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Introduction

The 4-H program is America's largest youth development organization (National 4-H Council, 2019). The 4-H program is part of the Cooperative Extension system, which provides unbiased, research-based educational programming to communities through the land grant university system (USDA, 2019). Volunteers play a major role in the delivery and functioning of Cooperative Extension's 4-H Youth Development program. 4-H volunteer leaders serve in various capacities (Radhakrishna & Ewing, 2011), including leading 4-H clubs, organizing educational clinics for youth members on various topics, and assisting with educational events and camps. 4-H educators oversee various topics that 4-H volunteers teach, including animal sciences, nutrition, STEM, creative arts, and photography. 4-H volunteers often teach youth about these topics by leading them in completing their projects through after-school 4-H clubs. 4-H Extension educators also serve as volunteer resource managers for the 4-H program. 4-H educators recruit and administer 4-H volunteer leaders and volunteer programs in this role. 4-H educators train the 4-H volunteer leaders to teach the 4-H youth and serve as a program support resource for volunteers if needed. For example, around ten thousand volunteers currently serve the Pennsylvania 4-H program. (Rice, 2018). In the 4-H program, volunteers often spend more time with youth and families than 4-H Extension educators and paid program staff, as they are the adults teaching and working with the youth. This can lead to volunteers having a closer relationship with 4-H members than 4-H staff.

Despite volunteers' integral role in maintaining the 4-H program, we learned from the Pennsylvania State 4-H leader that Penn State Extension has not recently examined 4-H volunteer leaders' satisfaction (Dr. Josh Rice, , October 1, 2018 personal communication), reasons for volunteering, and turnover intention. Ensuring volunteers are satisfied and provided with conditions to thrive and grow through their work is vital to 4-H and the Cooperative Extension system. 4-H educators must understand volunteer service motivators (Cleveland & Thompson, 2007) to recruit and maintain dedicated and fulfilled volunteers. Therefore, we examined Pennsylvania 4-H Extension volunteers' experience with volunteering in a twenty-first century context. Results will help improve Pennsylvania Extension's 4-H program's service for volunteers, enhance volunteers' effectiveness in the Pennsylvania

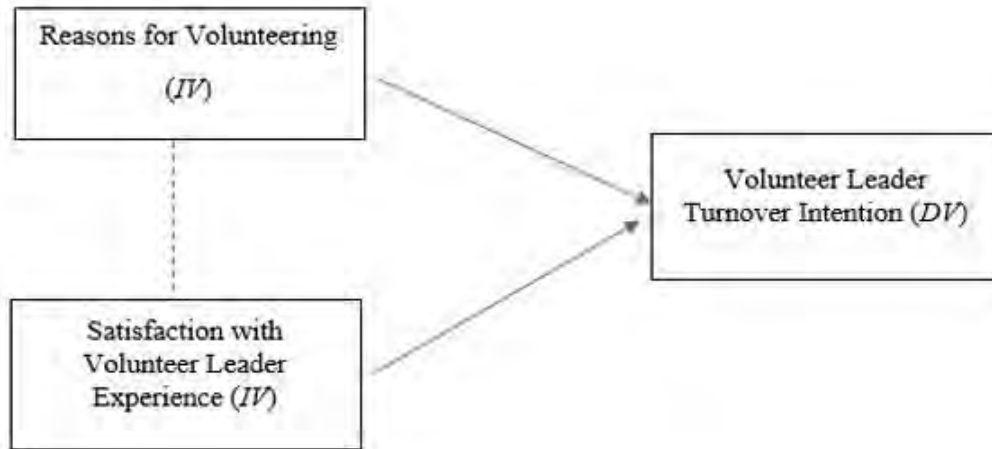
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4-H program, and improve clientele satisfaction. Services for volunteers include training and recognition programs. If volunteer feedback data support volunteer programming, they will likely make volunteers feel more satisfied with their experience (Pascuet et al., 2012).

Conceptual Framework

We reviewed existing volunteer administration models from the perspective of 4-H volunteer satisfaction, the reasons for volunteering, and volunteer turnover intention. Among the models most frequently cited in the literature are ISOTURE (Boyce, 1971), L-O-O-P (Penrod, 1991), GEMS (Culp et al., 1998), PEP (Safrit et al., 2005), and the 4-H Volunteer Program Model (Arnold et al., 2009). We also reviewed the literature on factors that may impact volunteer turnover intention. The review of the literature showed that reasons for volunteering and satisfaction with experience are key variables related to volunteer leader turnover intention (Adams et al., 2016; Breslin, 2013; Janisse & Weese, 2010; White & Arnold, 2003). The conceptual model illustrates the relationship among the variables discussed: reasons for volunteering, satisfaction with volunteer leaders' experience, and turnover intention, as shown in Figure 1. The dependent variable in this study was the volunteer leader's turnover intention, and the two independent variables were reasons for volunteering and satisfaction with the volunteer leader's experience.

Figure 1. Conceptual Model of 4-H Volunteer Leaders' Turnover Intention



Literature Review

Satisfaction with Volunteer Experience

Researchers have investigated factors influencing the volunteer satisfaction, among them were the following 1) supervisor communication, 2) their assignments, 3) feeling their work helps others, 4) support from the organization, and 5) feeling socially connected to other volunteers (Galindo-Kuhn & Guzley, 2001). Additionally, positive organizational climate and task assignments impact volunteer satisfaction (Nencini et al., 2016; Hobson & Heler, 2007). Satisfied volunteers are more likely to continue contributing to the organization (Adams et al., 2016; Breslin, 2013; Janisse & Weese, 2010). Volunteer satisfaction is linked with youth success in the 4-H program (Anderson et al., 2017). Finkelstein (2007) found that volunteers were more likely to be satisfied if they felt fulfilled. According to Terry et al. (2013), an effective leadership climate and a positive volunteer environment promote volunteer satisfaction, leading to volunteer retention. This study defines volunteer satisfaction as ensuring volunteers are satisfied with their work, organizational support, and relationships with other volunteers, based on Galindo-Kuhn and Guzley's (2001) definition.

Reasons for Volunteering

Based on Jung's (1978) definition of motivations, "the causes or reasons that underlie a given behavior," we found both "motivations" and "reasons" for volunteering used interchangeably in the literature. Most volunteers desire to impact the community (Flynn & Feldheim, 2003; Jones, 2016). Saitgalina (2018) found that people volunteer to socialize and work with a team toward a common goal. Volunteers can also be motivated to help marginalized groups and gain knowledge (Jones, 2016). Flynn and Feldheim (2003) identified the enjoyment of working with people as a top reason for volunteering. White and Arnold (2003) found that the top three reasons for 4-H volunteering include making a difference in the lives of youth, the satisfaction of helping others, and having a child involved in the program. For this study, reasons are defined as the motivations, or the "why," that drive volunteer participation.

Turnover Intention

Turnover intention has been defined as having plans to withdraw from an organization (Aydogdu & Asikgil, 2011). Positive staff and volunteer interactions are critical to foster volunteer retention (Hobson & Heler, 2007; Nencini et al., 2016). Rice and Fallon (2011) found that respect and welfare influence volunteers' intention to remain. Recognition, leadership roles, responsibility, and cultural variation were identified as factors that reduce turnover intention (Breslin, 2013). In a 4-H setting, White and Arnold (2003) found the top three reasons for volunteers' turnover intention were: volunteers' children are no longer involved in 4-H club activities, volunteering requires more time, and other responsibilities demand more time. For this study, we defined turnover intention as the motive to quit serving as a 4-H volunteer.

Purpose and Research Objectives

We investigated the satisfaction with volunteer leaders' experience, reasons for volunteering, and turnover intention among Pennsylvania Extension 4-H volunteer leaders. Four research questions guided this study:

1. What is the level of satisfaction with 4-H volunteer leaders' experience?
2. What are the reasons for serving as 4-H volunteer leaders?
3. What is the level of turnover intention among 4-H volunteer leaders?
4. What is the relationship between 4-H volunteer leaders' satisfaction with the experience and turnover intention?

Methods

The researchers utilized a descriptive correlation research design, where dependent and independent variables were identified. This research design helps determine relationships between variables of interest. We used a convenience sample to collect data. Convenience sampling is a specific type of nonprobability sampling method that relies on population members who are conveniently available to participate in the study (Patton, 2002). According to Cresswell and Plano Clark (2011), convenience sampling is a widely used technique for identifying and selecting individuals who are especially knowledgeable about or experienced with a phenomenon of interest, for example, volunteers in this study. However, we suggest caution be used in interpreting the findings because of bias and generalizability limitations.

Participants

Penn State Extension 4-H volunteer leaders who attended the Pennsylvania Annual 4-H Leader Forum in State College, PA were study participants. The researchers distributed 180 questionnaires during the event's lunch. After removing responses with missing data, the final data set included responses from 147 volunteer leaders for a participation rate of 81.6 percent. Findings apply only to those who completed the survey questions. A study limitation is an inability to generalize findings to the entire population of 4-H volunteers in Pennsylvania.

Instrumentation

We developed a questionnaire using three existing instruments used in previous research. We also included five demographic questions. We adapted Arnold et al. (2009) and White and Arnold's (2003) studies to develop the Satisfaction with Volunteer Leader Experience scale. The Satisfaction with Volunteer Leader Experience scale consisted of eighteen items and measured using a five-point Likert-type scale: 1 (strongly disagree), 2 (disagree), 3 (neither agree nor disagree), 4 (agree), and 5 (strongly agree). The reliability coefficient of this study's overall Satisfaction with Volunteer Leader Experience scale was .922. We utilized Terry et al.'s (2013) turnover intention scale from their volunteer retention study. We applied the three-item Volunteer Leaders' Turnover Intention scale using a five-point Likert-type scale: 1 (strongly disagree), 2 (disagree), 3 (neither agree nor disagree), 4 (agree), and 5 (strongly agree). The reliability coefficient of this study's overall Volunteer Leaders' Turnover Intention scale was .823. We adapted Radhakrishna and Ewing's (2011) scale to assess reasons for volunteering. We measured the reason for volunteering with one question: "What caused you to become a 4-H community volunteer leader in your county?" Participants could select more than one reason for volunteering for 4-H Extension. We offered six choices for selection. A panel of seven Extension educators, volunteers, and academic faculty members with expertise in survey methodology reviewed the instrument for face and content validity.

Data Collection and Analysis

We utilized survey methodology to collect data for the study. Specifically, we used a paper-and-pencil questionnaire to collect data. We applied the SPSS[®] v.24 (2016) software for statistical analysis. In this study, we treated independent and dependent variables as interval data. We used descriptive statistics to describe the first, second, and third research objectives. We applied the Pearson correlation coefficient to identify the relationship between volunteer leaders' satisfaction with their experience and turnover intention.

Results

Demographic Profile

Most volunteer leaders were female (86.1 percent). The average age of participants was thirty-five to fifty-four (51.4 percent), and 48.9 percent had a university degree. 4-H volunteer leaders worked across 4-H project areas: agronomy and natural resources, 4-H youth development; animal systems; community development; food, family, and health; food safety; and horticulture. See Table 1.

Table 1. Demographic Profile of 4-H Volunteer Leaders ($N=147$)

Items	<i>n</i>	%
Age		
< 25	5	3.5
25–34	15	10.6
35–44	29	20.4
45–54	44	31.0
55–64	23	16.2
65–74	13	9.2
75–84	13	9.2
Gender		
Female	125	86.2
Male	20	13.8
Education		
High school diploma	35	24.1

Some college, no degree	38	26.2
Bachelor's degree	54	37.2
Master's degree	17	11.7
Doctoral degree	1	.7
4-H project area		
Agronomy and natural resources	5	3.4
4-H youth development	109	74.1
Animal systems	37	25.2
Community development	6	4.1
Food, family, and health	23	15.6
Food safety	13	8.8
Horticulture	8	5.4
Experience outside of the Extension organization		
Yes	122	84.1
No	23	15.9

Research question 1: What is the level of satisfaction with 4-H volunteer leaders' experience?

The overall mean summative score for satisfaction with experience was 4.09 ($SD = .57$, $n = 147$). The results for this objective are shown in Table 4. Higher scores indicate greater satisfaction of 4-H volunteer leaders with their experience leading 4-H clubs. The items scoring the highest mean values were (a) Volunteer service was worthwhile ($M = 4.56$; $SD = .60$), (b) County staff are friendly ($M = 4.53$; $SD = .66$), (c) Learn new things because of being a volunteer ($M = 4.34$; $SD = .74$), and (d) Feel valued by program participants ($M = 4.27$; $SD = .73$). The items with mean values under 4 were (a) Information for leaders is clear ($M = 3.68$; $SD = 1.03$), (b) Information for leaders is up-to-date ($M = 3.86$; $SD = 0.93$), (c) Volunteers are included in program planning ($M = 3.83$; $SD = 1.04$), and (d) County educator provides adequate training for leaders ($M = 3.84$; $SD = 1.04$). Overall, 4-H volunteer leaders were satisfied with their volunteer experience ($M = 4.09$; $SD = .57$).

Table 2. 4-H Volunteer Leaders' Satisfaction with Experience ($n=147$)

Items	<i>n</i>	<i>M</i>	<i>SD</i>
Volunteer service was worthwhile	146	4.56	.60
County staff are friendly	146	4.53	.66
Learn new things because of being a volunteer	146	4.34	.74
Feel valued by program participants	145	4.27	.73
Programs are relevant to the needs of community	143	4.27	.68
Feel valued by county staff	145	4.25	.85
County educator knows the subject matter	146	4.13	.92

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County staff returns correspondence on time	145	4.12	.92
County educator uses appropriate teaching methods for leaders	147	4.07	.93
County staff uses technology to help me in my role	145	4.05	.96
Information for leaders is accurate	145	3.97	.79
Information for leaders is unbiased	145	3.95	.88
Received needed guidance	144	3.95	.89
Education materials are high-quality	146	3.88	.84
Information for leaders is up-to-date	144	3.86	.93
County educator provides adequate training for leaders	144	3.84	1.04
Volunteers are included in program planning	145	3.83	1.04
Information for leaders is clear	145	3.68	1.03
Overall satisfaction with volunteer leader experience	147	4.09	.57

Note: 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree.

Research question 2: What are the reasons for serving as 4-H volunteer leaders?

In line with previous research findings, Penn State Extension 4-H volunteer leaders serve for a variety of reasons. We provided respondents with six options. Participants were able to select more than one option of reasons for volunteering. See Table 5.

Table 3. What caused you to become a 4-H volunteer leader in your county? ($n=147$)

Items	<i>f</i>	%
I have family members who are involved with the organization.		
Yes	84	57.1
No	63	42.9
I enjoy working with the community.		
Yes	62	42.2
No	85	57.8
I want to give back to the community.		
Yes	68	46.3
No	79	53.7
I was recruited		
Yes	22	15.0
No	125	85.0
I have a personal interest in the program's subject matter.		
Yes	59	40.1
No	88	59.9

Other reasons		
Yes	16	10.9
No	131	89.1

Research question 3: What is the level of turnover intention among 4-H volunteer leaders?

The mean summative score for the turnover intention was 4.40 (SD = .77, n = 143), which indicated that participants would like to remain or continue as volunteer leaders of 4-H clubs. Results are shown in Table 6.

Table 4. 4-H Leaders' Turnover Intention

Item	<i>n</i>	<i>M</i>	<i>SD</i>
I will likely be a volunteer in twelve months	142	4.67	.72
I will likely be a volunteer for three years	141	4.42	.89
If I move to another state, I will become a volunteer	131	4.05	1.09
Overall Turnover Intention	143	4.40	.77

Note: 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree.

Research question 4: What is the relationship between volunteer leaders' satisfaction with the experience and turnover intention?

The Pearson correlation results indicated a significantly low positive association between volunteer leaders' satisfaction with their experience and turnover intention ($r(143) = .167, p = .048$).

Conclusions and Recommendations

The demographic characteristics of 4-H volunteers in this study align with previous 4-H volunteer demographics studies (Culp et al., 2005). In our study, most of the respondents were female (87 percent), in the age group of thirty-five to fifty-four years (61 percent), had completed either a bachelor's or master's degree, and almost 84 percent reported volunteer experience in organizations other than Cooperative Extension. In their study, White et al. (2020) concluded that 4-H volunteers rely on Extension program professionals to improve their education and support systems to succeed continually. Grant et al. (2020) indicated that volunteers personally benefited from their involvement by gaining new experience working with youth, learning leadership skills, and exercising their desire to give back to the community. The results of our study support Grant and colleagues' (2020) study. In previous literature, we found contradicting research results. Windon et al. (2021) did not find significant relationships between 4-H volunteer leaders' educational level and leadership competencies. However, Nestor et al. (2016) indicated that 4-H volunteer leaders are more highly educated than volunteers in other organizations. The authors also mentioned that today's 4-H volunteers are better equipped to learn new skills than in the past.

Posner (2015) found that 4-H volunteers' leadership styles vary significantly across demographic variables. The results of this study suggest that Pennsylvania 4-H administrators should reexamine the quality of 4-H educational materials for 4-H volunteer leaders. The results of this study align with previous findings that identify volunteer leader training methods as a source of volunteer satisfaction (Culp & Bullock, 2017; Gay et al., 2015). As findings from these studies implied, a more professional development approach to volunteer training (Culp & Bullock, 2017) and incorporating opportunities for critical thinking (Gay et al., 2015) may help volunteer administrators improve volunteer programming.

Quality of shared information and method of communication had a higher standard deviation, implying that there are various experiences among Pennsylvania 4-H volunteer leaders. This may be explained due to county differences, where educators may communicate with volunteer leaders in unique ways. It may be useful for 4-H administrators and volunteer resource managers to explore communication methods preferred by the county or region to determine whether an organizational or local communication infrastructure issue is causing this spread.

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As we indicated above, 4-H leaders in Pennsylvania mostly volunteer due to a desire to give back to the program. However, in 4-H Extension programming, only 15 percent indicated that they volunteer due to being recruited. Pennsylvania 4-H program practitioners and other volunteer resource managers should consider that many people will volunteer if they are asked but continue to capitalize on the fact that most volunteers want to give back to the programs (Lobley, 2008) or that people tend to participate due to involvement during their childhood (Lobley, 2008; White & Arnold, 2003). Extension educators and volunteer resource managers should be trained to recruit volunteers who are unfamiliar with the program. In the United States, volunteer rates are the lowest among volunteers aged sixteen to twenty-four years (Bureau of Labor Statistics, 2015). We identified thirty-five to fifty-four years old as the most common age group for volunteers in our study. However, these rates drop as volunteers gradually age (Bureau of Labor Statistics, 2015). Considering these national trends and our own findings, targeting volunteers under the age of twenty-five and above sixty-five may also be an area of interest. Both college students and retirees have more flexible schedules, so they may better accommodate the needs of the modern 4-H organization. A need exists to develop a volunteer recruitment strategy to enhance the 4-H program further. A marketing strategy highlighting the many benefits of volunteering in 4-H programs should be developed and distributed to all stakeholders at counties, states, and regional events. Such a strategy could help recruit diverse volunteers for the 4-H program. This study showed that most 4-H volunteer leaders intend to remain as volunteers. 4-H administrators should consider how to sustain this attitude among volunteers. As the literature suggests, it is important to consider how volunteers can be retained after the program is over, ensure volunteers have ample time to perform tasks, maintain a positive leadership climate, and emphasize volunteer benefits of being involved in the program (Terry et al., 2013 ; White & Arnold, 2003). Providing professional development opportunities for volunteers can help maintain their involvement in the program (Culp & Bullock, 2017).

Limitations

This study has several limitations, which are important to consider regarding these results. The sample for this study was limited to only 4-H volunteer leaders who attended the Pennsylvania Annual 4-H Leader Forum in State College, Pennsylvania. A study limitation is an inability to generalize findings to the entire population of 4-H volunteers in Pennsylvania. This was a small exploratory study with a relatively small sample size and relatively little diversity within the sample. These limitations limit the discussion of the 4-H volunteer diversity statewide or nationwide.

Another limitation can be based on the nature of the annual event, where the most successful and involved 4-H volunteer leaders were likely represented. Not all 4-H volunteer leaders take advantage of attending the annual 4-H Leader Forum. Therefore, there is limited diversity in the annual 4-H Leader Forum and the study. This may have impacted the findings. Extension professionals may need to investigate alternative ways to attract a diverse 4-H volunteer pool to participate in the annual 4-H Leader Forum. Moreover, 4-H professionals should consider utilizing 4-H Leader's Forum feedback to better understand how the 4-H Youth Development program can increase diversity and engagement among forum attendees.

Another limitation of our study was coding age as a categorical (ordinal) variable. Due to this limitation, we cannot calculate the exact mean age of the participants. Future research among 4-H volunteers should allow volunteers to indicate their exact age in their responses.

Implications

The results of this study can have implications for other 4-H and similar organizations looking to investigate volunteers' satisfaction and intention to remain in 4-H. Providing professional development for 4-H volunteer leaders is essential for the 4-H program to continue to have an educational impact. Often, 4-H youth spend most of their 4-H careers with volunteers rather than paid staff. It is important to teach 4-H Extension educators and 4-H volunteer leaders to recruit prospective 4-H volunteers, rather than simply rely only on those involved because of family members or because of personal motivation to give back to their community. Finally, our findings show that satisfaction with volunteer leaders' experience lowers turnover and is supported by previous 4-H volunteer research (Terry et al., 2013). Our findings also showed that participants would like to remain or continue as volunteer leaders

of 4-H clubs. Extension administration should consider developing a feedback strategy to continuously review how volunteers are doing and their needs so volunteers can better contribute to the 4-H program.

Our study also found that the most common reasons for volunteering were having family members involved in the organization and wanting to give back to the community. Because our study was a convenience sample, more studies should be conducted among 4-H volunteers utilizing random sampling. If these more rigorous studies also identify these reasons for volunteering, educators may want to 1) continue to target parents of 4-H youth to volunteer and 2) connect with organizations that help citizens looking for community involvement opportunities to identify additional volunteers.

Further studies of volunteer experience are vital to ensure that 4-H youth have a positive learning environment. Understanding how to maintain volunteer satisfaction will better inform volunteer management training and materials for 4-H county volunteer resource managers to perpetuate successful 4-H programming. The instruments used in this study can serve as a tool for youth volunteer resource managers in programs beyond 4-H. However, other types of programs within volunteer management should first review the literature specific to their area to be able to modify or develop more relevant instruments specific to their organizational contexts. Studying other factors that might affect 4-H volunteer leaders' turnover intention is important. Again, in the case of national organizations, assessments should be conducted state-by-state to ensure local relevance.

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