Parent Perceptions of Social Development and Competence in Pre-Adolescent Females After

Attending an Outdoor Adventure-Based Program

Madeline Pillow, OTS and Elizabeth Richardson, OTR/L

James Madison University

Background

Pre-adolescent individuals are involved in various transitional periods in which they are particularly vulnerable to environmental and other contextual factors that can influence their adoption of healthy behaviors and practices (Healthy People 2020, 2017). Providing supportive experiences in and out of school and promoting strong life skills during pre-adolescent years can assist in becoming an independent, healthy adult and help to prevent negative behavior patterns later in life (Currie et al., 2012; HHS, 2016; NIMH, 2016; Whittington, Mack, Budbill & McKenney, 2011).

To address the developmental obstacles various approaches and intervention methods have been used. However, these methods are a subject of disagreement among health care and education professionals. Despite these disagreements, emerging evidence supports well-designed, experiential learning interventions (Eatough, Chang, Hal, 2015; Galeotti, 2015; Dobud, 2016). Experiential learning interventions are intentional processes which provide adolescents with supports, opportunities, resources and skills utilized when becoming a self-reliant and healthy adult (Eatough, Chang, Hal, 2015; Galeotti, 2015). Outdoor adventure-based programs structured around this experiential learning theory have revealed successful, short-term outcomes for adolescents (Whittington et al., 2011; Dodbud, 2016; Bloemhoff, 2012). For girls, these programs can support healthy relationships, encourage problem-solving strategies, while also engaging them physical activity (Dobud, 2016; Bloemhoff, 2012; Galeotti, 2015; Whittington et al., 2011). For these reasons, our research was structured around an outdoor adventure-based program.

The outdoor adventure-based program spanned eleven weeks from September to November 2017 at James Madison University's TEAM Challenge Course. The TEAM Challenge

Course is a high and low ropes outdoors facility entailing initiatives within the low and high elements. Each session of the intervention consisted of an introduction, icebreaker, main activity, and reflection. To guide the intervention, we used five themes around which these activities were structured (Table 1). These five themes include teamwork, problem solving, communication, leadership and trust. Each week the participants engaged in specific activities that emphasized the week's theme. During group discussion, we asked questions that addressed the specific theme for the week. An example of a discussion question for the week's theme of teamwork was, "When was a time that you were frustrated by having to work as a team?". An example of a weekly comment box submission prompt is, "Can you talk about a time where you had to take on a leadership role that you may not necessarily have been comfortable with? How did you handle that situation?".

Table 1. Program Design		
Themes	**Example Activities**	**Example process questions**
Teamwork	Shark infested waters Group jump rope Team Haul Zip Line	If a strategy did not work, how did you all work together to improve it? When was a time that you were frustrated by having to work as a team?
Problem solving	Rope Shapes Islands Crossing	Why can problem solving as a group be challenging?
Communication	Bull Ring Nitro Crossing	How did you all effectively communicate with one another without using words?
Leadership	Whale Watch Minefield	What are some different ways you saw leadership in our activities today?
Trust	Zip line Wild Woozy	What game challenged your trust the most? Why? What is something you did that helped one of your fellow Adventure Girls know that they could trust you?

The study was framed using two theories: The Achievement Goal Theory and the Person-Environment-Occupation (PEO) Theory (Meece et al., 2006; Law et al., 1996). The achievement goal theory focuses on the types of goals individuals pursue and behaviors are viewed as intentionally focused toward the attainment of these goals (Meece et al., 2006). The PEO Theory focuses on how an individual works within his/her environment to participate in life's occupations (Law et al., 1996). The Achievement Goal Theory is comprised of two main social achievement goals. These social achievement goals can be viewed as two strategies individuals use when interacting socially. These social strategies are social development and social demonstration. Social development emphasizes developing social competence with peers and an individual's attention is focused on learning new ideas, personal growth, and self-improvement (Ryan & Shim, 2006, 2008). With the social demonstration strategy an individual's primary goal is to show social competence in hopes to gain status or to avoid rejection (Ryan & Shim, 2006, 2008).

Purpose

The study looked at the parents/caregivers' perspective of their child's social competence, following an outdoor, adventure-based program called Adventure Girls. Adventure Girls ran from September-November 2017 at the JMU, UREC outdoor challenge ropes course. A survey was administered electronically for the parents/caregivers to fill out via Qualtrics, and responses were returned anonymously to the investigator and research adviser. The desire was for parents/caregivers to witness and express maintenance and/or growth of social development in their child following Adventure Girls.

Hypothesis

One year following the conclusion of an adventure-based challenge course program, parents/caregivers of the participants will perceive sustained maturation/growth of social development and competence.

Methods

Purposive sampling was used for the study's participants. The parents/caregivers of the 2017 Adventure Girl participants were the participants, in which 4 out of 7 (57%) responded to the survey. Quantitative and qualitative research methods were used to collect the data from parents/caregivers. Data analysis included descriptive statistics of the researcher developed survey, using a 5-point Likert scale, based on the Social Achievement Goal Survey and identifying and coding themes and researcher developed open-ended questions (Appendix A).

Results and Discussion

Descriptive statistics were used to analyze the quantitative data by converting the descriptive categories to numeric values and then calculating the mean of all responses (Table 2 and 3). A 5-point Likert scale was used for strongly agree to strongly disagree (1-5). There were no outliers and the range were narrow; meaning in this study all responses were between 3 and 5. Open & axial coding was used to extrapolate the themes from the qualitative data. In open coding, we focused primarily on the text to define concepts and categories from the parent/caregiver open-ended responses (Figure 1). In axial coding, we used the concepts and categories while re-reading the text to confirm the concepts and categories accurately represented responses and how the concepts and categories were related. The parents/caregivers responded by saying, "The skills developed in this program go such a long way and is really needed in the community."; my daughter "joined the cross-country team which is something I never thought she would do...she

developed new friendships and independence."; *Adventure Girls* "pushed her out of her comfort zone."

Statement: Since participating in the *Adventure Girls* group in Fall 2017, my daughter has been MORE LIKELY to do the following:	Response
1. Try to figure out what makes a good friend.	4
2. Find it important to learn more about other kids and what they are like.	3.5
3. Try to develop her social skills.	4
4. Feel successful when she learns something new about how to get along with friends.	3.5

Table 2 Result Responses Part 1

Statement: Since participating in the *Adventure Girls* group in Fall 2017,	Response
1. My daughter feels more confident in her ability to speak up in groups.	4
2. My daughter is more likely to interact with others she does not know in class.	3.75
3. My daughter is more likely to assume a leadership role when presented the opportunity.	3.75

Table 3 Result Responses Part 2

Figure 1. Social development themes.

The survey results provided preliminary evidence one year later of the positive influence of an adventure-based program on social goals and enhancement of social interaction skills for pre-adolescent girls. In addition, the results build upon previous research that shows that outdoor adventure-based interventions promote healthy developmental patterns in pre-adolescents (Eatough, Chang, Hal, 2015; Galeotti, 2015; Whittington et. al, 2011). Both the parents' quantitative and qualitative results support the longevity of social skills implemented into several other environments outside of the original outdoor, adventure-based program one year later. Overall, these findings can be used as a guide for occupational therapy clinicians to replicate a program that promotes social interaction skill strengthening using team building exercises and group reflection.

Limitations and Implications for Future Research

The limitations and implications for future research include the following:

- The opportunity for the 2017 *Adventure Girl* participants to reconvene a month or two after the program ended in 2017 to follow up.

- Asking the 2017 *Adventure Girl* participants if anything had changed for them, were they trying anything new, what areas were or weren't working, etc. Doing so may have helped cement ideas from the program the researchers introduced in the Fall of 2017.

- Asking parents/caregivers specifically about their daughters' extra-curricular groups and the connection to social development skills from Adventure Girls. This may develop more qualitative responses from the parents in relation to social development.

- Sending a survey to parents/caregivers shortly after the *Adventure Girl* program to gain their perspective of their daughter's social development. Also, a pre-survey may help gain insight and perspective from the caregivers about their daughter's social development skills at baseline.

Conclusion

Based on parent/caregiver perceptions, mature social interaction strategies within pre-adolescent girls were utilized in other environments one year after participating in an adventure-based program. The parents/caregivers mentioned skills focusing on independence, leadership, confidence, and forming new friendships. Mature social interaction strategies among pre-adolescent girls carried over to daily, personal environments (school, home, sport teams). Further research of an occupational therapy adventure-based program for pre-adolescent females is needed and highly encouraged in the community.

References

American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process. *American Journal of Occupational Therapy, 68*(Suppl. 1), S1–S48. doi:10.5014/ajot.2014.68200

Baker, M., Hubert, B., Rossi, J., & Richardson, E. (2018). An investigation of social development and demonstration in pre-adolescent girls within in the context of an outdoor adventure-based setting (PPT).

Bathurst, T., Lauer, K. (2017) The impact of an adventure-based program on self-concept and social interaction skills in female adolescents (PPT).

Bloemhoff, H.J. (2012). High-risk adolescent girls, resiliency and a ropes course. *African Journal for Physical, Health Education, Recreation and Dance*, 18(3), 128-139.

Currie, C., Zanotti, C., Morgan, A., Currie, D., de Looze, M., Roberts, C., Samdal, O., Smith, O., & Barnekiw, V. (2012). Social determinants of health and wellbeing among young people. Health behaviour in school-aged children study: international report from the 2009/2010 survey. Copenhagen: World Health Organization.

Dobud, W. (2016). Exploring adventure therapy as an early intervention for struggling adolescents. *Journal of Outdoor and Environmental Education, 19*(1), 33–41. Retrieved from http://eds.a.ebscohost.com/eds/pdfviewer/pdfviewer?vid=11&sid=78b8080d-7b30-463d-9824-7c0dffc683bf%40sessionmgr4010&hid=4203

Eatough, E., Chang, C., Hall, N. (2015). Getting roped in: Group cohesion, trust, and efficacy following a ropes course intervention. *Performance Improvement Quarterly, 28*(2), 65-89. doi: 10.1002/piq.21183

Galeotti, S. (2015) Empowering Pre-Adolescent Girls. *Journal of Experiential Education, 38*(4), 407-423. doi: https://doi.org/10.1177/105382591560357

Healthy People 2020. (2017). Adolescent health. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health

Law, M., Cooper, B., Strong, S., Stewart D, Rigby, P., & Letts, L. (1996). The Person-Environment-Occupational Model: A transactive approach to occupational performance. *Canadian Journal of Occupational Therapy*, *63*(1), 9-23.

Mirkin, B. & Middleton, M. (2014). The Social Climate and Peer Interaction on Outdoor Courses. *Journal of Experiential Education. 37*(3), 232-247. doi:10.117/1053825913498370

Moos, R. (2002). Group Environment Scale: Manual, instrument and scoring guide. Palo Alto, CA: Mind Garden, Inc.

National Institute of Mental Health (NIMH). Child and adolescent mental health. Retrieved from: https://www.nimh.nih.gov/health/topics/child-and-adolescent-mental-health/index.shtml

Ryan, A., & Shim, S. (2008). An Exploration of Young Adolescents' Social Achievement Goals and Social Adjustment in Middle School. *Journal Of Educational Psychology*, *100*(3), 672-687

Ryan, A. M., & Shim, S. S. (2006). Social achievement goals: The nature and consequences of different orientations toward social competence. *Personality and Social Psychology Bulletin*, *32*(9), 1246-1265. doi: 10.1177/0146167206289345

US Department of Health and Human Resources (HHS). (2016). Mental health. Retrieved from: https://www.hhs.gov/ash/oah/adolescent-health-topics/mental-health/home.html

Whittington, A., Mack, E.N., Budbill, N.W., McKenney, P. (2011). All-girls adventure

programmes: What are the benefits? *Journal of Adventure Education and Outdoor

Learning, 11*(1), 1-14. doi:10.1080/14729679.2010.505817

Widmer, M.A., Duerden, M.D., & Taniguchi, S.T. (2014). Increasing and generalizing self-

efficacy. *Journal of Leisure Research*, *46*(2), 165-183.

doi:10.1080/00222216.2014.11950318

Appendix A

Adventure Girls Parent Qualtrics Survey - 2019

Hypothesis: One year following the conclusion of an adventure-based challenge course program, parents/caregivers of the participants will perceive sustained maturation/growth of social development and competence.

Please respond to the following statements using the Likert scale below:

SA=Strongly Agree A=Agree U=Undecided D=Disagree SD=Strongly Disagree

Statement: Since participating in the *Adventure Girls* group in Fall 2017, my daughter has been MORE LIKELY to do the following:	Response
1. Try to figure out what makes a good friend.	SA A U D SD
2. Find it important to learn more about other kids and what they are like.	SA A U D SD
3. Try to develop her social skills.	SA A U D SD
4. Feel successful when she learns something new about how to get along with friends.	SA A U D SD

Please provide examples of your daughter's social development (competence with peers, self-improvement, personal growth, openness to new ideas) based on how you answered the questions above:

Statement: Since participating in the *Adventure Girls* group in Fall 2017,	Response
1. My daughter feels more confident in her ability to speak up in groups.	SA A U D SD
2. My daughter is more likely to interact with others she does not know in class.	SA A U D SD
3. My daughter is more likely to assume a leadership role when presented the opportunity.	SA A U D SD

What were the most significant changes you saw in your daughter following participation in the *Adventure Girls* group?