhood in relationship to sons. Social conventions, such as the mother is the primary caregiver, are in flux, and men are often expected to be more active participants in fatherhood than they were in previous generations (Palkovitz, 2002). For example, fathers are
now expected to assist in daily routines of their children as oppose to this being a task for the mother figure. These changing expectations and the previous lack of attention given to fatherhood in leisure studies make this an especially important and emergent area of inquiry for current leisure scholars (Kay, 2006). Kay has suggested that leisure time may be especially important in father-child interactions, more so than mother-child interactions, which tend to focus on daily life events such as meal preparation, homework help, and transportation to school and activities. This division of labor is likely due to deeply entrenched conceptualizations of gender roles in the home, and the way men prioritize the time they spend with their children, where outdoor activities such as sports and adventure outings are more typically viewed as traditional father-son activities. These phenomena suggest that providing dedicated time for men to spend with their sons would capitalize on a preferred method of interaction in a setting that may be considered gender-appropriate, while creating an atmosphere of trust, support, and family interdependence that calls for interaction in daily life activities such as meal preparation, daily travel, and personal maintenance, all of which occur in outdoor adventure programs.

As stated by the program mission, the primary outcomes for father-son pairs while on Summit Adventure courses is to facilitate increases in social interactions, cohesion, personal introspection, trust, and time out from the stressors of everyday life (McKenzie, 2000). As these are commonly reported effects of AE courses and are directly linked to a person’s psychological and social health (Coleman & Iso-Ahola, 1993; Schroeder, 1996), participation in outdoor endeavors and AE have often been associated with developmental outcomes such as personal growth, enhanced interpersonal skills, and group development (Breunig, 2010; Ewert & Garvey, 2007; Passarelli, Hall, & Anderson, 2010). McKenzie (2000) has attributed these outcomes to four characteristics common to many AE experiences: (a) the unfamiliar and novel nature of the
physical environment, (b) the incremental and progressive sequencing of the challenges presented through the AE experience, such as rock climbing leading to rappelling, (c) the “processing” of the experience in order to identify and organize meaning for the participant/s often achieved through debriefing, and (d) the use of small groups to facilitate issues such as reciprocity, group cohesiveness, interpersonal relationships, and the balance between group belongingness and individual autonomy. Because of these four factors, AE programs are ideal places to examine communication, relationship quality, and levels of trust by enhancing the necessity for each interpersonal element to have a positive group experience.

In addition to the four components described by McKenzie (2000), AE experiences offer opportunities for physical activity to take place in the out-of–doors, while working collaboratively in a small group (Beets, Vogel, Chapman, Pitetti, & Cardinal, 2007). Through AE programming, people often develop strong social support systems going beyond just the context of their experience and begin to disclose deep levels of information in addition to developing higher levels of trust in the other students (Ewert & Heywood, 1991). Investigating this formation of bonds in AE participants, particularly the father-son participants in this study, forms the underlying motivation for this study.

The father-son relationship has been seen to play an integral role in the development of a young male’s personal, social, and psychological well-being. Research confirms that children who are raised in fatherless homes are more likely to experience delinquency and participate in deviant behavior as they grow into adults (Herzog & Sudia, 1968), and are twice as likely to be incarcerated (Harper, 2004). By providing an outdoor setting for fathers to engage with their sons, AE can facilitate a healthy environment to counter these potential negative behaviors. Unfortunately, there are many unknowns, confounding variables, and limited investigations into
the father-son dynamic, much less than has been conducted on the father-daughter dynamic. Also, because the male role in Western families has changed a great deal in the past few decades, and varies greatly between cultures and socio-economic classes, understanding how a father influences his son into adulthood is largely unknown, outside of anecdotal data. For example, Freud (1922) hypothesized that fathers played a minuscule role in the development of male offspring, and this has continued to be the accepted belief even as dominant Freudian psychology has been increasingly undermined by researchers and practitioners. Until recently, the role of a father figure in the life of a son has remained relatively underexamined (Eggebeen & Knoester, 2001).

AE has long sought to improve the quality of relationships for individuals who participate in their courses. Through team building activities, physical challenges, and facilitated discussions, AE provide a setting where students can achieve incremental success with measurable results. This setting also fosters an environment for participants to engage in meaningful conversation, and build a foundation for the relationship to be nurtured by the involvement of trained facilitators who are able to foster these relationships (McKenzie, 2000).

Successful course outcomes, as stated by Summit Adventure, include demonstrable increases between father-son dyads in the areas of social interactions, cohesion, personal introspection, trust, in addition to providing time out from the stressors of everyday life while they participate in the course. These commonly reported effects of AE courses are directly linked to a person’s psychological and social health (Coleman & Iso-Ahola, 1993; Schroeder, 1996). By developing and facilitating these characteristics for the students’ adventure courses, it is possible to enhance the relationship between fathers and son, and participants more general.
Delimitations

The study is delimited to the following:

1. The participants took a standard five day Summit Adventure course. Participants of Summit Adventure Programs are historically Caucasian males who occupy a high social status in their communities. Also, due to the relatively high cost of participating in a Summit course, they tend to live at upper-middle to upper socio-economic levels. Because Summit Adventure is also a Christian-based organization, participants tended to be practicing Christians with relatively conservative world views;

2. The age range of the fathers in this study spanned roughly from 30 to 60 years old. The age range of the sons was from 12 to 19 years old;

3. The study took place in the Sierra Nevada Mountains of California throughout the course of summer 2011; and

4. Male and female instructors of various skills and specialties accompanied the father-son pairs participating in the course during program activities. These instructors were responsible for the safety and wellbeing of the participants, as well setting the tone of the program and ensuring its success. They were also responsible for facilitating discussions between father-son pairs, helping to ensure desired program outcomes were being achieved.

Limitations

This study had the following limitations:

1. Participants were self-selected into the program, suggesting a potential for systematic bias;
2. Each course was subject to its particular instructors who facilitated in different styles and for potentially different outcomes. This variance of instruction led to different levels of effectiveness in the programming and measuring of AE experiences;

3. The age variance and maturity difference among participants, particularly the sons, may have caused for a wide variety of outcomes and program effectiveness. For example, an older son around the age of 18 is in a much different life stage than a 12 year-old adolescent, where relationships with parents in early adolescence tend to be more transitional or challenging;

4. The relative homogenous groups may have limited the generalizations to other populations. Summit Adventure historically draws only upper-to middle-class Caucasian males. It will thus be difficult to generalize these findings to other socioeconomic and racially varied populations; and

5. The students were placed in a highly structured environment, making it difficult to draw conclusions to other settings. The environment where the study took place was a remote, rugged, mountainous region with limited distractions without the conveniences of modern living. To accommodate the potential challenges of this setting and direct activities, a pair of skilled facilitators accompanied the fathers and partners.

Each of these known limitations that could potentially skew this study presents its own unique element of influence, making it impossible to control. It should be noted, however that these limitations and confounding variables are present in many AE programs and consistently present a range of challenges to the AE field (see Ewert and Sibthorp, 2009).
Assumptions

The study was based on the following assumptions:

1. Unhealthy relationships between family members are often linked to higher rates of depression, delinquency, substance and alcohol abuse, and lower performance in school (Reis et al., 2000; Sammet, 2010);

2. Social support has been defined as “the degree to which individuals have access to social resources, in the form of relationships, on which they can rely” (Johnson & Sarason, 1979);

3. AE research often utilizes social support as an outcome variable attendant to participation in AE courses (e.g. Neill & Dias, 2001);

4. Men are often expected to be more active participants in fatherhood than they were in recent generations (Palkovitz, 2002);

5. Leisure time may be especially important to father-child interactions, more so than mother-child interactions, which tend to be focused on daily life events such as meal preparation, help with homework, and transportation to school and activities;

6. The father-son relationship plays an integral role in the development of a young male’s personal, social, and psychological well-being; and

7. By developing and facilitating these characteristics for the student’s adventure courses, it is possible to enhance relationship between fathers and sons, and participants in general.
Hypotheses

The study was designed to test the following null hypotheses:

1. There will be no significant effect on levels of communication between fathers and sons by participation in a five-day AE program;
2. There will be no significant effect on social support between fathers and sons by participation in a five-day AE program; and
3. There will be no significant effect in levels of trust between fathers and sons by participation in a five-day AE program.

Definition of Terms

Adventure Education – (A program that) includes a variety of activities utilizing a close interaction with the natural environment that contains elements of real and/or perceived risk and danger, and in which the outcome, while uncertain, can be influenced by the participant and circumstances (Ewert, 1989).

Social Support – an exchange of resources between two individuals perceived by the provider or the recipient to be intended to enhance the well-being of the recipient (Shumaker & Brownell, 1984).

Trust – An expectancy held by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied upon (Rotter, 1967).

Communication – Any act by which one person gives to or receives from another person information about that person's needs, desires, perceptions, knowledge, or affective states. Communication may be intentional or unintentional, may involve conventional or
unconventional signals, may take linguistic or nonlinguistic forms, and may occur through
spoken or other modes (National Joint Committee for the Communicative Needs of Persons with
Severe Disabilities, 1992)
Chapter 2

Literature Review

This chapter explores the current literature available in order to understand the variables and themes of this study. First, fatherhood and the development of the father-son relationships are examined. Second, the AE literature is explored to provide the foundation for understanding how fatherhood and AE applies to social support between fathers and sons in a broad sense. Lastly, this chapter examines social support and relationship development, which is expected to aid in understand father-son relationships and other important impacts for participants.

Father-Son Dynamics

The relationship between a son and his father is complex and diverse, and must be comprehensively examined from various perspectives to understand the intricacies and potentialities of these relationships. Fathers often feel tremendous pressure to balance a successful career and manage the household, all while being responsible for maintaining a good relationship with their son/s (Coltrane, 1997). Recently the role of a father figure, which has remained relatively unexamined in AE and other literature, is beginning to be reevaluated (Eggebeen & Knoester, 2001). This includes an examination of how much time fathers spend with their offspring and what types of emotional support they provide. Fatherhood has taken on many roles over the years, and has slowly evolved over a long period of time within a wide range of social and cultural conditions (Lamb, 2004). While fathers in recent decades have become more involved with child-rearing and the sharing of household duties, breadwinning, moral leadership, and positive role modeling have generally remained top priorities for fathers (Marsiglio, Amato, Day, & Lamb, 2000). Yet as the fathering role continues to evolve, demands continue to increase, such as expecting higher levels of trust and communication (Griswold,
These traits have historically been ascribed to and practiced by the maternal role in a youth’s life, but are increasingly expected from the father as well. Recent studies have shown that offspring are greatly influenced by the relationship with the father. More specifically, the sons can be influenced in ways such as emotional health and relational satisfaction (Beatty & Dobos, 1993), communication behaviors (Buerkel-Rothfuss & Yerby, 1981), and relationships with their future offspring (Floyd & Morman, 2000). While literature that became prominent from post WWII have offered psychological support and advice for fathers in the midst of changing cultural norms, fathers and sons have had limited options for more formal assistance in the development of these interpersonal skills, or skills that are associated with attractive, traditionally masculine, and potentially risky activities that are accepted father-son endeavors, such as that provided by AE.

Similar to the challenging role of the father, male adolescents experience their own difficulties in relationships with their father. Balancing these conflicts of emotional turmoil in the midst of hormonal and other forms of change often proves difficult, and may cause unhealthy strains on the father-son relationship. Children of both sexes who are victims of tumultuous homes often experience high rates of deviant behaviors (Derdeyn, 1994). Unfortunately, the many obscurities, confounding variables, and limited research into the father-son dynamic in particular has prevented the development of solutions to these problems.

Likewise, the strain on this relationship can be extremely detrimental to the wellbeing of the son, and often occurs particularly during the formative years of adolescence (Montemayor, 1986). During these years, conflicts emerge in a parent’s relationship with his/her offspring, causing an upheaval of traditional roles and a reforming of new ones (Steinberg & Elliott, 1990). But this conflict may be largely due to rule breaking and failing to follow parental guidance
(Smetana, 1989), or the lack of parental guidance in initial or ongoing stages of development. And with many families consisting of two working parents, whose priorities are to maintain a standard of living, care of children has largely been delegated to external entities, such as child care, who are generally less invested in supporting the child’s development and wellbeing over extended periods of time.

While the father-son bond is a complicated relationship to comprehend, evaluating the affectionate communication between these pairs is paramount to understanding the premise of this study. The preexisting literature has provided some basic understanding of the father-son dynamic. First, we know that affectionate communication is strongly associated with feelings of closeness between father-son pairs (Morman & Floyd, 1999). Secondly, males express their affection through acts of kindness or volunteering to help with a project as opposed to more emotionally based forms of expression such as verbally saying, “I love you” (Morman & Floyd, 1999). These affectionate exchanges and communication subtleties considered comfortable for males, such as high fives and pats on the back, can often be directly linked to relationship and personal satisfaction for both fathers and sons (Martin & Anderson, 1995).

**Social Development Model**

The Social Development Model (SDM) provides a basis for understanding how relationships and socialization impact behavior (Catalano & Hawkins, 1996). This study examines a treatment that utilizes socialization and personal development to impact behavior and relationships. Thus, understanding the SDM is essential to the intricacies of this study. The AE programs primary goal is to alter the father-son relationship to increase more desirable behaviors such as increases in levels of trust and communication. The SDM provides a framework which suggests that individuals develop social support by offering inclusion in pro-social behaviors and
positively reinforces individuals through feedback from peers and trained professionals (Hawkins, Catalano, & Arthur, 2002). AE lends itself to this model because it is based on feedback and processing of the experience. For example, after rock climbing, students will participate in a group discussion to provide feedback about how they did. This feedback is often consists of praise from fellow participants and instructional staff based on their performance. This type of positive, feedback laden discussion is typical of most AE course components and AE programs.

The SDM model suggests that AE courses may be the ideal place to increase trust, communication, and relationship quality among fathers and sons. AE courses are structured as safe environments where sensitive and deep types of information may be safely disclosed. This environment, which is facilitated by the instructional staff, creates forums in which this information disclosure may happen. An example of how inclusion in pro-social behavior occurs every time a father and son engage in a discussion about their relationships. These discussions often lead to a breakdown in communication and social support barriers. This behavior is praised by the instructional staff and other father-son dyads, thus positively reinforcing this behavior. From this it is likely that the father-son dyad will continue having similar discussions while engaging in deeper, more meaningful conversations. This also facilitates trust as communication topics get more frequent and more sensitive requiring more trust between the pairs.

Due to the foundations the SDM has in negative behavior, such as criminology, it may also be relevant for extinguishing negative behaviors between father-son dyads (Wiesner & Capaldi, 2003). For example, if a son who has problems following directions from his father observes other sons following similar directions from their fathers with ease, the former may
then follow directions more closely and easily to conform to the norms of the group. Likewise, he may also get feedback from instructors or fellow participants on this negative behavior, thus increasing the likelihood that this behavior will be modified during and after the course.

The SDM model also suggests that individuals will act accordingly to group social norms while participating in AE courses (Catalano & Hawkins, 1996). Because it encourages positive behavior during the course, including enhancing the father-son relationship through positive interactions, it may also suggest these behaviors will continue to persist after the AE program has ended. Additionally, the SDM model has also been proven to be relevant and appropriate in recreation and leisure settings, making it ideal to utilize as the framework for this study (Duerden & Witt, 2010).

Social Support

Another measure of this study examines the conceptual nuances of social support among participants in AE courses. While social support has been defined as using others as a resource for coping and problem solving, as well as general sources of support and comfort (Cutrona, 1990), it has been more specifically identified as, “information leading the subject to believe he or she is cared for and loved, esteemed, and a member of a network of mutual obligations” (Cobb, 1976). Social support is therefore instrumental in the wellbeing of an individual. Literature has posited that a person who has a positive social support structure is more likely to have a positive view of themselves and others, positive help-seeking habits, and higher emotional support systems in place (Florian & Mikulincer, 1995; Mikulincer, Florian, & Weller, 1993).

Social support and social bonding are obviously important components in the AE experience. The development of social support, while participating in a course, can lead to
definite increases in positive norms in post-course behavior (Catalano & Hawkins, 1996). For example, if a father and son have a strong social support system, the son is more likely to disclose problems or issues he is facing. While existing literature has shown that positive changes in social support happen during participation in an AE experience, there are significant gaps in research as to exactly what these changes are, how they affect a participant’s experience, and what lasting effects they may have. By filling this gap in understanding, increased knowledge about social support and its effects on participants may be applied to other AE outcomes that are being addressed.

For the purposes of this study, social support was delineated into three measurable constructs: trust, communication, and relationship quality (Ommen et al., 2008). Multiple studies have shown that these three variables can be effective indicators of social support (Cutrona, 1996; Kirmeyer & Lin, 1987; Richman, Rosenfeld, & Bowen, 1998).

Trust

In today’s world of complex relationships, balancing time and energy, and increasing interdependence in traditional and new media technology, trust is considered to be a delicate element of a person’s psyche (Beck, 1992). It can be difficult to find people or institutions to trust with high-profile government scandals, high rates of divorce, and rising crime rates, making interfamily trust, as well as community dependence, all the more important. Trust is thought to be an important component for maintaining a healthy relationships and personality (Erikson, 1953), and is also strongly associated with reliability in a person or object (Anheier & Kendall, 2002). Recent studies have shown that participation in AE programming or involvement in activity based or social organizations can improve levels of trust and a sense of reliability in participants (Anheier & Kendall, 2002; Hattie, Marsh, Neill, & Richards, 1997). A strong case
therefore exists for the development of trusting relationships through structured programming such as those offered by AE. Moreover, Gass (1985) has found that trust is an outcome that is highly transferable from AE courses back to participants’ lives in general.

One important aspect of social support is trust developed among those comprising a social support network, as it leads to cooperative behavior amongst group members and individuals (Mayer, Davis, & Schoorman, 1995). This cooperation better facilitates desirable outcomes often associated with AE. There are usually high levels of trust among AE participants, largely due to the relatively homogeneous population that participates in these courses (Alesina & La Ferrara, 2002). This leads to a natural set-up for a trusting environment where participants can talk freely about ideas, feelings, and issues they may not feel comfortable discussing in their normal environments, where more diverse communities and individuals may not provide the same level of understanding and social bonding.

Trust is manifested in many ways on AE courses, including relationships and reliability of equipment, instructors, and people to whom sensitive information is disclosed. Putnam’s (2000) development of “thick and thin trust” has provided one such context for understanding the types of trust that occurs in AE courses. Trusting that your father will pick you up from school is an example of thin trust, a relationship that requires relatively low commitment levels, often due to low levels of related consequences if these expectations are disrupted or unmet. Thick trust, however, can facilitate deeper levels of self-disclosure and emotional risk taking, as when a son discloses to his parents that he has tried drugs in the past or is currently engaging in potentially dangerous behavior. Thick trust requires high levels of commitment and often may consist of emotional risk beyond what a relationship is able to sustain. To facilitate the enrichment of
social and familial bonds, AE courses strive to attain and nurture thick trust in participants as well as in participant-instructor dynamics.

**Communication**

Communication, both verbal and nonverbal, is the basis for which all information is exchanged with others. Defined as “any measure or information passing between the members of a group of two or more” (Bienvenu Sr, 1969), communication is critical to families, as it provides a primal mechanism for the family to identify and solve dysfunctional behaviors and attitudes (Ingoldsby, Smith, & Miller, 2009) as well as function on a daily basis. Martin and Anderson (1995) have suggested that part of understanding the communication process between fathers and sons also lies in considering the level and accuracy of self-disclosure as well as the level of satisfaction held by them in regards to their communication patterns. Exchanged information can be extended a step further by recognizing that in communication, people are also influencing and manipulating those with which they communicate (Ruesch, 1963).

Many studies have found that communication is critical to relationship development, where Olsen (2000) has posited it as an integral component to increasing cohesion and adaptability in family units. Communication and affective responsiveness have also been identified as two of six major dimensions of family functioning (Epstein, Bishop, & Levin, 1978). One facet of communication is the concept of self-disclosure defined by Jourard (1971) as a “means by which a person permits him or herself to be known by others.” Disclosure may include things such as: state of being, feelings about the past, thoughts about the future, and personal dispositions (Derlega & Grzelak, 1979). Often in AE courses, high levels of self-disclosure are witnessed as participants express sensitive information, often for the first time, such as a participant expressing that he or she has considered suicide. These students may thus
convey extremely personal information such as drug use, trouble with law enforcement, or serious relationship issues back at home. This sharing of information may be largely due to time allocated within the course structure for discussion, and the fact that is encouraged through skilled facilitation by AE instructors. Depth of self-disclosure may therefore be one indicator of how vulnerable and open participants are in AE courses. This initiative or ability to be vulnerable or open to new levels of exchange is one measure of how trust and relationship improvement occurs through participation in AE programs.

AE programs may prove to be one of the most effective ways to improve the quality of these relationships between fathers and sons. While many other methods such as traditional therapy and counseling seek to improve the quality of the relationship between fathers and sons, methods such as talk-therapy are thought to have a significant disadvantages compared to AE in father-son dynamics, due to stigmas associated with therapy, its costs, and time constraints. Moreover, the lack of available catalysts for change, or participants’ unwillingness or lack of opportunity to try new experiences, may result in unsatisfying relationships (Eggebeen & Knoester, 2001). Father-son pairs that lack communication and trust are often shown to have resentment toward each other, and these relationships may become strained due to a lack of relationship fundamentals, such as maintaining common boundaries and transparent communication. For example, pairs that experience this strain are often susceptible to increased conflict and animosity towards one another, which may also extend to other relationships both within and outside the family.

From the perspective of outdoor recreation, research has demonstrated a positive relationship between family participation in outdoor recreation and variables such as family bonding, cohesion, satisfaction, and communication (Orthner, 1998; Zabriskie & McCormick,
More recently, Huff, Widmer, McCoy, and Hill (2003) examined the effect of differing levels of adventure-based family outdoor recreation activities and found that these types of experiences can improve parent-adolescent communication by placing families in novel and often inspiring environments. Through challenging activities, working together, and time spent together, improvements in communication were made as well as new perspectives gained from family interaction. These new perspectives and fresh channels for communication generally lead to an overall increase in family cohesion. Their study also provides partial support for the idea that the greater the challenge, the more open the communication between participants, perhaps due to the increased need for mutual support and interaction.

**Summary**

This literature review demonstrates the strong connection between trust, communication, social support, and Adventure Education. Pre-existing literature has shown that AE can create a favorable treatment of relationship dynamics that increases social bonds through safe yet challenging environments, skilled facilitators, and harmonious groups. Based on previous research findings, this setting is found to be ideal for enhancing social support, trust, and communication between fathers and sons and potentially other students.

This literature review has provided a framework for which the study takes places. Through the lens of the SDM, AE can be examined in different contexts, providing new understandings as to how it impacts the development of social support, interpersonal trust, and communication. Through the social networks provided by AE, healthy social bonds may be enhanced, enabling participants to be more equipped to handle future relationships, life challenges, and negative pressure they may encounter in their current life and future endeavors.
Chapter 3

Methods

The focus of this study is to examine whether there is an increase in trust, communication, and social support between father and son dyads after participating in a five-day AE program. To describe the methods used in this study, the following sections are included in this chapter:

1. Selection of instruments;
2. Selection of subjects;
3. Administration of survey instruments; and
4. Treatment of data.

In order to provide an in-depth understanding of what transpires during a father-son adventure AE course, this current study utilizes a mixed-method design employing survey data, participant observation, and semi-structured interviews. Data collection took place throughout the summer of 2011. As a Summit Adventure instructor, the researcher is familiar with the program, organizational culture, and staff, and has developed a research partnership between Summit Adventure and Indiana University via this research.

Study Setup

To control for variance in the administration in the survey, a pre-course training with the instructional staff was initiated. At this meeting the researcher explained the timing of when the instrument was to be administered and the proper way to introduce it to participants. This meeting also addressed the major themes congruent with this study, where instructors were briefed on how to facilitate the course for based on key themes. These steps were implemented
in an effort to increase the consistency of the program throughout the various groups of fathers and sons as well as decrease the confounding variables.

**Selection of the Instruments**

**Instructor Instrument**

An instrument was created to explore the effects of what course components the instructional staff perceived as beneficial to the father-son experience (see Appendix A). The instructors, through years of combined experience, obtained an in-depth knowledge of the mechanics of father-son courses and how the outcomes could be achieved. This instrument was developed through an exploration of the literature that exists on selected AE course components, as well as anecdotal experience from the researcher’s five years of facilitating father-son courses. Each course component was placed on the instrument as an item with a Likert-scale range from 1-7. The instructors then rated their perceived effectiveness of each course component. This research instrument provided insight into the instructors’ perceptions of how each course component might contribute to enhancing the relationship of the father and son. This information may also provide insight into the specific catalysts that induce increases in participant trust and communication.

**Quantitative Instrument**

The first portion of the quantitative instrument used in this study was a combination of two youth development and parent-child interaction instruments. *The Measurement of Parent-Adolescent Communication*, developed by (Bienvenu Sr, 1969), was originally designed to measure degrees and quality of communication such as listening habits, freedom of expression, and understanding. This instrument was developed by the Bienvenu Sr. from his clinical experience as well as exploring the literature that was available at that time. The instrument was
validated by submitting it to various professions in the fields of psychiatry, psychology, and social work to ensure all the items were relevant to parent-adolescent communication. It is suggested that subjects using this instrument have a 7th grade reading level or are 13 years and older. The instrument was found to be reliable on three separate accounts with a Spearman-Rho of .78, and .88.

The second portion of the communication instrument was adapted from the *Parent-Child Communication Instrument*, developed by (Loeber et al., 2002). This scale was originally designed to measure communication between parents and youth in the Pittsburgh area and how their communication coincided with their susceptibility to deviant behaviors. The scale was developed to be one component of a larger longitudinal study (Loeber et al., 2001). Reliability scores could not be obtained for this instrument. The communication portion of the instrument contains 14 six-point Likert-scale questions anchored by 1 = *strongly disagree* to 6 = *strongly agree* with items from each of these preexisting instruments.

The second section of the quantitative instrument, was adapted from a qualitative study called “Healing the father-son relationship: A qualitative inquiry into adult reconciliation” (Katz, 2002). This instrument was based off of Katz’s qualitative inquiries into fathers and sons who experience turmoil in their relationship and had since reconciled. This instrument was developed using twelve variables identified in a qualitative study, such as assessment of relationship, spirituality of the pair, and the roles they play in each other’s lives. The intention of this instrument was to provide some insight into the quality of relationships of fathers-sons and provide more breadth in understanding the changes in social support. The resultant instrument used 45 five-point Likert-scale questions. No reliability scores were found for this instrument.
A third component of the quantitative instrument measures levels of trust between father and son pairs. These items were obtained from an existing instrument based on measuring levels of trust in specific others (Johnson-George & Swap, 1982). The original study yielded four factors that this instrument captured: dependability, reliability, emotional trust, and general trust. Reliability for these factors were obtained and ranged from .71 to .83 for the various sub-scales. This added an additional 13 Likert-scale items. The original instrument was developed to measure interpersonal trust between two closely tied people, making it an ideal instrument to implement with fathers and sons in this study.

**Qualitative Instruments**

Further variables were explored through in-depth, qualitative interviews and participant observations. This method provides insight into variables that are not currently within the scope of this study, such as levels of self-disclosure and relationship satisfaction. The interview subjects were selected at random to decrease bias in the selection and interview process. Fathers or sons who were in the group engaged in the participant observation of the study were eliminated from the selection process. Approximately one month prior to the course, they were called and interviewed using a pre-established interview guide (see Appendix B). The interview guide was created based on the literature reviewed about the subject in addition to the researcher’s anecdotal knowledge of different themes that often immerge during these courses. Fathers and sons were interviewed separately to limit potential influences induced from the presence of their partner. Interview responses were coded and emergent themes using were identified using naturalistic inquiry (Lincoln & Guba, 1985). These themes were then weighted based on the number of times the respondents cited them and at what depth they were talked about. The findings are reported in the results section.
Selection of the Subjects

The subjects were self-enrolled participants in selected Summit Adventure Courses from June to August, 2011. Consent to participate in the research project from the subjects was obtained by a written consent form mailed to them prior to the course at the same time they received the standard Summit Adventure information packet. Approval from the Indiana University Institutional Review Board was obtained before the study took place. The participants included father-son pairs as well as fathers who came with daughters. The daughters were excluded from this study due to low sample size. The father-son pairs were matched by their hometown and mother’s maiden name. The subjects were treated as father-son pairs for comparison between subjects and groups. Subjects who did not consent to participation were eliminated from the study.

A total of 18 pairs agreed to participate in this study. Their consent was obtained before the course in an orientation meeting at which time the waivers were signed. The 18 pairs were all the dyads involved in the course including father-son, father-daughter pairs meaning 100% participation from the population was obtained.

It should be noted that eight daughters were included in the data collection. These father-daughter dyads were subject to the same treatment as the rest of the subjects. However, the eight females were not included in the analysis portion of the study due to the differences in relationships the father plays in the role of his female offspring (A. Russell & Saebel, 1997). The literature suggests that the fatherhood role is different than a relationship with a male offspring and therefore, could not be compared accurately (Lamb, 1987; G. Russell, 1978). Additionally, the curriculum of the program where the data were gathered has historically been focused solely to father-son dyads. However, it is recommended that follow up study will be conducted to examine these subjects and to compare and contrast the differences that may exist. This
subsequent study should examine the concept of “fatherhood” rather than the development of social support.

The fathers of these daughters were included in the analysis portion. It is believed that their experience is similar enough to that of father’s with sons to be included. These fathers undergo the same physical rigors, challenges of sharing sensitive information with an offspring, and assume the same role on the course as the other fathers. Additionally, the fathers suffer from the same barriers to having strong bonds to their sons as they do their daughters. For example, a father who is a bad communicator will not effectively communicate with is daughter for the same reasons as his son. However, daughters view their father in a different role than a son and which may cause them to have a different support system from their father on which they can rely (A. Russell & Saebel, 1997). Thus, it is believed that the similarities between fathers with sons and fathers with daughters are enough to include them in the data analysis.

**Administration of the Survey Instrument**

Survey data collection used a retrospective pre-test administered to participants on day five of the course (the final night in the field), and a follow-up test one month after course completion. Students were asked for their informed consent prior to the start of the course. A retrospective test format was utilized as the survey style for this study. Retrospective-pre instruments have been establish to effectively measure changes in behavior after a treatment (Rockwell & Kohn, 1989; G. L. Stevens & Lodl, 1999). Additionally, retrospective-pre formatted instruments are beneficial because it limits the time-burden on the participants and instructors, and allows the fathers and sons an opportunity to reflect on their relationship prior to beginning the course, as well as the ways in which these relationships may have changed over the preceding days (Pratt, McGuigan, & Katzev, 2000).
The instrument asked questions such as:

1. Before this course my son was a good listener, and
   Now my son is a good listener;
2. Before this course my son considered my opinion about things, and
   Now my son considers my opinion about things.

(see Appendix C for the complete instrument)

This instrument prompted participants to evaluate any changes they experienced since the start of the course. It also served as an effective way to measure these types of changes because it defined areas for them to think about, such as where changes may have occurred, including listening skills, levels of self-disclosure, and relationship satisfaction.

The researcher was embedded into the father-son groups within a staff capacity and served as a participant observer during the course (Brannen, 2005). Participant observation is practice of living, conversing, and watching behaviors, interactions, and patterns among subjects of study with the intent to record and make inferences based on those observations (Becker, 1958). This approach allowed the researcher to become part of the social setting, and to “learn first-hand how the actions of research participants correspond to their words” (Glesne, 2006). However, this approach introduced a high probability for bias. To account for this, a pre-course briefing about honesty and feedback as well as several verbal prompts to maintain this objectivity during the course. These observations also provided a platform for communication with the participants while engaging them in conversations. Detailed recordings of themes and nuances were constructed as time permitted, and in a manner that did not interfere with the conduction of the course. These observations were recorded on an observation guide developed by the researcher based on current literature pertaining to course components, as well as
anecdotal observations prior to this research project. The purpose of the participant observation component was to provide a more in-depth understanding of what transpires during a course, what components are the most meaningful and impactful, and how the father-son relationship is affected by these elements. It was not anticipated that this approach would confound the data.

In conjunction with survey data, these participant observations aided in forming the questions asked during the telephone interviews, while keying on major themes that surfaced during discussions and interactions during the course.

With a goal of moving beyond a simplistic understanding that “something happened” on the course to a deeper understanding of how and why it happened (Fontana & Frey, 2005), semi-structured telephone interviews were conducted with a random sampling of participant approximately one month after the course. This was thought to be a sufficient amount of time for reflection on their experience and to provide a “testing period” to see if impacts from the course remained relevant after the father and son returned to their normal routine of home life. These interviews were used to further access information regarding perceived changes in variables such as trust, communication, and social support by following up with the subjects after the lessons from the course had time to “take root”. Additionally, these interviews could capture additional information not gathered by the completion of the quantitative instrument. An example of such an outcome could be a father reporting that he senses that his son now talks to him more and discloses deeper levels of information with him than prior to taking the course.

Qualitative follow-up interviews are useful for accessing feelings, thoughts, intentions and other aspects of interactions between fathers and sons that cannot be directly observed (Henderson, 2006). Therefore, the researcher chose to include this technique to gather additional data about course components and variables not identified within the scope of this study.
Interviews with participants were conducted one month following the completion of their course and continued until theoretical saturation was reached, estimated at approximately five to seven fathers and five to seven sons. (See Appendices A, B, and C for scale items, behavioral observations guidelines, and telephone interview probes.) Fathers and sons participated in telephone interviews as individuals. The interviews were recorded for future transcription.

*Treatment of Data*

A paired-sample t-test analysis was generated for the initial statistical analysis to explore significant differences in the dependent variables, of communication, trust, and social support from the pre- and post-test scores. The independent variable in this study was the father-son pair’s participation in the AE program. The significance level was set at .05, which is the standard for behavioral science statistics (Henson, 2006).

Interviews were recorded electronically through the use of conference calling and free transcription services. Thematic analysis was utilized to code the qualitative data from both observations and interviews for emerging themes. These data were then triangulated with the results from the survey questionnaires and explored by comparing findings to the quantitative analysis (Silverman, 2006). The significance level was set at .05.

*Pilot Study*

In the summer of 2010 a pilot study was conducted to investigate the variables that could be included in this study (Ewert et al., 2011) This pilot study included administration of the instrument at the end of the same course to be used in the conduction of the current study. To examine the quantitative portion of this study, ANOVA procedures were utilized using SPSS. Out of a sample size of 36 father and son pairs (n = 72), 60 participants (30 intact pairs)
completed the survey (85%). A 2x2 mixed-design ANOVA was used to investigate the effect of the AE program on father-son relationships.

Table 1

2x2 Mixed-Design ANOVA

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>( \eta^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between-Subjects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role</td>
<td>1.32</td>
<td>1</td>
<td></td>
<td>4.23</td>
<td>.02</td>
</tr>
<tr>
<td>Error</td>
<td>60.38</td>
<td>59</td>
<td>0.37</td>
<td>4.23</td>
<td>.02</td>
</tr>
<tr>
<td><strong>Within-Subjects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>8.17</td>
<td>1</td>
<td>8.17</td>
<td>93.01</td>
<td>.6</td>
</tr>
<tr>
<td>Role x Time</td>
<td>0.37</td>
<td>1</td>
<td>0.37</td>
<td>4.24</td>
<td>.03</td>
</tr>
<tr>
<td>Error</td>
<td>5.18</td>
<td>59</td>
<td>0.09</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( p < .01 \)

Main effect results revealed that the perceived relationship was significantly different between pre- and post-tests, \( F = 93.01, \ p < .01, \ \eta^2 = .60 \). There was no significant difference between
fathers and sons in levels of communication (when treated as groups), $F = 1.29, p = .26, \eta^2 = .02$ (Table 1).

A significant interaction effect indicated that the fathers experienced more positive growth from the program than their sons experienced ($F = 4.24, p < .05, \eta^2 = .03$) (Figure 1). Estimates of effect size revealed low strength of associations (3% of total variance explained), suggesting a low strength in the significant difference between the fathers and sons. Cronbach’s alpha scores were calculated to measure the scales internal reliability. The value obtained demonstrated strong internal reliability with an $\alpha$ value of 0.89.

In addition to the Likert-scale responses, subjects were asked to list the three activities that they found most valuable in developing their father-son relationship. In order, respondents
indicated that climbing (31.7%) was the most important activity for the fathers and sons followed by duo time (23.6%), and rappelling (21.1%). This pattern of responses highlights the importance of both adventure activities and one-on-one time for the pair. Further research should therefore focus on the perceived specific benefits that fathers and sons experience from these divergent types of activities.

Summary

Results from this study can be used to understand social support, social bonds, and the development of these social networks available via Adventure Education courses. These methods should provide a broad picture of what types of father-son bonds form on these courses, how preexisting bonds are enhanced, and to what extend and in what ways they last after the course.
Chapter 4

Results

This chapter outlines the findings from the procedures described in Chapter 3. The research question of this study is to examine the effects of participation in an Adventure Education Program on levels of communication, trust, and relationship quality. The study is broken down into these three dependent variables and analyzed as such to look for specific areas of growth among the research subjects. The program, a five-day adventure education program, consisted of rock climbing, rappelling, and facilitated discussion.

The following chapter is divided into sections based on the type of data being analyzed as well as the origin of that data. The quantitative data from the written instrument is presented first. These data were collected at the time of the course from participants on the last morning of their course. The second section describes a qualitative analysis gathered from post course interviews with students one month after to their participation in the course.

Following the qualitative information, the data gathered during the course from participant observation were examined for themes and insights to support the qualitative and quantitative findings. Lastly, the results from a brief survey completed by the instructional staff were presented. This information was collected to supplement the quantitative data gather by the post course instrument as well as to confirm the statistical findings. Additionally, this information is expected to provide some insight into the various course components and their individual contributions to the development of social support within the father-son pairs.

Drastically smaller sample sizes were experienced for this study due to low enrollment at Summit Adventure courses. The study consisted of 17 fathers and eight sons. The father’s ages ranged from 44 to 55 years with a mean of 49. The son’s ages ranged from 13 to 18 years with a mean age of 15.2. More fathers were included in the study analysis because nine of the pairs that
participated in the study brought their daughters as their course partner. The sample size varies throughout each instrument due to various problems incurred. For example, if a son failed to fill out a page of the instrument the incomplete section was then discarded.

Quantitative Analysis

The quantitative instrument was analyzed using a paired-sample t-test to measure change from before and after participation in an AE Program. Paired-sample t-tests were used to measure change in each variables within subjects; trust, communication, and relationship quality. The three variables were then combined to create a larger measure labeled “social support”. An additional paired-sample t-test was used to measure differences in this variable (Mee & Chua, 1991).

Cronbach’s Alpha was calculated for each sub-scale; trust, communication, and relationship quality, to calculate scores of reliability. This was important because reliability scores could not be obtained for two of the three scales used in the creation of this instrument. These scores confirmed the internal reliability and that the intended variables of trust, communication, and relationship quality were measured by the instrument (Stevens, 1992).

To determine the magnitude of the treatment an effect size score was obtained for each paired-sample t-test. Eta Squared scores were used as the measure of effect size for each t-test result. Eta squared was calculated with the formula: $h^2 = \frac{t^2}{t^2 + df}$ where eta squared equals the t score divided by the same t score plus the degrees of freedom. The guidelines for interpreting these values are from Cohen (1988) as seen in Pullet’s SPSS Survival Manual and follow the general rule that .01 = small effect size, .06 = moderate effect size, and .14 = large effect size (Pallant, 2010, p. 247).
**Communication**

Reliability of the communication instrument showed an acceptable Cronbach’s Alpha of .88. This instrument consisted of 14 questions to measure inter-familial communication between father and son pairs.

There were 17 fathers included in a paired sample \( t \)-test (\( N = 17 \)) when analyzing the results. Their mean score was \( M = 4.2 \) before the course and increased to \( M = 4.8 \) after the course. The standard deviation for the fathers was .3. The \( t \) value was \( t (16) = 7.9 \) while \( p = .00 \). The eta squared statistic indicated a large effect size of .33.

There were eight sons included in a paired sample \( t \)-test (\( N = 8 \)) when analyzing the results. Their mean score before the course was \( M = 4.4 \) and after participation increased to \( M = 5.1 \). The standard deviation was SD = 1. The \( t \) value was \( t (7) = 2 \) and the significance was .09. The eta squared statistic indicated a large effect size of .22.

**Table 1**

*Statistical findings for levels of Communication between father-son dyads*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>MS</th>
<th>SD</th>
<th>( t )-score</th>
<th>( p )</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathers</td>
<td>17</td>
<td>.57</td>
<td>.3</td>
<td>7.9</td>
<td>&lt; .00</td>
<td>.33</td>
</tr>
<tr>
<td>Sons</td>
<td>8</td>
<td>.7</td>
<td>1</td>
<td>1.96</td>
<td>.09</td>
<td>.22</td>
</tr>
</tbody>
</table>

**Relationship Quality**

The relationship quality scale consisted of 43 items designed to measure the quality of the father-son relationship pre and post course. The scale for relationship quality reported an extremely high Cronbach’s Alpha of .98.
There were 18 fathers included in a paired sample $t$-test ($N = 18$) when analyzing the results for relationship quality. Their mean score was $M = 3.8$ before the course and increased to $M = 4.3$ after the course. The standard deviation for the fathers was $SD = .44$. The $t$ value was $t(17) = 6.4$ and the significance was $\alpha = .00$. The eta squared statistic indicated a large effect size of $\eta^2 = .27$.

There were eight sons included in a paired sample $t$-test ($N = 9$) when analyzing the results. Their mean score before the course was $M = 4.2$ and after participation rose to $M = 4.7$. The standard deviation was $SD = .78$. The $t$ value was $t(8) = 2$ and the significance was $p = .06$. The eta squared statistic indicated a large effect size of $\eta^2 = .22$.

**Table 2**

*Statistical findings for the Relationship Quality Instrument*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>MS</th>
<th>SD</th>
<th>$t$-score</th>
<th>$p$</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathers</td>
<td>18</td>
<td>.35</td>
<td>.44</td>
<td>6.4</td>
<td>.00</td>
<td>.27</td>
</tr>
<tr>
<td>Sons</td>
<td>9</td>
<td>.78</td>
<td>.78</td>
<td>2.2</td>
<td>.06</td>
<td>.22</td>
</tr>
</tbody>
</table>

**Trust**

The trust scale indicated acceptable levels of internal consistency reporting a Cronbach’s Alpha of $\alpha = .81$. This subscale measured inter-familial trust between father and sons participating in the AE experience.
Table 3

*Statistical findings for the trust instrument*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>MS</th>
<th>SD</th>
<th>t-score</th>
<th>p</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathers</td>
<td>15</td>
<td>.81</td>
<td>.66</td>
<td>4.8</td>
<td>.00*</td>
<td>.26</td>
</tr>
<tr>
<td>Sons</td>
<td>7</td>
<td>.43</td>
<td>.32</td>
<td>3.51</td>
<td>.01*</td>
<td>.37</td>
</tr>
</tbody>
</table>

After conducting a paired samples t-test for the fathers, where N = 15 and the standard deviation was SD = .66 a t-score of \( t = 4.8 \), the fathers mean score of \( M = 6.6 \) before the course rose to \( M = 7.4 \) after the course. An alpha level of \( p = .00 \) was obtained. For the sons, a paired sample t-test was also conducted, where N = 7 and the standard deviation was SD = .32. An alpha level of \( p = .01 \) was obtained for this group, showing statistical significance. The mean score before the course was \( M = 7.5 \) which rose to \( M = 7.9 \) after participation in the course. The eta squared statistic indicated a large effect size of .26 for the fathers and .37 for the sons.

**Social Support**

When combining the three variables (trust, communication, and relationship quality) into a single variable of social support, the statistical analysis showed findings congruent with the initial paired-sample t-tests. For the fathers (N = 15), the mean score before the course was \( M = 4.3 \) which rose to \( M = 4.9 \) after the course. This increase, when considering the standard alpha level of \( \alpha \leq .05 \), did prove to be significant with a level of \( p = .00 \). The standard deviation for this group was .31 with a t score of \( t (14) = 7.27 \). The eta squared statistic indicated a large effect size of .34.
Table 4

Statistical findings for the Social Support Instrument

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>SD</th>
<th>t-score</th>
<th>p</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathers</td>
<td>15</td>
<td>.31</td>
<td>7.27</td>
<td>.00</td>
<td>.34</td>
</tr>
<tr>
<td>Sons</td>
<td>5</td>
<td>.24</td>
<td>4.04</td>
<td>.02</td>
<td>.50</td>
</tr>
</tbody>
</table>

The sons (N = 5) for this group also showed a significant increase $p = .02$, where the mean score before the course was $M = 5.0$ and post course increased to $M = 5.4$. This group also had a standard deviation of $SD = .24$ while their t score was $t (4) = 4.04$. The eta squared statistic indicated a large effect size of .5.

Qualitative Interview Analysis

Thematic analysis was used in the interpretation of the qualitative data. Naturalistic Inquiry provided the framework for analyzing the results of the qualitative interviews (Lincoln & Guba, 1985). For this process, the researcher conducted the interviews and then transcribed the sessions. Major themes, reoccurring ideas, and topics were assessed and analyzed. These patterns were coded and then additional interviews were conducted to gather more information about these topics, and to strengthen data that was gathered.

A total of five informants were chosen to participate in the follow-up interviews. More subjects were desired, however due to time constraints and lack of willingness five was the maximum number that could be obtained. From the interviews, 19 variables consistently emerged. The magnitude of these variables was determined by the number of times they emerged as well as the length of time that the respondent went into that topic. The variables were the
coded and organized based on their determined magnitude. The reoccurring themes in order of magnitude were;

- intentional time – deliberately spending time one-on-one engaging each other,
- facilitated time – structured time where fathers and sons are lead through a discussion about relevant topics,
- rappelling – simulated risk activity in which participants descend a rope,
- deeper levels of disclosure – disclosing sensitive information that they have not previously shared with each other,
- relationship gauging – reflecting upon the quality of their relationship as well as comparing their relationship with other fathers/sons pairs,
- climbing – ascending a rock face,
- partner discovery – learning previously unknown information about their partner,
- interpersonal issue expression – faults emerge and are discussed about for the first time (i.e. my father never listens to me),
- escape from everyday life – free time out of their ordinary routine,
- distraction free time – time where they are unable to be distracted by common things such as television,
- belaying while rock climbing – the act of holding the opposite end of the rope while their partner rock climbs,
- communication assessment – time to reflect on how well father-son dyads exchange information with each other,
- instructor influence – discussions and suggestions made by the Summit Adventure Staff,
• duo – spending one-on-one time with specific goals of communicating, separated into their specific dyads,
• swimming – water activity,
• pertinent topic breeching – engaging in discussion a topic the father-son pair had previously postponed,
• peer interaction time – fathers and sons get to sympathize with their peers, separated from their partners, about relevant issues,
• affirmations – when the other group members express what they appreciate about the specific person, and
• the blessing – when fathers bestow their hopes and desires upon their sons, and what the appreciate about them.

Major Themes

These 19 variables were divided into groups based on their relationship to one another and by the process of how they contributed to the development of social support between fathers and sons. Themes with commonalities such as deep disclosure and communication assessment were then placed under the larger theme of “communication enhancement”. These themes are presented independently in the following section. However, it should be noted that there were certain themes that could not be identified with only one major category and therefore was included in two. For example, duo fell into both categories of shared time and institutional influence.

Shared Time

The findings suggest that spending time together, free from distractions of everyday life, contributes significantly to the development of the father-son pairs’ relationship. One subject
also noted, is that having common challenges to overcome with partners made for rich discussions and gave participants a historical event in their relationship that they could often discuss and reminisce upon. This theme also includes the idea that the fathers and sons perceive value in spending time with one another. Several subjects expressed finding themselves comparing and contrasting how they would handle a situation another father was experiencing, and how they might do things differently. One father expressed about witnessing other pairs, stating, “Another valuable part is the interaction of other parents with their child….I think that’s very valuable, the accountability among the fathers. You know they’re going to ask you questions and you ask them questions.” (Interview Transcriptions, Father 2, lines 69-77)

The researcher observed that these experiences benefited from guided discussion led by Summit Adventure staff using a course component called Roundtable. This was a facilitated discussion where participating pairs are spit up into their groups and guided to talk about relative issues they have been experiencing with their accompanying partners.

**Course Components**

Much investigation into the specific course components was included in this study. The techniques of participant observation as well as the instructor instrument all included analysis of specific course components to better determine which may provide a more impactful contribution.

The qualitative analysis yielded different results than the other instruments when analyzing which course components may be most valuable. Subjects listed, in order of magnitude; rappelling, climbing, swimming, and duo as the components with the most contribution to the enhancement of social support. Other analyses, however, showed duo as providing the largest contributor to the development of social support. Further investigation
should occur as to which specific course components have the greatest contribution to intended outcomes.

Rappelling came up as the most significant course component according to the qualitative interviews. Subjects expressed high anxiety and “heavy facilitation” as reasons that this event was particularly significant. This “heavy facilitation” can be classified as an activity where instructors are present for the major events, making facilitation of the event easier to facilitate because major themes and observations can be recorded and discussed after the event.

**Institutional Influence**

The issue of institutional influence emerged from the interviews at numerous times. The researcher defines institutional influence as the impact the programming has upon the participants, especially the instructor-facilitation components. These instructors are highly trained to incorporate facilitation techniques, guide discussion, and encourage participants to be vulnerable or open with their partner. Without these facilitators, the course would still provide shared time and activities, but it would be more difficult to make the connections between adventure education and social support in the context of interpersonal development. When queried on the instructors, one participant replied that they “have done a really good job” and “do really well to accomplish some of the things,” adding that the components the instructors offered were “very purposeful” and that they “do a good job of implementing that purpose” (Interview Transcriptions, Father 1, lines 97-99).

The issues of intentional facilitation and the instructor influence came up multiple times in the interviews. It is thus believed that the instructors provided a framework for the course that set the tone for the enhancement of social support between the fathers and their partners.
Communication Enhancement

The qualitative interviews indicate that the AE course provided some level of participant awareness of communication between fathers and sons. The courses were structured to increase the communication between fathers and sons in particular, and help teach and facilitate the communication between the pairs. An example of this is a discussion guide for the fathers and sons to be used while participating in the duo experience so as to make it easier to start conversations and ask pertinent questions. The discussion guide includes conversational prompts such as a list of questions to ask your partner which get progressively more personal as you proceed through the questions. One son remarked, “We do a good job of communication and affirmation and all the stuff that we talked about on the actual course itself, so I’d say for me it was reinforcement on all that.” (Interview Transcriptions, Son 1, lines 36-38). This theme discussed by the informants supports findings in increases in communication from the qualitative portion of the study.

The subjects also expressed a sense of discovery about their partner. They communicated that the course allowed them to show a different side of themselves to their partner rather than just their roles as fathers or sons. When asked to comment on this, one father stated, “I think my son really got the opportunity to see who I really was as a person and as a man….that was the first time he ever actually saw me in a different light. He saw me as a person instead of being a father (Interview Transcription, Father 1 Lines 53-54).

Subjects also expressed being able to disclose “deeper” levels of information that would have normally been difficult to express. One father remarked that it was the first time he had talked about his divorce to his son’s mother while they were on duo. These types of moments
may lead to easier communication in the future by creating avenues that are comfortable for the fathers and sons to use in addressing delicate issues.

**Qualitative Summary**

The qualitative information obtained from the interviews revealed several themes and major information to supplement the research project. The interviews confirmed the themes emphasized by the empirical data gathered. The interviews also provided some additional insight into other phenomenon possibly occurring while participating in courses such as these. Five themes were established to categorize major areas of emphasis among the research subjects. These themes will be useful for supplementing the empirical findings as well as applying the findings of this research project.

**Participant Observation Analysis**

A participant observation guide was developed to aid the researcher in making observations about the subjects while they participated in the five-day AE program. This guide was designed to help identify key points of the course that may significantly contribute to areas of interest in this study, including father-son trust, communication, and relationship quality (See appendix B). The guide is also a tool for identifying major themes in the spatial and conversational aspects included in the scope of this study. Additionally, this instrument was developed to identify themes not captured within the scope of this study. Also, ideas for future studies were obtained through this instrument (these concepts are discussed in the future research section in Chapter 5).

During the course, participants were asked to disclose large amounts of information not previously disclosed due to their sensitive nature such as history of drug use. This disclosure of information is thus believed to be positive for participants in developing their familial
relationships. Many themes were observed in the numerous discussions that took place on this course. The first major theme identified was the concept of learning new things with one another. This was apparent in many lessons taught by the Summit Adventure instructional staff. Learning new skills appeared to bring out a sense of excitement in the students, made apparent by their smiles, and later in bringing up these issues in discussion or by citing them as personal highlights. One major item that numerous students enjoyed learning was the concept of love languages (Chapman, 1992). This concept of expressing love in one of five major ways was compelling, and made the subjects seem as if they were learning skills to better interact with their partner that could also be applied in broader contexts.

The concept of working together also showed up as a major issue at numerous times during the course. This usually manifest through joint activities such as the son belaying his father up the rock climb. The students were able to easily make the connection that they could not accomplish many of the tasks asked of them while on course without the help of their partner or their group. This concept was also easy for the instructional staff to recognize and bring up through guided discussion. Working together was brought up in several debriefs, and was mentioned by participants as something on which they would like to improve in their home life. When encouraged to make more tangible goals about working together, participants often referenced goals such as taking trips together, or doing projects such as building a tree house.

Spending additional time together after returning home was also a commonly discussed theme. Sons often expressed concern with the lack of time they spent with their fathers due to the father’s work or social obligations. Many of the participants said that if they would do one thing differently upon returning home, it would be becoming more intentional about spending time together. For example, one father and son duo said that they would now spend one hour
every Sunday together after church. Another pair committed to rearranging furniture in their living room to better facilitate family meetings and quality time spent in that room, as opposed to all the furniture being situated for television viewing. A third was quoted as saying, “This trip made me realize I’d rather spend three hours talking to my father than watching a movie.”

The content of these discussions was also evaluated during participant observation. One emergent theme was future intent or “hopes and dreams” of the father and son. For example, often the fathers would be heard querying their sons about what they wanted out of life within the parameters of career ambition. One father cited this time as being the first where he’d encouraged his son to think about those types of life decisions, and that he felt this AE course was a good time for reflection about life direction. Also, the course allowed time for fathers and sons to establish joint life dreams. One son said that he wanted to do some type of similar experience every five years with his son. They mentioned fishing, rock climbing, or skiing as examples of future adventures they may embark upon together.

“War stories” were also a common topic that was discussed among father and son pairs. Upon being asked what one pair talked about on the duo component, the son said that it was the first time his father had admitted trying drugs to him. When the father was asked why he would disclose such information, he replied that it was a preventive technique for his son so that he may not “make the same mistake.” Other types of war stories included how the fathers met their son’s mother, or their first experience with an automobile. This idea that the fathers had of sharing personal stories with their sons is believed to be an attempt at connecting with their son through self-disclosure.

The time for the blessing at the end of the course also seemed to be impactful for the participants. The blessing entailed the father to telling his son how much he loves him, his
feelings for his son, and his intentions for the life of his son. This activity was heavily facilitated by instructors, where the father was briefed by staff and given parameters in which to include in their talk to his son. Common themes of the blessing included the fathers’ wish for the sons, the wish for God’s will to be apparent in their lives, and that the son would be properly prepared for manhood.

Several significant moments were identified while conducting the participant observation. The debriefing of the duo experience was a time when fathers and sons were really bought into the concept of talking about their feelings. At this time the conversation flowed easily without much prompting from the facilitators. The participants cited duo as a significant experience because it was “out of the ordinary” and it was something they would not have been able to facilitate and structure on their own.

Many other themes and nuances were identified through participant observation. This process facilitated the identification of common themes of discussions amongst father and sons, as well as the themes that emerged from different activities Summit Adventure course activities. These themes included war stories, future goals and intentions, and an opportunity for the pairs to learn new items about each other. Participant observation also provided some insight into which course components were most effective for developing social support amongst participants.

*Analysis of the Instructor Instrument*

An additional instrument was created during the implementation of this study to capture the thoughts of the instructors who facilitated these courses. These instructors are highly trained by Summit Adventure on facilitating discussion, observation participant growth, and implementing the course components. It is believed by the researcher that the instructors possess
particular insight into the course because they have seen multiple courses and numerous father and son pairs. This instrument was thus used to capture the patterns, similarities, and differences instructors may have noticed during their time working similar courses. In addition, this instrument also tried to identify various significant moments in the courses while attempting to quantify the effectiveness of different course components.

The instrument consisted of seven Likert-scale items that asked the instructional staff to rate each course component from one to seven based on how much they perceived that element as contributing to the development of social support between fathers and sons. The following section includes a breakdown of each course element and its effectiveness:

**Table 5**

*Descriptive statistics for the Instructor Instrument*

<table>
<thead>
<tr>
<th>Course Element</th>
<th>N</th>
<th>Ranking</th>
<th>Range</th>
<th>Sum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duo</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>48</td>
<td>6.9</td>
<td>.38</td>
</tr>
<tr>
<td>Rappelling</td>
<td>7</td>
<td>2,3</td>
<td>2</td>
<td>42</td>
<td>6.0</td>
<td>.58</td>
</tr>
<tr>
<td>Other (assortment)</td>
<td>5</td>
<td>2,3</td>
<td>3</td>
<td>30</td>
<td>6.0</td>
<td>1.23</td>
</tr>
<tr>
<td>Rock Climbing</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>39</td>
<td>5.6</td>
<td>.79</td>
</tr>
<tr>
<td>Evening Meetings</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>35</td>
<td>5.0</td>
<td>1.29</td>
</tr>
<tr>
<td>Course Rituals</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>33</td>
<td>4.7</td>
<td>1.98</td>
</tr>
<tr>
<td>Devo</td>
<td>7</td>
<td>7</td>
<td>3.0</td>
<td>32.5</td>
<td>4.6</td>
<td>1.18</td>
</tr>
<tr>
<td>Roundtable</td>
<td>4</td>
<td>8</td>
<td>1.5</td>
<td>17.5</td>
<td>4.4</td>
<td>.75</td>
</tr>
<tr>
<td>Swimming</td>
<td>4</td>
<td>9</td>
<td>1</td>
<td>15</td>
<td>3.8</td>
<td>.5</td>
</tr>
</tbody>
</table>

*Note:* The range for the instructor instrument is 1-7 with 7 being the highest score any variable could receive.
Duo

Duo was developed from the concept of solo activity, where each father-son pair goes off into their own individual campsites to spend roughly 12 hours (usually overnight) to have dialog and spend time together. This is a time for the pairs to engage each other in questions, where they are encouraged to share deeper levels of information through a series of queries provided by instructional staff.

Duo was rated by seven instructors (N = 7) and had a mean score of 6.86 ms (SD = 0.38) out of a range of 7. This score made it the most effective element as rated by the instructional staff. Rationale for this score included by instructors mostly indicated that they thought just the pairs spending the time together was valuable. One instructor recorded that several students reported they would not have spent that much time with their partner under normal circumstances. They also cited that not having distractions such as competing with other siblings or their fathers business as reasons this quality time was out of the ordinary. Several pairs also cited having the desire to continue this ritual upon returning to their home life.

Rappelling

Rappelling is an activity that is usually emotionally charged and rich in metaphors. The students usually rappel on a tandem system where they are side by side with the partner with which they came. The rappelling typical consisted of ascending four fixed ropes to climb up to the top of the site and then descending via an overhanging cliff around 220 feet in height.

This activity ranked third among activities listed by the instructors on effectiveness of building social support. Seven instructors rated this component (N = 7) and it had a mean score of 6 ms (SD = .58). The instructors cited issues such as “overcoming obstacles together” and “overcoming fears” while describing the rationale for ranking this component as third. Students
were also quoted as saying that they could not have completed the rappel without the aid of their partner.

Rock Climbing

All participants participating in the Summit Adventure Program were expected to engage in the rock climbing course component led by instructional staff. The rock climbing was usually a highly anticipated event in which the students engaged in climbs ranging in difficulty from 5.6 to 5.9 (Yosemite Decimal System Ratings). This activity was also a major attraction for the students, usually their first time climbing.

Rock climbing was rated by seven instructors (N = 7) and had a mean score of 5.57 ms (SD = .787), ranking it as the fourth most effective component by instruction staff. Rationale for the score from instructors consisted of reasons such as it provides easy metaphors to transition into discussion about deeper issues, provides an opportunity for students to work through challenges together with perceived risk, and it is easily facilitated since the staff is close at hand, can see all the activity, and is usually emotionally charged due to increased student anxiety. Rock climbing easily lends itself to the discussion of communication because of the required commands built into the activity. The theme of trust also immersed organically because of the belaying system in place. One son was quoted as remarking, “I could never have made it up the climb if someone was not below that I trusted.” Other instructors cited it as a highlight of the course for a majority of their participants.

Evening Meetings

Evening meetings were a time at the end of each day to “debrief” and discuss the events that happened during the day. These times were highly facilitated instructor-led activities in
which the learning throughout the day was solidified in the students by talking to about them one more time, or changing the lens in which the students perceived some impactful event.

Evening meetings were rated fifth by the instructional staff as the most important course component. Evening meetings had a mean score of 5.0 ms and a standard deviation of SD = 1.29. Instructors remarked that this time help build communities among group members and deepened relationships by providing time to be together with no set activity. It was also a valuable time for students to prepare for upcoming activities (duo and blessing). Instructors also noted that it was a time for the students to open up with each other and disclose highly personal information in front of the group.

**Course End/Start Rituals**

Course end and start rituals consist of a number of various activities. The limitation in asking about this particular course component was the inability to control for variance throughout the different patrols. Upon their arrival at Summit Adventure, however, students were usually gathered into a common space to partake in initiate activities led by a Summit Adventure staff member. These were usually tone-setting activities to clue participants in to what they would be doing, set expectations, and to establish norms for participation in the upcoming experience. Another example of the course end ritual was the worship session that occurred during the final morning of the course. All the patrols were gathered into a common area where songs were sung and a short talk was given on a relative topic.

Course rituals were rated as sixth among most powerful course components by the instructional staff. This component had a mean of 4.71 ms and a standard deviation of SD = 1.97. Instructors noted that these rituals can provide clear markers for ending and beginning different phases of the course. They also noted that they provided a positive way to set the tone
and open up communication within the group. Finally, one instructor remarked that she thought these course rituals provided a sense of connection to a larger entity, such as the past of Summit Adventure and the other students that had come before.

**Devotionals**

Devotionals are intentional times for instruction staff to lead faith-centered discussions with the participants. Devotionals were usually held each morning of the course and had a wide range of topics covered by instructional staff. Often the themes were focused on faith, love, or other common topics found in the Bible. It was common for these discussions to happen in a large group, and often included some type of experiential education component, such as journaling or discussing an agenda set forth by instructors.

Devotional time was ranked seventh out of nine in a list of the most effective course components. Devotional time had a mean score of 4.64 ms and a standard deviation of SD = 1.18. Instructors typically did not see this as a time with a strong tie to the development of the bond between fathers and sons, but they did see it as an important course component for other reason. For example, one instructor remarked that devotionals provided “an opportunity and framework to discuss biblical truths and talk openly about our personal (as instructors) relationship with God.” These devotional times helped Summit Adventure fulfill its mission as a faith-based Adventure Education program.

**Roundtable**

The roundtable activity is a course element designed to allow time and space for the fathers to spend time apart from the sons and vice versa. This intent of this process was to allow each subgroup to bond, share common issues, and relate to one another in ways that having their partner around may hinder. Commonly, a discussion was facilitated by an instructor, one with
the fathers and one with the sons, so that conversation flowed smoothly and the time spent together was intentional for both groups.

Roundtable was rated by four instructors (N = 4). The low sample here is due to it being a component commonly cut out of the program when instructional staff is short on time. Roundtable was rated by the Summit Adventure staff with a mean of 4.3 ms and a standard deviation of SD = .75, making it the sixth most important course component from the instructors’ point of view. Rationale for evaluating roundtable included a perceived difference in the amount of information disclosed by the fathers afterward, as it increased group dynamics within each subgroup, and was a good time for fathers to share experiences and advice with other fathers.

Swimming

One day of each course included a day hike to a nearby alpine lake where the fathers and partners could jump off rocks of varying height into the water. This provided an opportunity for participants to engage in a less physically demanding activity than rock climbing and backpacking.

Swimming was rated by four instructors (N = 4). Again, the low sample was due to this component being removed from the course due to time constraints. Swimming had a mean score of 3.75 ms, making it the least effective course component from the instructors’ point of view (SD = .50). A few instructors commented on the experience, remarking that it provided a challenge in a “light hearted” way (jumping off the rocks). It was also noted that it provided a medium for positive encouragement for performance on the course.

Instructor Instrument Summary

Overall, this instrument provided some specific insight into the instructors’ perception of which AE course components were most effective. The findings were similar to the data gather
by the qualitative interviews indicating that rappelling, rock climbing, and duo were the three most influential course components. In addition, this information helps add depth to the overall research project, and fills in voids left by low sample size (such as instructor perceptions on the various course components). It is also useful for understand how specific course components may contribute to the development of social support between pairs. This information may prove useful to practitioners hoping to create social bonds between students by providing information about which components are the most effective.

**Results Summary**

Although plagued with a low sample size a large quantity of data were still able to be collected. From these data, conclusions were drawn regarding the development of trust, relationship quality, and communication between fathers and sons participating in the AE Program. The data indicated that fathers and sons do experience significant increases in all variables. In addition, the qualitative data provided additional support for the development of trust, communication, and relationship quality.

Additionally, further insight was gained into specific outcomes of these courses, as well as how those outcomes were achieved and through which course components. The data analysis revealed that rock climbing and duo were the most valuable course components when improving father-son levels of social support. Also, it was discovered that the father-son dyads place a great deal of value on the framework of the course; the instructors, and course components such as the discussion guide provided for duo.
Chapter 5

Summary, Findings, Conclusions, Implementations, and Recommendations

Summary

This study investigated the effects of Adventure Education (AE) and the ways in which participation in AE programming can contribute to the enhancement of social support. The subjects in this study (N = 27) participated in a five-day AE program and completed one quantitative questionnaire. In addition to the quantitative questionnaire, participant observation, and qualitative interviews were used to gather data about the changes experienced in levels of social support. An additional mixed-methods instrument was used to gather input from the instructional staff at Summit Adventure, where the research was conducted.

The information gained in this study can be used to examine perceived levels of social support among fathers and sons who participate in these types of AE programming. In addition to this, it can also be used to understand the complex issues of group and family dynamics, in particular father-son pairs, and the development of a social support networks on standard AE programming.

Findings

This study was undertaken to better understand the development of social support among subjects who participate in AE programming. By examining the three variables of social support, trust, communication, and relationship quality, the researcher hopes to gather information about the overall effects of social support, particularly in father-son dynamics, after participating in AE programming.
Quantitative Findings

The analysis of the quantitative data yielded positive results with a few caveats. The project was plagued by low sample size, making it difficult to obtain strong quantitative results. The statistical tests that were obtained, however, are promising, yet due to low statistical power, conclusions were difficult to draw based upon the quantitative data alone. The data were generated using SPSS 17.0 and paired sample t-tests to examine differences within subjects. The research questions were tested at the .05 level and yielded the following results:

Communication

Communication scores revealed that the fathers did have a significant increase in reported level of communication after the AE course ($t = 7.9, p = .00$). The sons, however, did not report a significant increase in levels of communication ($t = 7.9, p = .09$).

Relationship Quality

Relationship quality produced similar findings as communication with significant increases with the fathers ($t = 6.4, p = .00$) but not with the sons ($t = 7.9, p = .06$).

Trust

Trust proved to be the most significant variable, with increases in both the fathers and sons. Paired sample $t$ test results revealed that fathers scored $t = 4.8, p = .00$ while sons scored $t = 3.51, p = .01$.

Social Support

The variables were also combined and tested to produce one score for social support. This measurement reported strong $t$ scores for both fathers ($t = 7.27, p = .00$) and sons ($t = 4.04, p = .02$).
**Instructor Instrument**

The instructor instrument was designed to gather information about the instructors’ perceived level of effectiveness from among the different course components. Instructors ranked the Duo activity and the rappelling as the most valuable course components for increasing social support between fathers and sons in AE programs (for a complete list of course components see page 46).

**Qualitative Findings**

In the analysis of the qualitative data four major themes emerged, including communication enhancement, instructional influence, course components, and shared time. These themes allude to not only what types of relationship enhancement was occurring in the AE course, but also where and from what source those enhancements were originating. These themes were generated from the participant interviews two months after completion of their course.

**Participant Observation Findings**

Participant observation analysis identified several themes congruent with those discovered in the qualitative analysis. These themes include future goals and intentions, sharing war stories, and disclosure of new information with their partners. This evidence alludes to the fact that deeper levels of information disclosure do occur while participating in a facilitated AE program due to these identified themes. The participant observation also provided unique insight into how social support is manifested through group discussions and themes that emerge during these discussions. Insights, such as physical touch to provide emotional comfort, were also gained through the observations which otherwise would have been lost in the data analysis.
**Conclusions**

The following conclusions have been drawn as a result of this study:

1. Levels of trust between fathers and sons can be enhanced through participation in AE programs;
2. Levels of communication between fathers and sons can be enhanced through participation in AE programs;
3. Relationship quality between fathers and sons can be enhanced through participation in AE programs;
4. Levels of social support between fathers and sons can be enhanced through participation in AE programs;
5. This type of AE programming appears to be more impactful for fathers than their sons or at least impactful in different ways;
6. Duo is the most effective course component for enhancing the father-son relationships;
7. The instructor facilitation is perceived as very valuable to the fathers and sons; and
8. The shared experience is a large factor to increasing communication between fathers and sons.

**Implications**

The findings of this study yield many implications for researchers and practitioners. This research can serve as a starting point for future projects to investigate the social support systems that occur on standard AE programs (where students do not go home with fellow/family course participants). In addition to that, it provides a new foundation for thinking about the types of outcomes AE participants experience as well as how preexisting outcomes are achieved. Social support may be a major course outcome pivotal to the student experience that has been largely
overlooked. In addition, social support may provide a platform for other course outcomes to be achieved. For example, a student may be able to acquire leadership techniques based upon peer feedback made available due to an established social support system.

This study has also provided insight into how social support is initiated and strengthened on AE courses through an examination of the different course components. While additional research should investigate how this process occurs with students who are previously unfamiliar to one another, it should also examine how long this perceived increase in social support lasts post-course, both with fathers and sons, as well as general enrolled AE students.

Implications for practitioners include an increased understanding of how social support is developed in AE courses. Better understanding of these methods will aid program designers and course instructors in identifying what techniques they can use to develop cohesive groups. This research also shows the benefits of developing those cohesive groups. Additionally, it also speaks to the contribution AE can make on preexisting relationships between participants.

**Discussion**

The findings conclude that there is a significant change in levels of social support people who participate in AE programs. This conclusion was reached by examining the three dependent variables of trust, communication, and relationship quality measured quantitatively, coupled with the information gather from participant observations, the instructor instrumentation, and the qualitative follow-up interviews. However, due to low sample size it is recommended that Summit Adventure staff continue to use the quantitative instruments to gather additional data to confirm these statistical findings.

Although it evolved into more than a study of social support, this research project was originally undertaken to examine levels of social support between fathers and sons who
participate in an AE program. The researcher measured changes in the areas of trust, communication, and relationship quality. The study also provided significant insight into how social support is enhanced and through what course components and elements that enhancement occurs.

The positive results from this study can be applied directly to the AE field. Practitioners now have a better understanding of how social support is developed and increased in students while they participate in AE programming. Additionally, the findings suggest methods to increase social support in groups that are lacking cohesion. This study provides a base of understanding in the role social support plays in AE courses as well as between father-son dyads.

In addition, this study increases the likelihood that similar types of programming may emerge by demonstrating the positive effects of AE programming on reported levels of social support among AE students. This author believes there may be a strong niche for family courses in AE programming. Through this research effort, the dynamics of families who may participate, as well as what types of outcomes may be experiences are better understood. The scope of this study included fathers and sons, however father-daughters, mother-daughters, and mothers-sons may also experience similar benefits like those found in this study.

Although this study was conducted with a faith-based adventure company, it is not believed that this skewed the results or limits the generalizability to father-son dyads who participate in this type of programming. There is no literature to suggest that faith-oriented families have deeper levels of social support or stronger relationships.
Recommendations for Future Study

Based on this research, the following recommendations are made for future study:

1. Future studies should investigate the relationship between tightly bonded groups of AE students and those who are not and the intended course outcomes;
2. The quantitative instrument should continue to be used at Summit Adventure to strengthen the empirical data gathered;
3. Future studies should investigate the nature of social support and those of students with no prior knowledge of each other;
4. Future studies should investigate the lasting effects of improved social support from AE programs;
5. Future studies should investigate the impact of programming on fathers and daughters in the same AE context; and
6. Future studies should examine the level of social support experience relevant to intended course outcomes.
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