The Effects of Family Participation in an Outdoor Adventure Program.

Twenty-four families participated in an intensive 8-hour adventure program that included initiative games, rock climbing, and whitewater rafting in the mountains of central Colorado. A study examined the effects of participation on parental perceptions of family problem solving, communication, cohesiveness, and general functioning. A questionnaire was administered before and after participation; observations were collected throughout the program; and interviews were conducted with 11 families 1 month later. Results indicated significant positive change for mothers' perceptions of family cohesiveness. No significant improvements in mothers' perceptions were recorded for problem solving, communication, or general functioning. Participating fathers' perceptions significantly improved for family cohesion and communication. No significant improvements in fathers' perceptions were recorded for problem solving or general functioning. Interviews 1 month later with 11 families confirmed that participating mothers, fathers, and their children did in fact experience positive changes in family cohesiveness and that powerful memories of the program persisted. Contributions of the study to the understanding of family enrichment and adventure/challenge programs are discussed, as are recommendations for further study. Contains 67 references. (TD)
The Effects of Family Participation in an Outdoor Adventure Program

By

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Twenty-four families participated in an intensive eight hour adventure program that included initiative games, rock climbing and white water rafting in the mountains of central Colorado. The problem of the study was to examine the effects of participation on parental perceptions of family problem solving, communication, cohesiveness, and general functioning. Sub-scales from the McMaster Family Assessment Device and the Moos Family Environment Scale were combined to form a questionnaire that was administered pre and post participation. t-tests were performed on data collected from mothers and fathers in order to measure changes in parental perceptions resulting from participation. Results indicate significant (alpha ≤ .05) positive change (p=.017) for mother's perception of family cohesiveness. No significant improvements in mother's perception were recorded for problem solving (p=.269), communication (p=.606) or general functioning (p=.130). Participating father's perceptions significantly improved for cohesion (p=0.0008) and communication (p=.025). No significant improvements in father's perception were recorded for problem solving (p=.0713) or general functioning (p=.086). In order to help support statistical findings one month following participation, a purposeful sample of 11 families who had participated in the Family Adventure program were interviewed regarding their Family Adventure Program experience. Interview analysis confirmed that participating mothers, fathers and their children did in fact experience positive changes in family cohesiveness and that one month later powerful memories of the program persisted. Families also claimed to have grown closer through their experience together. Additionally interviews helped describe discrepancies found in mother/father perceptions of family functioning.

Key Words: Adventure Education, Family and Enrichment Programs

Introduction

What is the state of the American Family today and how well do these families function? Existing research and literature seems to paint two very different pictures. Some research (Wallerstein, 1979; Martin & Bumpass, 1989; Murphy, 1991; & Blankenhorn, 1995) claims that American families are weakening and nearing collapse. These researchers cite increasing divorce rates, high rates of unwed teen pregnancies, and abusive family relationships as just a few of the sources that have lead to the family's demise. Often times the research describing the breakdown of traditional "family values" is then associated with larger societal ills, such as substance abuse, increases in juvenile delinquency and gang participation, violent crimes, poverty and homelessness (Blankenhorn, 1995). Indeed during the recent 1994 US Senate and House elections political hopefuls rallied around a return to traditional
"family values" in order to help solve the many social problems facing America today.

Many parents are seeking additional opportunity to enrich the lives of their children. For example, parents with the financial means spend billions of dollars each year on providing such things as toys that promote learning, piano lessons, dance classes, and private education, all with the hope of enriching their children's lives and providing future opportunity and advantage. And yet, despite our attention to individual enrichment, how much time and energy is spent upon the maintenance and collective enrichment of the family unit? Are family relations neglected or even overlooked? A startling statistic (ISR, 1985/86) purports than the average American father spends eight minutes each week engaging each of his children in purposeful conversation and quality activities. Mothers didn't do much better as they averaged just 11 minutes (mothers employed outside the home) and 13 minutes (mothers described as homemakers) a week. What are the effects of this seemingly insignificant time allotted for needed family communication and interaction? Might families be better able to adapt to new circumstances and to change, or even become more resilient to breakdown, if their ability to effectively communicate, solve problems and cohesiveness was enhanced?

Currently there is a movement in American society that is actively promoting increased family activity, the use of effective communication and problem solving skills, and greater family cohesion and adaptability; this movement is known as family enrichment. Proponents of the family enrichment movement assert that most families have inherent strengths and abilities that can potentially protect them from dysfunction and breakdown (Otto, 1976; Bowman, 1976; & Mace & Mace, 1986). Family enrichment supporters believe that much like an automobile, family systems need occasional tune-ups to insure smooth and efficient performance. Unfortunately many American families don't take the time to perform tune ups on their own for various reasons or feel intimidated by participation in existing enrichment programs (Bowman & Kiernan, 1985). Participation in enrichment programs to many families indicates the existence of undesired weaknesses or problems; which many families would rather go on believing do not exist rather than to address them (Gillis & Bonney, 1986; Gillis & Gass, 1993; & Burg, 1994).

Adventure/Challenge Education programs provide opportunities for both individual and collective enrichment in settings that may be less intimidating than a family counselors office or church enrichment program. These programs typically utilize an outdoor setting where initiative games and other outdoor activities that encourage development of trust, cooperation, problem solving skills, and effective communication are practiced.

When properly facilitated Adventure Challenge Education activities have yielded results suggesting change and growth among a diversity of participants (Ewert, 1988), (Borstleman, 1970), (Kelly & Baer, 1971), (Gaston, Plouffe, & Chinsky, 1978), (Pfirman, 1988), (Stich, 1983) and (Marsh, Richards, and
Adventure/Challenge Education programs have been implemented for use by such groups as corporate business personnel, youth summer camp participants, college students, church groups, persons with disabilities, adjudicated youth and mental health patients. However, to date little research exists documenting the effects of family participation in Adventure/Challenge Education activities.

The desired outcome of these programs ranges from pure recreation to primary therapy. Each program shares several things in common; the activities are inherently challenging and growth promoting but, fun and exciting for participants as well (Gillis & Gerstein, 1992). Given that these programs offer participant groups potential opportunity for individual and collective growth, in a setting that may be more comfortable and less intimidating than traditional enrichment programs, it is surprising that so few programs have been implemented to cater to the needs of our most basic group, the human family.

**Methods**

The problem of this research study was to examine the effects of family participation in an eight hour Family Adventure Program. The Family Adventure Program consisted of various initiative activities, rock climbing and white water rafting. This study investigated the parental perceptions of 24 mothers and 24 fathers of their family's communication, problem solving skills, cohesion and general functioning pre and post participation. Additionally, observations were collected throughout the four week program and interviews were conducted with 11 families one month following their participation in order to confirm statistical findings and to further describe participants' experience.

The conduct of the study involved the following organizational steps: (a) selection of the instrument, (b) development of the family adventure program, (c) pilot study of the program and test instruments, (d) arrangements for conducting the 1996 Gunnison family adventure program, (e) selection of family adventure program facilitators, (f) selection of participants, (g) description of the participants, (h) administration of the instrument, (i) description of the treatment, (j) follow-up interview procedure, (k) analysis of the data and, (l) summary.

**Selection of the Instrument**

It was decided to utilize several methods of data collection from participants in the Family Adventure Program. The first instrument was a family functioning assessment combining sub-scales from the McMaster's Family Assessment Device (FAD) and Moos' Family Environment Scale (FES). The FAD is a 60 item questionnaire, with seven sub-scales, developed by McMaster in which family members respond with perceptions of their family as a whole. The assessment utilizes a 4-point likert scale ranging from strongly agree to strongly disagree (Epstein, Baldwin and Bishop, 1983). For the purpose of this program three scales from the FAD were utilized; problem solving, communication and general functioning. Moos' FES is a 90 item true/false questionnaire, with ten sub-scales, developed by Moos in which family members
respond with perceptions of their family as a whole. (Moos and Moos, 1981). One sub-scale from the FES, cohesion, was used.

Grotevant and Carlson (1989) report that the FAD was designed for use by clinicians and researchers to assess family functioning for a variety of dimensions. The FAD is theoretically based on the McMaster Model of Family Functioning (Epstein, Baldwin and Bishop, 1983) which assumes healthy families accomplish certain essential functions and tasks. The assessment is clearly written and has directions that are easily understood. Grotevant and Carlson also report that the instrument is easy to administer, complete and score which were important considerations for the Family Adventure Program. Miller, Epstein, Bishop and Keitner (1985) report that the FAD sub-scales have an internal consistency that ranges from .72 to .92. Test-retest reliabilities are .66 for problem solving, .72 for communication, and .71 for general functioning.

Moos' FES was also selected for its ease of administration and completion. Grotevant and Carlson (1989) report additional strengths include the assessment's theoretical base and that it has been standardized and normed on a sample of 1,125 normal and 500 distressed families. Moos and Moos (1981) report that the 10 FES sub-scales have an internal consistency ranging from .61 to .78. Test-retest reliabilities range from .68 to .86.

The FAD/FES assessment was filled out twice by Family Adventure Program participants; once just prior to participation and then immediately following the conclusion of the last activity.

The investigator also sought to collect qualitative data to help confirm statistical findings and to further explain the participating families experience. Throughout each program a reflexive journal was kept detailing various family experiences and verbal transactions. Also at the completion of each program assistant facilitators were asked to recall their experiences of working with the day’s families.

Lastly, a purposeful sample of family participants exhibiting various responses to the Program were identified and interviewed approximately one month following their experience. During these interviews family members were given the opportunity to reflect back upon their experience.

Development of the Family Adventure Program

Prior to implementation of the Family Adventure Program a careful review of literature and discussion with several professional family and group facilitators provided key considerations. For example, it was determined that with younger participants it would be necessary to consider the flow of
activities and to not allow for excessive time to be spent on the debriefing of activities. Several activities frequently utilized with older groups were precluded to insure that children of all ages would be able to participate fully along with other family members. Expert panelists also recommended various initiatives for program inclusion. Lastly, the program carefully subscribed to traditional Challenge Education sequencing in order to gradually intensify perceived risk and problem solving difficulty (McGowan, 1989). Following collection of information and collaboration with the panel of experts a family program was designed and a pilot study was performed in order to assess the program and test instrument.

Pilot Study of the Program and Test Instrument

During the summer of 1995 the Family Adventure Program was conducted at the Indiana University Shawnee Bluffs Alumni Family Camp in southern Indiana. For several weeks 3-4 families participated in a 4 hour program that included various games and initiative activities as part of the program. Family members age 10 and older filled out the pre and post participation questionnaires. Two days following their experience parents were interviewed concerning the program and asked for their feedback.

Feedback was generally positive and parents made helpful suggestions and comments that were later implemented as part of the 1996 Gunnison Family Adventure Program. For example, parents felt that some of the questions on the assessment devices were too difficult for their children to comprehend and accurately answer. It was later discovered when the assessments were scored that the children typically didn't answer all the questions anyways despite the encouragement of the facilitator. With this input it was decided not to collect data from children participants, but to focus solely on the perceptions of their parents.

Valuable feedback was also given in regards to the various activities that made up the program. From this information most of the activities were validated in their effectiveness for use with families while one activity was decidedly too difficult for family participants and required a disproportionate amount of the program time to carry out. This activity was later dropped from the list of initiative games that were a part of the 1996 Gunnison Family Adventure Program.

Lastly, the Shawnee Bluffs Family Adventure Program facilitators found it difficult to fully accomplish the objectives of the program in four hours. Families also reported that at times they wished they could have had more time to do additional activities and to reflect upon their experience. However, scheduling more than a four block was impossible at Shawnee Bluffs because other camp programs conflicted. Therefore, it was decided to operate the
Family Adventure Program independently of a camp allowing for greater control of the program and to increase program length from four to eight hours.

**Arrangements for Conducting the 1996 Gunnison Family Adventure Program**

In November of 1995 the Gunnison Parks and Recreation Department was contacted and asked if they would be interested in sponsoring a one day Family Adventure Program that included initiative games, rock climbing and river rafting. Upon receiving additional information regarding the program, Dan Ampietro the Gunnison Parks and Recreation Director, agreed to act as sponsor. Sponsorship of the program by Gunnison Parks and Recreation was crucial as the initiative games and rock climbing were covered under their insurance policy.

A rafting outfitter was also contacted and subsequently offered the use of two 10 person rafts for each day of the program and the shuttling of boats and participants to the put in. Other program sponsors included Subway Sandwiches who provided discounted subs and Western State College who donated use of climbing harnesses and helmets. With the help of sponsors costs were minimized and to encourage participants from all socio-economic levels no fee was charged.

A site was selected for the program in an area known as Taylor Canyon just 20 minutes northeast of Gunnison. The site selected was a 60 acre park bordering the Taylor River and surrounded by US Forest Service land. This location offered easy access for participants, restrooms and picnic benches, 25-30 foot crags for climbing, and a three minute drive upstream to the rafting put in.

**Selection of Family Adventure Program Facilitators**

The investigator served as the head facilitator and four Western State College (WSC) students served as assistant facilitators. Additionally 2-3 student volunteers from a WSC recreation leadership course assisted during the rock climbing phase of each program.

The investigator's adventure program facilitation experience included; background in working with married couples and families, youth groups, college students, psychiatric hospital patients, and corporate business personnel. The investigator had extensive experience in facilitating the above groups in various adventure settings including high and low ropes course elements, rock climbing and river rafting. The investigator also maintained a current CPR and First Responder certification.

Assistant facilitators were selected based upon adventure activity experience though no assistant had previous experience facilitating an adventure education program. Prior to the program as part of a for credit field experience assistants received extensive field and classroom training.
Other program volunteers which assisted during the rock climbing phase were selected based upon their rock climbing expertise. These volunteers made it possible to set up four separate climbs and insured a ratio of 2 staff: 1 family.

Typically, the program involved 3-4 families for a total of 15-18 participants. Because of the nature of the program activities and varying participant ages, (2-64 years old), assistants played a critical role in insuring safety and providing the investigator opportunity to interact with each family and to record field notes.

Selection of Participants

In April of 1996, one month prior to the first scheduled program, the Family Adventure Program was heavily advertised. The program was advertised in a local newspaper, 40 flyers posted around the city of Gunnison, through a parks and recreation brochure, on a newsletter distributed to elementary school parents and as an announcement and subsequent interview through a local talk radio station. All 32 family participant slots were filled within two weeks of the initial announcement of the program. To sign up for the program families went to the Gunnison Parks and Recreation office where they selected a participation date. After signing up they were given parks and recreation waiver forms for each member of their family and a Family Adventure Program packet.

The Family Adventure Program packet contained general information, an equipment list, program outline, map to the program and informed consent forms. The forms contained information regarding the nature of the study and individual involvement. The consent form also contained information outlining the subject's right to withdrawal at any time and that all information collected during the study would remain strictly confidential. These forms were to be filled out and submitted prior to participation in the program.

The night prior to each scheduled program date participating families were contacted and asked if they had any questions regarding their participation in the program. Families were reminded about program starting time, various clothing and equipment recommendations and advised that they would be contacted by 8:00 AM should the weather appear questionable.

Description of the Participants

Thirty two families signed up to participate in the Family Adventure Program. After several program cancellations and incomplete assessments were dropped a total of 24 usable mother/father assessments were obtained. Participants ranged in age from three to sixty-four. These families were all residents of Gunnison County Colorado. Gunnison Colorado is centrally located in the state of Colorado two hundred miles south west of Denver. In 1993, the recorded population of the City of Gunnison was 4,943. In the same year the County of Gunnison was home to 11,224. Located at 7,703 feet the city of Gunnison is surrounded by USFS, BLM and NPS owned lands which make up 85% of the county. The top three sources of revenue for the Gunnison area are; tourism ($35 Million), education ($26 Million), and ranching ($8 Million). (Gunnison Chamber of Commerce, 1995).
Interested families signed up to participate during one of eight sessions offered during the months of May and June 1996. Due to weather problems (lightning and high winds) one session was canceled midway through the program. A second session was canceled completely due to rain and snow. Several single parent families participated in the program. Since it was necessary to have scores for both mother and father these scores were later dropped.

**Administration of the Instrument**

The data were collected during the months of May and June 1996. Following a briefing of the purpose of the study and collection of consent forms participants were reminded of the importance of the research as suggested by Miller (1986) and the need for them to truthfully answer each question of the assessment in order to obtain valid results. Once again confidentiality was assured and participants were reminded to leave no blank answers. Next copies of the combined FAD/FES were passed out along with pencils to the parents. Assessments were then collected and filed into a folder. Immediately following the last activity in the Family Adventure Program copies of the combined FAD/FES were passed out again to the parents.

**Description of the Treatment**

Six initiative activities were combined with rock climbing and white water rafting. These initiatives and activities were selected for their potential to aid participants in discovering and developing better family communication, problem solving, cohesion, teamwork and cooperation. The Family Adventure Program was conducted as follows:

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>Arrive at Mt. Park, organize equipment and shuttle vehicles to rafting take out (Gunnison Mt. Park)</td>
</tr>
<tr>
<td>9:30</td>
<td>Introduction to the program and fill out pre-participation questionnaires (Gunnison Mt. Park)</td>
</tr>
<tr>
<td>10:00</td>
<td>Initiative activities: Group Juggle, Porcupine Progression, Trust lean, trust fall, and TP Shuffle. (Gunnison Mt. Park)</td>
</tr>
<tr>
<td>12:00</td>
<td>Lunch and climbing preparation (Gunnison Mt. Park)</td>
</tr>
<tr>
<td>1:00</td>
<td>Rock Climbing and Rappelling (Gunnison Mt. Park)</td>
</tr>
<tr>
<td>2:30</td>
<td>Rafting from 5 mile bridge to Almont takeout (Lower Taylor River)</td>
</tr>
<tr>
<td>4:00</td>
<td>Change into dry clothes, initiative activity: A pat on the back, and final debriefing (Almont takeout)</td>
</tr>
<tr>
<td>5:00</td>
<td>Fill out post-participation questionnaires (Almont takeout)</td>
</tr>
</tbody>
</table>

**Follow-Up Interview Procedure**

Interviews were conducted with 11 of the 24 participating families approximately one month following participation in the Family Adventure Program. The purpose of the interviews was to collect information regarding family member's experience and to ask follow up questions on the pre and post data which had been collected at the time of participation. A purposive sample of families were selected to be interviewed. The investigator selected families that represented various age categories. For example, young families where parents were in their early thirties and the children were also young (3-7). After selecting families representing various life stages the investigator sought to select families who based on observation had differing program experiences. Families who were talkative and enthusiastic during the
program were selected for interviewing as were families that seemed more quiet and contemplative. The main goal of the selection process was to insure that a variety of backgrounds and perspectives were represented.

Analysis of the Data

There were three sources of data in this study including the combined FAD/FES assessment, facilitator observations collected during the program and data collected from interviews one month following participation. These three sources attempted to determine changes in parental perception of family communication, problem solving, cohesion and general functioning resulting from participation.

Quantitative data collected from the completed FAD/FES assessments were scored according to instructions found in their accompanying manuals. For both the FAD and FES assessment lower scores signified higher perceived functioning while higher scores indicated lower perceived functioning.

Raw data from the scored FAD/FES assessments were then analyzed utilizing the SAS statistical package (SAS Institute, 1990). The data were analyzed using a t-test of the difference of pre and post test means to test for significant differences for the following hypotheses:

1. Parental perception (mother and father’s) of their family’s communication will not significantly improve as the result of participating in the Family Adventure Program.
2. Parental perception (mother and father’s) of their family’s problem solving will not significantly improve as the result of participating in the Family Adventure Program.
3. Parental perception (mother and father’s) of their family’s cohesion will not significantly improve as the result of participating in the Family Adventure Program.
4. Parental perception (mother and father’s) of their family’s general functioning will not significantly improve as the result of participating in the Family Adventure Program.

Results

Statistical findings are organized and summarized by hypothesis.

Hypothesis 1

Hypothesis 1 stated: Parental perception (mother and father’s) of their family’s communication will not significantly improve as the result of participating in the Family Adventure Program.

Parents Perceptions of Family Communication Pre and Post Participation (n=24)

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Test Mean</th>
<th>Pre-Test sd</th>
<th>Post-Test Mean</th>
<th>Post-Test sd</th>
<th>p</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers</td>
<td>19.041</td>
<td>2.7</td>
<td>18.791</td>
<td>3.2</td>
<td>0.606</td>
<td>23</td>
</tr>
<tr>
<td>Fathers</td>
<td>21.333</td>
<td>2.9</td>
<td>20.291</td>
<td>2.7</td>
<td>0.025*</td>
<td>23</td>
</tr>
</tbody>
</table>

*alpha ≤ .05

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Hypothesis 2

Hypothesis 2 stated: Parental perception (mother and father's) of their family's problem solving will not significantly improve as the result of participating in the Family Adventure Program.

Parents Perceptions of Family Problem Solving Pre and Post Participation (n=24)

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Test Mean</th>
<th>Pre-Test sd</th>
<th>Post-Test Mean</th>
<th>Post-Test sd</th>
<th>P</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers</td>
<td>12.916</td>
<td>3.1</td>
<td>12.416</td>
<td>2.6</td>
<td>0.269</td>
<td>23</td>
</tr>
<tr>
<td>Fathers</td>
<td>13.250</td>
<td>2.5</td>
<td>12.625</td>
<td>2.1</td>
<td>0.142</td>
<td>23</td>
</tr>
</tbody>
</table>

*alpha ≤ .05

Hypothesis 3

Hypothesis 3 stated: Parental perception (mother and father's) of their family's cohesion will not significantly improve as the result of participating in the Family Adventure Program.

Parents Perceptions of Family Cohesion Pre and Post Participation (n=24)

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Test Mean</th>
<th>Pre-Test sd</th>
<th>Post-Test Mean</th>
<th>Post-Test sd</th>
<th>P</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers</td>
<td>10.666</td>
<td>1.5</td>
<td>10.000</td>
<td>1.0</td>
<td>0.017</td>
<td>23</td>
</tr>
<tr>
<td>Fathers</td>
<td>11.916</td>
<td>2.0</td>
<td>10.875</td>
<td>1.7</td>
<td>0.000*</td>
<td>23</td>
</tr>
</tbody>
</table>

*alpha ≤ .05

Hypothesis 4

Hypothesis 4 stated: Parental perception (mother and father's) of their family's general functioning will not significantly improve as the result of participating in the Family Adventure Program.

Parents Perceptions of Family General Functioning Pre and Post Participation (n=24)

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Test Mean</th>
<th>Pre-Test sd</th>
<th>Post-Test Mean</th>
<th>Post-Test sd</th>
<th>P</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers</td>
<td>24.041</td>
<td>3.8</td>
<td>23.291</td>
<td>3.1</td>
<td>0.130</td>
<td>23</td>
</tr>
<tr>
<td>Fathers</td>
<td>25.000</td>
<td>3.0</td>
<td>24.208</td>
<td>2.6</td>
<td>0.086</td>
<td>23</td>
</tr>
</tbody>
</table>

*alpha ≤ .05

Qualitative Support

Family interviews supported the statistical conclusion that participation in the Family Adventure Program was significantly associated with Family cohesion. Other dimensions tested, problem solving, communication and general functioning, were often brought up and discussed. However, these dimensions never became the focus of interviews like cohesion. The word cohesion was rarely used. Rather words like closeness, bonding, coming together, and support were used by families in describing how the program...
influenced them. Sixteen year old Lynn Kimball (names cited are fictitious) describes her experience this way: "The challenging part of the climbing made us want to encourage one another because it was so difficult...I felt closer to my family because I could understand some of the things they were going through. After I had climbed and my brother was climbing I wanted to encourage him because I knew how hard it was." Lynn's mother Jan added "The activities brought our family together. We now have a great memory. In the future we'll say something like remember the time...."

The Talmage family saw the program as a means of strengthening their family. Susan Talmage related "We have a step family. A "yours, mine and ours" that we are trying to bring together. So we saw this program as an opportunity to do that...I think the experience was fun and really helped us as a family to accomplish some of the things we set out to do." Jessica Talmage adds "It was a good chance for us to have to get together."

Linda and Dan Payne are separated. Despite the separation Linda recognized the fact that she could always depend on Dan to be there for her or their son Kurt. Linda shared "I think I noticed that I can count on Dan. There are times I think when our understanding of a situation might be different. But, I know that when I really am in a crisis situation he'll be there."

Other family members recounted specific activities and how important support and pulling together through out the activity was critical. Dave Bender said "The climbing was challenging. Having family there to support me and encourage me was important." Dave later shared "We had been arguing on the way up. We were literally at each other's throats. That all went away quickly when we started doing the activities. It just doesn't last long when you're in a beautiful place doing these kind of activities." For Dave and Leslie discussing and talking about the activities was key in drawing closer as a family. Dave said "You can go through months without any experiences to really talk about. A family activity like this though provides us a whole lot to talk about. Not just the activity, but our feelings about the activity, and how they relate to us as a family. These type of experiences I think are what draws families closer together."

Conclusions

The main goals of the Family Adventure Program was to encourage the discovery and development of skills including problem solving ability, communication, cohesion and general functioning. These goals are consistent with the goals of similar marriage and family enrichment programs as described by Otto (1977), Mace and Mace (1986), Sawin (1986) and Diskin (1986). The program, modeled after various outdoor adventure programs described by Marsh, Richards, and Barnes (1987), Ewert (1988), Borstleman (1970), Bertolami (1981), Mason (1971), Gillis & Gass (1993) and Clapp and Rudolph (1993) sought to accomplish
these goals through a series of experiential family activities including initiative games, rock climbing and rafting. These experiential activities encouraged the discovery and development of family relationship skills through thoughtful reflection and transfer.

Results indicate significant (alpha ≤ .05) positive change (p=.017) for mother's perception of family cohesiveness. No significant improvements in mother's perception were recorded for problem solving (p=.269), communication (p=.606) or general functioning (p=.130). Participating father's perceptions significantly improved for cohesion (p=.0008) and communication (p=.025). No significant improvements in father's perception were recorded for problem solving (p=.0713) or general functioning (p=.086). Interview analysis confirmed that participating mothers, fathers and their children did in fact experience positive changes in family cohesiveness and that one month later powerful memories of the program persisted. Families also claimed to have grown closer through their experience together.

Contributions of the Study

The findings from this study contributed to our understanding of family enrichment and adventure/challenge programs in the following ways:

1. The research findings add to that body of literature which suggest adventure/challenge programs effectively promote positive growth and change. Currently, little research has been documented that reports specifically the effects of family participation in an adventure/challenge program. The investigator hopes that this research will encourage future documentation of family programs and their ability/ inability to enrich family life.

2. The research has utilized various data collection and analysis techniques, both quantitative and qualitative, in order to paint a more accurate picture of Family Adventure Program participant's experience. Qualitative methods successfully confirmed various quantitative findings and explained the potential neutralizing of results due to some families increased awareness of family functioning and need for change.

3. Adventure/challenge programs may provide viable additions or alternatives to traditional enrichment programs especially for fathers who seem more susceptible to changes in perceptions due to participation.

4. Families that were interviewed indicated that there is a need for additional family programming that utilize outdoor adventure pursuits. Family programmers should carefully consider barriers identified by families in the study, such as money, time and preparation energy, when developing family program formats.
Recommendations for Further Study

Based on the results and conclusions of this study the following recommendations are suggested for further research into family adventure programming:

1. The Family Adventure Program should be replicated utilizing families from other parts of the US and a control group should be established to allow for experimental/control group comparisons and a host of additional statistical methods to further validate program efficacy.

2. Length of family programs need to be further examined in order to find an optimal time period required for change. Questions like "Is an eight hour program sufficient to promote effective long term family improvements?" need to be more fully examined. Future pilot programs should consider lengthier periods of time to provide participants ample opportunity for further reflection and practice of newly discovered/learned skills.

3. Future research should seek ways of further engaging younger children in debriefing sessions in order to help deepen their participation and increase their learning.

4. Much of the literature reviewed utilized traditional quantitative methodology. In this research the author attempted to use qualitative methods in order to more fully describe the experience of participating families. In the future, subjective experiences of participants in adventure challenge programs, needs to be further explored and documented.

5. Families that were interviewed described a variety of benefits that could be studied in future adventure family programming. For example, improvements in participant self-esteem, family trust, adaptability, and love were each mentioned. Future research should further seek to describe improvements for these dimensions as well.

6. Research focusing on leadership of family programs should be further studied in order to develop training programs and manuals for potential family adventure/enrichment program leaders.

7. Future programs should further emphasize the need for transferring learning to the home. Most families struggled with what to do next as a family to continue growth upon completion of the program. Perhaps concrete "homework" assignments that provide the family additional feedback could be utilized to further aid in the transference process and insure positive long term effects.

8. Future programs should consider providing adventure enrichment programs designed for special populations such as single parents.
References


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