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Wilderness-Based Therapy with At-Risk Youth: The Impact Upon Conflict Resolution, Communication and Community

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The purpose of this interpretive case study was to explore the perceptions and attitudes of at-risk-youth subsequent to their participation in an experiential learning wilderness program. Thirty-three male participants aged 11-14 participated in the study. Findings are based on a thematic analysis of qualitative data gathered through semi-structured interviews within the framework of resiliency theory. Results indicate favorable perceptions and attitudes for activities within the program and for the themes of communication, conflict resolution, and community engagement, and a sense of resiliency against challenges. These constructs are described in the Youth Risk Program Evaluation Tool (YARPET) and the literature review as typically targeted youth development objectives for adventure-based youth-at-risk programs. Theoretical and practical implications for experiential programming include concepts of resiliency, risk, and protective factors.

Keywords: Wilderness therapy, adventure therapy, resiliency, at-risk youth, positive youth development.

WILDERNESS-BASED THERAPY WITH AT-RISK YOUTH: THE IMPACT UPON CONFLICT RESOLUTION, COMMUNICATION, AND COMMUNITY

The United States imprisons the highest number of juveniles under 18 of any developed country in the world, with approximately 50,000 imprisoned daily (OJJDP, 2018). Formal detention costs the nation more than \$8 billion a year (Petteruti, Schindler, & Ziedenberg, 2014) resulting in “substantially lower high school completion rates and higher adult incarceration rates, including for violent crimes” (Aizer & Doyle, 2015, p. 759). These statistics remain steadfast, even as experts, politicians, and other stakeholders express the need for effective prevention programs that will increase resiliency from delinquency. Resiliency, described as a positive adaptation in the context of significant adversity of risk, can be used to develop positive attitudes and habits that lead to . . . (Zimmerman, 2013; Masten & Reed, 2002 p. 75). One such preventive program found by developmental researchers to promote positive development is wilderness-based therapy (WBT) (Beightol, et. al., 2012; Nekkule & Tushalis, 2010;

Zimmerman, 2013; Lubans, Plotnikoff, & Lubans, 2012;). WBT is an experiential learning program that services at-risk youths by bringing them into a supportive wilderness experience incorporating skill-building, healthy risk-taking, and challenging therapeutic activities. As part of the therapy, individuals participate in outdoor challenges that necessitate developing and drawing upon a variety of skills such as communication, conflict resolution, empathy, and teamwork as protective factors as they interact with their environment. (Beightol, et al., 2012; Lubans, Plotnikoff, and Lubans, 2012; Neill, 2003; Neill, 2012; Zimmerman, 2013).

However, there is limited qualitative data regarding the influence of WBT on youths' perceptions and attitudes toward this process and their resulting resiliency (Booth & Neill, 2017; Zimmerman, 2013).

This study uses the Youth at Risk Program Evaluation Tool (Neil, 2012) and a resiliency framework. This framework identifies community attachment, conflict resolution, and communication as areas of focus regarding the attitudes and perceptions of the youth participating in the wilderness program. These constructs are empirically proven to be commonly targeted outcome areas within a WBT for building skills and protective factors that can lead to healthy growth (Neill, 2012; Neil, Marsh & Richard, 2003a). However, more research is needed to understand how these challenging activities affect participating youth's attitudes and perceptions of augmenting skills then drawing on those skills to build resiliency (Booth & Neill, 2017; Zimmerman 2013; Armour et al., 2012; Lubans et al., 2012). Therefore, the purpose of this study is to explore the at-risk-youths' attitudes and perceptions of the challenges they faced while participating in a WBT. This study is specifically focused on how they processed those encounters within the constructs of conflict resolution, communication, and community attachment.

LITERATURE REVIEW

Wilderness-based therapy and resiliency theory provides the framework for understanding successful youth intervention strategies. In the following section, we outline what WBT is, the theoretical background of WBT, the tools commonly used to measure program success for WBT, and resiliency theory. Finally, we provide justification for a qualitative study on at-risk youths participating in WBT.

Wilderness-Based Therapy

Wilderness-based therapy is an outdoor experiential program that services at-risk youths by bringing them into a supportive wilderness experience, which can build skills and resiliency through outdoor challenges and other therapeutic activities. (Ewert, McCormick, & Voight, 2001; Zimmerman, 2013). Developmental researchers have found that wilderness programs can promote positive youth development through skill-building, experiential learning, and healthy risk-taking, which can build a resiliency against commonly recognized risk factors related to social and environmental conditions (Beightol, et al.,2012; Neill, 2003; Lubans, Plotnikoff, and Lubans, 2012; Neill, 2003; Zimmerman, 2013).

Meta-analyses on wilderness programming have shown an overall positive effect on a youth's academic performance, motivation, self-concept, and interpersonal skills (Cason & Gillis, 1994;

Hattie, Marsh, Neill, & Richards, 1997). Lipsey and Wilson (2000) found a reduction in delinquency by about eight percent, dependent on the intensity of the program. Furthermore, the results indicated that treatment groups showed a statistically significant reduction in antisocial and delinquent behavior. Similarly, Gillis et al., (2016) conducted a meta-analysis of treatment outcomes between wilderness and non-wilderness programs; established a larger effect size for the treatment group under the Youth Outcome Questionnaire; and Youth Outcome Questionnaire Self Report methodology.

Despite its success, the methodological rigor and program evaluations of wilderness programs are of major concern (Bandoroff, 1989; Cason & Gillis, 1994; Clem, Prost, & Thyer, 2015; Gass et al., 2012; Jones, Lowe, & Risler, 2004). Many programs are private and thus can be selective of their population. Additionally, with the uniqueness of each program, either from their environment or from activity selection, congruency issues arise, making research difficult. Therefore, there is a need for more research on how these activities and the processes meant to build protective factors and resiliency are perceived (Armour et. al., 2012; Booth & Neill 2017; Lubens et al., 2012; Zimmerman, 2013).

Risk and Protective Factors

Youth are susceptible to negative and positive influences during their development that can create risk factors for delinquency or protective factors for resiliency. Risk factors are character development traits that emerge during a youth's childhood and affect the propensity for later offending (Farrington, Loeber, & Ttofi, 2012; Loeber, Farrington, Stouthamer-Loeber, & Van Kammen, 1998). Protective factors decrease the likelihood of a youth's willingness to engage in risky behavior by building resiliency. Adolescents are subjected to a variety of risk and protective factors throughout their youth, which is influenced by the quality and quantity of institutions and individuals present in their lives.

More specifically, risk factors assess whether a youth is susceptible to offending or re-offending due to their status (Sullivan & Latessa, 2011). Risk factors are split into two broad categories: static and dynamic. Static risk factors are specific characteristics which cannot be changed such as ethnic status, parental status, and sex (Cottle, Lee, & Heilbrun, 2001; Minor, Wells, & Angel, 2008). Dynamic risk factors are those that change with the child's environment such as school motivation, confidence, social skills, and peer relationships. Risk factors are categorized into five domains: individual, family, schooling, community, and peers (Day, Wanklyn, & Yessine, 2014; Leschied, Chiodo, Nowicki, & Rodger, 2008; Loeber et al., 2009; Tanner-Smith, Wilson, & Lipsey, 2013). Conversely, protective factors reduce the probability of harmful effects risk factors may cause. Protective factors teach and show youths the benefit of building positive relationships to avoid consequences and engender bright futures (West & Crompton, 2001).

Youth-At-Risk Program Evaluation Tool (YARPET)

Built from the foundation of the Life Effectiveness Questionnaire, the YARPET provides youth development objectives and surveys developed through consultation with a range of youth-at-risk programs and outdoor education organizations, including the Search Institute (2017). The YARPET charts the changes at-risk youths experience after participating in adventure-based or experiential programs (Neill, 2012; Neill, Marsh, & Richards, 2003b). The tool addresses personal, social, community, and environmental growth, which is the focus of many wilderness

programs. This study utilized the YARPET and the aforementioned literature to identify and target the themes of conflict resolution, communication, and community attachment.

Conflict resolution is the ability to avoid and resolve interpersonal and group conflict. Communication is communicating effectively with other people in interpersonal and group settings. Community attachment is defined as meaningful engagement with the community. (Neill, 2012). Wilderness programs target these empirically-supported constructs to build skills that can lead to resiliency and healthy growth (Zimmerman, 2013; Neill, 2012; Neil, Marsh & Richard, 2003a).

One of the key areas for developing resilience towards delinquency is conflict resolution. Noakes and Rinaldi state, "A peer's ability to interact and resolve conflict with one another exemplifies a positive skill set" (2006, p. 889). A youth's ability to resolve social conflict shows positive behavior, confidence, communication skills, and adaptation. Moreover, a child's ability, or lack thereof, to resolve conflict correlates with their communication skills.

The ability to communicate well with their peers and elders bodes well, as this allows a child to form appropriate social bonds. The involvement in prosocial activities and social skills is associated with protective factors (Katz & Fox, 2010; O'Brien, Daffern, Chu, & Thomas, 2013). Engagement in prosocial activities leads to a positive identity formation as well as confidence. Research supports the notion that using social skills develops confidence and adaptability as youth form positive relationships with peers and engage in positive activities (Brooks, 2006; Dishion et al., 2010; Eccles, 1999; Najaka, Gottfredson, & Wilson, 2001; Wang, Haertel, & Walberg, 1998).

Conversely, anti-social behavior is a strong predictor of delinquency and further developmental problems (Day et al., 2014; Noakes & Rinaldi, 2006; Peck, Davis-Kean, Schnabel, Malanchuk, & Eccles, 1999). Failure to adapt to peer relationships is linked to poor academic performance and problematic behaviors (Dishion, Veronneau, & Myers, 2010). Social adaptation and communication between peers are easily overlooked when examining why juveniles commit offenses. Rejection from one's peers can make a child feel isolated and vulnerable to negative outside influences (Noakes & Rinaldi, 2006; A. J. Rose & Asher, 1999). Communication is an important asset in a child's life when it comes to building resiliency.

Previous studies have documented the potential risks and strain an adverse environment has on a young child. A child's future can be shaped by the environments and institutions (school, daycare, after-school activities) that surround them. Eckert (1989) found that a child's group identity is linked with their childhood activities. Previous findings suggest that disadvantaged neighborhoods affect youths with few protective factors the most, especially if they are male. (Loeber & Wikstrom, 1993; Stouthamer-Loeber, Loeber, Wei, Farrington, & Wikstrom, 2002).

While a youth's environmental background may contribute to various problems, their environment can also serve as a protective factor depending on the institutions and social bonds in the surrounding neighborhood (Richman & Fraser, 2001; Jozefowicz-Simbeni & Allen-Meares, 2002; as cited in Brooks, 2006). The community serves as an informal resource for the child. The family is the primary factor for preventing delinquency in youths, and their

connection to the community serves as a proper influence while promoting opportunities for youth through various institutions (Katz & Fox, 2010; Brooks, 2006; Jessor, 1991).

Theoretical Framework

Researchers have observed that youth need to acquire a set of protective factors that they can draw upon to face risky or challenging situations positively (Booth & Neill, 2017; Zimmerman 2013). Protective factors enable youths to deal positively with adverse situations and avoid delinquency. The ability to recover quickly from poor situations is known as resiliency.

Resiliency theory provided the comprehensive framework and research design of this study. Henderson and Milstein define resilience as “the ability to recover from negative life experiences and become stronger while overcoming them” (Henderson and Milstein, 1996, p.1.). Resilience research has evolved from being solely focused on the individual to considering the environmental and associated risk and protective factors (Child Family Community Australia, 2012). Resiliency theory conceptualizes the process of building skills that one can draw upon when confronted with adverse or challenging conditions during development (Zimmerman, 2013). The focus is on building protective factors rather than reducing the risks or deficits that one may encounter within a social or environmental context (Fergus and Zimmerman, 2005). Fergus and Zimmerman (2005) also describe two types of promotive factors: assets and resources. “Assets” describes internal attributes, such as self-efficacy and self-esteem, while “resources” refer to external mechanisms that can provide opportunities to build protective factors that can lead to resiliency. WBT is considered a resource for this type of positive, skill-building resiliency (Cotton & Butselaar, 2013; Glass, Gillis & Russell, 2012; Lubens et al., 2012;).

Likewise, resiliency theory moves away from being problem-focused to strength-focused and considers resiliency a process rather than a single trait. According to Zimmerman (2013), the type of risks youth will face are complex, and to be resilient against them, one needs to rely on a multitude of strengths for any given situation. It is this process of drawing upon skills cumulatively that resiliency is grounded in.

Youth intervention programs that build protective factors can serve as a resource that supports resiliency (Zimmerman, 2013). There are many benefits to participating in adventure education programs, such as personal growth and group development skills, which can potentially increase resiliency (Booth & Neill, 2017; Zimmerman, 2013).

In developmental literature, researchers explore individual responses to risk, who believes that resiliency fosters healthy growth by building protective factors (Bonanno, 2004). Greene et al. (2002) attribute positive coping and persistence to resiliency. Whittington et al. (2016) conducted a study of 87 adolescent girls participating in adventure programming that included risk taking and physical activities. Pre- and post-tests were conducted and indicated a significant increase in resiliency around developmental needs after completing the program. That resiliency even persisted over time.

Margalit and Ben-Ari (2014) investigated the process of developing cognitive autonomy and self-efficacy in 93 at-risk adolescents aged 14-16 through participation in adventure

programming and self-evaluation. The researchers administered pre- and post-surveys at the beginning and end of six months of participation and an additional follow-up survey five months after completion of the program. Their findings suggest that “participation in an adventure program may provide adolescents with the capacity to tackle decision-making dilemmas in a successful, constructive manner” (p. 194). They also recommended that future studies examine cognitive autonomy and ego-resiliency.

Ewert and Yoshino (2011) conducted an exploratory study with a mixed methods approach that included semi-structured interviews regarding the impact of WBT on college students after their participation in a three-week adventure education expedition. Themes such as social support, confidence, responsibility to others and achievement emerged as factors contributing to a significant increase in resiliency.

At-risk youth are at a crossroads of either reacting negatively to risky and potentially adversarial situations or responding appropriately by drawing from a developed skill-set for healthy growth (Rutter, 1987).

Challenge Model of Resiliency Theory

The notion of perceiving risk and potentially adversarial conditions as a positive challenge that can be overcome by focusing on one’s strengths is grounded in the challenge model of resiliency theory.

The challenge model explains how promotive factors may counteract the negative effects of risk. Rutter describes how the challenge model shows the way promotive factors may operate for encouraging youth development (2007). The challenge model suggests that a risk factor presented as a challenge in a positive, manageable way can enhance a person's coping skills by allowing them to focus on their strengths to overcome it. In a sense, the challenge model of resiliency exposes at-risk youth to situations, whereby skills need to be developed and applied to achieve the task successfully. This process helps individuals overcome other challenging or adversarial events in the future. (O’Leary, 1998; Zimmerman, 2013).

Booth (2015, as cited in Booth & Neill, 2017) found that cognitive reframing of risk and presenting potentially adversarial situations as challenges and positive experiences could lead to healthy growth and nurture resiliency. He also found that encouragement from staff and peer role models to implement proactive coping responses is also important for the development of resiliency.

Booth and Neill’s (2017) meta-analysis of experiential studies revealed that although there is “promising although somewhat varied evidence about the effect of outdoor education programs on participants’ resilience, initial evidence indicates small to moderate positive effects.” (Booth & Neill, 2017, p.50). The authors continue, “There is not much known about how to enhance the development of resilience in outdoor education programs,” that would lead to the building of promotive factors and healthy positive growth (Booth & Neill, 2017, p.51).

Resiliency theory and its associated challenge model provide a useful framework for considering how the development of promotive factors through challenges may encourage positive youth

development. However, researchers agree that more research is needed to understand how these challenging activities affect participating youths' attitudes and perceptions of augmenting skills and drawing off of those skills to build resiliency (Armour et. al., 2012; Booth & Neill, 2017; Lubans et al., 2012).

With this in mind, this study explores the attitudes and perceptions of at-risk-youth participating in an outdoor wilderness program. It is specifically focused on the challenges they faced and how they processed those encounters to build protective factors such as communication, conflict resolution, community attachment, and overall resiliency.

METHOD

This study includes a preservation agency that services at-risk youths through WBT. It is privately funded and owns over 8,500 acres of wilderness in the Northeastern United States. The agency provides various wilderness activities such as hiking, building, rope climbing, and camping, while the staff supervises and offers encouragement and support. Current staffing to at-risk youths ratios is a minimum of one staff member for every eight children through all grade levels (sixth, seventh, and eighth). The children are introduced to the program at the beginning of sixth grade and visit about 15 times during the school year. Activities take between four to six hours to complete, depending upon the curriculum for that day.

Sample

We contacted this local agency and they agreed to participate in the study. We informed them of the purpose of the study and the procedures we would use when interviewing the participants, including obtaining permissions from both parents and children.

This study employed purposive sampling, so all participants were chosen based on similar criteria. Each participant was ensured total anonymity and confidentiality, and all parents and guardians were contacted to provide informed consent. All students of the school (n=31) were asked to participate due to similar characteristics, attendance in the program, and objectives of the study. All 31, with parent/guardian permission, agreed to participate in the study. The grade distribution was almost identical. Of the 31 respondents, 10 were sixth graders (11-12 years old), 10 were seventh graders (12-13 years old), and 11 were eighth graders (13-14 years old).

All of the participants attend a charter school for underprivileged youth based primarily on socioeconomic status and adversarial environmental conditions. The participants were residents of a 3.8 square mile city with a population around 30,000 people. Average household income was around \$33,125 with 34.4% of the 30,000 residents living in poverty. Minority groups made up more than 50% of the impoverished population. The ethnic makeup of the city was 49.8% Hispanic, 20.3% White, 25.4% African American, and 4.5% Other. For the year 2012, about 51% of the students were living in poverty. The schools in the area held low test scores relative to the state, with an average of 61 out of 100 on the performance index.

For this research study, we define at-risk juveniles as youths who are at risk of not achieving education goals, exhibiting behavioral problems, and whose family and community members place them at risk. In addition, adolescents who are at risk are primarily defined as such due to

their vulnerability to unfavorable environmental conditions and dissatisfactory performance in school.

We administered semi-structured individual interviews with each of the participants. These interviews lasted approximately 15-20 minutes and began with general, open-ended questions regarding their perceptions and attitudes about the program. We then focused on the themes of community attachment, communication, and conflict resolution, as they related to program participation. According to the Youth at-risk program Evaluation tool (YARPET), these constructs are considered youth development objectives to promote healthy growth.

The Rationale for Qualitative Research

The authors acknowledge that there is value in both qualitative and quantitative research. However, a qualitative analysis gives a better understand the perceptions and attitudes of the participants' experiences going through a WBT. According to Saldana & Omasta (2017), when seeking an individual's perceptions, attitudes, and experiences, "interviews can reveal deep meanings and interpretations" (Saldana & Omasta, 2017, p. 146). The authors felt that semi-structured interviews with the youth could be more revealing and useful for further research. The purpose of this interpretive case study was to explore the perceptions and attitudes of at-risk-youth following their participation in an experiential learning wilderness program. An interpretive case study approach (Bryman, 2012) was used by the researcher to examine the meaning of these experiences to the subjects themselves to formalize experiential knowledge and thus promote future research for healthy growth amongst at-risk youth.

Measurements

This study utilized the YARPET and the aforementioned literature to pinpoint the focus of the interview: the themes of community, conflict resolution, and communication as objectives to focus on regarding the attitudes and perceptions of youth participating in a wilderness program. These constructs have been empirically supported as being commonly targeted outcome areas within a WBT for building skills that can lead to healthy growth (Neill, 2012, Neil, Marsh & Richard, 2003a).

Procedure

Before each interview, the adolescents were informed of the purpose of the study and were advised that participation was voluntary. The conversation began with general questions regarding the interests of the participants, their involvement in after-school activities, and their overall perceptions of their relationships with their friends, school, families, and communities. Attitudes and perceptions about the program and their participation were similarly discussed, and follow-up questions were asked only when necessary to achieve better understanding and clarity. This was done to glean additional insight into the youth's environment, identify themes without prompts, and to have the youth feel at ease.

Questions then focused on the specific themes of communication, community involvement, and conflict resolution. If these themes were not previously brought up organically by the participant, the study participants were prompted on these constructs with the following questions: "Do you feel your ability to communicate with others has changed since you began the program?" "Do you feel your ability to resolve conflict with others has changed since you

began the program?” “Do you feel your attachment and involvement with your community has changed since when you began the program?” If the participant indicated a change, he/she was then asked, "How? And what would you attribute it to?" The interviewer would provide further clarification of the questions if necessary and would ask the participant follow-up questions if further explanation was needed. It should also be noted that the interviewer only rephrased a question if a participant needed further clarification of the original question. For example, if the participant was not sure about the meaning of the term “conflict”, an alternative phrase such as "when in disagreement" was offered for clarity. The participants were asked at the end of the interview if they noticed any other changes in themselves and if they had anything else they wanted to share. Particular attention was given not to lead the participant into a specific response and to avoid social desirability bias or participant compliance.

Analysis

This study employed a thematic analysis through descriptive in vivo coding and analytical formatting. This coding method utilized the youth's language for qualitative data analysis. The recorded interviews were transcribed by both researchers, compared to ensure accuracy, and categorized based on words or phrases that stood out, were shared, or were related to the pre-determined themes of communication, community attachment, and conflict resolution. For example, coded statements involving phrases such as: we started listening; talking seemed to prevent arguing and fighting during activities were then coded as “listening”, “arguing avoidance”, “fighting avoidance” and in a final stage, were conceptualized and put into the categories of conflict resolution and communication. During the final data analysis, we compared the collected data with data from other studies as well as the theoretical framework presented, all of which provided for the findings in this study.

FINDINGS

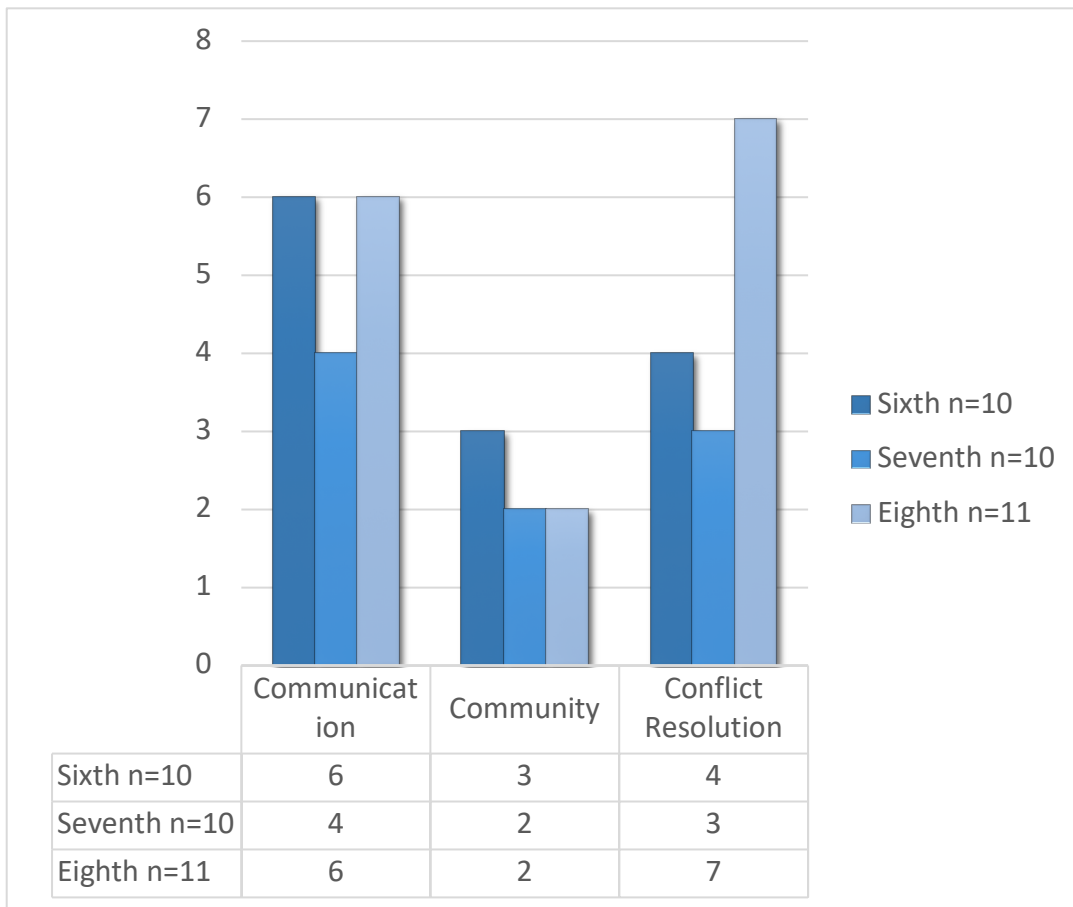
This study sought responses from at-risk youth after participation in WBT with a particular focus on three recognized protective factors of WBT: communication, conflict resolution, and community attachment (Day et al., 2013; Development Service Group, 2015; Neil, 2012; OJJDP, 2015). Based on our data analysis, many of the participants across all grade levels conveyed favorable perceptions and attitudes toward challenges they faced and attributed positive changes in how they dealt with those challenges to the activities they performed during the program.

Changes in participants’ perceptions and attitudes toward communication regarding its importance as a protective factor and the associated activities that led to this change were shown to be greatly impacted. Based on our thematic analysis of individual interviews, overall, 16 out of 31 (52%) of participants spoke about either a change or an increase in their communication skills and described how it was developed by specific activities and support within the program. Twelve out of 21 (57%) of sixth and eighth graders revealed a change or an increase in their communication skills. Perceptions and attitudes about being involved with their community revealed less change by participants due to activities within the program. Seven out of 31 participants (23%) indicated thinking of community as being important or useful to them because of participation in the program. However, participants did indicate that, because of the program, they became involved with their community or have plans to be. Sixth graders indicated this the

most, with three out of 10 participants (30%) reporting strengthening their connection to their community.

Amongst all grades, perceptions, and attitudes toward development and applicability of conflict resolution skills revealed 14 out of 31 (45%) participants indicating changes. However, a much greater degree of change was shown in eighth grade, with 7 of 11 (64%) participants indicating favorable attitudes and perceptions about their participation in the program as it related to this construct.

Figure 1. Between grades positive responses to changes in Perception & Attitude



Interview results by grade

Interviews started with a general discussion about the participants themselves and their attitudes and perceptions regarding the program in general. The questions then focused on the specific protective factors of communication, community involvement, and conflict resolution. All responses were explored in great detail to discover how they related to themselves and their perceptions, any other themes, and the overall impact of the program. In some cases, the specific themes of community attachment, communication, and conflict resolution did not arise organically and required prompting from the interviewer. Others indicated no change or did not

attribute the change to the program. For example, some students indicated that they did feel a change, but did not know what to attribute it to, while others indicated no changes:

“I don’t know what I would attribute it to, but, yea, I think I communicate better and, like, talk more.” (Interview Tom, 7th grade)

“I don’t think I talk and communicate better.” (Interview Jan, 8th grade)

However, participants often referred to an ability to draw upon challenging experiences within the program as allowing them to develop and apply certain skills to be successful, including those associated with the below themes.

Conflict resolution

Changes toward resolving conflict and its usefulness during challenges were much lower amongst sixth- and seventh-grade participants but greatly increased amongst eighth graders, who had been in the program for three years (Figure 1). This runs counter to the national norm, in which conflict with peers has shown to increase with one’s grade level (Eccles & Barber, 1999; Noakes & Rinaldi, 2006).

Participants indicated that there were possible confrontations that were avoided due to the nature of the exercise. For example:

“Yeah because (the activities) made us, like, actually listen to each other and talk about the situation and not, like, start a fight or anything.” (Interview, John, 8th grade).

John and others explained that situations that may otherwise have led to confrontation were avoided due to the activity and their shared desire to complete it. It seemed that the encounter forced the participants to realize that the challenge would not be completed successfully if a fight ensued. The youths realized there were other ways to resolve the situation, such as by listening and working together. Participants also noted their initial responses regarding resolving conflict during the activity:

“Uh, yeah, because I had a problem with a friend a little. Like, we didn't get along with each other and argued over where to climb and we just stopped climbing....” (Interview, Phillip, 8th grade)

However, this seemed to change as the program went on according to the participants’ description of developing skills to avoid conflict:

....but next time when we were hiking and I wanted to go near the rocks, we didn’t want to just stop and not do it, not complete it, so we were talking and stuff, now We, like, talk more and we are not arguing. We didn’t need to argue and we finished it. (Cont. Interview, Phillip, 8th grade)

Phillip’s statement aligned with other participants who indicated changes, many of whom described drawing on multiple skills such as teamwork and communication to resolve conflict

within a given challenging activity. For example, they talk about their attitudes and perspectives changing regarding the importance of communication:

Especially during the three-day camping trip, I got to really talk (communicate) with people and it worked, we made tents and got through it. I know before that, we, like, faced a couple of bad scenarios, and all I remember was feeling- really hoping my class would, like, get along (interpersonal skills) and get all of them done.”
(Interview, Andrew, 8th grade)

I think, yeah, we got more along and didn't fight during the activities when we tried to communicate better, talking more, and be a team. (Interview, Abel, 7th grade)

Yeah, I thought it (the hikes) helped me because, like, I had to actually speak. Like, I can actually have a nice conversation and I'll, like, let them talk and they let me talk and meet in the middle instead of people doing their own thing.
(Interview, Frank, 6th grade)

Factors such as teamwork, communication, and other interpersonal skills all appeared to be used collectively by participants when trying to resolve conflict arising out of challenges. These skills seem to have a cumulative effect, which can promote positive growth and build resiliency. This process that the participants seem to be utilizing is supported by resiliency theory, whereas resiliency is not to be thought of as a single trait, but a process that allows one to draw from multiple protective factors when faced with any kind of confrontational or challenging event.

Communication

Communication skills showed the strongest improvements amongst the participants. Those improvements were consistent across all of the grades, however, didn't improve as much in seventh-grade participants (Figure 1). “The ability to communicate and possess interpersonal skills is essential to avoid destructive behavior and can also serve as a risk factor when antisocial behavior occurs” (Noakes & Rinaldi, 2006, p. 889). Students sometimes characterized the activities as forcing them to communicate to be successful or, in some cases, avoid getting hurt. For example:

I communicate better now because when you were hiking, you better communicate, better not fall or, like, trip or fall on rocks or poison ivy, so you better talk to each other and like say the rocks are slippery, so you help each other. (Interview, Chuck, 8th grade)

Students attributed favorable perceptions and attitudes and improvement of skills due to activities in the program.

Richard et al. (2005) stated: “Getting dirty is part of a child's successful and happy development...children's outdoor play promotes their adaptation to their world, their risk-appraisal skills and their sense of balance between proper independence and social understanding” (as cited in Tekin, 2010, p. 647). Participants indicated that they perceived the activities as being real and that their actions would affect the real-life situation they were in at the time and will encounter in the future:

...when we were building the houses, we decide who had to get the logs and everything. We had to also figure out how we had to make it (the house) in real life. At first, there was

no talking and nothing was getting done, so it forced us to talk with each other to get it done and why its (talking) is good in life. (Interview, Marc, 8th grade)

These activities also seemed to increase understanding of the importance and use of strong communication skills, as well as the importance and use of teamwork to be successful:

...making stuff like the tent, we couldn't do it by ourselves, we had to like work together, so it kind of helped me. (Interview, Shane, 7th grade)

Yes, because you have to work as a team with your team because, like, if you just do your own thing, that won't even help. A kid tried finding animals all by himself and it didn't work, when we did it together; we found them. (Interview, Eric, 6th grade)

Participants spoke about working together and the development of their communication skills to complete challenges and tasks. These types of interactions are suggested to promote healthy development in children. Walsh (2009) states that “children develop through reciprocal interactions between the developing child, the environment, and the behaviors of other people” (Walsh, 2009, p. 25).

Participants further indicated positive attitudes not just toward using these skills now, but in future endeavors as well:

I think I will be able to talk better with more people now because we had to hike and walk through the forest and it helped talking to people to get somewhere, (so now) even though I never met someone, I act and talk to them like they are long-lost friends or something because we had to talk to each other in the activities. (Interview, Chris, 7th grade)

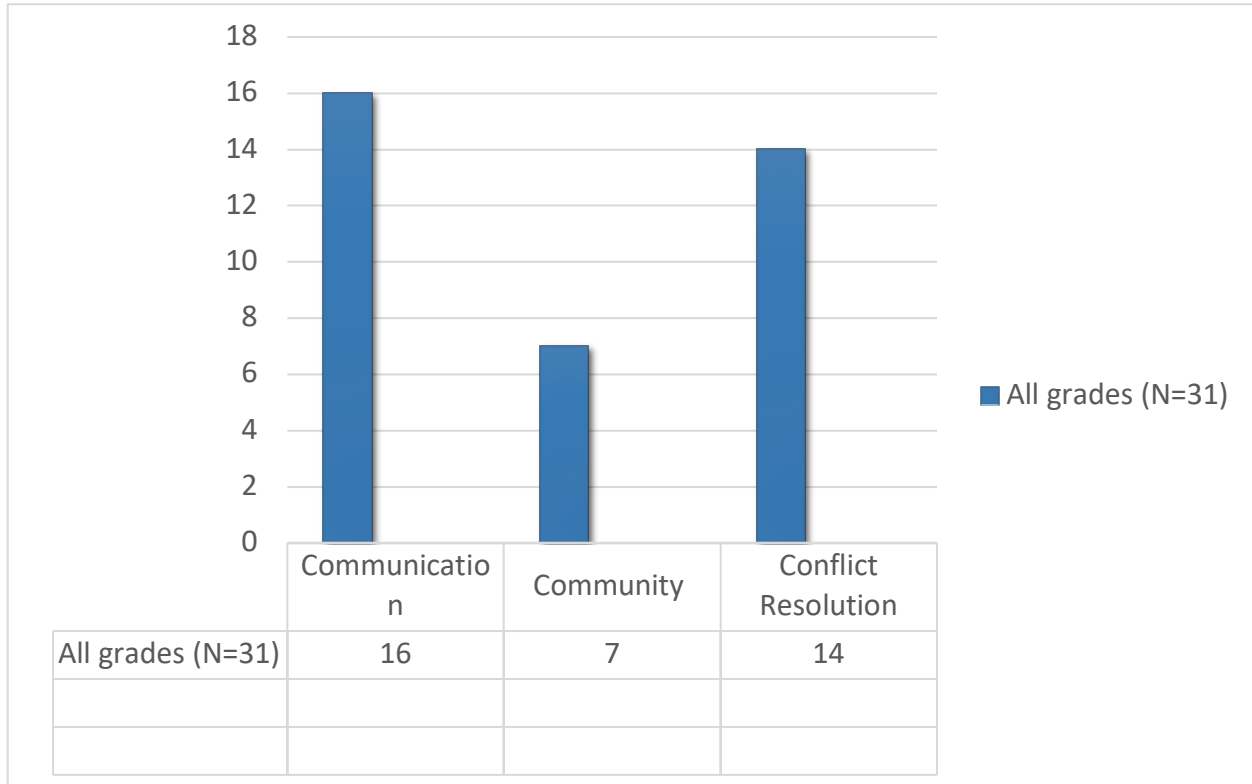
The above statement aligned with many other participant interviews, which referred to the application of skills outside of the program in their daily routines, indicating a resiliency against other confrontational situations. According to resiliency theory, developed skills are important for future growth and can be applied to future adversity. Participants continued to identify some activities that required both individual and teamwork. They found that communication helped resolve conflict without resorting to arguing and, in more challenging activities such as rock-climbing, prevented them from potentially getting hurt. The practice of assigning risky tasks to encourage positive skill building amongst participants led to success in many studies and is grounded in the challenge model of resiliency theory (Russell, 2006; Thurber, Scanlin, Scheuler, & Henderson, 2007). There also seemed to be a desire not only to participate but to overcome the challenge among participants:

Things went better because, basically, you want to complete the activities. We were trying to find building stuff and you need to work as a team to like collect it, so that made me communicate and now I communicate more and more. (Interview, Austin 6th grade)

The challenge model of resiliency theory explains how viewing the event positively also seems to assist individuals in developing and drawing on their protective factors to build resiliency, as opposed to giving up. Participants seemed to perceive even the most difficult tasks positively instead of as a negative experience that would lead to discouragement. This focus on one's

strengths and perception of activities as a positive supports the challenge model of resiliency theory.

Figure 2. Total positive responses of changes in Perception & Attitude



Community Attachment

Participants indicated the least change in attachment and involvement with their community (Figure 2). This may be due to the environmental conditions the participants live in. Most of these communities are socioeconomically depressed, resulting in limited resources to support community engagement. Unfortunately, this lack of bonding with the community can lead to delinquency among the youths within them. “Weak community ties, along with poor social bonds to other institutions has significantly predicted violent trajectory as they serve as risk factors for violence” (Najaka et al., 2001).

When adolescents do not have protective factors, including strong ties with the community, they seek approval from different role models: peers or adults who give them a sense of belonging and acceptance. Social disorganization theory states that focusing on a child’s environment reveals how the community influences an adolescent’s growth and delinquent behavior (Shaw & McKay, 1942). It is essential, therefore, that bonds to institutions, including the community, develop as a protective factor from delinquency. Some participants did indicate immediate changes:

It (the program) helped with my local church or wanting to volunteer sometimes with my uncle and aunt. Sometimes he, like, works over there so he told me to go help them. (Interview, Cameron, 8th grade)

I started helping pick up litter and educating my family about being environmentally friendly like we were taught. (Interview, Jack, 6th grade).

Yeah, I started going--what is it called—like, instead of staying inside with video games, I signed up for this program where you help the church and all of that and then it's this thing where you help recycling and clean up the park every Sunday. (Interview, Julian, 6th grade)

Although there were some participants whose statements aligned with those above, changes in attitudes and actions regarding current involvement with the community seemed to be the least affected of the three areas we explored. However, attitudes toward the environment, feeling closer to it, and wanting to do more in the future was conveyed and attributed to their experiences in the program. Perhaps this was because the community was not supported under current conditions.

Yeah, because I'm thinking that I should get more involved in the future because, like, right now there is like a lot of things. Like, I'm destroying nature. I am going to recycle. (Interview, Barry 7th grade)

During the program, like, it inspired me to participate even more. I eventually want to help with my church and stuff. Like, my church does midnight runs, and we get close, and we give food to the homeless because the poverty is low. (Interview, John, 8th grade)

The majority of participants' responses, however, did not align with Barry or John's responses and indicated no change in attachment or involvement with the community or did not attribute it to the program.

Research on juvenile delinquency has suggested that a youth's lack of strong bonds to their peers and community may lead them to seek approval from poor role models who provide a sense of belonging and acceptance. The notion that strong ties to society will reduce delinquency is rooted in social control theory (Hirschi, 1960). "As social bonds increase in strength, the costs of crime to the individual increase as well" (Miller et al. 2009, p. 79). The theory emphasizes that an individuals' relationships and commitment to society help to control criminality. Overall, participants not only conveyed favorable perceptions and attitudes toward the program but also attributed the development and utilization of protective factors to the activities within it.

DISCUSSION

This study explored the attitudes and perceptions of at-risk youth participating in a wilderness program. Findings revealed positive attitudes and perceptions toward mechanisms within the program and positive changes regarding the importance, development, and utilization of protective factors to be successful. These included community attachment, communication, and

conflict resolution, in addition to other protective factors such as teamwork and other interpersonal skills. Participants indicated changes due to activities such as hands-on educational activities, precarious activities such as hiking and rock climbing, and educational support within the program.

Processing

Even more revealing was the process participants used when faced with a challenge. Participants indicated utilizing the above skills (protective factors) together for many of the activities. These results indicate that protective factors appear to have cumulative effects, which can promote positive growth and build resiliency. This finding is supported by resiliency theory, which describes resiliency, not as a single trait, but as a process whereby an individual utilizes many skills simultaneously to cope with a situation successfully (Zimmerman, 2013; 2005).

This seemed to occur mostly in the areas of communication and conflict resolution (Figure 2). Eighth graders who had been in the program for three school years revealed the most change (Figure 1). While receiving more treatment should produce more effects, it should also be noted that the same number of sixth graders, after only a year in the program, conveyed similar positive effects, a possible indication of the strength of this kind of program.

Additionally, all participants, regardless of years in the program, conveyed minimal effects for community bonding overall, although some individual participants indicated strong effects. As mentioned earlier, this may be due to the lack of supporting resources their communities may offer, or a lack of development from the program. However, with a small sample size, the authors make no generalized assumptions regarding possible causes, other than to point out these effects as possible areas for exploration in further research.

Another key finding is rooted in the challenge model of resiliency theory regarding framing risky situations as challenges and focusing on one's strengths. According to the model, the youth will often perceive adversarial or situational life events, such as poverty or a specific conflict, as a negative or a weakness (Zimmerman, 2013). This model encourages the individual to instead look at it as a positive challenge and focus on their strengths to overcome it and be successful. Participants confronted with precarious events, such as hiking and rock climbing, seemed to demonstrate resiliency by viewing them as encounters that they wanted to overcome. Perhaps because life choices don't often provide immediate results or long-term consequences, not much thought is put into handling them as a youth. However, in these challenges, there is a sense of instant gratification from completing them that provides the youth with immediate credence for this type of resiliency process. It is conceptualized through the challenge model that once instilled through participation in these types of activities, this process can potentially be adopted and utilized throughout one's life. (O'Leray, 1989).

LIMITATIONS

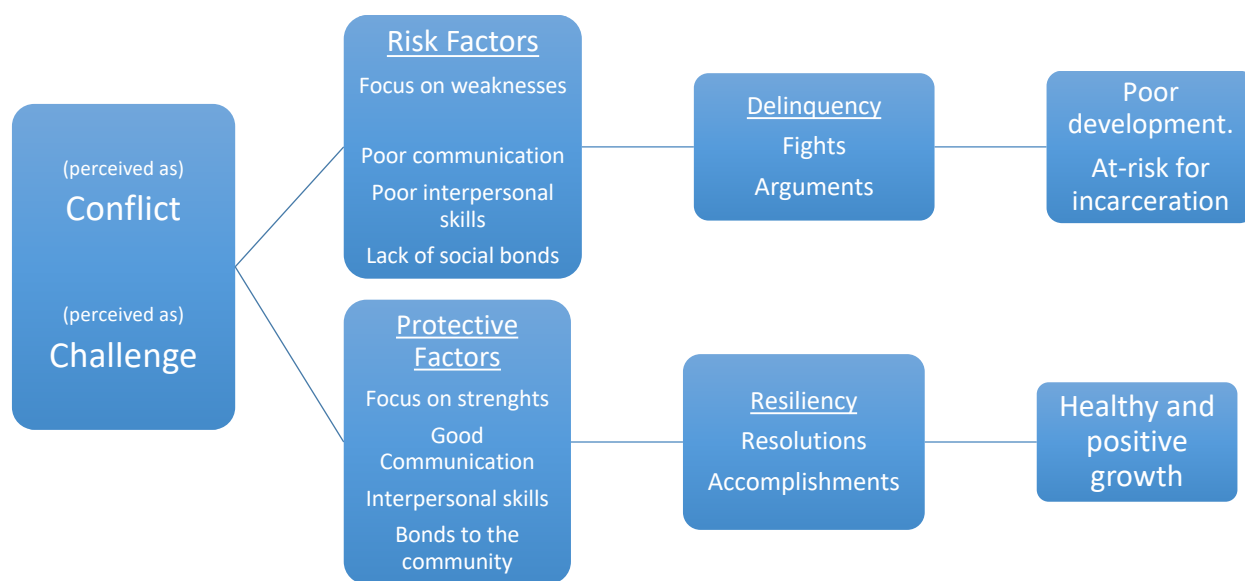
While the authors recognize that a small-sample qualitative study is not representative of the population, and make no general assumptions regarding its results, we do believe there are implications worth considering for future research. A possible limitation of the study was prompting in the areas of communication, conflict resolution, and community attachment.

However, as mentioned, these are part of widely acceptable objectives for youth development and protective factors and suggest further research can focus on other common protective factor objectives for this type of program. We were also unable to conduct pre- and post-interviews, which would have given us more of a baseline to compare the participants' growth. Additionally, the sample was gender-specific (male) and age restrictive (11-14) self-reports, which limits its external validity to the at-risk youth population.

CONCLUSION

Some youth are considered at a greater risk for delinquency due to poor coping skills, which makes it much more difficult to complete life events in a healthy and safe manner. This often leads to poor choices, delinquency, and eventual incarceration. WBTs seek to build the protective factors considered necessary to better cope with life challenges.

Figure 3. Youth's Perception & Attitude Process (as indicated by participants).



This study provides a needed contribution to evidence regarding the effects of a WBT program. Specifically, how youth perceive risk and the process of changing perceptions and attitudes toward protective factors to develop and implement those factors to build resiliency and foster success. This holds particular significance for at-risk youth, whose early decision making can cause serious implications later in life (see Figure 3).

We hope that further examination of the themes in this study, as well as other potential protective factors promoted within wilderness programs that can lead to a resiliency from risks such as self-

confidence and maturity, will continue and eventually lead to healthy development for our most vulnerable youth.

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