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Youths' Perspectives of Experiential Learning Delivery: Findings from a Multistate 4-H Youth Program

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Youths' perspectives are often unexplored in youth program development and implementation. This article examined youths' perspectives of a 4-H youth prevention program called "Health Rocks!" that is designed to promote healthful decision-making skills, stress coping, and socioemotional skills related to substance use. Qualitative and quantitative data were collected and analyzed. Qualitative findings reveal that participants appreciated the fun and engaging curriculum, valued program staff who were interactive, and enjoyed the hands-on program activities. Participants also reported that the program positively impacted their knowledge and skills. Quantitative results show that participants who perceived the program as fun were significantly more likely to report engagement in the program, and participants who had positive views towards the program staff were significantly more likely to report knowledge after the program and engagement in Health Rocks! Findings have broader implications for future youth prevention program development, illustrating the need for engaging adult leaders and program activities to enhance the overall program experience for youth participants.

Keywords: youth perspective, substance use prevention, evidence-based program, program engagement, program evaluation

Introduction

Rates of substance use among youth remain alarmingly high in the United States. Nationally, over 41% of high school students report having smoked tobacco in their lifetime, 66% have used alcohol, and 41% have smoked marijuana (Centers for Disease Control and Prevention, 2014).

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Extension and youth development professionals continue to emphasize the importance of substance use prevention. *Health Rocks!* is a national 4-H curriculum that was developed to prevent youth substance use by increasing knowledge of the impact of substance use, promoting positive social norms, and developing healthful behaviors and life skills. The curriculum was premised on current research and theory on positive youth development (PYD), including the risk and protective framework (Lerner, Phelps, Forman, & Bowers, 2009). Effective delivery of the curriculum involves experiential learning, employing interactive activities to foster critical thinking and reflection. Each activity includes specific objectives and reflection questions relating to curriculum material and activities. *Health Rocks!* has been used in a variety of summer camps, after-school programs, school enrichment programs, and other settings in 15 states and the District of Columbia (National 4-H Council, 2009).

Previous research has found that evidence-based youth programs can have positive influences on the well-being of participants while promoting the knowledge and skills needed for positive youth development (Lerner et al., 2014; Norton & Watt, 2014). However, most adolescent programs and curricula are shaped by the adult perspective and often overlook the perspectives of youth (Wong, Zimmerman, & Parker, 2010). The Sense of Community Theory suggests that for a person to feel engaged in a certain environment, the individual must feel like he or she has a voice in that environment (McMillan & Chavis, 1986). Scholars argue that youth are capable and situated to offer valuable contributions to program development, as they are not merely recipients of program services (Royce, 2009; Wong et al., 2010); however, they are rarely given the opportunity to provide their input in programs that aim to shape their health and well-being (Evans, 2007). Youth should be considered active participants who have a voice in program matters. Incorporating youth voice has been linked to higher quality programs and greater benefits for youth participants (e.g., increased knowledge) (Billig, Root, & Jesse, 2005; Celio, Durlak, & Dymnicki, 2011).

Overall, youths' perspectives are important for the design, implementation, and evaluation of youth programs (Celio et al., 2011). Evaluation surveys often include open-ended questions to garner participants' feedback; however, how these responses relate to program outcomes and contribute to program improvements have not been thoroughly explored. This study uses data from the *Health Rocks!* program to address two research questions:

1) What are youths' perspectives on the curriculum and program delivery related to engagement?
2) To what extent are youths' perspectives related to their reported program outcomes?

Based on previous research (e.g., Sallee et al., 2015), it is hypothesized that youths' perspectives will predict youths' reported knowledge, skills, assets, and program engagement. This information will be valuable to Extension personnel and other youth development professionals by providing a youth perspective for the design and implementation of future youth programs.

Methods

Sample

Study participants were youth from 13 states who completed 10 or more hours of *Health Rocks!* programming in 2014. Of the 103,774 participants who completed *Health Rocks!*, 27,774 completed the evaluation surveys that assessed program outcomes and engagement. Because the current study addressed participants' perspectives, only the 3,742 participants who provided answers to the open-ended question at the end of the survey were included in the analysis. Demographics of the sample can be viewed in Table 1. Preliminary analysis showed no significant differences in program outcomes between the 3,742 youth who answered the open-ended survey question and a random sample of 3,742 youth who did not answer the open-ended survey question. Therefore, the results discussed focus on the sample of 3,742 respondents who provided their perspectives through the open-ended survey question.

Table 1. Demographic Information of the 3,742 Participants

Variable	***N***	***%***
Gender		
Boys	1,292	34.5
Girls	1,842	49.2
Unreported	608	16.2
Age		
9 and younger	406	10.8
10	527	14.1
11	905	24.2
12	794	21.2
13	461	12.3
14	235	6.3
15	100	2.7
16 and older	127	3.4
Unreported	187	5.0
Race		
Caucasian American	1,956	52.3
African American/Black	614	16.4
Native American	85	2.3
Asian American	47	1.3
Multi-Racial	215	5.7
Unknown	173	4.6
Unreported	652	17.4
Ethnicity		
Hispanic	312	8.3
Non-Hispanic	3,163	84.5
Unreported	267	7.1

Variable	*N*	*%*
Residence		
Urban	770	20.6
Suburban	954	25.5
Rural	1,963	52.5
Unreported	55	1.5

Study Design

This study used a mixed methods design, which provided a more comprehensive and detailed understanding of youths' experiences and how their perspectives are associated with program outcomes (Plano Clark & Creswell, 2008). Qualitative and quantitative data were collected in a self-report survey that was administered to *Health Rocks!* participants who completed 10 hours of programming. This instrument was developed by researchers at the University of Nebraska-Lincoln. Survey items were developed with a 4th- or 5th-grade reading level, which was consistent with the developmental level of the majority (89.2%) of participants. Six experts in 4-H youth development and developers of the *Health Rocks!* curriculum reviewed the instrument to confirm it was age-appropriate for youth and relevant to the program. Pilot testing of the evaluation instrument among youth showed acceptable reliability and content validity (Xia & de Guzman, 2011). Program implementers, who had received training on the evaluation measure, were present during data collection to assist participants if questions emerged while completing the survey. The instrument was further reviewed every year that it was used to examine internal consistency and potential for reduction of items. Originally, the survey contained 88 items based on the Search Institute's 40 Developmental Assets (Search Institute, 2006). Item analysis was used to reduce the survey to 13 items. These items were chosen based on the outcomes of the program that were intended to be measured and the reliability of the items (Pather & Uys, 2008). Items with low Cronbach's alphas were removed. The reduction of items also helped with the feasibility of the program evaluation.

Participants responded to the survey after completing the program. The instrument included 13 items that measured three program outcomes:

- knowledge of substance use consequences,
- coping skills related to stress, and
- other assets related to healthful decision-making.

The 13 items involved a "retrospective pretest." Respondents first evaluated the knowledge, skills, and other assets based on how they felt after participating in the program (posttest) and then evaluated the knowledge, skills, and other assets based on how they felt before participating in the program (retrospective pretest). These items were on a 4-point Likert scale, ranging from 1 = *strongly disagree* to 4 = *strongly agree*. The retrospective pretest was chosen for two reasons. First, utilizing a pretesting format before curriculum implementation might compromise

the validity of the data (Rockwell & Kohn, 1989), as youth participants who have not been exposed to the curriculum might not be able to precisely assess their baseline knowledge and behavior. Second, educational programs often lack time and resources to implement evaluation; therefore, employing a retrospective pretesting format at the end of programming helps to balance the feasibility and rigor of the design.

Participants were also asked to respond to four posttest items related to their program engagement by rating the degree to which (a) "the training was interesting," (b) "the staff members were friendly," (c) they "learned a lot during the training," and (d) they "actively participated in training activities." Items were measured through the use of a 4-point Likert scale, from 1 = *strongly disagree* to 4 = *strongly agree*. Data from the retrospective pretest were originally collected to evaluate the impact of *Health Rocks!* on youth participants. For this study, only the posttest data were used.

The outcome variables of knowledge, skills, assets, and program engagement were recoded as binary variables for data analysis. As such, "*strongly disagree*" and "*disagree*" were coded as '0' to represent participants who did not report knowledge, skills, assets, or program engagement. In contrast, "*strongly agree*" and "*agree*" were coded as '1' to represent participants who reported knowledge, skills, assets, or program engagement. Binary data provided a meaningful way to compare participants who reported the program outcomes to those who did not report the program outcomes (Clark-Carter, 2009). Furthermore, binary data were appropriate for the study as the data were not normally distributed (Streiner, 2002).

Qualitative data in the form of responses to one open-ended question were collected to further the understanding of the quantitative survey data. The open-ended question asked participants to share their perspectives regarding their experiences participating in *Health Rocks!* Specifically, the open-ended question stated: "Please share any additional comments or thoughts regarding your Health Rocks experience." To answer the first research question (What are youths' perspectives on the curriculum and program delivery related to engagement?), we coded responses from the 3,742 participants who provided comments to the open-ended question by using thematic analysis strategies. Each comment was assigned a code on the basis of dominant messages and ideas conveyed in participants' responses (Eisner, 1998). When more than one idea was expressed in a comment, multiple codes were assigned. Three coders separately completed preliminary coding on data from one state to identify common codes. The coders then met to compare codes and create a codebook. The remaining data were divided among the three coders and coded through the use of the codebook. To evaluate intercoder reliability, three states (23% of data) were coded by at least two of the three coders. The first state was coded by coder A and coder B. The second state was coded by coder B and coder C. The third state was coded by coder A and coder C. An 87% agreement rate was achieved across the three states. The three coders then combined the codes into overarching themes. Four main themes emerged from the participants' comments (described in the Findings section).

Then, to answer the second research question (To what extent are youths' perspectives related to their reported program outcomes?), qualitative data were analyzed as quantitative data following Culp and Pilat's (1998) approach to quantifying open-ended survey feedback. Qualitative themes were recoded into quantitative binary variables. Participants were assigned a '1' if they mentioned the theme in their comment and a '0' if they did not. These generated quantitative variables served as the predictor variables to examine the association between youths' perspectives and their program outcomes.

Findings

Youths' Perspective on the Curriculum and Program Delivery

Four themes emerged from the youths' qualitative comments that address the first research question. Findings revealed that over half (55.7%) of the 3,742 *Health Rocks!* participants commented about *fun and enjoyment*, 12.5% commented about *program staff*, 14.5% commented about *program activities,* and 31% commented about *impact*. Details of each theme are described below. Frequencies and percentages of comments for each theme are in Table 2.

Table 2. Participant Comments Related to Themes

Comment	***N***	***%***
Comments related to Fun & Enjoyment	2,086	55.7
Love/Like the program	1,130	30.2
Fun	883	23.6
Comments related to Program Staff	467	12.5
Staff in general	145	3.9
Specific staff	318	8.5
Comments related to Activities	552	14.8
Activities in general	320	8.6
Specific activities	253	6.8
Comments related to Impact	1,161	31.0
Learned a lot	872	23.3
Stay away from drugs	259	6.9
Influenced future	63	1.7
Impacted decision-making	32	0.9

Note: Percentages do not add up to 100% due to overlapping themes in participants' responses.

Theme 1: Participants appreciated the fun and engaging curriculum. Overwhelmingly, the majority of comments (95%) about the program were positive, showing that curricular content and delivery were engaging and relevant to participants. Youth enjoyed the program and thought that it was "fun" and "interesting." For example, one female (age 11) said, "It was cool, and I liked it," while one male (age 9) said, "I found *Health Rocks!* really interesting." Furthermore, participants expressed a desire for more programming by saying, "I wanted it to last longer!" or "I hope we continue *Health Rocks!* for more years to come."

A few comments (5%) included a negative perspective on the program, such as "I didn't learn anything" or "It was alright, could have been better." Of the comments that were negative, many were from participants expressing boredom and indicating that they had previously learned about drugs and alcohol in other classes or programs.

Theme 2: Participants appreciated program staff. Participants expressed gratitude and appreciation for program staff. Over 12% of the comments related to general staff in the program (e.g., "I really liked how the staff were excited to train us."), as well as referred to specific staff members (e.g., "Thank you so much, Ms. W."). These comments showed that youth participants appreciated staff members, particularly when they brought their excitement and enthusiasm to the training.

Theme 3: Participants valued program activities. Youth participants also provided feedback relating to the program activities (14.8%). They enjoyed the experiential activities and thought that the 'hands-on' nature of these activities enhanced their learning. One male (age 13) said, "I really enjoyed all the activities we did," while another male (age 12) reported that "Having all of the hands-on projects and examples really got the point across."

Students also mentioned more specific activities, with statements such as "I loved making the commercial" or "I liked how we used straws and balloons to create a visual representation of the damage drugs can cause you." The activities most preferred by youth, in order of preference, were:

1) A straw-breathing activity that demonstrated how smoking affects lung capacity;
2) A balloon activity that demonstrated the impact of peer pressure;
3) Skits that taught decision-making, peer pressure, and other skills and information;
4) Use of drunk goggles for showing how drinking impairs functioning; and
5) Use of stories for discussing how substance use affects a person's relationships.

Youth also provided suggestions on how to improve the program. The majority of their suggestions related to program activities. Examples of suggestions included "They should have more experiments," "They need more action and exercise in the games," and "Go outside and play." Such comments provided evidence that youth appreciated activities and projects during programming, specifically hands-on activities that allowed them to get up and move.

Theme 4: Experiential learning positively impacted participants' knowledge and skills. Youths' comments indicated that the program positively impacted their attitudes toward substance use and exposed many to new information. Participants (31%) expressed having gained knowledge and skills from their involvement in *Health Rocks!* One youth stated, "I learned that smoking and drinking is not good for you." The program also exerted a positive influence on youths' decision-making and help youth resist peer pressure. For example, one male (age 10) reported "[T]his class helped me to know what to do and what not to do when it

comes to drugs," and another male (age 12) indicated that "*Health Rocks!* helped me understand what to say if people offer me drugs and how to say no to peer pressure."

Participants also expressed that they developed the confidence to share the knowledge they gained from *Health Rocks!* with family and friends. One student reported, "I am going to tell my family about everything I learned." Another youth explained, "Most people around my house smoke. This gave me ideas to help my family." Comments such as these indicated that the *Health Rocks!* program may have an impact on the youth completing the program but also on others involved in their lives.

The Association of Youths' Perspectives with Program Outcomes

To answer the second research question (To what extent are youths' perspectives related to their reported program outcomes?), we converted the first three qualitative themes related to *fun*, *staff*, and *activities* to quantified categories. These three qualitative themes were mentioned in previous research as important aspects of youth programming (e.g., Bulanda & McCrea, 2013). Binary logistic regression analyses were conducted to determine whether the quantified categories of *fun*, *staff*, and *activities* were associated with the program outcomes of *knowledge*, *skills*, *assets*, and *program engagement*. In other words, these analyses examined whether participants who reportedly experienced fun, appreciated staff, or enjoyed the activities were more likely to report the program outcomes of knowledge, skills, assets, or program engagement. The aim of this study was not to prove a causal relationship between youths' perspectives and program outcomes but to simply examine their associations. Predicted probability percentages were calculated using the formula of *odds ratio/(odds ratio +1)* (Allison, 1999; Australian Bureau of Statistics, 2012). Statistics can be viewed in Table 3.

Table 3. Binary Logistic Regression Coefficients of Program Outcomes on Survey Comments

Predictor	***β***	***SE***	***Wald***	***df***	***p***	***Odds ratio***
Knowledge						
Fun	.125	.263	.224	1	.636	1.133
Staff	2.094	1.008	4.316	1	.038*	8.118
Activities	.431	.465	.861	1	.353	1.539
Full Model			10.451	3	.015*	
Skills						
Fun	.559	.304		1	.066	1.749
Staff	.694	.516		1	.179	2.002
Activities	.647	.516		1	.210	1.910
Full Model			7.660	3	.054	
Assets						
Fun	.500	.318		1	.115	1.649
Staff	.549	.518		1	.289	1.732
Activities	.275	.467		1	.556	1.316
Full Model			4.272	3	.234	

Predictor	*β*	*SE*	*Wald*	*df*	*p*	*Odds ratio*
Engagement						
Fun	.689	.190		1	.000***	1.991
Staff	.675	.303		1	.026*	1.963
Activities	.615	.303		1	.042*	1.850
Full Model			25.158	3	.000***	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

The full knowledge model tested whether there was a significant difference in knowledge between participants who reportedly experienced fun, appreciated staff, and enjoyed the activities and participants who did not. This model was statistically significant, indicating that the predictors as a set (i.e., fun, staff, and activities) distinguished between participants who reported knowledge and participants who did not report knowledge after the program. Individually, staff was a significant predictor for the model. Participants who commented that they appreciated the *Health Rocks!* staff were 89% more likely than participants who did not comment about the staff to report learned knowledge after the program. Neither the model relating to skills nor the model for assets were statistically significant, indicating that there was no difference in reported skills or assets between participants who commented on fun, staff, or activities and participants who did not.

The program engagement model was also statistically significant, indicating that the fun, staff, and activities predictors distinguish between participants who reported program engagement and participants who did not report program engagement. All three indicators were significant in this model. Participants who perceived *Health Rocks!* as fun were 67% more likely than participants who did not comment about fun to report program engagement after the program. Likewise, participants who reportedly appreciated staff and enjoyed the activities were 66% and 65% more likely, respectively, to report program engagement.

Discussion and Implications

Findings suggest that *Health Rocks!* participants viewed the program and curriculum positively. Specific to the first research question on youth's perspectives relating to the curriculum and program delivery, many participants found that the program was fun and engaging. They appreciated the staff and enjoyed the hands-on and interactive activities. The "activities" theme relates to the experiential learning approach that is implemented in the *Health Rocks!* program. Experiential learning guided the creation of the *Health Rocks!* program curriculum and involves actively learning through an experience. Thus, activities during the program play a major role in the process of the delivery (Kolb, 1984). Even though findings from this study pertained to the *Health Rocks!* curriculum, they offer broader implications for Extension and other youth program personnel for developing similar youth prevention programs in the future.

Consistent with our hypothesis, quantitative results illuminate several interesting relationships between youths' feedback and their reported outcomes. First, participants who perceived *Health Rocks!* as fun were significantly more likely to report being engaged in the program. Responses revealed that participants valued hands-on activities and movement throughout programs. Youths' preferences for highly engaging and experiential programming have been well-documented in the literature (Isoldi & Dolar, 2015). This was achieved in *Health Rocks!* through the inclusion of activities and games in the curriculum. As science- and health-related programs have many options for activities that aid in the delivery of information to youth (e.g., Sallee et al., 2015), program personnel should focus attention on the specific methods they are using to engage participants. Specifically, program personnel should consider utilizing methods that have been found enjoyable by youth, such as curriculum-related games, stories, role-play activities, science experiments, and other hands-on activities where participants can interact with others and move throughout the program.

Second, comments about program staff illustrate the positive role that adult leaders have in the overall program experience for youth participants, which has been supported by previous research on the 4-H program (Hutchins, Seevers, & Van Leeuwen, 2002). Participants who had positive perceptions about the program staff were significantly more likely to report knowledge after the program and that they were engaged in *Health Rocks!* Adult program leaders who focus initially on building relationships with youth participants are more likely to promote positive development and behavior. Our results underscore the importance of including trained staff who develop supportive relationships with youth, as well as staff who work to ensure youths' physical and psychological well-being (Eccles & Gootman, 2002; Henderson et al., 2007). Programs should employ personnel who enjoy interacting with youth and are willing to engage with them during in program implementation. Additionally, adult personnel training before the program should emphasize the importance of adult-youth relationships and accentuate that adult personnel demonstrate empathy and professionalism with youth.

Limitations

It should be noted that the aim of this study was not to show if *Health Rocks!* is effective. Findings should not be interpreted as participants are more likely to increase their knowledge, skills, or assets if they leave a comment on their evaluation survey. The open-ended survey question aimed to elicit general feedback about *Health Rocks!* and did not specifically ask about specific outcomes. Additionally, findings do not imply that only participants who took the time to write a narrative comment actually had these experiences. Qualitative comments simply allowed us to gain a more detailed understanding of youths' experiences, supplementing their quantitative responses. The study used a written survey design, which may have been challenging for participants under the age of 10, who comprised 10.8% of our sample. This is a methodological limitation that must be acknowledged as it impacts the validity of the results. Future studies should investigate alternative methods to assess the perceptions of young

participants in a more precise manner. Future work should also assess whether the current findings can be reproduced with a sample of youth who are a better match developmentally with the study data collection methods

Overall, attention should be paid to the importance of program curriculum, staff, and activities. Findings from this study suggest that when youth perceive enjoyable curriculum, youth-centered staff, and engaging activities, they are more likely to experience the intended program outcomes and program engagement. Youths' perspectives from this study on the *Health Rocks!* program can be incorporated into the development of future youth programs. Extension and youth program personnel should continue to seek youth perspectives in the development, implementation, and evaluation of future youth programs to positively influence youth and their development.

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