



# American Camp Association Camp Research Forum Book of Abstracts

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January 3, 2024

Dear Colleagues:

The ACA Research Forum is an opportunity for researchers and camp professionals to share and discuss new research related to campers, camp staff, camp programs, and a wide variety of other camp-related topics.

This book includes 29 abstracts that will be presented at the 2024 American Camp Association (ACA) Research Forum to be held during the ACA annual conference from February 5-9 in New Orleans, LA. Abstracts have been grouped into similar areas and will be presented across five verbal sessions and one poster session. All abstracts will be on display as posters.

We are pleased to recognize the recipients of two research awards in 2024:

- Marge Scanlin Award for Outstanding Student Research: *Monica Arkin*
- Eleanor P. Eells Award for Excellence in Research in Practice: *Camp Twin Lakes*

The Camp Research Forum has grown in quantity and quality over the past two decades. ACA's Research and Evaluation Advisory Committee (REAC) and the previous Committee for the Advancement of Research and Evaluation (CARE) have been instrumental in advancing camp research. Staff at ACA have been enthusiastically supportive, especially Dr. Laurie Browne and Melany Irvin. Two external reviewers provided peer-reviewed evaluations for the selection of these abstracts. We thank these reviewers for their time, expertise, and energy.

We look forward to presenting these papers at the 2024 Camp Research Forum, but also recognize that many people cannot attend the annual meeting. We hope these short abstracts and poster images will provide information for those not able to attend. Please contact the authors if you have further questions.

Best wishes,



Ann Gillard, Ph.D.  
2024 ACA Research Forum Co-Coordinator

The proper way to cite these abstracts using APA 7<sup>th</sup> edition is:

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# STORYTELLING AT CAMP: EFFECTS OF SELF-RELEVANCE, VERISIMILITUDE, PROPS, AND MUSIC

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Storytelling is deeply woven into youth camp programming and management. Camp programs often include programmed sessions in which staff members and campers exchange stories. Stories may also be embedded extemporaneously within other programmed camp activity sessions. A nature specialist leading a hike, for example, might tell stories based on past hiking experiences. Stories that leader might tell about wildlife encounters, weather-related challenges, or leave-no-trace efforts may engage campers in the hike and help them understand important strategies for enjoying hiking, minimizing environmental impacts, and mitigating risks. Some camps are designed such that the entire experience is embedded in a story; campers adopt imaginary personas and engage in improvisational theatre throughout their entire time at camp. For youth in travel camps, stories are pivotal to the learning process. Hosts at heritage and instructional sites visited tell stories to engage campers in sites, artifacts, events, and processes being interpreted. Storytelling is also important for camp management. Many managers tell stories about successes and transformative experiences of individual campers to communicate camp outcomes with donors, parents, and other stakeholders. A compelling story about a camp experience can be more impactful to a donor or parent than arrays of charts, graphs, and statistics.

Our research addressed the question of what storytelling techniques elevate youth engagement while listening to stories. Storytelling invites listeners to create narratives. A narrative is a creative act in which listeners use their imaginations and mental capacities to construct their own understanding of the story as it unfolds. Narrative has two components: *engagement* (Reeve, 2013) and *narrative transportation* (Gerrig, 1998). Engagement is a state of motivation comprised of interest, attention, enthusiasm, and agency (wanting certain things to happen). When someone is engaged in a story, their interest is captured, their attention is fully directed toward the story, and they have inclinations toward desired outcomes. *Narrative transportation*, the other key component of narrative, involves constructing mental image sequences. As suggested by the “transportation” metaphor, listeners take imaginary journeys to the described places, times, and sets of circumstances, witnessing the story in their imagination as it unfolds. The bodies of literature on narrative as a creative act and on heritage interpretation suggest many storytelling techniques promote engagement and narrative transportation. A camper passionate about the outdoors, for example, will likely be more engaged and experience a richer narrative transportation experience while listening to a story about an adventurous nature explorer in the Amazon rainforest. However, unanswered questions regarding storytelling, engagement and narrative transportation in camp settings remains unexplored. In addition, the techniques in this study have not been studied in the context of camp stories. Therefore, we studied effects of four techniques—self-relevance to listeners, verisimilitude (realistic vs. fantasy), props, and music—on engagement, narrative transportation, proclivity to recommend, and perceived value of time spent listening to stories among campers in a 4-H travel camp from the United States to Spain.

## Method

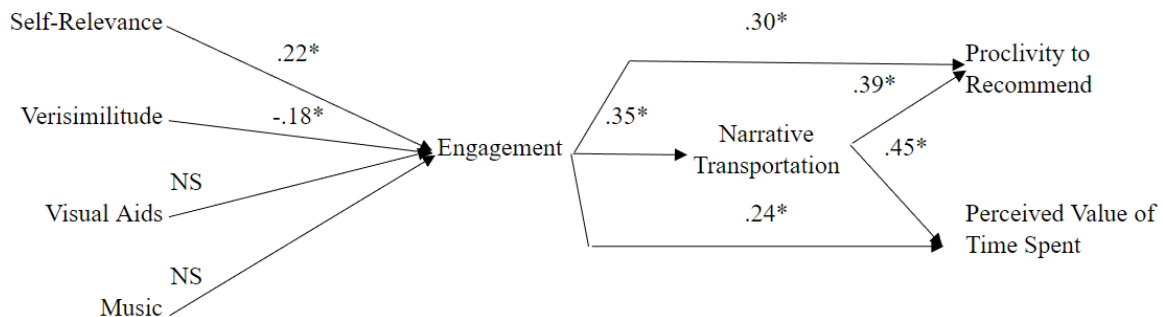
Eighteen youth (ages 15–18, 83% female) participated in the travel camp. During eight evening reflections sessions, a member of the research team told a fictional story set in locations visited that day. The stories were intended to embellish learning, as previous research has demonstrated that factual learning results from fictional stories. Stories were systematically

varied such that each of the four storytelling techniques was present or absent (a Taguchi design). Self-relevance was manipulated through comments made by the storyteller before the stories began. For self-relevance-present conditions, she preceded the story with remarks stressing ways the main character in the story she was going to tell was like the campers. Verisimilitude was woven into the stories. Stories high in verisimilitude were realistic; all characters and actions could be expected to possibly occur. Stories low in verisimilitude included fantasy elements, such as flying skateboards. All stories followed Freytag's (1894) classic story structure: introduction, conflict, escalating action, climax, declining action, and dénouement, and the central character in the story was a youth. Immediately after each story, campers completed measures of their engagement, narrative transportation, proclivity to recommend, and perceived value of time spent listening to the story. Data were analyzed in a path model based on existing theory (Ellis et al., 2020; Gehrig, 1998). Linear mixed modeling was used to account for the dependence among observations (eight stories were rated by 18 campers, 144 experiences analyzed).

### Results

Descriptive statistics revealed no issues related to ceiling effects or skewness or kurtosis. Intraclass correlations were substantial, ranging from .54 to .72 (all  $p < .05$ ), confirming the need for mixed modeling and supporting assertions in the literature that different people have different levels of ability to construct narratives from stories. Hypothesis test results are presented in Figure 1. Coefficients were calculated with standardized variables (z scores). Self-relevance and verisimilitude were significant predictors of engagement, engagement was a significant predictor of narrative transportation, and engagement and narrative transportation were significant predictors of proclivity to recommend, and perceived value of time spent. The negative coefficient for verisimilitude indicates that camper engagement was higher in highly imaginative (extreme fantasy) stories than in stories describing events likely to happen in the real world.

**Figure 1**  
Results



### Discussion and Implications

Results suggest using specific techniques for storytelling with youth can elevate their engagement and narrative transportation experience within camp or other youth development programs. In addition to the well-established importance of following a story structure (Freytag's pyramid), storytellers might establish self-relevance to campers and choose or construct highly imaginative fictional stories. Self-relevance and verisimilitude were theory-based predictors in our study, while music and props were included due to the prominence of each in heritage

interpretation. Results supported the theory-based techniques, but not the techniques from our inductive observations. It is notable, though, that theory about narrative transportation suggests that stories high in verisimilitude promote engagement. With our sample of youth, we found the opposite. For example, one of the stories told was about a high school student who embarked on a journey to a magical palace in Spain, where he found rooms filled with mountains of gold, sparkling jewelry and flying carpets. However, as the young explorer dove deeper into the palace, the doors and floors began shifting and eventually he got lost and was trapped in the magical palace. This story elicited self-relevance and had low verisimilitude which then promoted engagement and an increase in narrative transportation. Developmental factors may account for this difference. Previous research on narrative transportation has been conducted with adult research participants. With the increase of narrative transportation, our results indicated the youth were most likely to recommend the story to their peers (proclivity to recommend), and believed it was a good use of their time (perceived value of time spent).

By understanding what features a story experience should have to increase engagement, camp practitioners and youth program leaders may incorporate highly imaginative fictional and self-relevant stories to their activities to further elevate the youth's experience. In our study it was evident that the 4-H youth were more engaged during stories that were less realistic and to which they could best relate. This demonstrates the importance of adding storytelling as a unique tool to elevate engagement in youth serving organizations, programs and other youth development opportunities.

It is important to note that the limitation of this study included the location of where the series of stories were told. The first half of the stories were told in the lobby of a hotel where there were very few distractions. The storyteller was close in range for the youth to hear and see, making an ideal setting for complete focus. The second location where the rest of the stories were told proved to be a bit challenging. The youth had to be close together to hear the storyteller despite the chatter of people in the lobby and dimmer lighting. However, they were asked beforehand if they can hear the music from the Bluetooth speaker or the storyteller's voice. The two differences in setting may have altered the youth's overall focus on the stories. Apart from this limitation, when stories possessed a high degree of self-relevance and were more fantasy-like, campers' experiences were enhanced. Future studies can apply how much these different storytelling techniques have in their organizations and whether similar findings will be evident. Future studies can further add to the limited knowledge of narrative transportation among youth and the role engagement plays in programming through stories.

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**Storytelling at Camp: Effects of Self-Relevance, Verisimilitude, Props, and Music**  
 Emily Catalan and Gary Ellis



**Study Aim/Purpose**

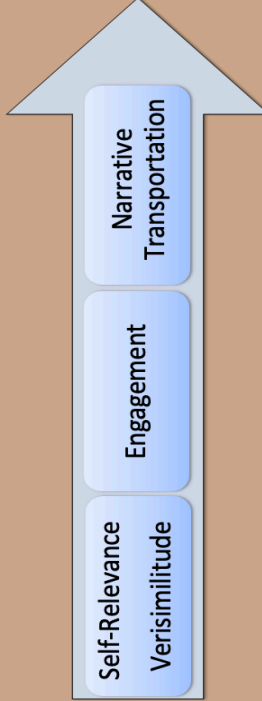
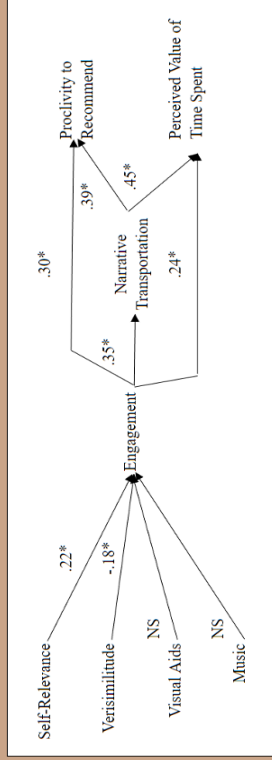
What storytelling techniques elevate youth engagement while listening to stories?

**Methods**

- Campers (N= 18, ages 15- 18, 83% female) participated in a travel camp experience to Spain.
- They listened to stories at places visited in Spain.
- They completed questionnaires after each story.



**Results**



**Implications**

1. Stories should be highly imaginative and fictional.
2. Storytellers should establish self-relevance to campers.
3. Stories can serve as a powerful tool to elevate camp experience.

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## STORIES AND NARRATIVE TRANSPORTATION IN A FAITH-BASED CAMP

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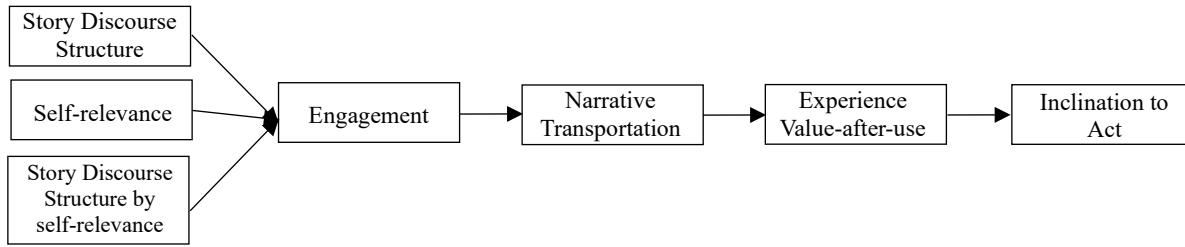
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Campers encounter stories through story-telling programs and extemporaneous opportunities, like when counselors and activity specialists tell stories during the flow of daily camp life. Stories enrich camper experiences. The concept, *narrative transportation* (Gerrig, 2018) describes the state of being engaged in stories. Transportation is a metaphor, signaling that participants (listeners, readers, or spectators) become engaged in imaginary journeys to different places, times, and sets of circumstances as stories unfold. Narrative transportation has been formally defined as “...a combination of attention, imagery, and feeling in which an individual becomes immersed in a narrative world” (Green, 2021, p. 87).

Stories yield value-during-use and value-after-use (Eck et al., 2020). Value-during-use refers to the engaging subjective state of narrative transportation that listeners enjoy as stories unfold. Value-after-use occurs after a story has ended. Participants ordinarily return from their journeys changed in some way. Their story experience may have yielded immediate joy, relaxation, pleasure, attention restoration, or inspiration. Developmental outcomes are also possible. The traveler may return with new knowledge, insight, or a refined perspective. A spark of interest to be pursued may have been ignited and the traveler’s “self” (Csikszentmihalyi, 2014) may have been expanded. Value-after-use can be particularly important in faith-based camps, where storytelling may advance values and beliefs of the sponsoring organization.

A vast literature on narrative transportation exists (e.g., Van Laer et al., 2014). Yet, important questions about storytelling and narrative transportation in camp settings have not been addressed. Several questions are relevant. Perhaps of greatest importance to camp professionals, strategies for telling stories that elicit narrative transportation among campers are not known. Narrative transportation theory points to two key strategies: self-relevance (Tchernev et al., 2021) and story structure (Brewer & Lichtenstein, 1982). Self-relevance refers to the extent to which the story speaks to the “self,” something the listener genuinely likes and values. A camper passionate about archery, for example, will likely have a rich narrative transportation experience while listening to a story about an accomplished archer. Story structure refers to the progression of events as the story is told. *Suspense* stories progress in a linear sequence along a timeline, start to finish. *Surprise* stories also follow a linear sequence, but they include dissonant elements of uncertainty as the story progresses and they terminate with an outcome that is likely unanticipated by listeners. *Curiosity* stories “begin at the end,” and then describe events leading to that situation. Other strategies found to facilitate narrative transportation include helping listeners identify with a character in the story, verisimilitude, and ensuring a coherent plot (van Laer et al., 2014). These techniques have not been studied in the context of camp stories, nor has the narrative transportation model embraced the role of engagement as part of the value-during-use of a story. Effects on value-after-use and intention to act have also not been studied. Intention to act is particularly important to faith-based camps because stories may be used to build faith or develop values, beliefs, and morals. We studied the effect of story structure and self-relevance elicitation on value-during-use (narrative transportation and engagement), value-after-use (perceived value of time spent, proclivity to recommend, and delight), and inclination to act (Figure 1).

Figure 1  
*Path Model of Narrative Transportation in Leisure*



**Method**

Three-hundred-six youth ages 11–18 listened to stories that were modernized versions of Biblical parables, at 35 simulated campfires of a faith-based summer camp. Storytelling sessions were systematically varied by self-relevance elicitation and story structure according to a 2 by 3 experimental design. Stories using the three structures were randomly assigned to the 35 groups. Participants receiving self-relevance elicitation were handed a self-relevance elicitation message before the story began and the storyteller read the message to participants. Participants completed measures of value-during-use, value-after-use, and intentions to act based on learning from the story. Measures were adapted from instruments successfully used in previous research. Data were collected via an online questionnaire and analyzed through factorial analysis of variance.

**Results**

The interaction between self-relevance elicitation and story structure was significant. Simple effects tests revealed that when the story followed the surprise structure, value-during-use was significantly greater if self-relevance was elicited (Table 1). For curiosity story structure, self-relevance elicitation yielded significantly lower value-during-use than no self-relevance elicitation. Means of the two self-relevance elicitation conditions were not significantly different for suspense structure stories.

Table 1  
*Simple Effects: Story Structure by Self-Relevance*

Dependent Variable:

Story Structure	I	J	Difference (I-J)	Std. Error	p	95% CI for Difference	
						Lower Bound	Upper Bound
Suspense	SR not provided	SR provided	5.818	5.998	0.333	-5.986	17.622
Surprise	SR not provided	SR provided	-18.072*	5.874	0.002	-29.631	-6.512
Curiosity	SR not provided	SR provided	13.062*	5.909	0.028	1.434	24.691

The effect of story value-during-use on intention to act was fully mediated by story value-after-use. The main effect of story value-during-use on intention to act was not significant, but the standardized indirect effect (through story value-after-use) was strong, .60.

### **Implications and Discussion**

Results inform storytelling strategies used at camp. If the storyteller uses the surprise story structure, eliciting self-relevance will likely elevate engagement and narrative transportation. Surprise discourse structures may cause the greatest elevation of engagement and narrative transportation because the surprise in the story occurs at the end of the story, creating a lasting effect for participants as they finish the study. For the curiosity structure, self-relevance elicitation may be ineffective or even contraindicative. Limitations of this study are noted. To maintain strong internal validity since a study of this type has not been done before, participants were limited to youth who had attended a faith-based camp. This however results in lower external validity, or generalizability. Additionally, the smaller sample size ( $N = 306$ ) constrains the ability to do exploratory analyses. Future research is needed to understand the interaction effect. Perhaps curiosity structures involve greater cognitive demands, as listeners must order events as they listen. The demand may leave insufficient energy to evaluate self-relevance of the story. Perhaps the peak-end rule (e.g., Kahneman, 2000) may explain why the self-relevance elicitation means differ for surprise stories but not suspense stories.

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# Stories and Narrative Transportation in a Faith-based Camp

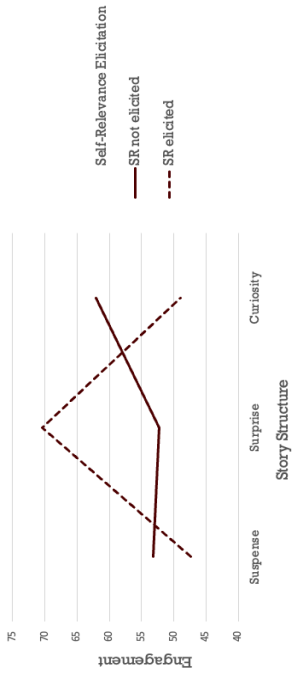
## Study Aim/Purpose

1. How do we effectively produce narrative transportation to thereby promote change in campers?
2. What effect does story structure and self-relevance elicitation have on value-during-use (narrative transportation and engagement), value-after-use (perceived value of time spent, proclivity to recommend, and delight), and inclination to act?

## Methods

1. Youth (N = 306) ages 11-18 listened to stories that were modernized versions of Biblical parables at 35 simulated campfires of a faith-based summer camp. Storytelling sessions were systematically varied by self-relevance (or no self-relevance) elicitation and story structure (suspense, surprise, or curiosity) according to a 2 by 3 experimental design.
2. Data analyses: Factorial analysis of variance

Group Means: Story Discourse Structure by Self-Relevance



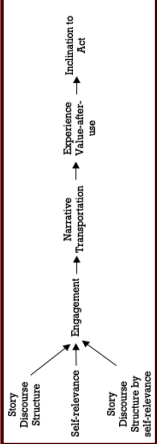
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Curiosity	SR not provided	SR provided	13.062*	5.909	0.028	1.434	24.691

## Implications for Practitioners

Results inform storytelling strategies used at camp:

1. When using the suspense story discourse structure, eliciting self-relevance will likely elevate engagement and narrative transportation.
2. When using the surprise story discourse structure, eliciting self-relevance will likely elevate engagement and narrative transportation.
3. When using the curiosity story discourse structure, eliciting self-relevance will not likely elevate engagement and narrative transportation



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# CAMP MAPPING: A CREATIVE APPROACH TO YOUTH PERSPECTIVES OF PROGRAM QUALITY

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Program quality (PQ) refers to how staff behaviours, program activities, and culture foster youth development. PQ is important to consider in camps to assess effectiveness and provide high-quality programs to youth. Researchers conclude that greater PQ is related to positive developmental outcomes (Bean et al., 2016). Approaches to PQ emphasize supportive relationships between staff and youth, intentionally structured activities, and providing young people opportunities for leadership and agency. The Weikart Center social-emotional learning approach describes four environments that are essential in high-quality programs: safe, supportive, interactive, and engaging (The Forum for Youth Investment, n.d.).

Strong youth development programs also provide opportunities for youth to share their perspectives and actively participate in creating learning environments. Youth voice is imperative to understanding PQ from a participant's perspective and allows youth to inform decision-makers improvement efforts. Researchers have used survey to provide youth voice related to PQ (e.g., Bennett, 2018). Creative methods, such as photo-elicitation (Strachan & Davies, 2015) may offer more accessible and creative ways to access youth perspectives about programs. Therefore, the purpose of our study was to understand youth perspectives of PQ at camp through a creative arts exercise.

## Methods

Tims Camps offers a multiday, overnight camp experience to local schools from low-income communities during the academic year. Youth participate in typical camp program activities such archery, ropes course, arts and crafts, and large indoor group games. As part of the Fall 2022 school program, youth (11–13 years old), from three camp locations in Alberta, Ontario and Québec participated in a “Camp Mapping” creative arts project. Students were instructed to draw a map or other creative representation of people, places, and things (activities) around camp that they felt characterized each of the four PQ environments.

For this study, camps facilitated the activity and transferred data to a central office. A total of 558 of the 625 maps received were usable. We met initially to create a codebook including most common people, places, and things that would appear in the maps. We identified possible twenty-one codes. We used the four PQ environments as deductive categories and coded up to four themes for each category. We began analysis by independently coding the same 50 images, then discussed the coding process and discrepancies. Next, we each independently coding approximately 150 images. Lastly, we met to discuss the coding process prior to calculating frequencies for each code.

## Findings

Most maps (49%) were drawn in quadrant format with the person, place, or thing drawn to describe each of the four PQ environments (Figure 1), while another 28% were a handmade map of the camp location with specific PQ environments labeled (Figure 2). Other maps included sentence descriptions of camp locations (15%), and photocopies of camp maps (8%).

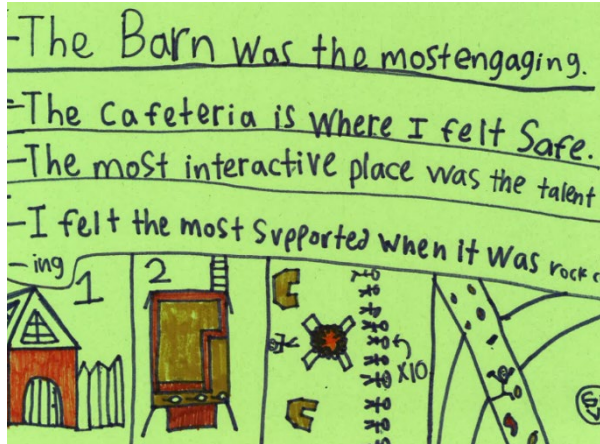


Figure 1. Camp quadrant map

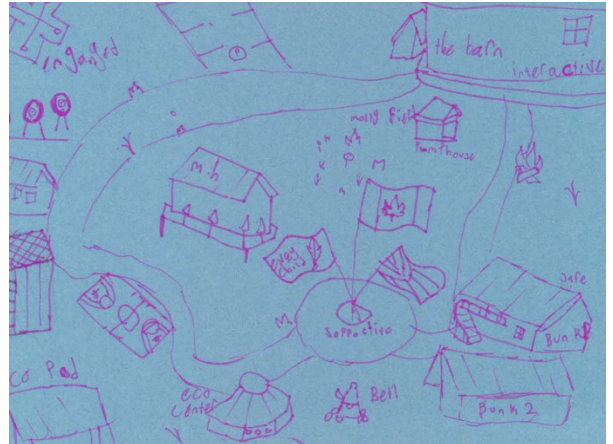


Figure 2. Hand drawn camp map

The most common themes for each PQ environment are presented below. There was distribution across multiple themes in each category.

Table 1  
Most common codes for each category

Environment	Code	Percent of Maps
Safe	Bunkhouse	62
	Dining Hall	19
	Peers	9
Supportive	High Ropes Course	32
	Peers	13
	Dining Hall	12
Interactive	Barn	24
	Dining Hall	12
	Sports Activities	12
Engaging	Barn	23
	High Ropes Course	15
	Dining Hall	11

The bunkhouse, where campers rest and sleep, was commonly identified as a safe environment (62% of maps). During the school program, it is only occupied by campers, teachers, and any group chaperones, not camp staff. The high ropes course was identified as a supportive environment on 32% of camp maps. During this structured activity youth review safety expectations and are provided with guidelines and support from staff and peers. The barn, which is available at one location, was identified as an interactive environment in 24% of camp maps and as an engaging environment in 23% of camp maps. At the barn campers interact with various animals after an introduction and guidance from staff.

## Discussion

To our knowledge, this study was the first to explore youth perspectives of PQ through a creative arts activity. The takeaways are related to the process of collecting youth perspectives. Adhering to a framework of PQ (e.g., Weikart Center's) is important to establish a common understanding of youth and practitioner language for these concepts. For example, when asked about a safe environment at camp, youth most identified the bunkhouse. The Weikart model focuses on social-emotional learning and psychological safety, whereas youth likely interpreted this as physical safety. Future research may focus on determining youth language that attends to PQ concepts. This may require providing guiding information about how research validated frameworks define quality practices and asking for campers' views of these concepts.

Although this creative exercise prompted participants to identify camp-based elements that reflected quality, the information gathered did describe why they were identified. PQ research that moves beyond surveys (e.g., Bennett, 2018) and prioritizes qualitative or creative methods, such as photo-elicitation interviews (e.g., Strachan & Davies, 2015) or storytelling may provide opportunities to understand youth perspectives of quality more deeply. An exploration of youth identified mechanisms that foster quality at camp is essential to improving camper experiences and outcomes.

Some limitations that should be considered in further research are as follows; the activity that was presented continued to use the Weikart Framework language. This language was theoretically based and not youth friendly potentially causing misunderstanding during the instructions. The instructions for the activity were open-ended which led to the camp maps being varied depending on location and activity facilitators. The activity instructions did lend to creativity in the activity, but not consistency.

Practitioners may consider how to incorporate creative and experiential activities that solicit youth perspectives of quality at camp (e.g., comic strip design, skit performances), ultimately informing future program improvements. With greater alignment of research and youth-informed perspectives of quality, practitioners are better able to train and support frontline staff to facilitate positive camp experiences associated with youth development.

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### Introduction

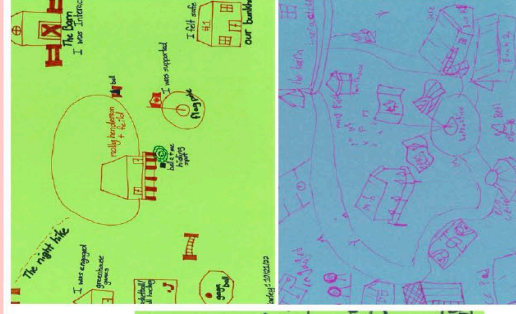
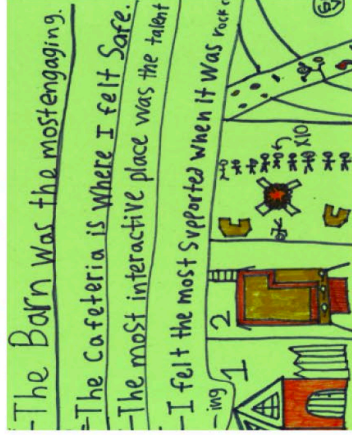
- Program quality (PQ) is important to consider in camps to assess effectiveness and provide quality developmental programs to youth
- Youth voice is imperative to understanding PQ from a participant's perspective and allows youth to inform organizational improvement efforts
- Creative research methods may offer more accessible ways to solicit youth perspectives about programs
- The purpose of this study is to understand youth perspectives of PQ at camp through a creative arts exercise

### Methods

- During the Fall 2022 school program, youth (11-13 years old) participated in a "Camp Mapping" creative arts project
- A total of 558 useable maps (n = 558) were deductively coded using the four PQ environments (safe, supportive, interactive, and engaging)
- Per category, frequencies were calculated for each theme

### Findings

- Safe: bunkhouse (62%)
- Supportive: high ropes (32%)
- Interactive: barn (24%)
- Engaging: barn (23%)



### Discussion and Implications

- An evidence-based social-emotional PQ model was used. Understandably, youth did not approach the activity with the same perspective (e.g., safe was viewed as physical safety rather than social-emotional).
- Practitioners may consider how to incorporate creative and experiential activities that solicit youth perspectives of quality at camp, grounded in youth-friendly language (e.g., comic strip design, skits, performances)
- Soliciting youth perspectives of program quality will inform future changes and facilitate improved youth experiences

<sup>1</sup>Tim Hortons Foundation Camps, <sup>2</sup>American Camp Association





## INJURY PATTERNS IN A NATIONAL COHORT OF SUMMER CAMPS

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Injury is the leading cause of morbidity and mortality in children and adolescents.<sup>1</sup> Summer camps offer diverse outdoor activities for campers, some of which put them at higher risk for injuries. Pediatric unintentional injuries remain preventable and pose a substantial public health concern, according to the Centers for Disease Control (CDC).<sup>2</sup> With over 20 million children and adolescents attending camps yearly,<sup>3-5</sup> preventing and reducing the incidence of injuries at camp is vital.

Previous injury data from summer camps is outdated, lacking data from a large cohort of camps and limited by lack of access to an electronic health record (EHR) system.<sup>6-8,10-13</sup> Our study aims to assess the current epidemiology of injuries in summer camps nationally by partnering with CampDoc, a camp-specific EHR, which manages health forms, medications, allergies, illnesses and injury tracking for camps. Providing epidemiological injury data for camp stakeholders will improve pediatric injury prevention initiatives in summer camps.

### Methods

We performed a retrospective chart analysis of pediatric injuries occurring at residential summer camps from 2016-2019 using de-identified electronic medical record data available from CampDocs.com, an online camp electronic health record system. Free text within entries were coded to determine if they met the study's inclusion definitions and criteria and then coded for category of injury, injury body location, mechanism, severity, and camper disposition post injury, including whether camper required higher level of medical care such as the emergency department or urgent care. A codebook was developed a priori for data abstractors.

### Results

83,990 total entries were collected from 89 camps, representing 34 states. Of 44,868 total entries analyzed, 13,934 were coded as definite injuries. This corresponds to an overall injury rate of 575 injuries per 100,000 camper days. Injured campers had an average age of 11.7 years; 55% were female. The most frequent injuries were lacerations/abrasions (37.6%,  $n = 5,249$ ), sprains/strains (27.8%,  $n = 3,882$ ), head injury/concussion (14.1%,  $n = 1,971$ ), and bruise/contusion (9.4%,  $n = 1,308$ ) (Table 1). Lower and upper extremities were the most common injury locations (49.4%,  $n = 7,002$  and 25.7%,  $n = 3,635$  respectively) (Figure 1). Injuries most frequently occurred during routine activity (25%,  $n = 3,468$ ), sport/game (20.3%,  $n = 2,827$ ), and water activities (14.4%,  $n = 2,009$ ) (Figure 2). Most injuries were coded as mild (90.7%,  $n=12,644$ ) or moderate (8%,  $n = 1,113$ ), and 2.6% ( $n = 363$ ) of injuries required treatment at a higher level of medical care.

Bivariate analyses of factors associated with moderate or severe injuries revealed that participants with severe or moderate injuries were statistically older ( $M = 12.4$  years) compared to those with mild injuries ( $M = 11.7$  years,  $p < .001$ ). They were more likely to have injuries to the head/face (12.2%) compared to other locations ( $p < 0.001$ ) and were more likely to occur during sports/games (14.3%) compared to other activities ( $p < 0.001$ ).

Multivariable logistic regression analysis demonstrated that older age (odds ratio [OR] = 1.167, 95% confidence interval [CI]: 1.099–1.238), male sex (OR = 1.1.4, 95% CI: 1.1–1.9), location of injury (upper extremity) (OR = 3.006, 95% CI: 1.494–6.049), and location of injury (head/face) (OR = 2.107, 95% CI: 1.008–4.405) were all associated with statistically significantly higher odds of moderate or severe injury among all campers.

Table 1. Category of injury

Category of Injury	
Laceration/abrasion	37.6% (n=5249)
Sprain/strain	27.8% (n=3882)
Head injury/concussion	14.1% (n=1971)
Bruise/contusion	9.4% (n=1308)
Bite	7.3% (n=1024)
Burn	1.6% (n=228)
Foreign body	0.9% (n=128)
Fracture/dislocation	0.8% (n=107)
Injury to internal organs	0.3% (n=43)
Unknown	0.2% (n=34)

Figure 1. Location of injury on the body

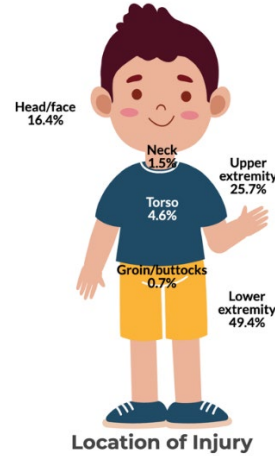
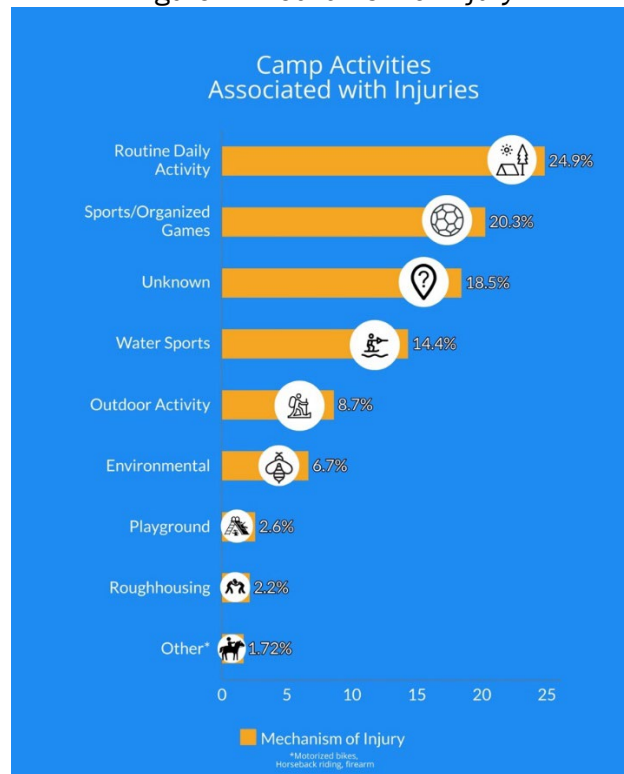


Figure 2. Mechanism of injury



### Discussion & Conclusion

Despite the substantial number (20 million) of children attending summer camps annually,<sup>3-5</sup> there is a significant knowledge gap in our understanding of the epidemiology of unintentional injuries at summer camps. Our study reveals an injury rate of 575 per 100,000 camper-days, which is substantially higher than previous studies (40-49 injuries per 100,000 camp-days).<sup>6,7,9</sup> While the number of camps included in our study was similar to prior studies (89 in current study compared to 71-160 in prior studies), we captured a considerably larger overall number of injuries, totaling 13,934 compared to 218 and 3,520 in studies by Goldlust

and Garst respectively.<sup>6,7</sup> One possible explanation for this disparity is our use of the camp-specific EHR, which was not available in previous studies. The EHR enables camps to comprehensively document all types of injuries, including a substantial number of “minor” injuries. Arguably, capturing even “minor” injuries holds public health importance, as they may serve as early indicators of potential future injuries and allow camp staff to proactively identify emerging issues or “close call” injuries. If we were to include only moderate and severe injuries, our calculated injury rate would be 53 per 100,000 camp-days, similar to prior studies.

This study offers updated insights into injury rates and patterns observed at summer camps. Our findings point to a higher injury rate than previously reported, potentially attributed to the use of an EHR that allows for enhanced data capture. Based on our results, future injury prevention measures at camps could include increased staff safety training, use of correct safety equipment for different activities and aquatics training and rescue practice. By understanding the common mechanisms and types of injuries seen at camps, we can collaborate with camp stakeholders to evaluate and improve pediatric injury prevention initiatives in summer camps.

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# Injury Patterns in a National Cohort of Summer Camps

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### Introduction

- Injury is the leading cause of morbidity in children and adolescents.
- Over 14 million children attend summer camps yearly.
- The most recent study capturing the prevalence and etiologies of summer camp injuries was performed in 2010.
- Understanding injury characteristics is particularly important for injury prevention interventions in summer camps.

### Objective

- Determine overall injury rates for children and adolescents attending summer camps
- Describe the different types of injuries occurring at summer camps
- Describe variables associated with injuries occurring at summer camps (mechanism of injury, location on the body, severity, disposition)

### Methods and Materials

- Retrospective analysis of pediatric injuries at residential summer camps from 2016-2019.
- Is it an injury?
  - “acute physical damage that results when a human body is exposed to intolerable levels of external force or substance”
- If so, the entry was then coded for:
  - Category of injury
  - Location of the injury on the body
  - Mechanism of injury
  - Severity
  - Camper disposition after the injury.

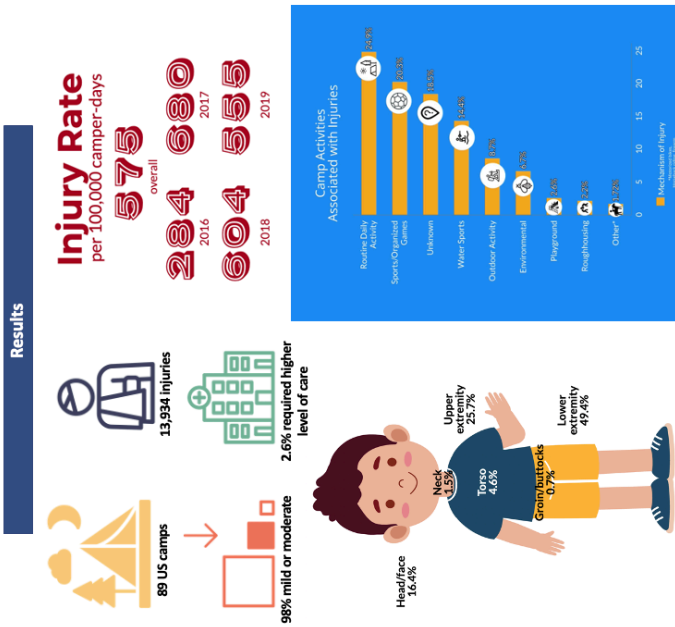


Figure 1. Location of Injury

### Table 1. Category of injury

Laceration or abrasion	37.6% (n=5249)
Sprain/strain	27.8% (n=3882)
Head injury/concussion	14.1% (n=1971)
Bruise/contusion	9.4% (n=1308)
Bite	7.3% (n=1024)
Burn	1.6% (n=228)
Foreign body	0.9% (n=128)
Fracture/dislocation	0.8% (n=107)
Injury to internal organs	0.3% (n=43)
Unknown	0.2% (n=34)

### Discussion

- Lower (49.4%) and upper extremity (29.7%) injuries were the most common injury locations.
- Injuries most frequently occurred during routine activity (25%), sport/game (20.3%), and water activities (14.4%).
- Almost all injuries were coded as mild (90.7%) or moderate (8%) and were able to be treated at camp (95%).
- Only 2.6% required evaluation at a higher level of medical care (Urgent Care, Emergency Department).
- Possible mitigators of risk could include additional padding to knees prior to participation in certain activities, increased supervision, and smaller group sizes.

### Future Implications

- Understanding the common mechanisms and types of injuries seen at camps is crucial for structuring activities.
- The data collection process through camp EHRs could be further streamlined and standardized to better inform us about injury variables and improve safety measures at summer camps nationally.
- We can work with camp stakeholders to evaluate and improve pediatric injury prevention initiatives at summer camps across the country.

Figure 2. Camp Activity Associated with Injury

# **COST-EFFECTIVENESS ANALYSIS OF UNDESIGNATED STOCK EPINEPHRINE FOR ANAPHYLAXIS AT US SUMMER CAMPS**

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**Contact: Carissa Bunke carissa(at)med.umich.edu**

Anaphylaxis is potentially life-threatening sequelae of allergic reactions and requires immediate treatment with injectable epinephrine.<sup>1-4</sup> Around 14 million children attend summer camps in the United States (US) each year,<sup>5</sup> with 2.5% of these campers having multiple food allergies.<sup>6</sup> However, less than half of these children bring their own epinephrine autoinjector to camp. While prior studies found that universal provision of stock epinephrine autoinjectors by schools was cost-effective,<sup>7</sup> similar research in summer camp settings is lacking. Legislation in states requiring epinephrine autoinjector availability within school settings does not always extend to summer camps. No known studies have investigated the cost-effectiveness of stock epinephrine for anaphylaxis in summer camp settings. This study used decision modeling to investigate the cost-effectiveness of strategies to provide epinephrine for anaphylaxis treatment at residential summer camps.

## **Methods**

We created a decision-analytic Markov model to simulate epinephrine administration for anaphylaxis in a hypothetical cohort of 10,000 children attending US residential summer camps. We considered four strategies: 1) individual-provided epinephrine, 2) stock epinephrine only, 3) current practice, 4) stock epinephrine + individual epinephrine. In the individual-provided epinephrine strategy, campers previously diagnosed with severe allergy provided epinephrine autoinjectors, available only for the prescribed individual. In the stock epinephrine strategy, each camp stocked two twin packs of epinephrine autoinjectors, available for any camper, and no campers brought individual autoinjectors to camp. In the current practice strategy, a proportion of camps provided stock epinephrine autoinjectors, and individuals also brought prescribed autoinjectors to camp. Individuals with anaphylaxis who received early epinephrine had a decreased risk of hospitalization. The model ran over ten weeks and used a societal perspective. Primary outcomes evaluated were cost, effectiveness (QALDs), and cost-effectiveness for each strategy. One way and probabilistic sensitivity analyses were performed. Secondary analyses included cost per hospitalization avoided and the cost-effectiveness of nurse-drawn epinephrine solution for injection in place of epinephrine autoinjectors.

## **Results**

The stock epinephrine strategy was found to be the least expensive and most effective (\$2.80, 69.9 QALDs) (Table 1). The stock epinephrine + individual epinephrine strategy was equally effective but more expensive. One-way sensitivity analyses demonstrated that results were sensitive to the number of campers each week and the proportion with a severe allergy diagnosis. Individual-provided epinephrine was also favored if the risk of severe allergy was less than 0.5%, a five-fold decrease from the base-case value. Probabilistic sensitivity analyses indicated that, at a threshold of \$100,000/QALY, stock epinephrine was preferred in 99.9% of model iterations.

**Table 1**  
*Cost-effectiveness analysis*

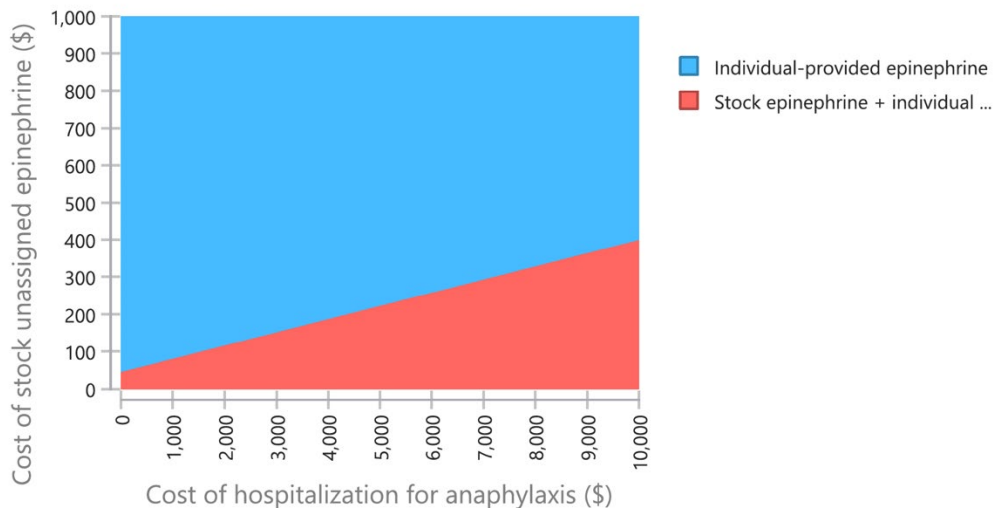
Strategy	Cost per individual (\$)	Incremental Cost (\$)	Effectiveness (QALD)	Incremental effectiveness (QALD)	ICER (\$/QALD)
Individual-provided epinephrine	8.54	-	69.9998	0	-
Current practice	8.97	0.43	69.9999	0.0001	\$9,885
Stock epinephrine + individual epinephrine	9.46	0.49	69.9999	0.0001	\$9,883
Stock epinephrine only	2.80	-	69.9999	0.0001	Dominant <sup>a</sup>

<sup>a</sup>A strategy is considered dominant when it is less expensive and equal to or more effective than competing strategies

ICER, incremental cost-effectiveness ratio; QALD, quality-adjusted life-days

When stock epinephrine was excluded from the analysis, modeling camps where this strategy was potentially infeasible, individual-provided epinephrine was preferred. One-way sensitivity analyses demonstrated that results were sensitive to severe allergy risk, anaphylaxis risk, anaphylaxis hospitalization risk, epinephrine cost, hospitalization cost, costs associated with missing camp, and the number of campers each week. A two-way sensitivity analysis compared the impact of hospitalization costs and epinephrine costs on the preferred strategy (Figure 1).

Two-way sensitivity analysis: Varying costs of stock epinephrine and hospitalization



In the cost per hospitalization analysis, the individual-provided epinephrine strategy yielded four hospitalizations for anaphylaxis in a population of 10,000 campers. The current practice strategy cost an additional \$7,806 for a population of 10,000 campers and resulted in three hospitalizations. This strategy was extended dominated by stock epinephrine + individual epinephrine (current practice had an ICER greater than a more effective strategy). Stock

epinephrine + individual epinephrine had only one hospitalization, costing an additional \$5,536 per hospitalization avoided.

When camps used nurse-drawn epinephrine solution for injection, stock epinephrine + individual supplemental epinephrine was the least expensive strategy and most effective strategy (\$7.49, 69.9 QALDs), favored in 98% of model iterations in probabilistic sensitivity analyses at a threshold of \$100,000/quality-adjusted life-years.

### Discussion & Conclusion

Anaphylaxis is a rare but serious event that requires immediate treatment. Our study demonstrates that while stock epinephrine injectors alone are the most cost-effective strategy in our model to treat anaphylaxis in the summer camp setting, the preferred strategy likely varies based on the characteristics of an individual camp. For example, camps where campers remain within close vicinity for all camp activities, and particularly for camps where individual-provided autoinjectors are stored together in a central location. A cost-effectiveness analysis of epinephrine use in schools found that universal provision of stock epinephrine autoinjectors by schools was cost-effective,<sup>7</sup> similar to our results. The strength of this strategy comes from eliminating the redundancy of multiple individual epinephrine autoinjectors, an important consideration given increasing autoinjector costs.

These findings support continued guidance for camps on how to provide anaphylaxis training and enact stock epinephrine protocols, development of financial resources for camps seeking to provide stock epinephrine, and legislative provisions for camps providing this life saving medication.

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**Introduction**

- Thousands of children with severe food allergies attend summer camps yearly
- Anaphylaxis, a potentially life-threatening sequelae of allergic reactions, requires prompt treatment with epinephrine
- Less than half of children with multiple food allergies bring epinephrine autoinjectors to camp
- The most cost-effective strategy to stocking epinephrine for anaphylaxis at summer camps remains unclear

**Objective**

To investigate the most cost-effective strategy to provide epinephrine for anaphylaxis at residential summer camps

**Methods and Materials**

- Markov model simulating epinephrine use for anaphylaxis in a cohort of 10,000 children attending residential camps, run over 10 weeks
- **Four Strategies**
  1. Individual provides their own epinephrine autoinjector
  2. Stock epinephrine only (camp provides)
  3. Current practice (47% of camps have stock epinephrine and all known allergic campers supply their own autoinjector)
  4. Stock epinephrine + individual epinephrine
- **Primary outcomes:** Cost, effectiveness, and cost-effectiveness
- **Secondary analyses:** Cost per hospitalization avoided and cost-effectiveness of nurse-drawn epinephrine solution for injection in place of autoinjectors

**Results**

**FOUR STRATEGIES**

<b>1</b>	<b>INDIVIDUAL PROVIDED EPI</b>	<b>\$8.54</b>	<b>\$69.9998</b>
<b>2</b>	<b>CURRENT PRACTICE</b>	<b>\$8.97</b>	<b>\$69.9999</b>
<b>3</b>	<b>STOCK EPI ONLY</b>	<b>\$2.80</b>	<b>\$69.9999</b>
<b>4</b>	<b>STOCK EPI + INDIVIDUAL PROVIDED</b>	<b>\$9.46</b>	<b>\$69.9999</b>

*per individual*

*quality-adjusted life-days*

*campers previously diagnosed with severe allergies and autoinjectors available only for the prescribed individual*

*a proportion of camps provided stock epinephrine and autoinjectors, but not both; prescribed autoinjectors to camp*

*each camp stocked two quality-adjusted life-days*

*all camps stocked two twin packs of epinephrine autoinjectors, but not both; brought prescribed autoinjectors to camp*

**STOCK EPINEPHRINE**

was the **LEAST EXPENSIVE** and **MOST EFFECTIVE** strategy


at **\$2.80** and **69.9** quality-adjusted life-days



**RESULTS WERE SENSITIVE TO:**

- 1) Number of campers per week
- 2) Severity of allergy

Risk of severe allergy to 5% (vs. 10%) increased epinephrine preferred



**3 STRATEGY MODEL:**

Individual-provided epinephrine was preferred strategy

**RESULTS WERE SENSITIVE TO:**

- 1) severe allergy risk
- 2) anaphylaxis risk
- 3) anaphylaxis hospitalization risk
- 4) epinephrine \$
- 5) \$ of missing camp
- 6) number of campers/week



**ALTERNATIVE SCENARIO:**

**NURSE DRAWN EPINEPHRINE SOLUTION IN PLACE OF AUTOINJECTOR:**

**- stock epinephrine + individual epinephrine preferred**

**- sensitive to epinephrine cost**



**Results**

**Two-way sensitivity analysis: Cost comparison**



**Discussion**

- Anaphylaxis, though rare, is a serious condition requiring immediate treatment with epinephrine
- Beyond model parameters, the preferred strategy likely hinges on individual camp characteristics
- Stocking epinephrine solution is less expensive, requires a nurse to draw and administer
- Variations of strategies combining stock epinephrine with individual epinephrine may become increasingly cost-effective
  - Rising prevalence of food allergies
  - Increasing healthcare costs
  - Legislation trends

**Future Implications**

- Our findings emphasize the importance of
1. Providing camps with guidance on providing anaphylaxis training
  2. Establishing financial resources for camps seeking to stock epinephrine
  3. Developing legislative provisions for stock epinephrine in camp settings



# PROGRAM QUALITY IN A MULTI-SITE CAMP ORGANIZATION: AN ONGOING EXPLORATION OF INNOVATION DIFFUSION

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Program quality (PQ) is essential for positive developmental outcomes for youth (Smith et al., 2012) and is gaining traction with camp professionals (ACA, 2021). Learning the essentials of PQ and understanding the PQ socialization process across an organization is important. We conducted an initial study (Maglinger & Povilaitis, 2023) grounded in diffusions of innovation (Dol, Rogers, 2003; Sahin, 2006). This framework evaluates how new concepts or behaviors are socialized with a group over time. We explored PQ socialization at Tims Camps, a multi-site camp organization across the United States and Canada (Maglinger & Povilaitis, 2023). Despite dedicating substantial time and resources, we found that the seasonality of camp and short training opportunities yielded challenges. We suggested leveraging returning leadership and seasonal staff, modifying (PQ) assessment tools, and strategically layering PQ concepts into training to support diffusion across the organization (Maglinger & Povilaitis, 2023). In this follow-up study, we continue to focus on the attributes of Dol, resources allocated to PQ, and modifying PQA tools to address staff capacity in the second year of PQ diffusion. The aim is to understand the impact of a second year dedicated to this process and focused efforts on the socialization of PQ at camp.

## Methods

This instrumental case study involved five camp locations within Tims Camps. In this approach, various data types are examined (e.g., surveys, documents, records, scores) and findings may be generalized to similar cases (Stake, 1995; i.e., other multi-site camp organizations). This study focuses on the five attributes of diffusion (relative advantage, compatibility, complexity, trialability, and observability). All PQ efforts (i.e., training, assessments, resource creation) were led by two project leads and shared with full-time program managers (PMs). Data includes reflections on 2022 (collected during a team meeting), training records (see table 1 for training hours), anecdotes from PMs (obtained from written notes during 2022 PQ reflection meeting), rates of engagement with assessments (table 2), staff retention rates (provided by the Human Resources department), and PQ scores (from internal and external assessments at the camps). We categorized data using the five attributes of Dol, identified common themes, and compared year-over-year scores.

## Findings

The first year of the initiative focused on developing an understanding of PQ with PMs and seasonal staff. Overall, PMs were satisfied with the foundational training provided and initial foray into assessments. Regardless, there were ongoing concerns about the perceived complexity of PQ and the capacity of seasonal staff to conduct self-assessments. PMs requested “more training resources”, “more explicit integration of PQ into our staff trainings”, and “more opportunities for hands on learning and engagement with PQ tools”. Table 1 outlines efforts made in year two to attend to these concerns through a focus on three of five Dol attributes.

Table 1  
*Diffusion Attributes*

Attribute	Definition	Efforts to Support	Time Spent in Year Two
	The degree to which the innovation...		

Relative Advantage	Seems preferable to alternatives	Established year one	0
Compatibility	Is suitable to organizational values and needs	Established year one	0
Complexity	Is perceived as challenging to understand or implement	Using PQ data to set goals during focused meetings In person PQ training for PMs PQ training focused resources created for PMs	20 hours
Trialability	Can be tested by the adopted	Conducting PQA during fall & spring school program	40 hours/PM
Observability	Yields benefits or results that can be seen	Addition of two external visits during summer to better support and demonstrate improvements	30 hours/camp

From 2022 to 2023, 47% of seasonal staff and 100% of PMs returned to work at camp. Baseline PQ scores improved across all locations from 2022 to the early summer visit in year two and from the first visit to the second visit during year two. Furthermore, the greatest amount of positive change in PQ scores occurred in areas targeted during goal setting and supported through training and resource creation. Despite seeing improvements in PQ, challenges were seen with capacity of PMs and seasonal staff conducting self-assessments during peak operations. Greater success was seen with external visitors using this tool in the summer and PMs during the school program. Assessments using modified tools were mostly unsuccessful during year two. Table 2 outlines completed self-assessments across two years of the initiative.

Table 2  
*Returned PQA*

Season	Staff/tool	Total expected	Total received	Percent of goal completed
Summer 2022 (peak)	PM (SEL PQA for Camps)	11	3 (range: 0-1/camp)	27%
	Seasonal staff (modified tool)	66	54 (range: 4-12/camp)	82%
	External (SEL PQA for Camps)	6	5 (range: 0-1/camp)	83%
Fall 2022	PM (SEL PQA for Camps)	8	7 (range: 1-3/camp)	87%
Spring 2023	PM (SEL PQA for Camps)	8	6 (range: 1-2/camp)	75%
Summer 2023 (peak)	PM (SEL PQA for Camps)	10	3 (range: 0-2/camp)	30%
	Seasonal staff (modified tool)	97	47 (range: 2-17/camp)	48%
	External (SEL PQA for Camps)	10	10 (2/camp)	100%

## Discussion

Staff retention, PQ trainings for PMs, resources targeted to PQ components, and an increase in PMs assessment practice reduced perceptions of PQ complexity. This may have contributed to increased PQ from year one to two. Increasing foundational knowledge and providing PM trialability of the SEL PQA for Camps during spring and fall seasons was critical. It allowed leaders to gain experience and comfortability with assessments, deliver more efficient training, and support ongoing socialization of PQ with seasonal staff.

Support from a staff external to program delivery was also essential. This person oversaw assessment plans, incoming data, sent reminders to teams, created resources to support PQ improvements, conducted external PQA assessments, and provided coaching and feedback. PMs responded positively to external observations and their value. Two external visits during peak operations allowed PMs to understand their site's PQ and act mid-season for immediate improvements. Camps should consider explicit integration of PQ responsibility into a non-frontline staff role.

Ultimately, delivering high quality programs is more important than conducting self-assessments. Practitioners should find ways to support program leadership teams to develop knowledge and assessment practice outside of peak seasons so focus can be on coaching and providing feedback to increase quality when capacity is reduced. Using modified PQ tools can support ongoing learning for seasonal staff and can be partnered with external assessments to provide actionable feedback. A limitation in this study was the impact of geographical location of the 5 camp locations (i.e., differing time zones and operating seasons). This made it difficult to consistently engage all five locations which hindered the ability to diffuse PQ equally to all sites. Future research may continue to evaluate resource dedication and frontline capacity to develop deep understanding and diffusion of PQ across a camp organization.

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### Introduction

- Initial study into the socialization of Program Quality (PQ) grounded in diffusions of innovation (DoI) in 2022
  - The seasonality of camp and the short training opportunities yielded challenges
  - Leveraging returning leadership and seasonal staff, modifying PQ tools, and strategically layering PQ concepts into training may support diffusion
- Aim: to understand the impact of a second year dedicated to this process and focused efforts on the socialization of PQ at camp

### Methods

- Instrumental case study with five Tims Camps locations
- Data includes reflections on 2022, training records, anecdotes from Program Managers (PMs), rates of engagement with assessments, staff retention rates, and PQ scores
- Data were categorized using the five attributes of DoI and compared to identify themes and year-over-year differences

### Findings

- PQ scores continually improved
- The greatest positive change occurred in targeted areas supported through training and resources
- Greater assessment success was seen with external visitors in the summer and with PMs during the school program

### Discussion and Implications

- Delivering high quality programs is more important than conducting self-assessments
- Staff retention, trainings for PMs, targeted resources, and an increase in PMs assessment practice during school season reduced perceptions of PQ complexity
- Camps should consider explicit integration of PQ responsibility into a non-frontline staff role
- The use of modified tools can be partnered with external assessments to provide actionable feedback

# EXPERIENCES OF CAREGIVERS OF CHILDREN WITH HEMATOLOGIC AND ONCOLOGIC DISEASES AT A MEDICAL-SPECIALTY THERAPEUTIC CAMP

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Caregivers care for children with chronic medical illnesses, like hematologic and oncologic diseases (Inhestern et al., 2020). Sickle Cell Disease (SCD) and childhood cancer represent challenges within families beyond typical caregiving responsibilities (Smith et al., 2014). Illness-specific challenges include treatment regimens that interfere with social and professional activities (Ganzel, 2018). Despite these challenges, there is a positive relationship between physical and emotional trauma, which impacts caregivers' overall well-being and emotional functioning (Coughlin & Sethares, 2017).

An aspect of well-being is hope, which allows individuals to establish pathways conducive to setting and meeting goals (Bailey & Snyder, 2007). Previous research suggests that caregiver hope positively influences coping with a child's illness (Kylmä & Juvakka, 2007). A factor that likely impacts caregiver hope is a child's self-regulating ability, contributing to the child's behavior. Self-regulation is the ability of a person to regulate their behavior, cognition, and emotions. The ability to self-regulate also contributes to adaptive and adverse outcomes for children (Bridgett et al., 2011), such as positive parenting practices (Bridgett et al., 2013).

Therefore, the current study aimed to assess hope and other caregiver experiences of children with SCD and childhood cancer. The study explored the mental health experiences and needs of caregivers of children with serious illnesses. This pilot study used correlational statistics to answer the following research questions: (1) how do perceived child self-regulation, caregiver hope, and caregivers' interpersonal experiences differ based on their child's diagnosis, and (2) what is the relationship between perceived child self-regulation, caregiver hope, and interpersonal experiences of caregivers for children with SCD and childhood cancer?

## Methods

The current quantitative study used a survey design including several validated assessments. Permission to analyze these data was provided by the nonprofit therapeutic recreation camp that partnered with this research. Caregivers provided consent for data for research purposes; however, we did not have access to demographic data for these families beyond child diagnosis. Caregivers were offered electronic gift cards as an incentive to complete the survey. The current study's participants ( $n = 119$ ) were caregivers of children with SCD and pediatric cancer. The sample included caregivers of children with cancer ( $n = 51$ ) and SCD ( $n = 34$ ). The survey was conducted with families at the beginning of four separate sessions of summer camp programming: (1) a program for caregivers of children with various illnesses who were hurricane survivors ( $n = 34$ , 28.57%), (2) a program for caregivers of children with cancer ( $n = 51$ , 42.85%), and (3) a program for caregivers of children with SCD ( $n = 34$ , 28.57%). The survey included the Modified Child Problem Behavior Checklist (MCPBC), Adult Hope Scale (AHS), and Parent Experience with Chronic Illness Scale (PECI) assessments. All assessments in the dataset were scored according to instrument manuals for each assessment, carefully noting reverse-scored items.

## Results

For research question one, in the overall sample, caregivers had high levels of agency and goals for the future, contributing to the overall concept of hope. Caregivers of children with SCD had slightly less guilt and worry than those caring for children with cancer. Caregivers of children with SCD also had lower levels of sorrow and anger, less uncertainty, and reported having greater

emotional resources than caregivers of children with cancer. Caregivers also perceived children with SCD to have a better ability to self-regulate. These trends were supported by statistically significant indicators of relationships in research question two.

Table 1  
Outcomes of paired-samples *t*-tests for all variables

Pair	Mean	Std Dev	<i>t</i>	<i>df</i>	One-sided	Two-sided
MCPBC AHS Agency/Willpower	23.17	8.07	-2.77	84	.003**	.007**
MCPBC AHS Pathways/Waypower	-2.42	7.87	-3.52	84	<.001**	<.001**
MCPBC AHS Total	-30.02	10.49	-26.36	84	<.001**	<.001**
MCPBC Guilt/Worry	1.74	9.14	1.75	84	.041*	.083
MCPBC Sorrow/Anger	11.82	6.91	15.76	84	<.001**	<.001**
MCPBC Uncertainty	15.94	5.83	25.20	84	<.001**	<.001**
MCPBC Emotional Resources	10.10	8.03	11.59	84	<.001**	<.001**

\*  $p < .05$ ; \*\*  $p < .01$

### Discussion and Implications

The current study extends the literature of caregivers with a child with a chronic medical illness. The results suggest that when compared directly, caregiver experiences differ based on the child's illness, in this case, SCD and childhood cancer. In addition, our results extend the use of the PEI scale to a new population of caregivers – those with SCD. We found that caregivers of children with SCD had higher hope scores than caregivers of children with childhood cancer, which contradicts prior research that highlighted the subjective distress in caregivers with SCD. Moreover, utilizing the PEI in caregivers of SCD allows researchers to understand this population's subjective distress and perceived emotional resources. Our findings indicate caregivers with SCD self-report greater levels of hope and agency when working toward goals and routines.

The current pilot study has several implications and future research directions. First, camps need a systemic approach to maximize and address the mental health of children and their families. In practice, this is the support of multidisciplinary care teams to meet the psychosocial needs of campers and their families. These care teams could include mental health providers, social workers, and school counselors to create year-round plans to support children undergoing treatment while connecting families to much-needed resources. Second, therapeutic camps can also provide opportunities for intentional mental health interventions, such as group therapy, caregiving training programs, and behavior management. Third, therapeutic camps, beyond providing respite and social connection, can also support family

dynamics, address caregiver needs, and improve overall family well-being. Future research could look at targeted mental health interventions over a longer time. This pilot study explored caregiver experiences caring for children with hematologic and oncologic diseases. In assessing caregiver hope, perception of child self-regulation was associated with higher caregiver hope and wellness, which varied by illness. In addition to this finding, this was a unique study in that we used the PECl in a non-oncologic sample, which explores the use of this measure when considering the needs of children with chronic health conditions.

### **Disclosures and Acknowledgements**

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## Experiences of Caregivers of Children with Hematologic and Oncologic Diseases at a Medical-Specialty Therapeutic Camp



### Study Aim/Purpose

1. How do perceived child self-regulation, caregiver hope, and caregivers' interpersonal experiences differ based on their child's diagnosis?
2. What is the relationship between perceived child self-regulation, caregiver hope, and interpersonal experiences of caregivers for children with SCD and childhood cancer?

### Methods

1. Participants were caregivers of children with Sickle Cell Disease and Childhood Cancer ( $N = 119$ ). The following measures were used: (a) Modified Child Problem Behavior Checklist, (b) Adult Hope Scale, and (c) Parent Experience with Chronic Illness Scale. Data was collected after camper attendance at a medical-therapeutic recreation camp in the Southeastern United States.
2. For RQ1, a comparison of means based on child diagnosis was conducted. For RQ2, paired sample  $t$ -tests and Pearson correlation with two-tails using a 95% confidence interval were calculated using the total for the AHS, MCPBC, and subscales of the PECL.

### Findings

- Caregivers of children with SCD scored less on guilt, worry, sorry, anger, uncertainty than than caregivers of children with childhood cancer.

### Implications for Practitioners

1. Support the hiring of multidisciplinary care teams to meet the psycho-social needs of children and their families.
2. Therapeutic camps can provide specific programming for caregivers, regardless of illness groups.
3. Campers are more than just a one-stop shop for respite; they can also improve family dynamics, address mental health concerns, and improve overall well-being.

### Finding #2

- Caregivers of children with SCD reported greater emotional resources and perceived their children to have better ability to self-regulate than caregivers of children with SCD.



### Finding #3



- Statistically significant relationships exist between perceived ability of children to self-regulate and aspects of wellness for their caregivers.

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## TWO METHODS OF TARGETED ANTIVIRAL PROPHYLAXIS WITH OSELTAMIVIR IN A SUMMER RESIDENTIAL YOUTH CAMP

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Studies have suggested the effectiveness of single control measures in the containment and mitigation of influenza in exposed individuals (Moncion et al., 2019). Mass gathering-related respiratory disease outbreaks may be less commonly described in the United States but have been reported in camps where participants have close social contact in communal housing (Kimberlin et al., 2010; Tsalik et al., 2011). Parainfluenza virus epidemics have been found mostly in spring and early summer months in each hemisphere, yet little is known about the clinical presentation, course of influenza outbreaks, and the effect of influenza prophylaxis and treatment in summer camp populations. The aim of this study is to describe the clinical courses of two different methods of influenza prophylaxis and treatment with oseltamivir in a summer camp during 2022 Session 2 (22s2) and 2023 Session 1 (23s1). The combined interventions by multiple control measures in reducing the impact of an influenza outbreak in a residential camp in subsequent years were evaluated and compared.

### Methods

We report on data collected during two influenza outbreaks that occurred in a summer camp between June 10 and July 31, 2022 (influenza A), and between June 12 and July 6, 2023 (influenza B) to examine the outcome of large scale during 22s2 and small scale during 23s1 oseltamivir prophylaxis. Lessons learned from the 22s2 outbreak were evaluated and tighter measures were applied to a second outbreak the following year. During 23s1, a second camp wide outbreak was mitigated by early targeted use of oseltamivir by individuals in close contact with influenza confirmed cases and the application of effective health communication and education strategies with campers, parents, and staff.

In 22s1, 34 (9.7%) campers and 7 (6.7%) staff tested positive for influenza (Table 1). Two summer staff members carried the virus into 22s2. During 22s2, 69 (16.6%) campers and 5 (4.5%) staff members tested positive. With parental consent, positive cases received oseltamivir, and 10 campers (2.4%) were sent home for recovery due to clinic capacity. By Day 14, influenza was present in 20 of 28 (71.4%) cabins. Oseltamivir prophylaxis was offered to 359 non-infected campers and 100 staff; 279 (60.7%) accepted. Daily prophylaxis for 278 participants started on Day 17. By Day 21, no new influenza cases were reported. Between Days 21 and 24, six new camper cases occurred: one on prophylaxis and five not on prophylaxis (Figure 1). The clinic administered daily oseltamivir prophylaxis to 278 participants starting on Day 17. On Day 21 of 22s2, no new reported cases of influenza were reported.

In 23s1, prior to arriving on campus, campers were medically screened for symptoms. One camper with confirmed influenza on Day 1 was sent home. On Days 2 and 4, three cases were positive for influenza from a single cabin of 22. Staff and parents of campers in that cabin were notified of the exposure and recommended oseltamivir prophylaxis. With consent, 13 (73.7%) of the 19 exposed cabinmates and staff were placed on prophylaxis oseltamivir on Day 5. One (7.7%) of those cases tested positive for influenza on Day 12. This camper was not fully adherent with prophylaxis. Of the other nine campers not on prophylaxis, 2 (22.2%) tested positive for influenza on Days 6 and 9. On Day 13, another two cases of influenza were confirmed in a different cabin. In this cabin, 14 (87.5%) of 16 exposed to the two cases were placed on oseltamivir prophylaxis. No further cases of influenza developed in that cabin.

However, one more staff member in the same age group, but not in the same cabin tested positive for influenza on Day 17. This was the last case of influenza for the summer.

### Results

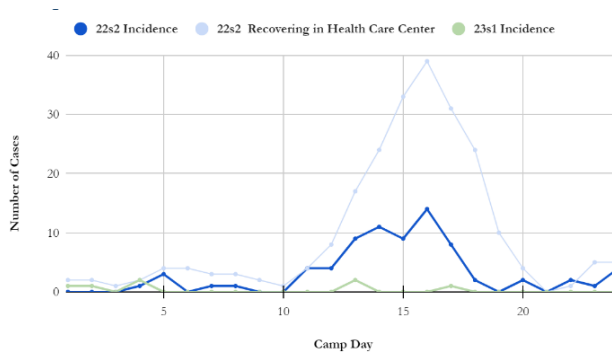
Time series methodology was utilized on the cumulative number of influenza cases for three data sets (all cases, those who took oseltamivir, and those who did not take oseltamivir) to better predict what the outbreak would look like in the future using state space smoothing models. State space smoothing models are defined based on its error, trend component, and seasonal component. Based on an  $\alpha = .05$  prediction interval, the data for 22s1 fit a model AAdM (Additive Error, Additive damped Trend, Multiplicative Seasonal with  $a = 1$ ,  $b = .0001$ ,  $f = 0.916$ ) and 22s2 fit a MAN (Multiplicative Error, Additive Trend, No Seasonality with  $a = 1$ ,  $b = .0404$ ,  $f = 0$ ). When comparing the outcomes of between 23s1 and 22s2, we can see that the smaller outbreak in 23s1 was dampened by the prompt administration of oseltamivir and isolation of campers early on (Figure 2).

In 22s2, the flu became an epidemic within a week. Camp-wide prophylaxis reduced the potential case count. State space smoothing time series modeling in 22s2 indicated the number of cases would continue to increase among campers not on prophylaxis. This was evident after camp-wide prophylaxis, as the 'Cumulative Flu w/ Tamiflu' cases flattened after the protocol was initiated. Meanwhile, the total number of predicted flu cases continued to rise at approximately the same rate as those with flu who were not on prophylaxis. In 23s1, not enough cases were present to allow for a similar analysis.

Table 1  
2022 and 2023 Prophylaxis and Influenza Data

	Category											
	Camper				Staff							
	Session				Session							
	22s	22s	23s	23s	22s1		22s2		23s1		23s2	
Locati	Cabi	Cabi	Cabi	Cabi	Cabi	Priva	Cabi	Priva	Cabi	Priva	Cabi	Priva
<b>Year</b>												
2022	349	416	0	0	73	18	81	18	0	0	0	0
2023	0	0	369	426	0	0	0	0	101	18	89	18
<b>Oseltamivir Prophylaxis</b>												
0	349	166	349	426	73	18	53	18	92	18	89	18
1	0	250	20	0	0	0	28	0	9	0	0	0
<b>Influenza Cases</b>												
0	315	347	362	426	69	15	77	17	100	18	89	18
1	34	69	7	0	4	3	4	1	1	0	0	0

Figure 1  
Comparison of Influenza Outbreaks in 2022 and 2023



Note. Oseltamivir prophylaxis initiated on 22s2 Day 17.

Figure 2

Note. Using state-spaced smoothing models based on a  $\alpha = .05$  prediction interval, the data for 22s2 fit a MAN (Multiplicative Error, Additive Trend, No Seasonality with  $\alpha = 1$ ,  $b = .0404$ ,  $f = 0$ ) whereas 22s1 fit a model AAdM (Additive Error, Additive damped Trend, Multiplicative Seasonal with  $\alpha = 1$ ,  $b = .0001$ ,  $f = 0.916$ ).

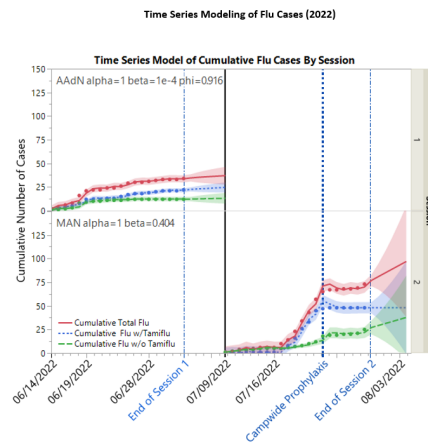
### Discussion and Implications

These outbreak response measures demonstrate intervention of small and large-scale antiviral prophylaxis and treatment could be applied to reduce the magnitude of influenza outbreaks in closed settings. Symptom surveillance should be conducted among all persons involved in the outbreak to support the data to control spread. Effective health communication and education among campers, parents, and staff promoted trust and medical compliance. Placing closely exposed individuals on antiviral prophylaxis significantly decreases the spread of the virus. This study provides additional evidence for rapid containment of influenza in closed settings with communal housing such as overnight residential camps and schools. Camp directors should recognize the potential challenges in managing outbreaks. It is crucial to establish a strong collaborative relationship with healthcare staff, supporting their expertise and decisions to ensure the well-being of campers and staff during outbreaks.

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### Time Series Modeling of Flu Cases 22s1 and 22s2



# TWO METHODS OF TARGETED ANTIVIRAL PROPHYLAXIS WITH OSELTAMIVIR IN A SUMMER RESIDENTIAL YOUTH CAMP



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## Purpose

The purpose of this study is to investigate and compare the clinical courses of two different methods of influenza prophylaxis and treatment using oseltamivir in a summer residential youth camp setting during the 2022 and 2023 seasons.

## Aims

### Aim 1

Describe the clinical courses of two different methods of influenza prophylaxis and treatment with oseltamivir during the 2022 (sessions 1 and 2) and 2023 (23s1) summer camp sessions. Evaluate the combined interventions of multiple control measures in reducing the impact of an influenza outbreak in an overnight camp during subsequent years.

### Aim 2

Examine the outcomes of large-scale oseltamivir prophylaxis during the 2022 outbreak (22s2) and small-scale targeted prophylaxis during the 2023 outbreak (23s1). Utilize state space smoothing time series modeling to predict and compare the trajectory of influenza outbreaks.

## Methods

Data were collected during two influenza outbreaks in a summer camp: June 10 to July 31, 2022 (22s2 influenza A), and June 12 to July 6, 2023 (23s1 influenza B). Table 1 presents the data.

## Findings

### Finding 1

In 22s2, camp-wide prophylaxis reduced the potential case count, and the cumulative number of cases flattened after the protocol was initiated (Figure 2).

### Finding 2

In 23s1, not enough cases were present to allow for a similar state space smoothing analysis. The prompt administration of oseltamivir appeared effective in mitigating an outbreak.

### Figure 1

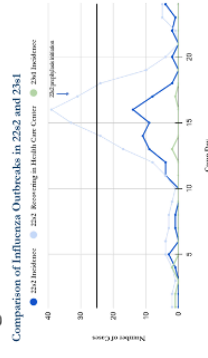
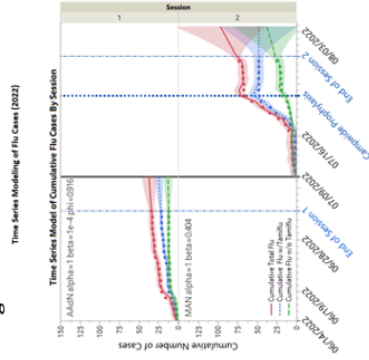


Figure 2



Note: When analyzing the outcomes of 22s1 and 22s2, the smaller outbreak in 23s1 was dampened by the prompt administration of oseltamivir and isolation of campers early in the clinical course. The limited number of cases available in 23s1 due early interventions precludes the application of the same statistical models.

## Implications

Camp directors should acknowledge the study's findings and consider implementing proactive measures for managing influenza outbreaks in communal housing settings. Recognition of the importance of collaborative relationships with healthcare staff is emphasized, highlighting the need for a community-wide coordinated approach to outbreak response. The study provides valuable insights into the effectiveness of different methods of influenza prophylaxis and treatment in a residential summer camp setting. The implications suggest practical strategies for mitigating the impact of influenza outbreaks and underline the importance of timely interventions and communication in closed settings with communal housing.

Table 1. 2022 and 2023 Prophylaxis and Influenza Data

Session Location	Camper						Staff							
	22s1 Cabin	22s2 Cabin	23s1 Cabin	23s2 Cabin	22s1 Private	22s2 Private	23s1 Cabin	23s1 Private	23s2 Cabin	23s2 Private				
Year	2022	349	416	0	0	73	18	81	18	0	0	0	0	18
2023	0	0	369	426	0	0	0	101	18	89	18	18	18	0
Osetlamivir Prophylaxis	0	349	166	349	426	73	18	53	18	92	18	89	18	0
Influenza Cases	1	0	250	20	0	0	0	28	0	9	0	0	0	0
	0	315	347	362	426	69	15	77	17	100	18	89	18	0
1	34	69	7	0	4	3	4	1	1	0	0	0	0	0

# WE ARE NOT ALONE: EXAMINING THE IMPACT OF A TWEEN-TEEN DIABETES DAY CAMP

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Type 1 diabetes (T1D) is a chronic disease that influences physical, mental, and social health. It affects not only the person with the disease but the entire family. Nearly 250,000 children in the US have T1D. Worldwide T1D diagnosis is estimated to double by 2040 (Gregory et al., 2022). Due to this increase, there is cause for concern regarding the quality of life for youth and their families (Robinson et al., 2018). The stress of treatment regimens, such as monitoring glucose levels and feelings of isolation, can decrease a person's quality of life (Anarte et al., 2020). To develop self-management of long-term health behaviors, a person must be intrinsically motivated (Ryan et al., 2020).

The self-determination theory (SDT) suggests that three psychological needs of competence, autonomy, and relatedness are necessary for motivation to engage in behaviors. When these needs are met, the motivation for chronic disease self-management can be accomplished. Medical specialty camps have demonstrated increased camper well-being in all areas of health including intellectual, social, and mental (e.g., Hill et al., 2022). Currently, there is no cure for T1D and diagnosis continues to rise, expected to reach 17 million worldwide by 2040 (Gregory et al., 2022). Camps can effectively increase camper self-management skills for chronic disease (Gagnon et al., 2019). Therefore, the purpose of this study was to engineer a theory-based experience to examine the impact diabetes camps have on building effective diabetes management behaviors in youth.

## Methods

The inaugural REACH teen/tween camp for youth with diabetes, ages 11-16, was held on a Mountain West region college campus. Thus volunteer-based day camp was hosted for five days in summer 2023. The volunteer team included medical staff from the local hospital, college students and staff, as well as Lions Club members. All camp activities were engineered around the three basic psychological needs described by the SDT (i.e., competence, autonomy, and relatedness). The activities for the camp included various crafts, hiking, swimming, yoga, rock climbing, and educational workshops such as pump training and stress management. The three basic psychological needs were also embedded in such activities as counting carbs, meeting friends, insulin dosage during lunch/snack time, and trying new management strategies learned at camp. Community partnerships (e.g., Lions Club M28) played a vital role in giving the opportunity for evidence-based practice and making the program accessible for all participants. Data were collected through the Basic Psychological Needs Satisfaction & Frustration Scale (BPNSFS) questionnaire, along with a 7-item measure on diabetes management (pre- post- and follow-up). Blood glucose for Time in Range (TIR) was collected through a cloud-based Electronic Medical Record that allowed staff to monitor campers' TIR.

## Results

Twenty-six out of 32 campers (81% response rate) completed both the pre and post-tests. The majority of the campers were female (53%), white (91%), and an average age of 12.5 years. The average time diagnosed with T1D was two years. Campers' average level of enjoyment was 9.5 (1-10 scale). On average, campers made 4.5 new friends. Campers' favorite activity was Gaga ball. The most reported new knowledge learned at camp was general knowledge of pumps and their use.

A paired sample *t*-test was used to calculate composite scores for autonomy, relatedness, competence, and diabetes management. The mean score for all four outcomes variables increased. However, only Autonomy pretest ( $M = 3.93, SD = .75$ ) to posttest ( $M = 4.49, SD = .56$ ), with  $t(25) = -6.258, p = <.001$ , effect size  $r = 1.2$  and Relatedness pretest ( $M = 4.31, SD = .79$ ) to posttest ( $M = 4.53, SD = .49$ ), with  $t(25) = -2.168, p = .040$ , effect size  $r = .4$  were statistically significant. Twenty-one out of 32 (66%) campers had continuous glucose monitor. The campers' overall week average blood glucose level for campers was 150 mg/dL. The campers' average time in range (TIR) was 71% which falls within the target TIR of 70% or more (see Table 1).

Table 1  
*Percentage of time in range*

	AVG. Blood Glucose	% Time in Range	Activities
Monday	159	62%	Pool
Tuesday	153	73%	Hike
Wednesday	146	78%	Water obstacle course
Thursday	144	72%	Kickball
Friday	149	72%	Scavenger hunt

### Discussion and Implications

This study explored the use of SDT to examine the effectiveness of a new diabetes camp for youth. Autonomy and relatedness were both statistically significant, suggesting that camp can be an effective way to increase motivation, thus improving diabetes self-management, aligns with previous research (Collins et al., 2021). Caldairou-Bessette et.al. (2020) suggest that a youth's voice is more than spoken words, it is both verbal and non-verbal language, which aligns with the observation that this camper began to show a consistent increase in comfort with communication and choices throughout camp. The results demonstrated diabetes camps can provide a positive opportunity for youth to become motivated and positively impact health. This study adds to the body of research suggesting that diabetes camps can provide effective strategies for helping youth manage their diabetes. This is demonstrated by the weekly average of blood glucose levels for campers being 150 mg/dL. These results are within the average target glucose level of 70–180 mg/dL. It is also demonstrated by the weekly average TIR for campers being 71% which falls within the target TIR of 70% or more. Camp can help youth to better manage their blood sugars, realize they are not alone, and hopefully resulting in better physical and emotional health and mitigating the risk of complications. The limitations of this study are the small sample size and lack of diversity. The findings are limited to the camp setting. Recommendations for further studies are to follow up with the campers at various intervals of time (e.g., three-months, six-months, and 12-months) to determine if they are continuing, at home, the knowledge (e.g., healthy choices, positive social connections, etc.) they learned at camp. With the diagnosis of T1D expected to double world-wide by 2040, and having no current cure for T1D, these continued evidence-based efforts might alleviate this society issue (e.g., Arrington et al., 2023). Furthermore, these camps experiences can assist youth to have a positive impact on quality of life by realizing they are not alone in this fight.

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## We Are Not Alone: Examining the Impact of a Tween-Teen Diabetes Day Camp

Authors: Heidi Blaylock, Carter Leuba, Aiden Hill, Christina Aguilar, Carla Cox, Bethany Arrington, and Eddie Hill  
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### INTRODUCTION

- Type 1 diabetes (T1D) is an autoimmune disease in which the pancreas produces very little or stops producing insulin.
- Worldwide T1D diagnosis is estimated to double by 2040 (Gregory et al., 2020).
- Severe complications (e.g., blindness) can result if blood glucose levels are not consistently within a good range.
- Treatment regimens such as monitoring glucose levels along with feelings of isolation can decrease a person's quality of life (Amarie et al., 2020).
- To develop self-management of long-term health a person must internalize behavior. The self-determination theory (SDT) is based on three needs: a person has competence, autonomy, and relatedness (Ryan and Deci, 2020).
- Medical specialty camps have demonstrated increased camper well-being in all areas of health. Camps can be effective at increasing camper self-management skills of a chronic disease (Gagnon et al., 2019).
- The purpose of this study was to engineer a theory-based intervention to examine the impact of diabetes camps have on building effective diabetes management behaviors in youth.



### METHODS

- The inaugural REACH tween/teen day camp for youth with T1D was held on a Mountain West college campus.
- The five-day, volunteer-run camp included activities such as crafts, hiking, swimming, yoga, rock climbing, and educational workshops (e.g., pump training and stress management).
- All camp activities were engineered around the three basic psychological needs described by the SDT.
- The Brief Psychological Needs & Frustration Scale (BPNFS) was used as a pre and post questionnaire, along with a 7-item measure on diabetes management.
- CampViews allowed camp staff to monitor campers' glucose levels via synchronization of their continuous glucose monitor (CGM).
- Community partnerships (e.g., Lions Club M20) played a vital role in giving the opportunity for evidence-based practice and making the program accessible for all participants.



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*Campers' feelings of autonomy and relatedness increased during camp.*

*The campers' average time in range (TIR) was 71% which falls within the target TIR of 70% or more.*



ALAN AND JEANNE HALL ENDOWMENT FOR  
COMMUNITY OUTREACH



### RESULTS

- Twenty-six campers (81% response rate) completed pre and post-tests.
- Campers were mostly female (53%), white (91%), an average age of 12.5 years, and time diagnosed with T1D was two years.
- Campers' average level of enjoyment was 9.5 (1-10 scale), made 4.5 new friends, and their favorite activity was Gaga Ball.
- The most reported new information learned at camp was general knowledge of pumps and their use.
- Paired sample t-test was used to determine significant differences of autonomy, relatedness, competence, and diabetes management.
- Autonomy pretest ( $M=3.93$ ,  $SD=.75$ ) to posttest ( $M=4.49$ ,  $SD=.56$ ) with ( $t(25) = -6.238$ ,  $p < .001$ ), effect size  $r = 1.2$ , and
- Relatedness pretest ( $M=4.31$ ,  $SD=.79$ ) to posttest ( $M=4.53$ ,  $SD=.49$ ) with ( $t(25) = -2.168$ ,  $p = .040$ ), effect size  $r = .4$
- Twenty-one out of 32 (66%) campers had CGMs.
- Week's average blood glucose level for campers was 150 mg/dL.
- Campers' average (TIR) was 71% which falls within the target TIR of 70% or more.

	AVG Blood Glucose	% Time in Range	Activities
Monday	159	62%	Pool
Tuesday	153	73%	Hike
Wednesday	146	78%	Water obstacle course
Thursday	144	72%	Kickball
Friday	149	72%	Scavenger hunt

### DISCUSSION AND IMPLICATIONS

- This study explored the use of SDT to examine the effectiveness of a new diabetes camp for youth.
- Autonomy and relatedness were both statistically significant, suggesting that camp can be an effective way to increase motivation thus improving diabetes self-management, aligns with previous research (Collins et al., 2021).
- Caldron-Bessette et al. (2020) suggest that a youth's voice is more than spoken words, it is both verbal and non-verbal language, which aligns with the observation that the REACH Weber camp began to show a consistent increase in comfort with choices throughout camp.
- Camp can help youth to better manage their blood sugars, realize they are not alone, and hopefully resulting in better physical and emotional health and mitigating the risk of complications.
- With the diagnosis of T1D expected to double world-wide by 2040, and having no current cure for T1D, these continued evidence-based efforts might alleviate this society issue (e.g., Arrington et al., 2023).
- Camps experiences can assist youth to have a positive impact on quality of life by realizing they are not alone in this fight.



# THE COMMUNITY THAT PLAYS TOGETHER, STAYS TOGETHER: FAMILY FUN AT DIABETES CAMP

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The camp experience starts at the initial point of service and is represented through interactions with camp staff, peers, and other participants present during unstructured and structured time at camp (ACA, 2023). Like many recreation and leisure services, program quality (PQ) is vital in continuous camp improvement and progress towards program outcomes. The program quality continuous improvement cycle includes four phases: preparation, assessment, planning, and improvement (Maglinger & Povilaitis, 2023). With the prevalence of type 1 diabetes (T1D) rising, research suggests that recreational programming designed for individuals living with diabetes will be in even higher demand to continue to provide a unique context of positive development (Allen et al., 2019; Hill et al., 2022). Additionally, theory-based programming strengthened programming as experiences are engineered.

Self-determination theory is a common theory used in diabetes camp work as it addresses motivation for diabetes management (e.g., Allen et al., 2019). An estimated 1.5 million individuals under the age of 20 are living with diabetes worldwide, each with a network of caretakers who may also need support with lifestyle changes upon diagnosis (Gregory et al., 2022). Family diabetes camps provide a recreational program opportunity that includes both traditional camp elements and educational appropriate outcomes (Hill et al., 2022). The American Camp Association (ACA) has developed practitioner-friendly tools for measuring community-based youth developmental outcomes (Sibthorp et al., 2013). This study aimed to evaluate a community-based family diabetes camp using the ACA tools for continuous program improvement.

## Methods

Thirty-four youth diagnosed with T1D, 58 parents and siblings, and 41 volunteers (e.g., medical staff) participated in the 2023, three-day two residential family diabetes camp. The camp experience was much like any other with arts & crafts, horseback riding, rock climbing, field games, but the added education of diabetes management. All activities were grounded in autonomy supportive approaches (as a component of self-determination theory). Autonomy Supportive Environment Training (ASET) was used to train both volunteers and staff. Parents also received the ASET-parent version to help reinforce the theoretical concept while at camp and continue while at home after the conclusion of camp. In order to ensure the camp was an autonomous environment volunteers and staff were encouraged to use provision of choice, perspective taking, and rational giving when interacting with campers. At the end of the experience campers completed a retrospective ACA Young Camper Learning Survey and the Basic Version. Youth ages 6 to 9 were provided the 14-item Camper Learner Scale. Older campers completed the Basic Version using two outcomes aligned with camp objectives, independence and perceived competence (total of 14 questions). Questionnaires included open-ended prompts targeting knowledge and skills gained during camp. Parents were also surveyed about their camp experience through an open-ended questionnaire. Data from the groups were analyzed using Excel and direct content analysis for the respective quantitative and qualitative data.

## Results

Thirteen young campers and 14 older campers provided responses regarding their camp experiences. The average camper age was 9.8 and the majority were female (62.5%). Campers' level of enjoyment was 9.3 (scale from 1–10). Horseback riding was ranked as their favorite

camp activity. Campers made an average of 3.5 friends by the end of the camp. While many of the older campers refrained from indicating any new knowledge gained from their camp experience, younger campers indicated diabetes-specific knowledge gained (e.g., use for their medical assistive devices) as a common theme. Eighty-five percent of young campers felt they learned a little or a lot about the outcomes assessed in the young camper learner scale (e.g., friendship). After the camp experience, 50% of older campers felt the statement "I am competent" was *at least a little more true* by the end of camp. Additionally, 43% of older campers felt the following statement "I am responsible" was *at least a little more true* at the end of camp.

Twenty-five parents completed the questionnaire. The average parent age was 40 years old and 60% of parents were female. Sixty-eight percent identified as Caucasian/white, followed by 12% responding as Latino/a or Hispanic & Caucasian, 8% responded as being Latino/a or Hispanic, and the remaining 8% reported as African American or Black and other. Parents' level of enjoyment at camp was 9.48 (scale from 1–10) and 100% said they would return to camp next year. Parents indicated diabetes technology (i.e., insulin pumps and Continuous Glucose Monitors) as the most knowledge learned at camp.

### **Discussion and Implications**

Continuous camp improvement efforts remain a sustained practice for program quality management. The use of the ACA' youth outcome tools provide practitioners validated instruments that can measure camper outcomes and continue to support the efficacy of diabetes camps and recreational programming and communication of progress towards program objectives (Maglinger & Povilaitis, 2023). The use of the YOB and associated tools can provide program administrators empirical evidence that guides resource allocation and program design that aligns with desired outcomes. Notably, one of the main findings of consideration is the new knowledge younger campers reported compared to older campers. Informal and formal opportunities for learning about diabetes management and self-care practices were significantly prevalent for younger campers, with their entrance into a wider network of youth living with T1D. Findings suggest that practitioners should consider increased programming specifically for younger children given unique recreational programming and diabetes education considerations for that distinctive age range. Specifically, providing developmentally appropriate recreational diabetes programming for younger campers that facilitates the development of diabetes self-management skills and context for positive relationship building may provide unique support needs upon diagnosis (Monaghan et al., 2022). Future studies should seek to address the limitations from this study. Although a small sample size, the data were meaningful for continuous planning of family diabetes camps. Future studies might find it beneficial to ask specific questions regarding types of information/training received on managing T1D compared to the camp training. Having families recreate together can be a fun and educational experience (Hill et al., 2019). This study can assist in building a more effective educational camp curriculum that could improve quality of life for youth with T1D and their families.

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## The community that plays together, stays together: Family fun at diabetes camp

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### INTRODUCTION

- An estimated 1.5 million individuals under the age of 20 are living with diabetes worldwide, each with a network of caretakers who may also need support with lifestyle changes upon diagnosis (Gregory et al., 2022).
- Family diabetes camps provide a recreational program opportunity that includes both traditional camp elements and educational appropriate outcomes (Hill et al., 2022).
- The camp experience is represented through interactions with camp staff, peers, and other participants present during unstructured and structured time at camp (ACA, 2023).
- Program quality (PQ) is vital in continuous camp improvement and progress towards program outcomes.
- With the prevalence of Type 1 diabetes (T1D) rising, recreational programming designed for individuals living with diabetes will be in even higher demand (Allen et al., 2019; Hill et al., 2022).
- This study aimed to evaluate a community-based family diabetes camp using the ACA tools for continuous program improvement.



### METHODS

- Thirty-four youth diagnosed with T1D, 58 parents and siblings, and 41 volunteers (e.g., medical staff) participated in the 2023, three-day two residential family diabetes camp.
- Camp was designed to ensure an autonomy supportive environment was provided (grounded in self-determination theory).
- At the end of the experience campers completed the Basic Version ACA Young Camper Learning Survey and o. Ages 6-9 completed the 14-item Camper Learner Scale.
- Older campers completed the Basic Version using outcomes aligned with camp objectives (independence and perceived competence).
- Parents were also surveyed about their camp experience through an open-ended questionnaire.
- Data from the groups were analyzed using Excel and direct content analysis for the respective quantitative and qualitative data.



85% of campers felt they learned a little or a lot about the outcomes assessed at camp.

Parents indicated diabetes technology (i.e., insulin pumps) as the most knowledge learned at camp.



### RESULTS

- Thirteen young campers and 14 older campers provided responses regarding their camp experiences.
- The average camper age was 9.8 and the majority were female (62.5%).
- Campers' level of enjoyment was 9.3 (scale from 1-10).
- Younger campers indicated diabetes-specific knowledge gained (e.g., use for their medical assistive devices) as a common theme.
- 85% of young campers felt they learned a little or a lot about the outcomes assessed in the young camper learner scale (e.g., friendship).
- 50% of older campers felt the statement "I am competent" was at least a little more true by the end of camp.
- Additionally, 43% of older campers felt the following statement "I am responsible" was at least a little more true at the end of camp.
- 25 parents completed the questionnaire. The average parent age was 40 years old and 60% of parents were female.
- Parents level on enjoyment at camp was 9.46 (scale from 1-10) and 100% said they would return to camp next year.
- Parents indicated diabetes technology (e.g., insulin pumps and Continuous Glucose Monitors) as the most knowledge learned at camp.



### DISCUSSION AND IMPLICATIONS

- Continuous camp improvement efforts remain a sustained practice for program quality management.
- The use of the ACA youth outcome tools provide practitioners validated instruments that can measure camper outcomes and continue to support the efficacy of camps and communication of progress towards program objectives (Maglinger & Poylatitis, 2023).
- One of the main findings of consideration is the new knowledge younger campers reported compared to older campers. Informal and formal opportunities for learning about diabetes management and self-care practices were significantly prevalent for younger campers, with their entrance into a wider network of youth living with T1D.
- Findings suggest that practitioners should consider increased programming specifically for younger children given unique recreational programming and diabetes education considerations for that distinctive age range.
- Providing developmentally appropriate recreational diabetes programming for younger campers that facilitates the development of diabetes self-management skills and context for positive relationship building provide an important next step upon diagnosis (Wongjjan et al., 2022).



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# GEN Z COLLEGE STUDENTS TRENDING SUMMER SEASONAL EMPLOYMENT PRIORITIES

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Each generation has brought about changes to workplaces based on their individual expectations and aspirations (Gibson et al., 2009). Gen Z is viewed as a “workforce trendsetter” due to their unwaveringly distinct choices (The Center for Generational Kinetics (CGK), 2022, p. 3). The Gen Z cohort, born between 1996-2013, contains a sizable percentage of college-age students who are heavily recruited to fill some of the over one million summer camp positions in the U.S. (Browne, 2019). Yet, this subgroup is becoming increasingly difficult to recruit and retain in these traditional seasonal positions (Owens, 2022) despite their recognition that some seasonal positions provide meaningful work and personal growth enhancing experiences (Warner, et al., 2021). This research study builds upon a 2022 study that examined connections between college academic focus, year, and First-Generation student status to summer employment choices. This study examined: (1) what priorities and personal well-being factors are most prevalent when selecting their summer job and (2) how are priorities and personal well-being factors aligned with academic position and summer job choice.

## Theoretical Framework

The theoretical framework for this study is Herzberg’s Two-Factor Theory of Motivation (1987). Herzberg (1987) identified two factors foundational to worker’s motivation in the workplace: hygiene and motivator factors. Hygiene factors focus on the job environment and situation such as pay, organizational policies, working conditions whereas motivator factors are elements unique to the job such as growth opportunities, achievement, and work impact. Past studies of camp staff motivations and employment choices have utilized this framework (e.g., DeGraaf & Edington, 1992; Roark, 2006) and indicated that camp staff maintain stronger values for motivator factors versus hygiene factors. Current economic, social and global influences suggest that the distinction between hygiene and motivator factors may be more nuanced than previously believed for Gen Z college students (Leslie, et al., 2021). For this reason, this study sought to address a lack of understanding of this generational subgroup summer work priorities and desires, two summer seasons post COVID-19 pandemic restrictions.

## Methodology

Data were collected at two midwestern universities during Fall 2023. All undergraduate and graduate students from both universities were invited to complete an online survey. The survey design was informed by a literature review of Gen Z employment practices (e.g., Aggarwal et al., 2020), past camp employment motivation factors (e.g., DeGraaf & Edington, 1992), and communication with camp professionals during staff recruitment events (i.e., university job fairs). Students answered questions based on their Summer 2023 experiences (i.e., Please indicate the number that relates to your 2023 summer season work, volunteer, education, and travel experiences), summer job priorities (i.e., how much of a priority were the following 13 factors when selecting your 2023 summer job?), and importance of personal well-being experiences during college summers (i.e., importance of family time, friend time, travel, personal growth, residence location, and relaxation during summer). University IRB approval was obtained and participants consented prior to completing their online survey.

Data were analyzed using SPSS (v29), including descriptive statistics to identify mean scores, principal components analysis, and correlations. Respondents ( $n = 376$ ) represented all levels: freshman (25%), sophomore (14%), junior (21%), senior (19%), and graduate students (22%). Most respondents were female (76%) and first-generation students (56%). Testing the internal consistency of the Priority Scale resulted in a final loading of nine items and a Cronbach

alpha coefficient of .853. An exploratory factor analysis (EFA) was performed with the nine items and yielded two factors with eigenvalues above 1.0 (priority-hygiene (6 items): 4.3; priority-motivator (3 items): 1.5). Testing the internal consistency of the Importance Scale resulted in a final loading of five items and a Cronbach alpha coefficient of .717.

### Results

The four most common jobs held by respondents in Summer 2023 were food service ( $n = 63$ ), retail/customer service ( $n = 61$ ), education/tutoring/daycare ( $n = 43$ ), and indoor/outdoor recreation ( $n = 41$ ). Respondents with academic majors categorized as Arts and Sciences primarily worked food service and retail/customer services jobs, while academic majors categorized as Education and Human Services held retail/customer service, education/tutoring/daycare, and indoor/outdoor recreation jobs. Respondents indicated higher priority ratings for a fun work environment and meaningful work (see Table 1) while spending time with family was rated as extremely important for their summer experience (see Table 2).

Table 1  
*Priority Scale with Two Factor Loading*

Factor: Priority-Hygiene (PH)				Factor: Priority-Motivation (PM)			
Item	<i>M</i>	<i>SD</i>	<i>Loading</i>	Item	<i>M</i>	<i>SD</i>	<i>Loading</i>
Job involves meaningful work	3.51	1.28	.803	Job has a fun work environment	3.67	1.06	.721
Job supports technical/career skill growth	3.18	1.34	.899	Job where I could make friends	3.30	1.26	.905
Job has mission I support	3.14	1.29	.725	Job supports academic pursuits	3.05	1.30	.489
Job is related to my future career	3.07	1.49	.916				
Job provides mentoring/professional development	2.85	1.29	.777				
Job has advancement opportunities	2.80	1.31	.508				

*Note: Likert Scale (1) Not at all a priority - (5) Absolute Priority*

Table 2  
*Importance for Personal Well-Being Scale (PWB)*

Item	<i>M</i>	<i>SD</i>
Spending time with family	3.94	1.13
Hanging out with friends	3.83	1.08
Decompressing or relaxing	3.79	1.12
Engaging in personal growth	3.75	1.09
Taking trips or traveling	3.16	1.22

*Note: Likert Scale (1) Not important at all - (5) Extremely Important*

The relationship between hygiene (measured by PH) and motivator factors (measured by PM) as well as hygiene (PH) and personal well-being (measured by PWB) were attempted, but

preliminary analyses performed revealed violations to the assumption of normality, linearity and homoscedasticity. Spearman's rho was used to examine two relationships: (1) hygiene factors (PH) with primary summer job ( $r = .28, n = 376, p < .001$ ) then (2) hygiene factors (PH) with year in school ( $r = .25, n = 376, p < .001$ ). Small, positive correlations showed high priority-hygiene factors were associated with the job and year.

### Discussion and Implications

This study revealed that Herzberg's hygiene and motivator factors may be differently prioritized with this respondent group. CGK (2022) found that Gen Z significantly values flexible work scheduling and higher pay rates more so than "job perks, personal and professional growth" (p. 5). While flexible scheduling, location proximity, meeting financial needs, and returning for multiple summers displayed high mean scores, those factor items appeared to be less clearly associated with priority measures. Respondents placed high importance on using summer time to address areas of well-being such as spending time with family, friends, decompressing and on personal growth. This study suggests that college student cohorts may look toward summer jobs for meaningful work, in a fun work environment, but they seek opportunities that allow them to spend time with family. This study contributes to new applications of Herzberg's Two-Factor theory on Gen Z's workforce engagement (e.g., Larkin, 2017).

Camp professionals recognize that Gen Z college students present with nuanced needs and value their time and effort differently than previous cohorts. Findings suggest camp professionals should:

1. Begin recruitment conversations by asking college students about their career and personal priorities in order to present relevant opportunities to them.
2. Clearly articulate how college students will be able to remain in contact, and continue to spend time with their family and friends during the summer.
3. Recognize college students view summer as a time for recuperation and personal growth, which may or may not include a desire to enhance career skills or professional networks.

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# Gen Z College Students Trending Summer Seasonal Employment Priorities



## Background

- Gen Z is viewed as a “workforce trendsetter”
- Past research examining camp staff motivations indicated growth opportunities, achievement & work impact were strongly valued.
- The distinction between Herzberg’s hygiene and motivator factors may be more nuanced for this generational cohort

## Research Questions

1. What priorities and desires are most prevalent when selecting their summer job.
2. How are priorities and personal well-being aligned with academic position and summer job choice.

## Methods

- Online survey to undergraduate & graduate students at two midwestern universities
- Data gathered Fall 2023 (n = 376)
- Students answered questions related to Summer 2023 employment decisions, personal priorities, desires & recruitment experiences
- Crosstab analysis identified associations between summer job choice, academic area and year
- Exploratory factor analysis yielded two factors from the 13-item priority scale
  - ✓ Final factor loading resulted in Priority Hygiene (6 items) and Priority Motivator (3 items)
- Correlation coefficients explored relationships between Priority Hygiene, Priority Motivator, Importance Personal Well-Being, Job Choice, and Year

## Job Choice & Academic Position Associations

Food Service	<ul style="list-style-type: none"> <li>• Arts &amp; Sciences</li> <li>• Freshman &amp; Sophomores</li> </ul>
Retail/Customer Service	<ul style="list-style-type: none"> <li>• Arts &amp; Sciences + Education &amp; Human Services</li> <li>• Freshman &amp; Juniors</li> </ul>
Education/Tutoring/Day Care	<ul style="list-style-type: none"> <li>• Education &amp; Human Services</li> <li>• Freshman, Juniors &amp; Seniors</li> </ul>
Indoor/Outdoor Recreation	<ul style="list-style-type: none"> <li>• Education &amp; Human Services</li> <li>• Freshman &amp; Graduate Students</li> </ul>

## Results

1. Prioritized jobs with fun work environments and meaningful work
2. High importance value placed on spending time with family, friends, decompressing and personal growth during summer
3. Small, positive correlations showed high priority-hygiene factors were associated with job choice ( $r = .28, n = 376, p < .001$ ) and year in school ( $r = .25, n = 376, p < .001$ ).
4. No relationship found between priority-hygiene and priority-motivator factors or priority-hygiene and personal well-being factors for this respondent group.

## Implications

### **Camp professionals may consider:**

- Beginning recruitment conversations by asking college students about their career & personal priorities, then match to relevant opportunities.
- Clearly articulating how college student employees will maintain contact and be able to spend time with family during summer.
- Recognizing college students view summer as a time for recuperation & personal growth, which may or may not include a desire to enhance career skills or professional networks.

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## YEARS OF ATTENDANCE AND BELONGING PREDICT PLACE ATTACHMENT IN RESIDENTIAL YOUTH CAMPS

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Residential summer camp is a unique setting for youth development, and campers who attend often thrive in the change of pace and atmosphere as compared to their normal home lives. Around the country and world, youth are participating in camp programs that strive to create better equipped leaders and members of society through programs that promote increased confidence, social skills, problem solving, and independence (Henderson et al., 2007). Often, we hear camps talking with campers about what the industry calls “camp magic.” For this study the components of “camp magic” are the feeling of individual connectedness to the place (i.e., the physical camp site) and the connectedness to the people that make a specific camp unique. The concepts of place attachment, or the bond individuals have with meaningful places (Altman & Low, 2012), and belongingness, or the sense of feeling a part of a group of individuals (Hagerty et al., 1992), aligns with this understanding of “camp magic.” Furthermore, qualitative research with campers suggests that these instances of “camp magic” are often what influences campers to return summer after summer (Bialeschki et al., 2002). However, there is limited quantitative research on this phenomenon and its relation to camper retention. Existing literature clearly highlights the importance of social and place bonds at summer camps. For example, a sense of belonging and community is negatively associated with camper problem behaviors (Anderson-Butcher & Fink, 2005) and positively associated with summer camp staff retention (McCole et al., 2012). Extant research on place attachment suggests that social bonds are an important aspect of place attachment development (e.g., Hay, 1998; Kyle et al., 2005). However, the influence of years of camp attendance, and sense of belonging in developing attachments to youth-camps is underexplored. The purpose of this study is to examine how years of camper attendance and sense of belonging foster place attachment in youth-camps and provide practitioners with actionable recommendations to improve camp programming.

### Method

Data were collected from one YMCA affiliated residential summer camp in the southeastern United States. The camp is accredited through the American Camping Association and could be classified as a traditional overnight camp. Respondents for this survey were teen campers, entering grades 8th through 10th ( $N = 248$ ). A hardcopy survey was distributed in-person at the end of one-week residential sessions during the 2023 season (June-July) to campers who chose to participate. Campers who attended multiple one week sessions were asked to complete the survey on the last day of their last session.

Campers reported their years of attendance at the particular camp ( $M = 4.16$ ,  $SD = 2.47$ ), sense of belonging ( $M = 4.37$ ,  $SD = .62$ ), and place attachment ( $M = 2.45$ ,  $SD = .33$ ) through an in-person survey. Place attachment was measured using an abbreviated scale derived from Williams and Roggenbuck’s (1989) measure of place attachment and validated by Kyle et al. (2005). The seven questions measured the place identity and place dependence components of place attachment (1 = *disagree*, 3 = *agree*). Sense of belonging was measured using a four-question abbreviated scale (1 = *No!*, 5 = *Yes!*; Anderson-Butcher & Conroy, 2002).

Data were cleaned and a multiple linear regression was conducted to examine how years of attendance and sense of belonging related to sense of place. Residual Q-Q plots were used to examine normality of regression residuals and normality of residuals was supported.

Significance for all statistical tests was evaluated based on *p*-values less than .05. All statistical analyses were conducted in IBM's Statistical Package for Social Sciences (SPSS) v.25.

### **Results**

Multiple linear regression was used to test if years of attendance and sense of belonging significantly predicted place attachment. The overall regression was statistically significant ( $R^2 = .474$ ,  $F(2, 245) = 94.22$ ,  $p < .001$ ) and suggests that years of attendance and sense of belonging both significantly predicted place attachment ( $\beta = .191$ ,  $p < .001$ ;  $\beta = .594$ ,  $p < .001$ , respectively). Meaning, for every year of attendance, respondents' attachment grew by a fifth of a unit. Additionally, for each increase in unit of belonging, respondents' attachment grew by a little over half of a unit.

### **Discussion**

The findings indicate that years of camp attendance and sense of belonging are prominent predictors of place attachment, explaining almost half of the variance in attachment to place. The longer campers had been going to the residential camp, and the more they felt they belonged at the camp, the more attached they were. The development of summer camp attachment is likely a reciprocal process. As campers continue to attend summer camps, their sense of belongingness and attachment increases and influences their future decisions to attend. Existing literature suggests that individuals who are more attached to a place experience psychological benefits such as comfort and security, positive emotions, and personal growth (Scannell & Gifford, 2017). These outcomes are foundational to the provisioning of youth programs and support a focus on developing place attachment in youth-camps. Sense of belonging grounded in the social bonds individuals experience in place has previously been conceptualized as a dimension of place attachment (Kyle et al., 2005). The findings here align with this conceptualization and suggest that fostering a sense of belonging is an important part of developing attachment to summer camps. As such, it is important for youth-camps to foster inclusive environments that facilitate development of social bonds that underpin belonging in a community. Furthermore, the data show that more years of attendance was also associated with a greater sense of belonging and was a predictor of place attachment. This is intuitive in that the more years individuals attend a camp, the more opportunities they have to develop the bonds that support a sense of belonging and associations with place. The reciprocal nature of the attendance, belongingness, and place attachment relationship places the bonds with the camp and people at the foundation of camper retention. As such, fostering experiences that develop deeper attachment to the people and places that spark "camp magic" should be at the forefront of youth-camps retention strategies.

### **Practitioner Recommendations**

Summer camps are applying common positive youth development (PYD) models to their programming; however, camps may not be considering how place attachment and social bonds could be an important piece of that puzzle. PYD and place attachment outcomes are similar (Scannell & Gifford, 2017; Thurber et al., 2007), therefore, activities and programmatic strategies that foster place attachment, including social bonds between campers, should be implemented. This is likely most easily implemented within programs that have existing formal programs or informal conversations with participants around nature education, land conservation, or appreciation for natural spaces, as research shows these topics can build a sense of place for participants (Semken & Freeman, 2008). Increased sense of place can easily segway to an increased sense of belonging and thus, place attachment. However, regardless of existing programs, having conversations surrounding appreciation for the physical place (i.e., the summer camp) and the social bonds that form among participants is the first step in implementing the findings of this study. Furthermore, we know that many camps are concerned with camper retention. Retention should be considered from more than a business perspective

but also from a participant outcome perspective because multiyear campers feel a sense of belonging and attachment to place. This can precipitate continued camp engagement and lead to numerous positive psychological benefits that campers will carry with them beyond their camper years.

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# Years of Attendance and Belonging Predict Place Attachment in Residential Youth Camps

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## Introduction

Camp attendance has numerous benefits for youth participants including increased confidence, social skills, problem solving, and independence (Henderson et al., 2007). Many of these benefits could be accredited to what practitioners call “camp magic” which can be operationalized as a bond with the physical space and a sense of belonging among people at the camp, both which may influence a camper’s desire to return.

## Results

Multiple regression analysis predicting place attachment

	Standardized Coefficients $\beta$	t	p
Years of attendance	0.19	3.54	<.001
Sense of belonging	0.59	11.01	<.001

Note.  $R^2$  adj. = .474;  $F(2, 245) = 94.22$ ,  $p < .001$



## Measures

### Years of Attendance

### Sense of Belonging

- The psychological feeling of belonging or connectedness to a group
- Four-question abbreviated scale (1 = No!, 5 = Yes!; Anderson-Butcher & Conroy, 2002)

### Place Attachment

- An emotional bond between person and physical place (i.e., a summer camp)
- Research shows social bonds are an important part of place attachment development
- Seven-question abbreviated scale measuring place identity and place dependence (Kyle et al., 2005)

## Methods

Summer 2023 survey at YMCA affiliated, ACA accredited, residential summer camp,  $n=248$ , rising 8<sup>th</sup>-10<sup>th</sup> graders

### Data Analysis

- Multiple Linear Regression

## Future Research

Future research should further explore the potentially reciprocal nature of these measures and how to foster place attachment in programs with a unique physical space (i.e., school partnership programs, trip and travel programs).



## Practitioner Implications

Camp programmers should prioritize camp wide programs or conversations that highlight an appreciation for the physical space of their program and the social bonds that form among participants.

Multiyear retention may lead to increased sense of belonging and attachment to place which in turn creates positive psychological outcomes such as sense of comfort and security, positive emotional regulation and personal growth.

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## **EVEN ONE GETS THE JOB DONE – A SINGLE WEEK CAN CHANGE LIVES**

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For more than 20 years, the Crohn's & Colitis Foundation has operated Camp Oasis, a week-long residential camp for youth with inflammatory bowel disease (IBD). Hosted in 11 sites across the country, participants engage in traditional camp activities under the supervision of medical staff and adult volunteers, most with professional and/or personal experience with IBD. Much like other residential camps, Camp Oasis provides a safe, fun experience where young people can build new skills and relationships.

Youth and teens with IBD often feel alone and may struggle with self-esteem. By building disease-related resilience and self-efficacy, providing opportunities for socialization with peers who have IBD, and offering enrichment activities in a safe and inclusive environment, Camp Oasis mitigates the likelihood of youth experiencing longer-term psychosocial difficulties. The analysis sought to validate what we have observed both anecdotally and through annual review of survey data – our Camp Oasis program is improving quality of life through belongingness, connection, and a better understanding of managing IBD.

### **Methods**

Between 2012 and 2019, participants and their caregivers were asked to complete post-camp surveys to reflect on their perceptions before, during, and after camp. The online surveys were sent via email to parents and/or caregivers approximately two weeks after the conclusion of camp; caregivers were invited to share the participant survey with their child/ren. The survey was done annually and was optional to complete. Analysis was done following each season.

To determine if any new trends would emerge if these results were examined collectively, and to more robustly explore how camp affects participants' disease management and social-emotional well-being, the data from 2012–2019 was combined and analyzed. In particular, the study looked at outcomes tied to camp's mission and questions were grouped into the following constructs:

- Disease-related self-efficacy
- Belongingness and openness
- Confidence and competence
- Social connections and reduced isolation

The surveys also collected participant characteristics, such as gender, previous participation, whether participant had slept away from home prior to camp, and whether they had met a peer or adult with IBD.

We conducted dependent-samples *t*-tests to compare change in participants' and caregivers' perceptions before and after camp. A structural equation model (SEM) was used to explore the strongest predictors of participants' social-emotional well-being and protective factors after camp, including participants' background characteristics and participants' and caregivers' perceptions before and during camp.

### **Results**

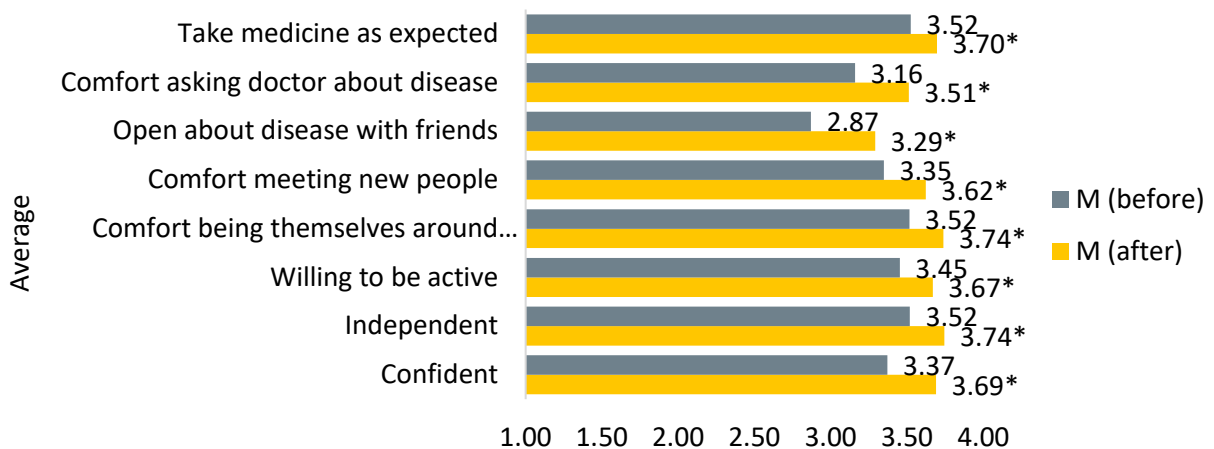
The findings are based on 6,011 surveys ( $n = 1,986$  camp participants and  $n = 4,025$  parents/caregivers) completed between 2012 and 2019. Characteristics of survey respondents identified as predictors included age, gender, number of years attending, years since diagnosis, whether or not the camper had slept away from home, and whether or not the camper had met another peer or adult with IBD prior to camp.

While findings have recently been published (Singh & Steiner, 2023), specific results related to key outcome areas that are relevant to camp administrators and presented for the first time at the American Camp Association Research Forum include:

**Participants’ Social-Emotional Well-Being and Protective Factors**

Campers’ social-emotional well-being and protective factors were higher after attending camp. Participants’ and caregivers’ perceptions of the social-emotional well-being and protective factors were statistically greater ( $p < .05$ ) after camp (grey bar) relative to before camp (yellow bar) (Figure 1.)

Figure 1  
Camp Oasis Outcomes



Note: Before camp (grey bars) versus after camp (yellow bars)  $n = 5827$ . Difference between before camp and after camp values was statistically significant ( $*p < .05$ ) for all 8 social-emotional and protective factors.

**Taking Medicine**

Compared to returning participants and participants who had previously slept away from home without family, **new participants and participants who had not previously slept away from their families were more likely to take their medicine as expected after camp.** Perceived *disease-related self-efficacy* (e.g., learning more about IBD and opening up about the disease), *social connections and reduced isolation* (e.g., feeling supported, helping/supporting others, making a friend), and *confidence and competence* (e.g., trying/learning something new) during camp, were positively associated with *taking medicine as expected* after camp.

**Disease-Related Self-Efficacy**

Girls, older participants, and new participants were more likely to have higher perceptions of **disease-related self-efficacy after camp.** Perceived *disease-related self-efficacy*, *belonging and openness* (e.g., feeling like they belonged and comfortable sharing feelings), and *social connections and reduced isolation* during camp were positively associated with perceptions of *disease-related self-efficacy* after camp.

**Belonging and Openness**

Older participants, new participants, and participants who had not previously slept away from their families were more likely to have higher perceptions of **belonging and openness after camp.** Perceived *disease-related self-efficacy*, *belonging and openness*, *social connections and*

*reduced isolation, and confidence and competence* during camp were positively associated with perceptions of belonging and openness after camp.

### ***Confidence and Competence***

**Older participants, girls, and participants who had not previously slept away from their families were more likely to have higher perceptions of *confidence and competence* after camp.** Perceived *disease-related self-efficacy, belonging and openness, social connections and reduced isolation, and confidence and competence* during camp were positively associated with perceptions of *confidence and competence* after camp.

### **Discussion**

**In sum, being new to Camp Oasis was one of the strongest predictors of taking medicine, disease-related self-efficacy, and belonging and openness after camp.** This finding was unexpected, as prior to this analysis we assumed returners were more likely to experience a higher degree of positive change. Instead, it shows that even one year of camp can have a significant impact in several key areas.

### **Conclusion**

The whole of these findings suggest that Camp Oasis is most impactful and life changing for youth who have not previously had a comparable experience, a true testament to the importance of Camp Oasis – even if only for one year - for IBD patients. While this data pre-dates the pandemic, we do not believe it diminishes the value of the findings. In fact, it may suggest residential camp – particularly for children and teens with chronic disease – is as important as ever in establishing a sense of social connection and belonging beyond the camp week itself.

This analysis is the largest of its kind in describing effects of camp on children with IBD. This was intended to help identify potential impact on youth with IBD and inform future programming and evaluation efforts. The findings are of interest to other camp administrators in generating enthusiasm for the importance of offering a *disease-based youth camp*.

We believe these general conclusions are relevant to other medical specialty camps with regard to disease self-efficacy and management. At a broader level, this data suggests that for any residential camp environment, ensuring immediate and strong connections at the start of camp may predict campers' feelings of connection and belonging after camp, perhaps especially for those with a chronic illness or other stigmatized attribute. This data also suggests some of the greatest impact happens in the first year of camp.

These findings underscore the need for ongoing improvements to programmatic design, ensuring:

- Being new to camp was one of the strongest predictors of belonging and openness as well as disease-related self-efficacy after camp, so attending even one session can have lasting impact. **ACTION:** Provide first time campers and their families opportunities before camp to meet other campers and ask questions to improve retention.
- Feeling connected at camp is an important predictor of confidence, independence, openness, and self-efficacy after camp. **ACTION:** Train volunteers/staff about intentional inclusivity of new campers throughout the week.
- Disease related self-efficacy during camp is a predictor of confidence, independence, openness, and self-efficacy after camp. **ACTION:** Integrate both structured and informal disease education uniformly and consistently in all Camp Oasis residential settings.
- Outreach to families and professionals emphasize the demonstrated positive impact on participants' quality of life. **ACTION:** Develop marketing materials utilizing messaging to highlight key findings.

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## Even One Gets the Job Done – A Single Week Can Change Lives



### Study Aim/Purpose

- Assess to what extent attending camp positively affected participant outcomes related to disease-related self-efficacy; belongingness and openness; social connections and reduced isolation; taking medication as expected; willingness to be active; confidence and competence
- Evaluate specific predictors of greatest impact (e.g., gender, age, years attending)

### Methods

- Analyzed outcomes of 6,011 participants and caregivers using post-camp surveys from 2012 – 2019
- Conducted dependent samples *t*-tests to compare change in participants' and caregivers' perceptions before and after camp
- Used a structural equation model (SEM) to explore the strongest predictors of participants' social-emotional well-being and protective factors after camp, including participants' background characteristics and participants' and caregivers' perceptions before and during camp

**Difference between before camp and after camp values was statistically significant (\*P<.05) for all social-emotional and protective factors**



### Additional Key Findings:

Older and new participants were more likely to have higher perceptions of *belonging and openness* after camp.

Being new to camp was one of the strongest predictors of *taking medicine, disease-related self-efficacy, and belonging and openness* after camp.

Older, female-identifying, and new participants were more likely to have higher perceptions of *confidence and competence* after camp.

### Implications for Practitioners

- Ensure marketing materials underscore benefits for first-time campers
- Engage first time campers and families before camp to meet other campers and ask questions
- Provide intentional training for volunteers and staff to include new campers throughout the camp week
- Integrate disease education in uniform and consistent ways in residential medical specialty camps
- Seek out ways to engage and connect younger campers

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# INVESTIGATING THE STRUCTURE AND BENEFITS OF PARTNERSHIPS BETWEEN CAMPS AND SCHOOLS

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Partnerships between formal schools and summer camps have existed for decades, yet limited research has examined why schools engage in these partnerships. According to Akiva and colleagues (2022), human development is best understood within an ecosystem. From this perspective, youths' experiences in different contexts are likely to be mutually influential. By promoting learning in ways that are not feasible during formal education, camps can become a key part of the learning ecosystem, providing youth with opportunities that complement and enhance their school experiences (Akiva, 2013; Richmond et al., 2018).

Indeed, summer camps and similar outdoor learning opportunities have been shown to provide developmentally enriching and meaningful experiences, with implications for youth development and particularly social and emotional learning (Akiva, 2013). Social-emotional learning (SEL), defined as “the process through which children and youth learn and apply prosocial skills including self-awareness, self-management, social awareness, relationship skills, and responsible decision-making” (Rosanbalm 2023, p. 2), may be of particular interest to schools due to erosion of these skills during the COVID-19 pandemic.

Despite the lengthy history of camp-school partnerships, scholarship has focused primarily on the benefits of individual programs. Given their potential to generate enduring benefits for youth, more research is needed to understand why schools engage in these partnerships, what benefits they see youth deriving from their experiences, and how partnerships are structured to support success. The purpose of this study was thus 1) to understand the goals of camp-school partnerships from the school perspective, 2) to investigate the benefits of these partnerships for students who participate, and 3) to identify the range of partnership structures that exist between camps and schools.

## Methods

Semi-structured interviews and focus groups were conducted with 20 people representing nine camp-school partnerships across the United States. Participants were predominantly school personnel (administrators, teachers) but included several other partnership liaisons who could speak to the value of camp-school partnerships from the school perspective. Participants described how and why their partnership was initiated, the structural elements of their partnership, benefits for students and schools, and the perceived drivers of benefits. Interviews were conducted via Zoom and then transcribed. Two coders used *ATLAS.ti* to develop open codes and a codebook. Then, using constant comparison, they identified axial codes and discussed how to refine them into themes (Braun & Clarke, 2006).

## Results

### *Partnership Goals*

Many partnerships initially emerged because the school identified youth needs that could not be met through formal schooling. School personnel reported that they developed partnerships with camps to achieve teambuilding or community-building goals, to afford students time in a natural (e.g., outdoor) or novel environment, and to promote academic, social-emotional learning or life-skills among students. For instance, one seventh grade teacher reported that they established an overnight camp experience so that youth could “be in a different environment ... out of their comfort zone in a different way that's not academic and ... get an opportunity to learn together and grow together outside of the classroom.” Many teachers described impacts associated with heavy student technology use both in and out of school that

could partially be mitigated at camp because being in an outdoor environment at camp provided space to deepen relationships and try new things, such as taking risks and being vulnerable in ways youth typically do not in class.

**Partnership Benefits**

Many of the benefits described by school personnel are dimensions of SEL, including aspects like self-management, relationship skills, conflict resolution, teacher-student relationships, self-efficacy, self-regulation, trust-building, confidence, and connection. Example benefits and representative quotes are reflected in Table 1.

Table 1  
*Example Benefits of camp-school partnerships*

Perceived Benefit	Representative Quotes
Self-management	“He had to navigate getting himself dressed and figuring out what he's going to put together, and all those things. And those are just life skills that if he had not gone away, I don't know that he would have developed them this fast.”
Conflict resolution	“At camp... they had each other to accomplish the task...you see these kids helping each other out more so because they've had these shared experiences [of camp] coming into [the classroom]. They work far better in a group than if they didn't have these experiences...”
Work collaboratively	“[Students] don't have extended time together where they can see each other in a non-academic way... sometimes kids don't want to work together in groups because they're like, ‘oh that kid's not very good at this’... none of that matters when you're out there playing kickball and climbing ropes...”
Teacher-student relationships	“For students to get to know their teachers in a different way and see them as like humans...nobody's showered forever we're all on the same level”
Self-regulation	“He was always in trouble. What we call a ‘frequent flyer’ to the office. Third grade was his first year at camp. He went to camp, and he came back a different kid. And you could see the changes in him, in his self-confidence, in his behavior, in all of those kinds of things, because of what he had accomplished.”

Across partnerships, teachers said that relationship-building with peers and adults (e.g., teachers) was a key benefit of attending camp. Teachers and school administrators reported that attending camp gave students the opportunity to bond over shared experiences that were not connected to academic goals, which opened opportunities for new and deeper relationships. In addition to deeper peer relationships, school professionals reported that camp experiences allowed stronger relationships to develop between students and their teachers. Teachers who participated in overnight programs said that their relationships with students improved because youth see them as whole people outside of school rather than primarily authority figures.

School personnel described how camp benefits improved youth behavior, first at camp and then in the classroom. For example, camp helped reserved students come out of their shells, try new things, and engage with peers. Camp helped other students regulate intense emotions in a way that was more conducive to learning and positive relationships.

**Structural Elements**

While there was some consistency in the rationale behind camp-school partnerships and the benefits they delivered, the structure of camp-school partnerships varied widely. The

duration of programs ranged from one half-day to multiple overnights. Some programs occurred during the school year and others took place in the summer. Some programs were minimally integrated with school curriculum, while others were closely tied to learning objectives. Different attendance models were also used, varying from individual to classroom or grade-level wide participation. Teacher involvement in program delivery varied with the level of integration and the attendance model. Despite significant variation in structure, outcomes were relatively consistent across partnerships.

### Discussion and Implications

Our evidence suggests that when camps and schools partner, school stakeholders viewed partnerships as contributing to desired developmental outcomes. School personnel generally viewed these partnerships as providing important opportunities for youth to develop skills and competencies (e.g., SEL), experience novel environments (especially outdoor spaces), and establish meaningful relationships with implications for school-year confidence and success. They developed skills that strengthened their abilities to learn and participate in a classroom community. Camps desiring to provide programs for schools should illustrate how different program structures can best meet school goals. Camps have unique facilities and staff resources that can be leveraged to provide important developmental opportunities to students. Some partnerships focused on identifying individual youth who could benefit from an enriching developmental experience outside of school, whereas others integrated the camp experience into the academic curriculum. A key strength of integrated experiences is that youth come to know their classmates and teachers outside of school, which can deepen their relationship and set a stage for more productive work after the experience has concluded. Further research will allow investigation into how these program elements can be widely scaled for use across a variety of school contexts and to meet the diverse needs of communities while achieving common goals.

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## Investigating the Structure of Partnerships Between Camps and Schools

### Purpose

1. Understand the goals of camp-school partnerships from the school perspective
2. Investigate the perceived benefits from the perspective of school partners
3. Identify the range of partnership structures that exist between camps and schools.

*"...getting the kids out into nature, and like farther away from the city. A lot of the kids haven't been outside of the city...just be in a different environment and kinda be out of their comfort zone in a different way that's not academic and like kind of get an opportunity to like, learn together and grow together outside of the classroom, mainly community building, both between the students and like each other, and the staff and students too."*

### Methods

1. Semi-structured interviews and focus groups were conducted with 20 individuals representing nine camp-school partnerships.

2. Interviews were conducted via Zoom and recorded, then transcribed. Two coders used *Atlas.ti* to identify open codes and then used constant comparison to identify and refine themes .

### School Motivations

- Achieve community-building goals
- Afford students time in a novel, natural environment
- Promote students' social-emotional learning and life-skills

### Benefits

- Social and Emotional Learning
- Deeper peer and teacher-student relationships
- Behavior Change

### Matrix of Camp-School Partnership Structures

Duration	Integration	Attendance Model
Half Day	None	Individual
Full Day	Reflection	Classroom
One Overnight	Skill transfer	Grade-level
Multiple Overnights	Curricular integration	Summer or School Year

### Implications for Practitioners

- Camps can be leveraged to provide important developmental opportunities to students.
- Camps have unique environments that meet student needs for fun, safe risk-taking, and nature connection.
- Evidence suggests that when camps and school partner, schools view partnerships as contributing to desired developmental outcomes.
- Camps desiring to provide programs for schools should discuss how different program structures can best meet school goals.



Learn more about the ACA  
Camp-School  
Demonstration Project here



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## “FEELING FREE NOT DIFFERENT”: A QUALITATIVE EXPLORATION INTO THE CAMP ELEMENTS RELATED TO LASTING CAMP IMPACTS

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For decades, researchers have documented the psychosocial benefits of medical speciality camps (MSCs) in several areas such as increased self-esteem, self-efficacy, social connections, and optimism and hope for the future (Henderson, et al., 2007). While many studies on MSCs have examined short-term changes in traits and qualities (e.g., Kelada et al., 2020), less is known about how camp alumni reflect on their camp experience later in life, and the camp-level mechanisms that campers report as related to these changes. Understanding what camps can do to promote lasting impacts in their participants is of great interest to people who operate camps and want to advance camp activities and strategies to optimize camp outcomes.

Ryan and Deci’s (2020) self-determination theory (SDT) framed this study. SDT articulates that once an individual’s three basic psychological needs (competence, autonomy, and relatedness) are met, individuals are more likely to internalize and demonstrate healthy attitudes and behaviors. This theory has been applied to other research in medical specialty camps as a way of understanding campers’ needs and the associated outcomes from participating in camp.

Focusing on data from 16 SeriousFun Children’s Network (SeriousFun) member camps, a global network of camps and programs for children with serious illnesses, and using the qualitative data collected from the *Lasting Impacts of Camp Study* (Gillard, et al., 2023), our primary research aims were to (1) understand the aspects of camp recalled as valuable and meaningful to camper alumni of SeriousFun camps and (2) explore camp-level mechanisms associated with the aspects that were most valuable and memorable to these camper alumni.

### Methods

The original *Lasting Impacts of Camp Study* (Gillard, et al., 2023) gathered online survey data from 2,252 alumni aged 17–30 who attended one of 16 SeriousFun camps across eight countries (United States, Ireland, Hungary, Italy, Israel, France, the United Kingdom, and Japan). The qualitative analysis focused on 1,445 participants with usable responses to at least one of three open-ended/free response questions:

- Of the things you learned while at [this camp], which one is the most valuable to you today?
- What do you remember most about your time at [this camp]?
- Is there anything else you would like to tell us about your summer camp experiences or this survey?

Content analysis drew on the techniques described by Mayring (2015) and Guerin and Hennessy (2002) and involved both deductive (planned) and inductive (exploratory) analysis techniques. This resulted in themes that identified what was meaningful and valuable to at least 10% of study respondents. These themes were further analyzed to identify influential camp-level mechanisms. Higher-ordered analysis followed to identify patterns across the categories.

We used self-determination theory as a lens during the inductive analysis to aid our understanding of if and how the three psychological needs (autonomy, competence, and relatedness) appear in the data. We carried out credibility checks wherein two researchers (second and third authors) came together to review and compare codes and themes in a portion of the data. Once the themes were finalized, an inter-rater reliability check was conducted on a

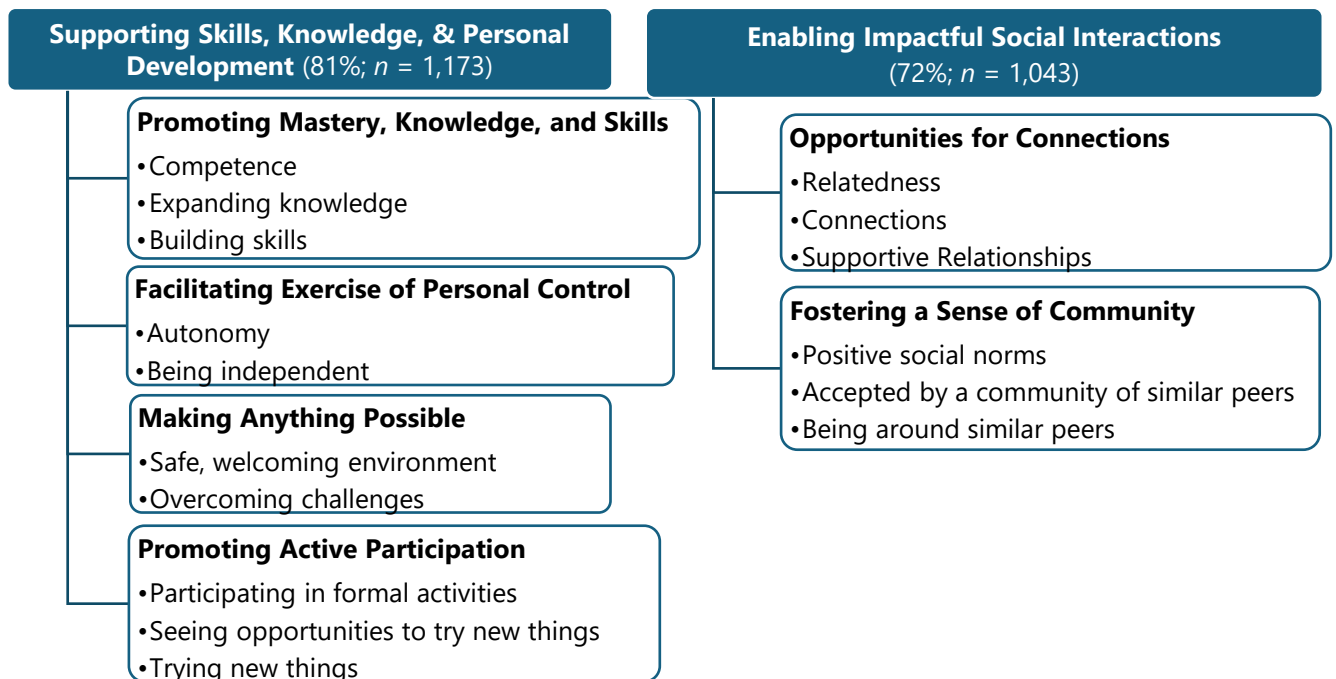
randomly selected data sample of 100 responses. Where the disagreement was high, the nature of the theme was reflected on and discussed by the two researchers to come to consensus.

### Results

Two higher order themes were identified, which captured the camp-level mechanisms that were inferred from the things camper alumni described as most memorable and meaningful: (1) supporting skills, knowledge, and personal development and (2) enabling impactful social interactions. Figure 1 provides an overview of these two higher order themes, with camp-level mechanisms that fall under each.

Figure 1

An overview of the two higher order themes, with proposed camp-level mechanisms



In supporting skills, knowledge, and personal development, four camp-level mechanisms were described by respondents as settings for (1) mastery and skill development; (2) personal control; (3) welcoming environments where anything was possible; and (4) opportunities for active participation).

In enabling impactful social interactions, two camp-level mechanisms were identified - respondents described camps' provision of (1) opportunities for connection (e.g., staff and peer relationships;) and (2) opportunities to feel part of the camp community (e.g., meeting similar kids, identifying with peers, social norms, acceptance).

Figure 2

Sample Responses for Each Proposed Camp Level Mechanism

Supporting Skills, Knowledge, & Personal Development	Enabling Impactful Social Interactions
<b>Promoting Mastery, Knowledge, and Skills</b> <b>(66%, n = 952):</b> “[I learned] how to access my own port”	<b>Opportunities for Connections (64%, n = 931):</b> “Being a part of a community and letting loose to be myself”



<b>Facilitating Exercise of Personal Control (33%, n = 475):</b> “Being free to do things I wouldn't ordinarily do.”	<b>Fostering a Sense of Community (37%, n = 532):</b> “Understanding that there are others like me and that we are equal to those that don't have the same medical issue we have.”
<b>Making Anything Possible (34%, n = 491):</b> “It helped me face my biggest fear of heights by giving me the opportunity to zip line”	
<b>Promoting Active Participation (30%, n = 440):</b> “Doing things I have seen other kids do that I could never do before like zip line, climb ropes, etc.”	

### Discussion and Implications

Many camp practitioners and researchers discuss the importance of creating a sense of belonging or connections at camp for children with serious illnesses or disabilities but are not always clear about what camp elements are associated with these outcomes or are seen as important long after camp. This study proposed a set of camp-level mechanisms based on campers’ reports of the most valuable and meaningful aspects of their experiences at camp. The findings suggest that these mechanisms supported camper alumni’s skills, knowledge, and personal development and enabled impactful social interactions.

We use self-determination theory to frame our recommendations. First, camps could explore promoting campers’ *sense of autonomy* by fostering the welcoming, supportive, safe, and inclusive nature of the environment, maximizing the sense of choice and freedom campers feel from their normal constraints such as medical issues, and creating opportunities for them to feel independent from parents and caregivers. Second, camps could explore promoting campers’ *competence* by offering a range of formal activities (snorkeling, horse riding, rowing) that campers might not have experienced before and expanding campers’ knowledge about how to advocate for themselves and how to respect and appreciate different perspectives and backgrounds. Third, camps could promote campers’ *relatedness* by creating opportunities for campers to connect with each other (including informal opportunities such as cabin chats at night), offering camp sessions for campers with similar health challenges, and hiring and training staff to be “supportive and encouraging but not overbearing.”

Limitations include generalizability to other medical specialty camps with different program models, our inability to follow up on individual written responses, potential translation issues, and recall bias. Further research should examine the similarity of reported “camp-level mechanisms” directly after camp ends and explore the differences in reported mechanisms and personal, social, and health-related outcomes by demographic characteristics of the camper and other variables of interest.

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# “Feeling free not different”: A qualitative exploration into the camp elements related to lasting camp impacts



Allison Dymnicki, Abt Associates; Róisín Cormack, Gemma Kiernan, Suzanne Guerin, University College Dublin; & Ann Gillard, SeriousFun Children’s Network

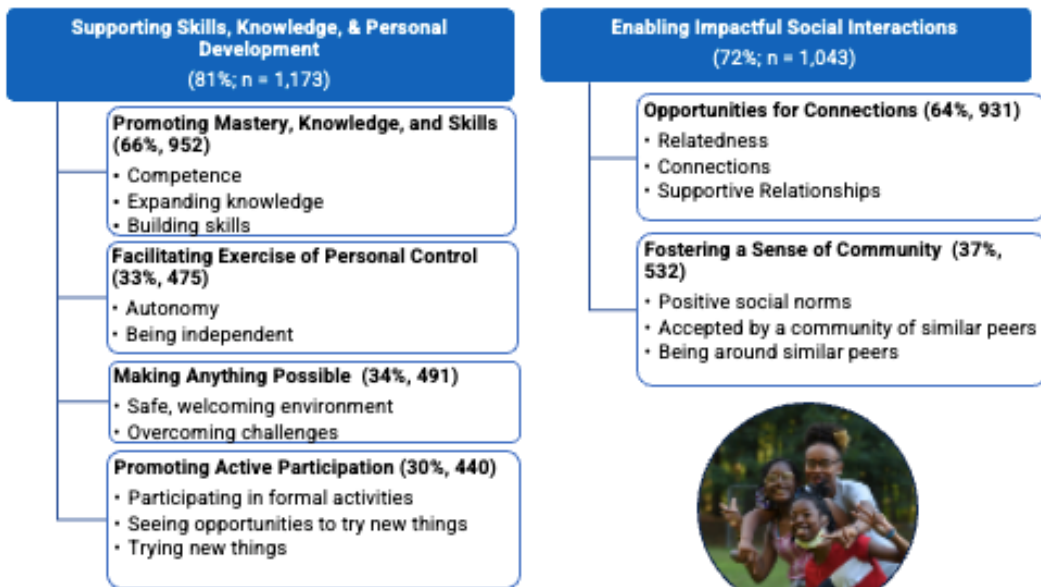
## Purposes:

1. Understand the aspects of camp recalled as valuable and meaningful to camper alumni of SeriousFun camps.
2. Explore camp-level mechanisms associated with the aspects that were most valuable and memorable to these camper alumni.

## Methods:

1,445 camper alumni aged 17-30 who answered at least one open-ended question, from 8 countries  
 Inductive and deductive qualitative data analyses, using Self-Determination Theory

## Results:



## Recommendations For Camps

1. Promote a sense of autonomy: create welcoming, supportive, safe, and inclusive environments that incorporate choice and freedom and opportunities for campers to feel independent from parents and caregivers.
2. Foster a sense of competence: offer a range of new formal activities, expand knowledge of self-advocacy and appreciation of different perspectives and backgrounds.
3. Inspire a sense of relatedness: provide informal opportunities for campers to connect with those with similar health challenges, train and nurture supportive and encouraging staff.

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# CRAFTING A FIELDWORK AT CAMP: HEALTHCARE STUDENT CONTRIBUTIONS

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Camps evaluate staff skills, camper outcomes, and finances to meet consumer demands and better serve their intended audiences. One way to influence camper outcomes and experiences and enhance staff competencies is to recruit skilled volunteers to complement existing camp programming. Students in healthcare programs such as occupational therapy (OT) or physical therapy need fieldwork experience to complete their degrees and camps can mutually benefit from their skillsets.

Evidence for OT Level I fieldwork in youth camp experiences for children with disabilities may be expanded to camp for typically developing children (Provident & Colmer, 2013). Evidence suggests that caring for typically developing campers positively influences interpersonal skills in adults (Spielvogel, Warner, & Sibthorp, 2022). This program description depicts the incorporation of healthcare student volunteers to contribute to camp programming.

## Methods

This project took place in the 2023 youth summer camping season at Camp Soles in southwestern Pennsylvania (Table 1). The stakeholders were camp leaders, master of occupational therapy students from Saint Francis University, counselors, and campers. The project leader was a camp board member who was a registered and licensed occupational therapist. She served as the supervisor of the students.

Table 1  
*Project timeline*

December 2022	Camp Soles board approved project. Healthcare student criteria were developed. Academic partners were approached.
January 2023	Academic program agreeable to camp's needs. Memorandum of Understanding was signed.
April 2023	Students were identified for this project by the school.
May 2023	Clearances and paperwork were collected. Online orientation was held.
July 2023	Students arrived at camp. Brief onsite orientation was conducted. Students delivered programs. Student assignments were assessed, and students were evaluated.
August 2023	Students, camp leaders, and counselors were interviewed.

Students were evaluated using standardized evaluations for professional skills such as the *American Occupational Therapy Association Level I Fieldwork Evaluation for OT and OTA Students* and their University's assessment protocols. Each student participated in a post-experience semi-structured interview as indicated in Table 2.

Camp leadership staff and counselors were interviewed to solicit feedback on their experience with the healthcare students including impressions of student performance and recommendations. Interviews were transcribed verbatim, and a constant comparative analysis method was used to elicit themes from the data. Because the interviewees were limited to those involved in the project, data saturation was not achieved. Three individuals validated the themes from the student data.

Table 2

*Semi-structured post-experience interview questions for students*

Did this experience match expectations?
Was this Level I successful?
What were the challenges?
What were the facilitators to applying OT concepts in this setting?
Was the level of OT supervision adequate for your learning needs?
Explain the role of non-traditional fieldwork in your learning.

**Results**

Three pairs of students attended the camp, each pair for a 1-week session. Camp attendees were typically developing children ages 7–17. The pairs delivered craft activities that engaged campers in gathering natural materials from the campgrounds (e.g., twigs, flowers, pinecones, and rocks), assembling the crafts, and engaging with peers in a low-tech environment. Students were assigned to produce written instructions for 5 nature crafts, analyze the activities for barriers to camper participation, and lead craft groups 2–4 times daily. Students received 12–16 hours/week of supervision from the OT and full-time supervision by camp leadership staff.

Reflective discussions lead by the OT were utilized 3–4 times per session to relate the camper activities, behaviors, and attitudes to curricular concepts like the interaction between the person, environment, and occupational performance (Law et al, 1996). Strategies to overcome social, emotional, or physical barriers to participation were identified and implemented by the OT students to promote camper participation in activities.

Six students, 2 camp leaders, and 2 camp counselors were interviewed. Student interview data indicated increased levels of confidence in working with pediatrics and groups, use of sensory processing tasks to enable camper participation, and promoting socialization in a low-tech environment to positively impact the camper’s interaction with self, peers, staff, and the environment. Students reported eagerness to expand their fieldwork to include additional camp program areas (Table 3).

Table 3

*Themes of student post-interviews*

<b>Theme</b>	<b>Supporting statements</b>
Increased confidence	Increased confidence in running groups and working with pediatrics
	"I feel a lot more confident now, and I feel a lot more confident my ability to work with kids."
Interpersonal skills application	Exercise flexibility: "It was kind of cool to be able to build your own experience."
	"Real world application"
Expand student role in this setting	Expand sensory processing opportunities
	Increase student role in homesickness management
Psychosocial factors	Tech-free zone positively impacts camper engagement with self, peers, staff, and environment

Camp leadership staff reported positive outcomes related to the student contributions including dedicated preparation time for crafts, creating nature-based projects, and the benefits of having additional personnel to manage campers. Camp leaders also recognized the value of recruiting skilled volunteers motivated by academic credit and their thoughtful application of didactic child development knowledge to camp programs.

Camp counselors benefited from the students at the camp. They reported positive collaborations between nature crafts and other craft projects. They indicated that increasing the variety of craft projects empowered camper choice and participation. Counselors would have liked the opportunity to be more acquainted to the purpose of the students ahead of their arrival, however, they indicated support of the project continuing next season. No adverse events were reported at the camp.

### **Discussion & Conclusion**

Student volunteers can complement existing camp programming, like crafts, with a skillset that encompasses viewing the whole child for their strengths and areas for growth. There is benefit in partnering with academic programs focused on healthcare professions and human development.

Stewardship related to natural craft materials was respectful of the program budget and fit the culture of Camp Soles, a traditionally low-tech environment. Costs associated with this program included room and board for the students and the costs of the materials. This cost may be manipulated by limiting crafts to be designed in the confines of reusable craft supplies, recycled products, or low-cost consumables (e.g., foraged natural materials). Partnership with academic programs can be mutually beneficial for students and camper participation outcomes. Camps wishing to enable camper participation should consider fostering relationships with academic OT programs. Additional research in this area would strengthen findings.

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## Crafting a Fieldwork at Camp: Healthcare student contributions



### Program Description:

- Healthcare students can positively contribute to camp programming using skills and knowledge of child development.
- Camps and academic programs can mutually benefit from forging partnerships.



### Methods:

- Participants: Occupational therapy students (n=6) & typically-developing campers
- Program evaluation: 1) stakeholder perceptions, 2) academic accreditation criteria
- Data collection: Semi-structured interviews of students, counselors, camp leadership, and academic stakeholders
- Setting: Camp Soles, residential youth camp in southwestern Pennsylvania
- Data analyses: 1) interview themes, 2) student performance evaluations

### Finding #1: Increased confidence

Students reported increases in confidence related to working with pediatric populations and managing a group.

### Finding #2: Psychosocial factors

Students reported: low-tech environment positively influenced camper participation

Environmental manipulations affected camper engagement with the task, themselves, peers and counselors.



### Finding #3: Applied child development

Camp leaders recognized the value of recruiting skilled volunteers motivated by academic credit and their thoughtful application of didactic child development knowledge to camp programs.

### Implications for Practitioners

1. Foster relationships with academic occupational therapy programs to recruit skilled volunteers.
2. Reduce program costs by designing learning objective to use renewable or recycled materials for arts and crafts.
3. Reduce burden on your counselors by hosting dedicated, skilled volunteers.



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# CREATION AND VALIDATION OF A BURNOUT SCALE FOR OVERNIGHT CAMP STAFF

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Each summer, nearly one million seasonal staff work at overnight camps in the U.S. (ACA, 2021). Although camp staff are often 18–25 years old (Lubeznik-Warner et al., 2022), they have considerable responsibility, including planning programs, facilitating activities, and caring for campers' physical, emotional, and social well-being (Epley et al., 2017; Johnson et al., 2011). This large workload, lack of separation between work and personal life, and limited free time, can result in burnout (Bailey et al., 2012; Wahl-Alexander et al., 2017). Burnout can lower staff's effectiveness, reduce commitment to one's role, and increase exhaustion, which can negatively impact camp operations including the quality of youth experiences (Maslach et al., 2001). It is important for camp administrators to be aware of staff experiencing burnout so that they may intervene to mitigate negative outcomes. There is not a camp specific scale measuring burnout; therefore, the purpose of this study was to develop a self-report camp staff burnout scale for seasonal overnight camp staff.

## Methods

We conducted two studies to create and validate a burnout scale. In Study 1, we created a pool of items ( $n = 30$ ) which were then reviewed by content experts and through cognitive interviews. All items started with: "In the past 2 weeks working at camp..." Following revisions, we collected survey data from a sample of staff working at overnight camps in the USA ( $n = 190$ ;  $M_{\text{age}} = 20.43$ ;  $SD = 2.02$ , 59% female, 81% white). To examine the potential factor structure of the items ( $n = 19$ ), we conducted an exploratory factor analysis (EFA) using promax rotation with extraction of three factors (hypothesized based on burnout literature). In Study 2, we collected survey data from a different sample of seasonal camp staff ( $n = 225$ ;  $M_{\text{age}} = 20.50$ ;  $SD = 1.97$ , 63% female, 86% white). We conducted a confirmatory factor analysis (CFA) to test the proposed three-factor structure using the nine items retained from Study 1. We tested convergent and discriminant validity by covarying the burnout measure with latent factors for well-being (Topp et al., 2015), and perceived stress (Lee, 2012). We also regressed the burnout measure on a single burnout item (e.g., In the past 2 weeks working at camp, I have felt burnt out.)

## Results

Results suggest the successful creation and validation of a survey instrument to measure burnout among seasonal camp staff ages 18–25. Study 1 results suggested a 3-factor model. We eliminated 10 items based on low factor loadings ( $< .5$ ) and instances of cross-factor loadings resulting in unclear factor assignment. A 9-item measure (3-items per factor; 4 total reverse-coded items) remained. The results of Study 2 suggested that a 3-factor model ( $CFI = .96$ ;  $RMSEA = .07$ ;  $SRMR = .05$ ) corresponded with the data better than a single-factor model ( $CFI = .84$ ;  $RMSEA = .14$ ;  $SRMR = .08$ ;  $\chi^2$  difference = 96.63,  $p < .001$ ). The 3 factors included exhaustion (e.g., I have felt more exhausted than usual), distancing/cynicism (e.g., I have felt trapped at camp), and reduced efficacy (e.g., I have struggled to keep up with all of my tasks). These factors all loaded onto a higher order burnout factor (exhaustion = .74; distancing = .99; reduced efficacy = .75). The results also suggested statistically significant associations with well-being ( $\beta = -.99$ ,  $p < .001$ ) and perceived stress ( $\beta = .83$ ,  $p < .001$ ) providing evidence of discriminant and convergent validity. The burnout measure was strongly related to the single-item burnout question ( $\beta = .88$ ,  $p < .001$ ).



## Discussion and Implications

This study provides initial evidence of a validated survey instrument measuring burnout among seasonal overnight camp staff. Researchers may use this scale to better understand the occurrence of burnout among overnight camp staff. Camp professionals can use this scale to identify overnight camp staff experiencing high levels of burnout. Scores on each of the subfactors may inform the types of interventions camp professionals can use to address staff burnout. Further, if trends show high levels of burnout among a particular group of staff (e.g., based on counselor identity or specific task assignment), or among the entire group of staff, then perhaps structural changes are warranted to create a more supportive work environment. Future research should include the creation of a scale for use in day camp settings. Additional research with more diverse samples is needed to establish measurement invariance across age, gender identity, and racial identity.

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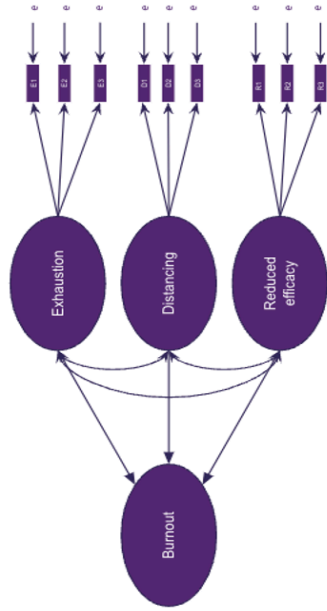
# Creation and Validation of a Burnout Scale for Overnight Camp Staff

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## Study Aim/Purpose

1. Develop a scale to assess overnight camp counselors' perceived burnout while working at overnight summer camp that demonstrates construct validity with expert raters.
2. Understand the scale's psychometric properties and factor structure through the use of an exploratory factor analysis (EFA).
3. Confirm the scale's factor structure in another sample of overnight camp counselors using confirmatory factor analysis (CFA). Additionally, determine convergent, discriminant, and predictive validity using structural models.



## Methods

1. A pool of survey items ( $n = 30$ ) were reviewed by camp experts and with camp staff through cognitive interviews.
2. With the revised pool of items ( $n = 19$ ), we conducted an EFA from survey data from a sample of staff working at overnight camps in the USA ( $n = 190$ ;  $M_{\text{age}} = 20.43$ ;  $SD = 2.02$ , 59% female, 81% white) using promax rotation with extraction of three factors (hypothesized based on burnout literature).
3. With a more parsimonious scale ( $n = 9$  items; 10 items removed based on low factor loadings and cross-factor loadings), we tested the proposed three-factor structure with a CFA using data from a different sample of seasonal camp staff ( $n = 225$ ;  $M_{\text{age}} = 20.50$ ;  $SD = 1.97$ , 63% female, 86% white)
4. We tested convergent and discriminant validity by covarying the burnout measure with latent factors for well-being (Topp et al., 2015), and perceived stress (Lee, 2012).

## Results

- A 3-factor model (CFI = .96; RMSEA = .07; SRMR = .05) corresponded with the data better than a single-factor model (CFI = .84; RMSEA = .14; SRMR = .08;  $\chi^2$  difference = 96.63,  $p < .001$ ).
- The 3 factors included exhaustion, distancing/cynicism, and reduced efficacy. These factors all loaded onto a higher order burnout factor (exhaustion = .74; distancing = .99; reduced efficacy = .75).
- The results also suggested statistically significant associations with well-being ( $\beta = -.99$ ,  $p < .001$ ) and perceived stress ( $\beta = .83$ ,  $p < .001$ ) providing evidence of discriminant and convergent validity.

## Implications

Camp professionals can use this scale to identify overnight camp staff experiencing high levels of burnout. Scores on each of the subfactors may inform the types of interventions camp professionals can use to address staff burnout. Further, if trends show high levels of burnout among a particular group of staff (e.g., based on counselor identity or specific task assignment), or among the entire group of staff, then perhaps structural changes are warranted to create a more supportive work environment.

## USING HIGH IMPACT PRACTICES FOR PROGRAM SCALING: CREATING A FAMILY DIABETES CAMP

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Managing type 1 diabetes (T1D) requires a lifelong commitment to healthy lifestyle choices, often learned through recreation (Allen et al., 2021). Access to recreation programs for families and youth facing T1D challenges can be difficult. An innovative solution to this challenge is employing High Impact Practices (HIPs), a model adapted from higher education, known for its educational benefits, including increased student success (American Association of Colleges and Universities, 2023). The HIPs may encompass collaborative projects, undergraduate research, and service-learning, to name a few. For service-learning, emphasis should be on the partner or recipient of the effort as the most important part of the equation (Bowie & Cassim, 2016). Goff et al. (2014) successfully applied a service-learning HIP utilizing college students to facilitate an after-school program for 6<sup>th</sup> graders – the partners (i.e. community nonprofits and school administrators) identified a high need for kids in transition. Recently integration of outdoor recreation and education within various HIPs has been shown to be beneficial (e.g., Hill et al., 2023), although limited literature exists on using the HIP to facilitate a recreation experience for youth with T1D. Programs serving youth with T1D inherently have unique support networks and by integrating college students with camp/medical professionals while at camp that utilizes HIPs can create a real-world connection for students. Using HIPs could provide a sustainable approach to address the need of providing recreation experiences for youth with T1D and their families to positively impact quality of life. Therefore, this study aimed to evaluate the efficacy of using a college class HIP to pilot a new family diabetes adventure day camp.

### Methods

As part of the Center for Community Engaged Learning at a Mountain West university, during the spring and early summer of 2023, students were enrolled in an adventure programming course where they created, implemented, and evaluated a day camp for youth with T1D. The service-learning HIP provided students with a theoretical and applied understanding of adventure programming within the field of outdoor and community recreation. As a starting point of the project, students developed an in-depth understanding of community issues associated with T1D to include how to work with/in the community to create change. The students used Outcome-focused Programming (OFP) from class to go through the project from start to finish; the culminating experience being the camp. Using OFP, college students intentionally structured all family adventure diabetes day camp activities around self-determination theory, a well-established principle of human motivation and development. Next, the students used their civic engagement skills to implement a one-day family diabetes camp. Finally, the college students collected, analyzed and reported the camp data, adding a second HIP to the experience, undergraduate research.

Fifteen families ( $n = 59$ ) of youth diagnosed with T1D, participated in the pilot of a family adventure diabetes day camp. The college students administered the American Camp Association Camper Learning Scale, a retrospective, generalized measure of camp-related improvement. The scale has high reliability coefficients ( $\alpha > 0.90$ ). College students also added questions to include program quality, examine campers' comfort level when discussing their diagnosis with others outside their family, number of friends made at camp, likelihood to return,

and diabetes knowledge learned. Finally, college students surveyed the parents with similar questions (e.g., diabetes knowledge learned). Percentages of campers who *learned a little or a lot* about the outcomes, descriptive statistics, and direct content analysis were performed using Excel.

### Results

The college class surveyed all 17 campers about their family diabetes camp experience. The average age of campers was nine years old, 71% of campers felt they *felt they learned a little or a lot* about the outcomes (e.g., friendship). Campers, on average, reported making three new friends and feeling *somewhat comfortable* discussing diabetes with others. Campers scored a nine (with 10 = loved it) on program enjoyment with a majority of respondents who expressed intention to return next year. Campers reported rock climbing, soccer, and tennis as their top three camp activities. Campers identified *being with others who have T1D* as the most important camp outcome. Finally, nutrition was the prevalent theme of new information learned.

As part of their class, college students also surveyed 11 parents (one per family). The average age was 40 years old, 100% identified as Caucasian, with an average income of \$85,277. Parents on average met 2.8 new friends. Parents reported a 9.5 (with 10 = highest) on program enjoyment and 100% reported they will return for the next event. When asked about their child's level of comfort talking about T1D, parents reported a 3.1 (on a 1–5 Likert type scale with 5 being high), similar to the youth responses. Parents reported meeting other parents facing similar challenges as their favorite part of camp. When asked about the most valuable new information learned, diabetes technology emerged as the overarching theme. These data were presented at the end of semester final class project.

### Discussion and Implications

The impetus for this project was to use a HIP with an undergraduate recreation class to create a new family diabetes adventure day camp. Research supports positive student gains because of participation in HIPs (American Association of Colleges and Universities, 2023; Goff et al., 2020). Specifically, service-learning and undergraduate research provide learning in a real-world setting, creating a connection with class content that further reinforces evidence-based practice regarding societal challenges (e.g., T1D). This new diabetes camp met two needs. First, it provided college students an opportunity to connect theory to practice through service-learning and participation in undergraduate research, both core HIPs (e.g., Hill et al., 2023). What also emerged was a strengthened Community of Practice (CoP) between college students, medical practitioners (e.g. diabetes educators, endocrinologist), volunteers (e.g., service club focused on T1D), and university faculty. A CoP includes a group(s) focused on a shared concern/passion, interest in improving or “doing” better to address concern/passion, and regular interaction (Wenger-Trayner & Wenger-Trayner, 2015). The interaction and supports between the myriad partners involved in the T1D camp strengthened the CoP. Second, this new camp program served families who currently do not have access to such recreation services. Data from the current program evaluation supports that both youth and parents gained improved outcomes, learned new diabetes knowledge, made new friends, and intend to return for future events.

Continuous program evaluation is an important quality assessment component for family diabetes camps by providing valuable insight for improvement (Allen et al., 2021). Bridging the HIPs of service-learning and undergraduate research, sustainable diabetes camps can be created to effectively target a societal need (Hill et al., 2022). The use of HIPs may also be a mechanism to scale programs by introducing partners through CoP. As with most reach, there are limitations. The Camper Learner scale is a retrospective self-report. Due to possible biases in a retrospective instrument additional mechanisms should be explored to determine the benefit of youth involvement in a T1D camp. A second limitation of this study is the direct measure of

HIP efficacy. While anecdotal information suggests the college students learned more from the approach than a traditional lecture course, direct measures are needed. Future research should explore the HIP process, learning outcomes for college students, and opportunities to further engage the CoP.

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#### INTRODUCTION

- Type 1 diabetes (T1D) requires a lifelong commitment to healthy lifestyle choices, often learned through recreation (Allen et al., 2021).
- Access to recreation programs for families and youth living with T1D can be difficult.
- Scaling programs that use *High Impact Practices* (HIPs), a model adapted from higher education, may help address access challenges.
- HIPs, such as collaborative projects, undergraduate research, and service-learning, have been shown to have educational benefits -- student success for college students (AAC&U, 2023)
- HIPs create real-world connections for students.
- HIPs could provide a sustainable approach to address the need of providing recreation experiences for youth with T1D and their families to positively impact quality of life.
- This study aimed to evaluate the efficacy of using a college class HIP to pilot a new family diabetes adventure day camp.



**Campers being with others with T1D was the most important outcome from camp.**  
**Parents meeting other parents facing similar challenges was most important outcome from camp.**



# WHY YOUTH ARE ASKED TO LEAVE CAMP EARLY: A TWO SUMMER STUDY OF CONTINUOUS IMPROVEMENT

Authors: Victoria Povilaitis, Tim Hortons Foundation Camps and Robert P. Lubeznik-Warner, University of Utah

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Young people today are facing unprecedented stressors related to current events that yield increased mental, emotional, and social health (MESH) needs and decreased overall well-being (US Public Health Service, 2021). Long-term impacts of decreased MESH and well-being include difficulties with emotional adjustment, transition to adulthood, and overall quality of life (Diener & Chan, 2011). One solution to support MESH needs and well-being is summer camp. Camp is commonly understood as a positive developmental setting, in which youth learn teamwork, leadership, and relationship skills (e.g., Richmond et al., 2019). This setting is especially impactful for youth from low-income backgrounds who do not have the opportunity to attend high quality programs due to financial constraints (Povilaitis et al., 2023). Unfortunately, youth who do not complete a full camp session may be unable to experience beneficial outcomes. The reasons why campers are sent home are not well understood. Thus, the purpose of this study was to identify camper and camp-based predictive factors associated with youth departing camp early (RQ1). A secondary purpose was to understand the impact of continuous improvement efforts related to reducing the number of youth departing early (RQ2).

## Methods

To answer our questions, we used administrative records for two summer seasons ( $n_{2022} = 1,275$  and  $n_{2023} = 1,850$ ) of a non-profit multisite camp organization. The organization provides youth from low-income backgrounds with a free 10-day overnight camp experience. We reviewed and recoded de-identified 2022 camper records in the following ways: age, gender (female = yes (1)), race (camper of color = yes (1)), and number of pre-existing health concerns (i.e., behavioral, developmental, mental health). We coded staff-reported data about campers, including: if a youth was asked to leave camp early and the reason (i.e., behavior, family emergency, health, homesick, mental health, other). Data about *camp locations* included: number of licensed camp social workers each session and counselor-to-camper ratios.

To answer research question 1, we used a binomial logistic regression to determine if youth and camp factors were related to the likelihood of youth departing camp early in 2022. We also used a series of multinomial logistic regressions to determine if predictors (i.e., youth and camp) increased the likelihood of youth departing for different reasons. We reduced our alpha of .05 to .01 to account for type 1 error rate. To answer research question 2, we compared the early departure rates in 2022 and 2023 to determine if there was a reduction in rate of youth who departed camp early. If so, we reflected on the strategies used and considered how they may have impacted this change.

## Results

The early departure rate for youth attending camp in 2022 was 6% ( $n = 123$ ). We found evidence of the individual and camp factors that predicted the likelihood of youth leaving early from camp. Youth who had pre-existing health concerns (documented behavioral, developmental, mental health) were one and half times more likely to leave camp early for every documented pre-existing concern. We also found that youth were nearly half as likely to depart from camp early for every social worker at camp during the session. See Table 1 for descriptive statistics and logistic regression estimates. The early departure rate for youth attending camp in 2023 was 5% ( $n = 87$ ). This was a 1% reduction from 2022 to 2023. As this was the

organization’s first cycle of continuous improvement related to camper early departures, any reduction in this rate was considered a success.

Table 1  
*Logistic regression of factors predicting early departure – summer 2022*

Predictor	<i>M</i>	<i>SD</i>	%	<i>B</i>	<i>SE</i>	<i>zvalue</i>	<i>e<sup>b</sup></i>
Age	14.66	1.91		-.09	.07	-1.26	.92
Female				-.07	.25	-.26	.94
Camper of Color			40%	-.40	.27	-1.47	.67
# of Pre-Camp Behavioral, Developmental, Mental Health	.28	.57		.43	.18	2.39*	1.54
Number of Camp Social Workers	1.35	.75		-.53	.17	-3.07**	.59

Note. *n* = 1,201; \* = *p* < .05, \*\* = *p* < .01

### Discussion

In 2022 our early departure rate was 6%, youth with multiple pre-existing health concerns were more likely to leave early, and locations with multiple social workers had fewer youth who did not complete their camp session. We understand that the rate will never be and should not be 0% due to factors beyond our control. Regardless of onboarding and support prior to and during the experience, camp may not be an appropriate fit for some youth due to elevated MESH needs or disinterest in camp altogether.

In this study, we focused on addressing the factors we could control. For example, prior to summer 2023, we conducted additional pre-camp phone calls with parents and youth to understand their MESH concerns, introduced camper support plans for individuals who were unsuccessful in summer 2022, hired multiple social workers per location, and provided externally facilitated MESH training to all staff. In 2023, the early departure rate decreased to 5%, indicating that these supports may have been effective. With a continuous improvement focus, for 2024 we aim to build upon staff training focused on MESH by focusing on experiential learning, such as role playing and discussing specific scenarios from 2023. Additionally, we have introduced a new staff role that focuses on supporting youth needs during the onboarding process through increased communication with parents/guardians and youth.



Findings from this study yield implications for practitioners who are invested in continuous improvement and retaining participants at camp. In particular, reviewing camper records (i.e., demographics, health information) to identify themes among youth who are unsuccessful may identify areas for focus (e.g., training on implicit bias, MESH, working with younger youth). Practitioners should consider structural changes (e.g., hiring additional social workers) and individual methods (e.g., creating camper support plans, regular check-ins prior to and throughout camp) to support youth in completing a successful camp experience. Ongoing cycles of continuous improvement and reflection on early departures from camp will continue to impact understanding of camper MESH needs and systems that may support them. This work will allow organizations to determine an ideal early departure rate (i.e., not 0%) and strategies that will assist in reaching this rate.

Limitations of this study include missing camper race information (as it is an optional question on the registration form) and a need to consider how to measure the impact of organizational changes on individual camper's experiences with greater sophistication. Future research may build upon this work to understand what factors predict early departures in campers with other populations and focuses (e.g., religiously affiliated, medical specialty, for-profit camps). Continually reflecting on and refining camp systems will allow for greater camp access for youth who need it most. Further, implementing evidence-based changes will improve the camp experience for participants and support young people in completing a camp session.

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## Why youth are asked to leave camp early: A two summer study of continuous improvement

Victoria Povilaitis (Tim Hortons Foundation Camps) and Robert P. Lubeznik-Warner (University of Utah)



### Introduction

- Some youth are unsuccessful at camp due to increased MESH and other needs and must depart early
- Reasons for early departure (ED) are not well understood
- Purpose of this study was to identify camper and camp-based predictive factors associated with ED
- Secondary purpose was to understand the impact of improvement efforts related to reducing ED rate

### Methods

- Administrative records for two summers ( $n_{2022} = 1,275$  and  $n_{2023} = 1,850$ ) were reviewed
- Youth data: age, race, gender, pre-existing MESH concerns, camp completion status
- Camp data: number of social workers and counselor to camper ratios
- Analysis: binomial logistic regression, series of multinomial logistic regressions, comparison of 2022 and 2023 ED rates

### Findings

Table 1 Logistic Regression of Factors Predicting Early Departure – Summer 2022

Predictor	M	SD	%	B	SE	z value	e <sup>b</sup>
Age	14.66	1.91		-.09	.07	-1.26	.92
Female				-.07	.25	-.26	.94
Camper of Color			40%	-.40	.27	-1.47	.67
# of Pre-Camp Conditions	.28	.57		.43	.18	2.39*	1.54
Number of Social Workers	1.35	.75		-.53	.17	-3.07**	.59

Note.  $n = 1201$ , \* =  $p < .05$ , \*\* =  $p < .01$

- Youth with MESH concerns were 1.5x more likely to be an ED per concern category
- Youth half as likely to be an ED per social worker employed
- 2022 ED rate of 6% compared to 2023 ED rate of 5%

### Discussion and Implications

- Consider a continuous improvement approach to understand youth needs and experiences at camp; implementing evidence-based strategies and assessing impact of changes will improve camp experiences
  - Reviewing camper records to identify themes among those who depart early may indicate areas of future focus
  - To support youth, structural changes (e.g., staffing, training camp session length) and individual supports (e.g., creating camper support plans) may be needed
- Consider principle of universal design: introduce changes that will be beneficial for all



# AN ANALYSIS OF HEALTH POLICIES FOR SUMMER CAMPS FOR PEOPLE WITH INTELLECTUAL AND DEVELOPMENTAL DISABILITIES

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There are over 90 overnight summer camps in the United States that provide programs to people with intellectual disabilities (IDD) (American Camp Association, 2022). These camps offer inclusive communities and fun activities for people of all ages with IDD who may not have these opportunities in everyday life. The camps are beneficial for improving life skills, friendships, and self-worth (Simpson et al., 2021).

However, people with IDD are at high risk for dehydration (Smith, 2015), falls (Heller et al., 2014), and heat-related illnesses (Schmeltz & Gamble, 2017), which are prevalent in the summer months. There are no standard evidence-based health protocols for these summer camps to prevent individuals with IDD from these common conditions.

Dehydration is common in the summer months for people with IDD due to heat and outdoor activities. There is a high prevalence of speech and swallow disorders in this population, which increases the risk of dehydration (Lazenby, 2007). Individuals with IDD may not be able to express that they are thirsty and can become dehydrated. People with IDD who use wheelchairs are at risk for falls because of improper staff handling and equipment failure. The fall rate for adults with IDD is significantly higher than that of elderly adults without IDD (Smulders et al., 2013). Heat-related illnesses, including sunburns, occur in children and adults with IDD due to altered bodily perceptions and photosensitivity from medications (Lugovic-Mihic et al., 2017).

This study aims to identify the policies these summer camps use to prevent dehydration, falls, and heat-related illnesses for people with IDD.

## Methods

This study used a qualitative descriptive design. Selected through convenience sampling, ten full-time camp nurses from ten ACA certified US summer camps for people with intellectual disabilities participated in this study. Semi-structured interviews were conducted over Zoom. The interviews took between 20-45 minutes each. The interview audio was recorded and transcribed verbatim into text through Temi.com. The first author verified the transcripts were correct. The transcripts were uploaded to Nvivo 12, where codes were created. Content analysis through In vivo coding was used to find themes in the data.

## Results

The policies for dehydration, falls, and heat-related illnesses found in summer camps for people with IDD are displayed below.

Table 1

*Results: policies at summer camps for people with IDD*

Condition	Name	Description
Dehydration	Staff education	Have a training session for the staff before the campers arrive. During these sessions, staff learn about the importance of hydration, what signs of dehydration to look for, and the seriousness of dehydration.
	Encourage fluids at meals	Encourage the campers to drink water during meals by first having the campers drink water before they are allowed to have juice or flavored electrolyte mixes.

	Carry water bottles	Have the campers bring water bottles with them or give bottles to them. The campers drink from the bottles and keep them filled throughout the day.
	Frequent drink reminders	Have the nursing staff give verbal reminders to drink throughout the day and during mealtime announcements. Take time for water breaks during activities. Distribute popsicles on hot days.
	Place water supplies around camp	Have water coolers available in all the camp activity locations.
Falls	Lift equipment for camper transfers	Staff control the automatic lift equipment and there is anywhere from 1-3 staff helping.
	Manual lift for camper transfers	Lighter campers who can assist have a one or two-staff lift. Heavier campers who cannot assist in the transfer have a three-person lift.
Sun protection	Staff education	The camps have training sessions for their staff before the campers arrive and educated about sun protection.
	Apply sunscreen throughout the day	Apply sunscreen multiple times a day throughout the day. Encourage campers to carry bottles of sunscreen with them.
	Wear protective clothing outside	Encourage sun shirts and protective clothing for campers with allergies to sunscreen or with sensory difficulties who are unable to apply lotion.

The demographics of the ten camps are summarized to better understand the settings where the policies were applied. The surveyed camps averaged to have 48 campers per week, depending on the campers' medical needs. The camps primarily served individuals with disabilities such as ADHD, Autism, Cerebral Palsy (CP), Down Syndrome, and global developmental delay. Most camps offered 5-day, 5-night programs, but some ran 10–14 day programs. Many camps had separate weeks for children and adults. Staff-to-camper ratios ranged from 1:1 for medical campers to 1:2–5 for independent campers.

The nurse participants' reports of how often they treated campers gave a sense of the effectiveness of the policies. Most nurses mentioned they treated 1–2 campers for constipation per year and treated 1–2 campers daily or weekly for headaches which can indicate dehydration. There were falls from transfers because of a lack of experience or communication during transfers and improper use of the automatic lifts. As a result of these policies, the frequency of campers falling is low, with an average of 1–2 per summer. Similar to falls, the frequency of campers getting sunburned is low, with an average of 1–2 per summer.

#### **Discussion and implications**

This study identified types of policies that are in place to prevent common camp medical conditions for children and adults with intellectual and developmental disabilities. All of the camps used multiple hydration policies. Water and drinks were made visible to the campers throughout the day by having full water bottles, water stations, and encouraging drinking at meals. Staff input from frequent reminders and a thorough education on dehydration was a

common policy to ensure adequate camper hydration. The effectiveness of these policies is unclear due to the varied frequency of nursing treatment campers received for signs and symptoms of dehydration.

The transfer and fall prevention policies had the broadest range of participants' responses for ensuring safety. This policy category was the most camper specific to each individual's needs. According to the participants, the rate of camper falls was low.

The sun protection policies were relatively simple. Applying sunscreen and wearing UV protective clothing were policies in all of the camps in this study. According to the nurses, the rate of camper sunburns was very low.

This descriptive study was the first step in identifying common policies of safety for people with IDD at summer camp. Future research is needed to measure these policies. These results are examples of what camps for people of all ages with IDD are doing for camper safety. Camp directors can apply as many of these policies as possible with the resources and funds they have for their camps.

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# An analysis of health policies for summer camps for people with intellectual and developmental disabilities

**Problem:** There are no standard evidence-based health protocols for overnight summer camps for people with intellectual and developmental disabilities (IDD) although this population is at high risk for falls, heat-related illnesses, and dehydration which are prevalent in the summer months.

**Methods:** A qualitative descriptive design was used in this study. Ten full-time nurses from ten U.S. summer camps for people with IDD were interviewed over Zoom. Themes were found through content analysis using In vivo coding.

### Transfer policies

- Number of staff on transfers depend on individual needs
- Lift equipment is available

Frequency	Percentage
A few	25%
None	25%
2 per year	12.5%
1 per year	12.5%
Rare	12.5%
3 per year	12.5%

### Sun protection policies

- Staff education
- Apply sunscreen throughout the day
- Wear protective clothing outside

Frequency	Percentage
None	22.2%
Rare	22.2%
1 per week	11.1%
1 or 2 per year	44.4%

### Hydration policies

- Staff education
- Encourage fluids at meals
- Carry water bottles
- Frequent drink reminders
- Place water supplies around camp

Frequency	Percentage
Not often	22.2%
Offten	11.1%
2 or 3 per year	11.1%
2 per week	11.1%
1 or 2 per day	44.4%



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Veronica Bennett BSN, RN and Kimberly Ho PhD, CCC-SLP

## **CULTIVATING UNDERREPRESENTED YOUTHS' INTEREST IN CAMP EMPLOYMENT: AN EXTENSION**

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Participation in camp may support numerous developmental benefits for youth (Whittington et al., 2017). Yet only a third of camp participants identify as people of color or come from low-income backgrounds (Browne et al., 2019). As a result, many camps want to become more inclusive and attract youth of from underrepresented backgrounds overall (American Camp Association, 2013). Youth from underrepresented backgrounds – including those who are Black, Indigenous, other People of Color (BIPOC), identify as part of the LGBTQ+ community, have a disability, are part of a religious minority, or have other experiences of marginalization – may be more likely to enroll and benefit from camp if the environment is inclusive and counselors share campers' social identities (Meerts-Brandsma et al., 2023). Indeed, social identity theory (Tajfel & Turner, 1986) suggests that people prefer to be in spaces with others who share their identity. Therefore, the presence of camp staff who share campers' social identities may support the attendance and retention of underrepresented youth at camp by helping campers feel a greater sense of belonging (Thomas, 2016).

One way to increase diversity among camp staff is through Bridge Programs, which are counselor-in-training (CIT) programs that focus specifically on retaining underrepresented campers within the camp community until they are eligible to become camp staff (Meerts-Brandsma et al., in press). Given a dearth of literature examining the characteristics of successful bridge programs, the purpose of this study was to identify the characteristics of CIT Bridge Programs that lead youth from underrepresented backgrounds to return as CITs and/or develop an interest in becoming counselors.

### **Methods**

Participants ( $N = 39$ ) were recruited from camps that have Bridge Programs and that the camp identified as being from an underrepresented group. More than 70% of CIT participants had previously attended the camp where they were a CIT. The majority of CIT participants were between the ages of 13 – 17 ( $M = 15.8$  years), identified as female (66.6%), identified as a person of color (65.0%), and identified as a member of a marginalized group (56.4%).

Participants completed a post-CIT program survey via Qualtrics that included several aspects of their camp and Bridge Program experience. Participants completed a modified Diversity Engagement Survey (DES), which assesses an organization's ability to foster inclusion and engagement (Person et al., 2015), to better understand CIT participants' perceptions of their camp's inclusivity and engagement. Participants also selected high- and low-lights of their CIT experience from a list of nine themes that were identified in previous research (Meerts-Brandsma et al., 2023), as well as reported on the most important factor in deciding to return as a CIT or future counselor. Likert-type rating scales were used to understand youths' likelihood of returning as a CIT and the importance of lowlights in their decision. Then, participants were asked open-ended follow-up questions to understand why a particular aspect was important to them. Lastly, participants also answered close-ended questions about their interest in working as a camp counselor in the future.

### **Results**

Results from the DES largely suggested that the camps were equitable and inclusive. Each subscale exhibited a ceiling effect with means ranging from 4.15 – 4.60 and standard deviations ranging from 0.59 – 0.99.

#### **Drivers of CIT Retention**

The three most frequently identified important aspects of the CIT programs were opportunities to develop skills and get certifications (32.5%), opportunities to develop meaningful relationships with campers (17.5%), and content taught in the counselor training program (15.0%). The next-most identified important aspects of the CIT program were the program structure (7.6%), and opportunities to learn about new and interesting things (7.6%). Pay (5.1%), availability of non-working counselor activities (5.1%), and camp leadership guidance (5.1%) were also identified as highlights of the CIT program for some. The least frequently identified highlight of the CIT program was the opportunity to develop meaningful relationships with other counselors (2.5%).

#### **Drivers of CIT Turnover**

The three most frequently identified aspects of the CIT programs that participants thought should change are the pay (25.0%), the structure of the program (22.5%), and opportunities to develop meaningful relationships with campers (10.0%). In ladder follow-up questions, CITs suggested increased pay, having a set schedule with breaks, and opportunities to spend more time with campers (e.g., overnight programs). Additional aspects of the CIT programs that participants thought should change were availability of non-working counselor activities (5.1%), opportunities to learn about new and interesting things (5.1%), camp leadership guidance (5.1%), and opportunities to develop skills and get certifications (5.1%). The least frequently identified aspects of CIT programs that participants thought should change were the content taught in the counselor training program (2.5%), and opportunities to develop meaningful relationships with other counselors (2.5%).

#### **Interest in CIT/Counselor Employment**

Participants were asked if they had an interest in returning as CITs or counselors in the future, and what might influence these decisions. Approximately 64% of participants reported having confidence that they will return next year, and 64% reported being very confident that they would return. The three most frequently identified drivers of retention as a CIT were adequate pay (25.0%), opportunities to develop skills and gain certification (25.0%), and whether the camp provides feedback and coaching (14.2%). Thirty-two percent of participants noted they would not return due to aging out. Approximately 46% of CITs were interested in returning as a counselor, and 33.3% were at least somewhat interested. The three most frequently identified aspects that are drivers of participants returning as a counselor in the future are the atmosphere of camp (23.0%), program structure (20.5%), and pay (12.8%).

#### **Discussion**

Youth who were CITs generally reported positive, equitable, and inclusive experiences. Common reasons for returning as a CIT were opportunities to develop skills and receive feedback and coaching. To improve retention, camps should consider a feedback process that actively engages CITs in professional development. Participants considered program curricula or skills derived from curricula to be 2 of the 3 most important aspects of their CIT program, which supports this recommendation.

Although pay was prioritized in considering returning as a CIT or counselor, many camps may not have sufficient assets to increase pay broadly. However, camps may consider an incentive structure; potentially one that parallels counselors' experience or longevity with the camp. While many CITs were interested in returning as a counselor, deliberately involving CITs in feedback and curriculum refinement processes may increase that percentage.

Key limitations of this study pertain to the sample. More than 70% of CIT participants had previously attended the camp where they were a CIT, which is likely due to having previous positive camp experiences. Thus, the study sample represented individuals with prior exposure to camp and who were already familiar with the camp in which they were a CIT, rather than individuals who were new to camp (Meerts-Brandsma et al., 2023). As such, future research



should consider targeting CITs who have not had previous camp experience. Furthermore, in addition to a relatively small sample size, the sample size was smaller compared to the first year of the study (see Meerts-Brandsma et al., 2023). However, findings from both years of the study offer preliminary evidence that CIT programs can be effective in facilitating and maintaining underrepresented youths' connection to camp, as well as maintaining their interest in future camp employment.

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## Cultivating Underrepresented Youths' Interest in Camp Employment: An Extension

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### Study Aim/Purpose

To extend prior research on Counselors in Training (CIT) Bridge Programs by identifying CIT Bridge Program characteristics that lead youth from underrepresented backgrounds to return as CITs and/or develop an interest in becoming counselors.

### Participants (N = 39)

Youth participating in a *Bridge Program* - a CIT program that focuses on creating pathways to camp leadership and employment for underrepresented youth

- Age 13-17 (M = 15.8)
- 65% identified as a person of color; 66% identified as female; 56% identified as a member of a marginalized group
- More than 70% had previously attended the camp that housed their CIT program as a camper

### Methods

- Completed post-program survey
  - Diversity Engagement Survey (DES)
  - Highlights/Lowlights of CIT programs
  - Most important factors impacting interest and decision to return as CIT or Counselor
  - Interest in returning as CIT or Counselor



### Aspects of CIT Program to Retain

Opportunities to develop skills and get certifications (e.g., first aid; endorsed by 33% of CITs), opportunities to develop meaningful relationships with campers (e.g., positive impact on campers; 18%), and content taught in counselor training (e.g., conflict resolution; 15%)

### Aspects of CIT Programs to Change

Pay (e.g., increased pay for returners; 25%), program structure (e.g., scheduled breaks; 23%), and opportunities to develop meaningful relationships with campers (e.g., more time with campers; 10%)

### DES, Interest & Decision to Return

DES showed that participants found their CIT programs to be equitable/inclusive

- 64% of CITs reported that they had confidence they would return as a CIT next year
- Top deciding factors included pay (25.0%), opportunity to gain skills and certifications (25.0%), and camp feedback/coaching (14.2%)
- 79% of CITs were interested in returning as a counselor

Top deciding factors included atmosphere of camp (23.0%), program structure (20.5%), and pay (12.8%)

### Implications for Practitioners

CITs valued the CIT program curriculum and the skills they learned during it as two of the three most important aspects of their CIT program. To improve retention, camps could consider a feedback process that actively engages CITs in professional development. Involving CITs in feedback and curriculum refinement processes as well may increase retention.

Pay was prevalent aspect of CIT programs to change and deciding whether to return. Camps may consider an incentive structure that parallels CITs/ counselors' experience or longevity with the camp.

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# A NATIONAL, LONGITUDINAL STUDY EXAMINING SOCIOEMOTIONAL BENEFITS OF SUMMER CAMP ATTENDANCE, DOSAGE, AND QUALITY EXPERIENCES

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As a context that tends to be highly enjoyable and meaningful (Bialeschki et al., 2007; Wilson & Sibthorp, 2017), summer camps may be well-equipped to support youth development. Research has documented positive associations between summer camp participation and developmental outcomes, particularly socioemotional skills (Garst et al., 2016; Warner et al., 2021). Yet we have a limited understanding of what level of involvement in camp is needed for developmental benefits to emerge.

The Leisure, Activity, Context, Experience (LACE) model (Caldwell & Witt, 2018) is a framework ideal for understanding summer camp's potential for youth development, emphasizing that engagement in leisure is mostly likely to deliver benefits when the right combination of activity, context, and experience is present. This aligns with Bioecological Systems Theory, which suggests that development results from successive, increasingly complex interactions between people and their environments over time (Bronfenbrenner & Morris, 2006). These theories suggest that summer camp is not *inevitably* beneficial but may support development when the camp context delivers developmentally meaningful experiences within the context of interesting, fun, and challenging activities, with more time in a developmentally rich context potentially allowing for greater development advancement.

Using data from a national, longitudinal study of youth camp participants, the present research sought to clarify how camp attendance (RQ1), dosage (RQ2), and experience quality (RQ3) were related to youths' socioemotional skills, and to distinguish the impact of summer camp from that of other recreational activities.

## Methods

Data were drawn from the American Camp Association's National Camp Impact Study, which examined the lasting benefits of summer camp for youth. Families were recruited through 49 ACA-accredited summer camps (day and overnight). Child-caregiver dyads were administered online surveys biannually from 2018 through 2021, regardless of whether youth returned to camp after the first summer. We used data from fall surveys, resulting in four waves of data. The final sample included 451 dyads. Most youth were 9- or 10-years-old baseline ( $M_{age} = 9.53$ ), were White (70%) or multiracial (12%), and were from relatively affluent households ( $M_{income} = \$148,500$ ). The sample was 53% girls and 47% boys.

Outcomes, which included social awareness, grit, independence, and willingness to try new things, were assessed using validated self-report measures from Panorama and ACA's Youth Outcomes Battery 2.0 at each wave. Our predictors were three metrics of summer camp involvement: attendance (whether or not youth attended camp in a given summer), dosage (the number of weeks youth spent at camp in a given summer), and experience quality (a composite measure of engagement, belonging, youth-adult relationships, experiential learning, and reflection). We conducted analyses separately for each measure of camp involvement and for each outcome.

We also included a range of child and family covariates to isolate connections between summer camp and youth outcomes. Time-invariant control variables included child gender, race, family SES, extracurricular spending, and household size. Time-varying control variables included life transitions (e.g., whether family situation, living conditions, or income had changed since the last wave) and involvement with non-camp summer recreation activities (i.e., sports

and arts programs). We also included a linear measure of time to adjust for developmental trends in outcomes and a dichotomous COVID-19 measure to adjust for the effects of the pandemic on youths' socioemotional skills (coded as 0 before the pandemic and 1 during the pandemic).

For each research question, multilevel mixed effects regression analyses were estimated to examine links between summer camp involvement and socioemotional outcomes. These models disaggregate fixed (within-person) and random (between person) effects, allowing us to compare individuals to themselves over time, as well as comparing individuals to one another. Examining how changes in camp involvement correspond to changes in outcomes within the same individuals brings us closer to establishing the causality of camp effects.

### Results

Table 1 presents the effects of camp attendance, dosage, and quality experiences on each outcome variable. Within-person coefficients indicate how youth differed *from themselves* based on the predictor of interest, accounting for time-varying covariates. Between-person coefficients indicate how youth differed *from one another* based on the predictor of interest, accounting for time-invariant covariates. We present standardized coefficients to allow comparison of effect sizes across models.

Table 1  
Effects of Camp Attendance, Dosage, and Quality Experiences on Socioemotional Skills

Model	Level	Social Awareness	Grit	Independence	WTNT
		$\beta$ (SD)	$\beta$ (SD)	$\beta$ (SD)	$\beta$ (SD)
Camp Attendance	Within	0.04 (0.04)	-0.01 (0.04)	0.01 (0.04)	0.08 (0.04)*
	Between	0.05 (0.08)	0.08 (0.07)	0.10 (0.07)	0.00 (0.06)
Dosage	Within	0.03 (0.04)	0.01 (0.04)	0.03 (0.04)	0.02 (0.04)
	Between	-0.03 (0.08)	0.06 (0.09)	-0.23 (0.10)*	-0.16 (0.10)+
Quality Experiences	Within	0.23 (0.04)**	0.16 (0.04)**	0.17 (0.05)**	0.14 (0.04)**
	Between	0.62 (0.07)**	0.49 (0.08)**	0.32 (0.10)**	0.58 (0.07)**

Note: Models were estimated separately for each predictor and each outcome and included covariates as described in the methods section. WTNT = willingness to try new things. The Bayes Estimator produces a posterior standard deviation estimate in place of a standard error.

\*\* $p < 0.01$ ; \* $p < 0.05$ ; †  $p < 0.10$ .

#### Within-Person

At the within-person level, camp attendance was unrelated to youth outcomes, with one exception: youth had higher willingness to try new things after summers when they participated in camp compared to summers when they did not, accounting for developmental trends and covariates. Dosage was also unrelated to outcomes. In contrast, the quality of youths' camp experiences was consistently linked with improved outcomes. This means that among those who attended camp over multiple summers, youth had higher socioemotional outcomes after higher versus lower quality camp experiences.

#### Between-Person

Results were largely parallel at the between-person level: camp attendance and dosage were generally unrelated to outcomes, while quality camp experiences consistently predicted heightened socioemotional skills. There was one exception related to dosage. Youth who spent more weeks at camp than others, on average, had significantly lower independence than others.

Meanwhile, youth who had higher-quality camp experiences than others, on average, tended to have higher levels of social awareness, grit, independence, and willingness to try new things.

### Discussion

Using rigorous analyses only available with longitudinal data, this research found that quality camp experiences appear to drive socioemotional benefits of camp involvement, while attendance and dosage played a limited role. These findings suggest that researchers and practitioners should work to identify mechanisms for promoting high-quality experiences at camp. For camp staff, evaluation and quality improvement efforts are important mechanisms for understanding and enhancing campers' experiences, which may promote youths' socioemotional skill development.

This research brings us closer to causal conclusions than standard correlational designs, yet it remains possible that these findings are driven by an uncontrolled third variable. More research is needed to explore whether these findings generalize to youth from a broader range of economic and racial/ethnic backgrounds. For youth currently attending camp, however, our results underscore the importance of quality over quantity.

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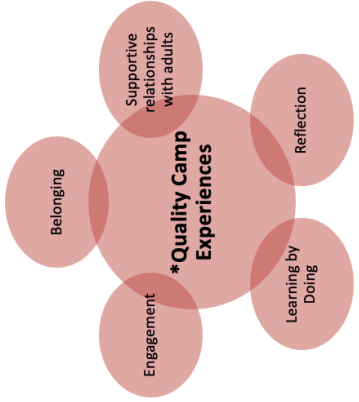
# A National, Longitudinal Study Examining Socioemotional Benefits Of Summer Camp Attendance, Dosage, And Quality Experiences

Bryn Spielvogel, Robert Lubeznik-Warner, Jim Sibthorp (University of Utah), & Laurie Browne (American Camp Association)



**Study Purpose**  
 Research has linked summer camp participation with socioemotional skill development, but questions remain about the level of involvement needed for benefits to emerge.

This study examined the effects of three dimensions of summer camp involvement - **attendance (RQ1), dosage (RQ2), and quality experiences (RQ3)** - on youths' socioemotional skills.



**Methods**

Data came from ACA's **National Camp Impact Study**, which followed 451 youth camp participants over 4 years. The sample was predominantly White and affluent, with an even split of boys and girls. Average age at baseline was 9.5 years old.

- **Predictors** were camp attendance, weeks at camp, & youth-reported camp experiences\*.
- **Outcomes** were youth-reported measures of social awareness, grit, independence, and willingness to try new things (Panorama).
- **Analyses** were multilevel mixed effects regressions. This allowed us to compare individuals to themselves over time (within-person effects), and to one another (between-person effects).

**Findings**

There were **minimal effects** of attendance and dosage on youths' socioemotional skills.

There were **consistent, positive effects** of quality camp experiences on youths' socioemotional skills.

- *Within-Person Effects:* Participants had higher socioemotional skills after a higher quality camp experience, compared to a lower quality camp experience (effect sizes ranged from **0.14 to 0.23**).
- *Between-Person Effects:* Participants who had higher quality camp experiences than other participants, on average, tended to have higher socioemotional skills (effect sizes ranged from **0.32 to 0.62**).

**Implications for Practitioners**

- To support the development of socioemotional skill at camp, practitioners should focus on fostering high-quality camp experiences.
- **Evaluation & quality improvement** may be useful mechanisms for enhancing camper experiences.

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**1** Getting kids to camp is not sufficient

**2** More time at camp is not inevitably more impactful

**3** It's about the quality of the camp experience

**LESSONS**

# PROMOTING YOUTH ENGAGEMENT AND CARE: FEASIBILITY OF THE “MY VIEW” PRE-CAMP SCREENING TOOL

**Authors: Barry A. Garst and Alexandra Skrocki—Clemson University; John Hamilton and Tracey Gaslin—Alliance for Camp Health. Contact: Barry A. Garst, bgarst(at)clemson.edu**

Out-of-school time programs such as camps can be an effective setting for supporting youth mental, emotional, and social health (MESH) needs (Opalinski & Martinez, 2021). Recent camp studies have focused on youth MESH (Garst et al., 2023; Wright et al., 2023), with camp providers expressing the need for proactive MESH management approaches (Glasner et al., 2021). Camp industry and pediatric professional guidance (ACA, 2019; Ambrose et al., 2019) direct camp providers to collect pre-camp health information, but this information is typically collected using forms and electronic health records (Bunke et al., 2021; Kaufman et al., 2016) completed by parents/caregivers and not reflective of youth perceptions. Although screening tools for capturing youth perceptions are available (Whitehouse et al., 2013), the camp community has lacked a pre-camp screening tool supporting youth voice. Thus, the purpose of this study was to assess the feasibility of implementing a youth screening tool in camp settings and the usefulness of the tool for supporting youth care and engagement.

This study was informed by *digital empathy* [i.e., the “cognitive and emotional ability to be reflective and socially responsible while strategically using digital media” (Chen, 2018, p. 50)], *youth engagement* (i.e., perceptions of voice and mattering within a specific setting; Yohalem & Martin, 2007), and *implementation science* principles (e.g., adherence to/fidelity with established procedures, quality of delivery, participant engagement; Duerden & Witt, 2012; Durlak & DuPre, 2008). (The research questions are highlighted in the Results section.)

## Methods

This pilot study was conducted in collaboration with the Alliance for Camp Health (ACH) and TickIt Health and approved by Clemson University’s Institutional Review Board. Nine ACH camps recruited into the study incorporated My View (an established youth screening tool; see Glasner et al., 2021; Whitehouse et al., 2013) into check-in and closing processes.

Youth ages 7–18 from participating camps responded to pre ( $N = 1,638$ ) and post-camp ( $N = 206$ ) My View questions. Pre-camp questions (e.g., 1–5 scale, where 1 = “not at all true for me” and 5 = “very true for me”) addressed: *about me* (e.g., demographics, likes/dislikes, strengths/assets), *home and school* (e.g., free time use, emotions associated with school, and technology perceptions), *food* (e.g., allergies, favorite foods, and eating habits), *activities* (e.g., activity preferences, sleeping habits), *feelings* (e.g., emotions, coping strategies), and *camp* (e.g., experiences, worries, what they’d like their counselors to know). Post-camp questions included a 15-item scale adapted from existing items measuring youth engagement, youth belonging, and care competency (Tiffany et al., 2012; Whitehouse et al., 2013). Following principal component analysis (PCA), which resulted in two items being dropped following a linearity check, the remaining 13 items loaded onto two factors labeled *youth support/care* (9 items,  $\alpha = .96$ ) and *youth voice/engagement* (4 items;  $\alpha = .74$ ). Sample items for the two factors include “Information shared in My View helped camp staff provide me with better care” (*care*) and “I was able to give input using My View” (*input*) respectively. Staff from the participating camps ( $N = 27$ ) responded to post-camp questions through Qualtrics about demographics, care competency (3 items developed for this study), and open-ended questions about My View usefulness.

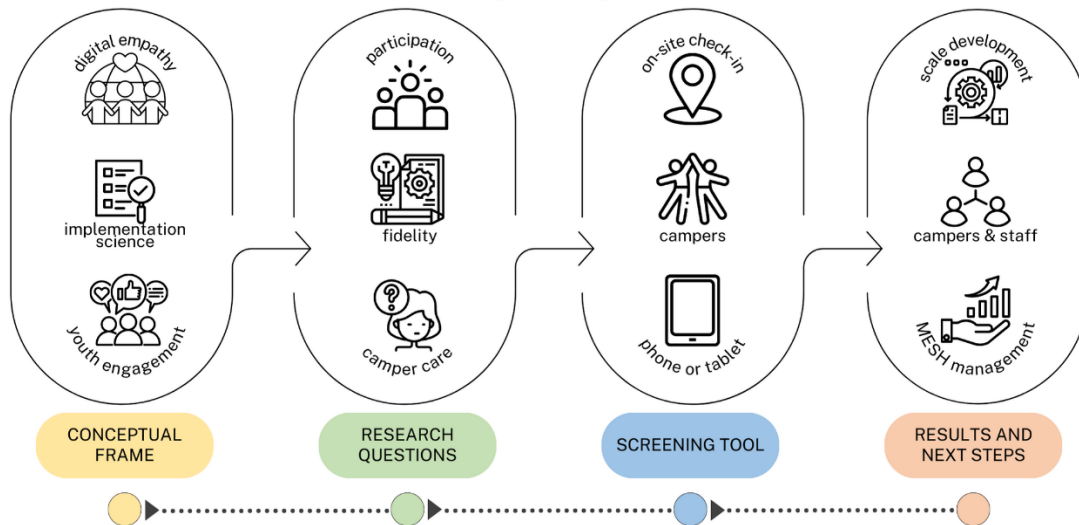
## Results

Youth participants tended to identify as female (45%,  $n = 736$ ), and their ages ranged from 7 to 18 years old ( $M = 14$ ). Staff participants tended to identify as female (40%,  $n = 11$ ), of

Hispanic or Latino origin (44%,  $n = 12$ ), and having less than two years of camp experience (40%,  $n = 11$ ). Seven staff chose not to respond to the demographic items. **RQ1 explored camp provider, camper, and camp staff participation in the study.** Nine of the nine recruited camps administered pre-camp camper surveys, and six of the nine administered post-camp camper surveys. The number of post-camp survey responses varied across the six camps from 96 staff reporting (47%) to 1 staff member reporting (.5%). A total of 1,638 campers completed the pre-camp survey and 206 campers completed the post-camp survey. The post-camp survey, which was only administered to camp staff, was completed by 27 staff members. **RQ2 measured whether screening tool utilization enabled staff to provide camper care.** My View information allowed staff to 1) provide better care through greater awareness of camper needs, 2) be proactive in managing and supporting camper situations, and 3) engage in intentional communication with their campers. An alternative perspective in the data suggested My View utilization was challenging when camper responses in My View were not shared with staff or when staff experienced stress when anticipating camper responses in My View. **RQ3 examined whether screening tool utilization enabled staff to provide camper care.** The average youth support/care score was 3.20 ( $SD = .995$ ) on the 1–5 scale suggesting higher than average levels of youth perceptions of support/care. **RQ4 measured the extent to which the screening tool influenced youth perceptions of engagement.** The average youth voice/engagement score was 3.79 ( $SD = 0.75$ ) on the 1–5 scale suggesting higher than average levels of youth perceptions of voice/engagement.

**Figure 1**

*Feasibility Study Process*



### Discussion and Implications

This study examined implementation and outcomes associated with utilization of a camper MESH screening tool called My View to provide camper voice and improve camper care. Findings support high levels of initial camp provider and camper engagement and adherence in the My View pilot, with 100% of recruited camps participating in the study and administering the pre-camp survey. The considerable decline in the number of post-camp surveys collected points to an opportunity to strengthen camp provider adherence to My View implementation procedures and to increase participant responsiveness through improved staff orientation to My View. The study findings offer evidence that camp provider use of My View improved camper care by providing staff with better information about camper needs and perceptions. Camper reactions to My View support that the tool was effective for encouraging youth voice. Camps should evaluate how pre-camp screening tools (such as My View) may be valuable in preparing



staff to manage camper MESH needs, and how a better understanding of youth perceptions prior to camp may improve camper care during camp. The generalizability of this study was limited by the low response rate on the post-camp staff survey. Additionally, the post camp survey did not identify camp provider site and therefore we could not identify which camp types were best able to engage staff using My View.

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## Promoting Youth Engagement and Camper Care: Feasibility of the “My View” Pre-Camp Screening Tool

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### Background

Although screening tools for capturing youth perceptions have been developed, the camp community has lacked a pre-camp screening tool that allows for youth voice and provides staff with information to support camper care.

### Purpose

To assess the feasibility of implementing a youth screening tool in camp settings and the usefulness of the tool for supporting youth care and engagement.

### Research Questions

- **RQ1:** To what extent did camp providers, campers, and staff participate in the study?
- **RQ2:** To what extent did camp providers implement the screening tool using established research procedures?
- **RQ3:** To what extent did the screening tool enable staff to provide camper care?
- **RQ4:** To what extent did the screening tool influence perceptions of youth engagement?

### Method

Using an online screening tool (My View), youth from participating camps responded to pre-camp (N=1,638) and post-camp (N=206) questions:

**Pre-Camp:** Questions on six content areas; about me, home and school, food, activities, feelings, and camp.

**Post-Camp:** An adapted 15-item scale adapted to measure engagement, belonging, and care competency.

Staff from participating camps (N=27) responded to post-camp questions about demographics, care competency, and open-ended questions about their reactions to My View.

### KEY FINDINGS

Nine of the nine recruited camps administered pre-camp camper surveys  
Six of the nine administered post-camp camper surveys

My View information allowed staff to:

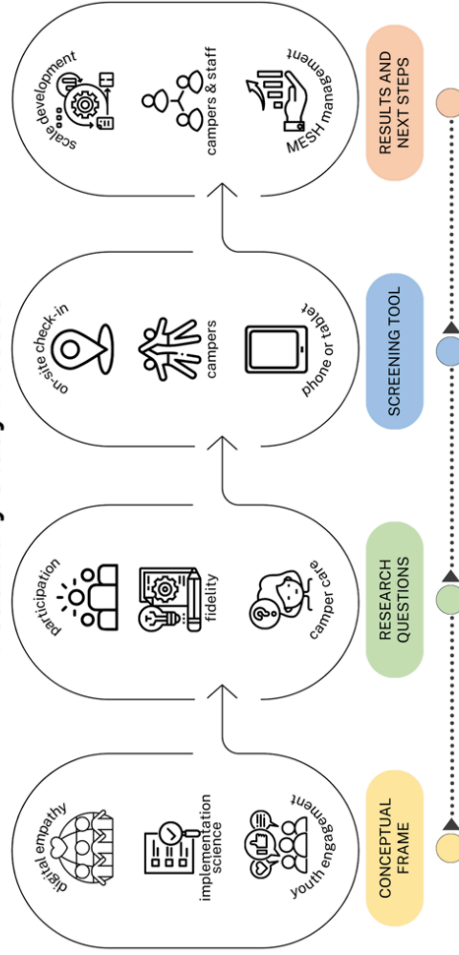
- Provide better care through a **higher level of awareness of camper needs**
- Be proactive in **managing and supporting camper situations**
- Engage in **intentional communication** with their campers

Post-camp data revealed **higher than average** levels of youth perceptions of:

- **Support/care** – communicate, understand, activities, care, attention, know me, relationships, decisions, and support
- **Voice/engagement** – easy, input, sharing, and interesting



## Feasibility Study Process



### Discussion and Implications

#### Findings support:

- High levels of initial participant engagement
- Adherence in the My View pilot
- Improved camper care by staff/camp providers

#### Based on the study findings camps should:

- Evaluate how pre-camp screening tools may be valuable
- Gain understanding of youth perceptions prior to camp
- Train staff how to respond to pre-screening information

# DAY CAMP LEADERSHIP: WOMEN'S EXPERIENCES WITH GENDER BIAS, INEQUITY, AND DOUBLE BINDS

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While women represent about half of all outdoor experiential education (OEE) professionals (Mitten et al., 2018), the consensus among researchers is that women are disproportionately underrepresented in leadership roles throughout camp and adventure learning contexts (Henderson, 1996; Warren et al., 2018). Women leaders in OEE continually face barriers that constrain them to lead according to restrictive gendered expectations (Mitten et al., 2018; Warren et al., 2018). Pervasive gender biases in OEE culture create environments where women are, “less likely to be hired as leaders or promoted, thus reinforcing the perception that men are better suited for leadership,” (Cousineau & Roth, 2012, p. 431). Such biases are antithetical to the stated intention of many OEE communities – to raise and socialize strong leaders into communities where their skills are valued (Browne et al., 2019), and must be remedied. While scholars have called attention to these issues in adventure (i.e., trip-based), sleepaway, and higher education-based OEE learning programs, summer day camps are largely absent from empirical studies about gender and leadership in OEE. If summer day camps are to facilitate programs wherein all campers can recognize their full potential as future leaders, there remains a need for dialogue and systemic improvements related to gender discrimination and its impact on women in this arena. Presently, our single-case study at a rural day camp in southern New England attends to that gap. Specifically, we addressed the following research questions: 1) To what degree do gender stereotypes influence the construction of leadership in summer camps? 2) How does this construction influence women’s ability to access and effectively implement camp leadership roles?

## Theoretical Framework

Eagly and Karau’s (2002) role congruity theory provided a lens for understanding how gendered stereotypes prescribe specific behaviors to men, women, and leaders. Specifically, socially-constructed gender roles stereotype women as communally-oriented leaders who prioritize the welfare of others, while men are stereotyped as agentic leaders who are “assertive, controlling, and confident” (Eagly & Karau, 2002, p. 574). Leadership is also socially stereotyped as agentially-oriented: good leaders are ambitious, confident, and independent. Competing ideals between expected behaviors of women and leaders create environments wherein women cannot lead communally without being perceived as too “soft” for leadership; nor can they behave agentially without being perceived as too harsh. This double bind (Weiner & Burton, 2016) disenfranchises women and prevents them from leading authentically without punishment.

## Methods

This qualitative, single-case study involved interviewing five leaders at a rural day camp in southern New England. We conducted three, sixty-minute interviews with each participant (Seidman, 2006) to develop a nuanced understanding of their constructions of leadership and gender. The interviews, respectively, focused on: 1) building rapport and establishing constructions of leadership; 2) dissecting societal stereotypes about men and women as leaders, and 3) considering how gender impacts women’s experiences in camp leadership. We coded interviews thematically using an inductive-deductive approach. We created a preliminary collection of deductive codes, shaped by the theoretical framework, concerning gender and leadership stereotype incongruity. As we coded, we developed inductive codes to describe participants’ experiences that were not accounted for in my deductive set. Following the first

round of coding, we revised the themes, attended to excerpts' contextual accuracies, and conducted a second round of coding. Afterward, we presented the preliminary findings to participants to ensure we had represented their ideas credibly and with validity.

This study was not without limitations. The research focuses on participant self-reports rather than multiple perspectives or observations. Additionally, of the five camp leaders who participated in interviews, only one was a person of color, and none identified outside the gender binary. Similarly, the role congruity framework (Eagly & Karau, 2002) fails to consider how intersecting marginalized identities contribute to prejudices against women in leadership.

## Results

### Double Standard in Leadership Expectations

**Caretaking.** Findings showed a double standard regarding how men and women were expected to lead. Women were disproportionately expected to complete caretaking roles and received negative feedback for exhibiting agentic leadership skills such as being assertive and demonstrating expertise. For example, when describing how women were expected to fulfill more caretaking roles than were men, one participant explained, "the expectation is that a good leader is like a mom...very emotionally invested in their staff...I don't think there's much of an expectation for [men] to develop personal relationships as there is for women."

**Permission to Lead.** Yet even when women fulfilled this expectation, succeeding as a nurturer and caretaker, it did not increase their access to leadership. Instead, they were denied opportunities to lead and seen as too "soft." For example, a participant recalled an instance where her female coworker lost a promotion for being too nurturing: "I got promoted over her...Afterwards, [the hiring director asked me], 'do you think she could've handled not being with the children all the time? Do you think she could have handled having to discipline staff and stuff?'"

Conversely, men were able to lead boldly and "ask for forgiveness, not permission" as leaders. Participants shared that while women were limited in how they could exercise their autonomy as leaders, men were not bound by the same rules. One participant explained, "Men do what they want, when and as they want...women have to be a lot more careful and calculated about the decisions we make and if we're going to ask for something, how we're going to ask for it." Another shared, "feminine-presenting leaders ask for more permission than masculine-presenting leaders...the girls [have to] play by the rules a lot more than the boys do."

### Inequitable Pipeline Access

**Representation and Mentorships.** Feeling represented allowed individuals to take risks within the bounds of socially permitted behaviors. Without equitable representation, leaders from marginalized backgrounds (e.g., women, leaders of color) reported feeling discouraged and disenfranchised in their pursuit of leadership. A participant shared, "it's been kind of difficult not having female leaders in the past because it does feel like it stunts your mindset. [It feels like] I can't achieve anything because [men leading] are all I see." Representation in veteran leadership also influenced participants' opportunities to establish mentorships with veteran leaders, gain insight about what leaders do, and learn about the nuances of their camp's culture. One participant explained, "[those without equitable representation] don't get supported in the same ways because they're not identified as leaders as easily because they take up less space." The disproportionate number of men in camp leadership made it difficult for women to identify and create relationships with veteran women leaders. While the lack of same-gender mentors did not prevent these women from achieving leadership positions, it impacted their perception of leadership's accessibility.

**Hiring Biases.** Representation and access to mentorships also impacted how participants were identified as potential leaders from an organizational perspective. The pipeline favored those who had created informal mentorships throughout their journey and had been

“seen” as potential leaders. Participants described hiring practices which, while labeled gender-blind, favored individuals who shared racial and gender identities with veteran leadership staff. While one male participant “never had to jump through those [formal interview] hoops because I'd been doing the role without the title for, for a few months at that point,” other participants suggested that proximity to shared identities were still considerations in the hiring process. As one participant shared, “the closer that somebody is to Whiteness and masculinity, the more they're perceived as an effective leader.” Thus, supposedly gender-blind hiring policies upheld implicit biases that created harmful traditions of hiring, promoting, and valuing leaders who benefit from the established social systems described above.

### Discussion and Implications

Practitioners have a social responsibility to attend to several areas of focus to combat gender discrimination. First, explicit gender bias training is essential for camps to identify it within individuals' constructions of leadership. Second, camps can promote gender equity at the organizational level by identifying and changing discriminatory policies related to hiring and staff development. Third, camps can intentionally provide their campers with demographic representation on leadership staff. As participants reiterated throughout this study, when individuals can identify aspects of themselves in the roles they aspire to achieve, the “magic” of camp multiplies. Gender-blind hiring policies and implicit expectations for leaders support those with the privilege of proximity to Whiteness and masculinity, but inhibit women's pursuit of authentic leadership experiences.

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# DAY CAMP LEADERSHIP: WOMEN'S EXPERIENCES WITH GENDER BIAS, INEQUITY, AND DOUBLE BINDS

Kiah DeVona  
Jennie M. Weiner

## Study Aim/Purpose

1. Explore how gender stereotypes influence camp leaders' understanding of leadership in day camp settings
2. Explore how that understanding influences women's ability to lead

## Methods

Single case study of one private, coed summer camp. Participants (n=6) included mid- and executive-level leaders at one day camp in southern New England. Data emerged from three 60-minute interviews with each participant.

Hybrid inductive and deductive coding process informed by theoretical framework (Eagly & Karau, 2002), literature, and transcripts. Used member checking and consulted with expert in the field to ensure credibility of findings.



## Finding #1: Double standards trap women in a "double bind" (Weiner & Burton, 2016):

Women cannot lead communally without being perceived as too "soft" for leadership; nor can they behave agentically without being perceived as too harsh. Neither of these standards apply to men.

## Finding #2: Women face inequitable access to representation and mentorships, two key resources in the leadership pipeline:

Without equitable representation, women feel discouraged and disenfranchised from leadership endeavors. Additionally, the disproportionate number of men in camp leadership makes it difficult for women to see and create relationships with veteran women leaders.

## Finding #3: So-called "gender-blind" hiring practices favor those with proximity to maleness, Whiteness

Women lose out on hiring and promotions through hiring practices that favor individuals who share racial and gender identities with veteran leadership staff.



## Implications for Practitioners

1. Explicit training on gender biases and their impact on camps' leadership expectations and organizational culture
2. Address harmful program policies related to hiring, promotion, and staff development
3. Provide campers with demographic representation on leadership staff



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# TREATING ANXIETY AND DEPRESSION IN YOUTH: SUMMER CAMP AS A MENTAL HEALTH SUPPORT

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The last twenty years have seen a notable rise in mental health concerns in the United States among children and adolescents. Feelings of sadness and hopelessness, national suicide rates, and mental health-related pediatric emergency department visits have all increased (Bommersbach et al., 2023). Current estimates suggest 1 in 5 children in the U.S. experience mental illness; however, half never receive appropriate treatment (Whitney & Peterson, 2019). These findings were intensified by the particularly detrimental effects of the COVID-19 pandemic on youth, further increasing levels of anxiety and depression (Singh et al., 2020). Therefore, it is both logical and morally imperative to identify accessible, inclusive, socially immersive, physically healthy environments for young people to improve their mental health. Traditional overnight camps are one such environment because they provide community living, a peer group distinct from school and home, and a hiatus from technology. That healthy environment, combined with camps' emphasis on fun, physical activities and nurturing social connections may serve as a therapeutic or corrective experience. Therefore, the goal of this study was to better understand the emotional experiences of youth attending an all-boys summer camp and investigate the potential mental health benefits of summer camp attendance. Because data were collected during the 2021 summer, this study also investigated correlations between pandemic-related experiences and boys' subsequent emotional experiences at camp. Our research was guided by the following questions: 1) What is the longitudinal mood trajectory of campers over the course of their two-week stay at overnight summer camp?; 2) What is the association between pandemic-related risk factors and mood scores at the start of the camp session?; and 3) If these results demonstrate camps' mental health benefits, for which subgroups was this experience most beneficial?

## Methods

This study was conducted at an all-boys, agency, overnight summer camp located in New Hampshire during the summer of 2021. Campers ranged in age from 8 to 17 years ( $M = 13.1$ ;  $SD = 1.9$ ) and attended camp for either two (89%) or four weeks (11%). Consent was received from parents or legal guardians during the camp registration period between January and May, 2021. Participants completed surveys on the first full day of camp (T1) and the last full day of camp (T2). Two questionnaires were distributed to campers: the Attitudes and Experiences Survey (AES) and the Rate Your Day-Revised (RYDR). The AES gathered demographic information such as age, camp division, year at camp, race/ethnicity, and family composition, as well as pandemic experiences, such as estimates of remote schooling, screen time per day, and interactions online and in-person. The RYDR is a reliable and validated mood checklist, initially developed for research on childhood homesickness which assesses four constructs: happiness, depression, anxiety, and calmness through various adjectives and phrases that young participants rate on an 11-point numerical rating scale, from 0 to 10 (Thurber, 1999). The RYDR used for this study included three additional questions assessing self-confidence and comfortability.

## Results

In all, 464 participants were included in analyses (93% participation). Of RYDR respondents, 294 (88%) reported an increase in a positive mood score (happy, excited, relaxed, calm, cheerful, peaceful), 239 (71%) experienced a decrease in a negative mood score (sad,

worried, afraid, down, lonely, nervous), and 215 (64%) experienced both an increase in a positive mood score and a decrease in a negative mood score. Boys experienced statistically significant increases, across their 2-week camp stay, in Positive Emotion ( $p = .006$ ), Homesickness ( $p < .001$ ), and Self-Confidence ( $p < .001$ ). Conversely, participants experienced a decrease from T1 to T2 in Negative Emotion, however, this change did not reach statistical significance ( $p = .612$ , see Table 1).

Table 1  
*RYDR Emotion Subscale Scores at T1 to T2*

Emotion Subscale	T1 Score	T2 Score	<i>p value</i>
Positive Emotion	7.2 ± 1.8	7.4 ± 1.5	.006
Negative Emotion	1.3 ± 1.4	1.2 ± 1.3	.612
Homesickness	2.8 ± 2.6	3.5 ± 2.5	< .001
Self-Confidence	8.2 ± 1.7	8.4 ± 1.7	< .001

Divisional age group was positively correlated ( $p < .05$ ) with Positive Emotion ( $r = .28$ ) and Self-Confidence ( $r = .19$ ) along with all positive mood item scores. Divisional age group was negatively correlated with Negative Emotion ( $r = -.11$ ) and Homesickness ( $r = -.33$ ) along with most negative mood item scores. After controlling for division, examination of emotional change as a function of pandemic-related experiences showed making new friends in person was positively correlated with Positive Emotion ( $r = .15$ ) and Self-Confidence ( $r = .20$ ). Hours spent online per day for school was negatively correlated with “I feel cheerful” scores ( $r = -.16$ ) and more interactions with friends in person was positively correlated with “I feel comfortable being myself” scores ( $r = .17$ ).

Boys who self-reported decreased Negative Emotion from T1 to T2 tended to be younger (71.0% in the younger three division vs 57.9% of boys reported increased/unchanged Negative Emotion), attended camp for 2 weeks (88.0% 2 weeks vs 86.7%), had fewer siblings (51.4% without siblings vs 46.9%), and reported less religious affiliation (37.7% with a religious affiliation vs 42.7%). Regarding pandemic-related experiences, boys who self-reported decreased Negative Emotion from T1 to T2 also reported increased screen time (57.3% less than 5 hours per day vs 64.6% of boys reporting increased/unchanged Negative Emotion), decreased online school hours (59.7% less than 5 hours per day vs 52.9%), less frequent interactions with friends online (55.5% more than once a week vs 65.8%), fewer new friends in person (59.7% more than 4-6 new friends vs 67.1%), and fewer new friends online (19.0% more than 4-6 new friends vs 28.2%).

### Discussion

The results of this study provide valuable insights into the emotional and pandemic-related experiences of boys attending summer camp along with compelling evidence of summer camp’s therapeutic effects on positive mood, negative mood, and self-confidence. On average, campers saw improvements in positive emotion and self-confidence scores, constructs with proven associations with resilience, stronger relationships, and increased sentiments of happiness (Shoshani & Slone, 2016; Seligman et al., 2005). In particular, social support in the form of new friends and in-person interactions before camp were associated with increased self-



confidence at camp, reaffirming the role of healthy relationships in the development of coping mechanisms and perseverance (Garipey et al., 2016, Hartup & Stevens, 1997). Younger campers lacking social interaction and community support before camp saw the largest decreases in negative mood scores, perhaps suggesting the addition of healthy relationships to more vulnerable campers with underdeveloped social skills is the most impactful asset of summer camp. These findings are especially meaningful from a public health perspective, given that the camp in the study, as with many of the estimated 7,000 in the U.S., offer experiences that last just a few weeks, are less expensive than inpatient or outpatient treatment for anxiety and depression, do not carry any stigma associated with mental health care, and are accessible to a wide range of young people. High quality summer camps should be considered a promising form of adjunctive, population-wide care for youth with mental health symptoms, regardless of etiology. As the homogeneity of this sample may limit the generalizability of our results, future research should evaluate the same constructs in a larger, more diverse sample.

Based on these results, we recommend camp staff implement the following recommendations: 1) Emphasize early relationship and team building by dedicating more time to cabin-centered activities in the first few days of a camp session; 2) Include a screening within camp registration asking about sibling and peer interaction to assess the parental/guardian perception of social and community support for their child to identify campers that may enter a summer with a diminished sense of well-being; and 3) There exists a disparity in mental health trends, with psychiatric disorders more prevalent among vulnerable communities. We suggest that the results of this study serve as the basis for outreach programs and scholarship opportunities for socioeconomically disadvantaged and racial/ethnic minority communities for whom summer camps are less visible and accessible.

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# Treating Anxiety and Depression in Youth: Summer Camp as a Mental Health Support

## Purpose

**Motivation:** Overnight summer camps contain a unique combination of elements that may help to mitigate the alarming negative trends in youth mental health, exacerbated by the COVID-19 pandemic.



**Primary Goal:** Find compelling evidence for the mental health benefits of traditional, overnight summer camps.



**Secondary Goal:** Identify associations between pandemic-related risk factors and mental health constructs.

## Methods

**Setting and Design:** This study was conducted at Camp Belknap, a traditional, overnight summer camp located in Tufonboro, New Hampshire during the summer of 2021. Pandemic-related experiences and mental health were assessed through two self-report surveys: the Attitudes and Experiences Survey (AES) and the Rate Your Day-Revised (RYDR).



**Sample:** 464 male campers aged 8-17 years old, attending summer camp for two weeks. Survey data included demographic variables, estimates of social isolation, remote schooling hours, and measures of anxiety and depression.

## Results

**On Day 1, younger age groups reported higher scores for:**

- Negative Emotion
- Homesickness



**While older age groups reported higher scores for:**

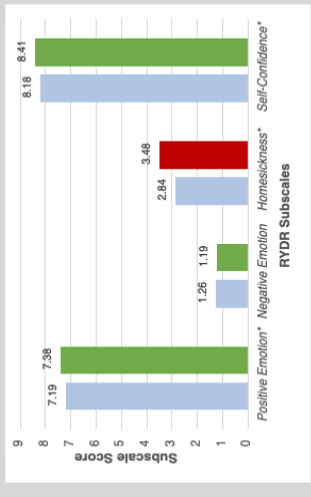
- Positive Emotion
- Self-Confidence



**Campers who made more new friends in person reported:**

- Increased Positive Emotion
- Increased Self-Confidence

## RYDR Subscale Scores at T1 and T2



**Campers that experienced decreased negative mood levels were:**

- Younger
- Had fewer siblings
- Less religious affiliation



**And Reported:**

- Fewer interactions with friends online
- Fewer new friends in person and online

## Discussion

**Takeaway 1:** Technology use and social isolation were associated with increased negative mood levels and decreased positive mood levels

**Takeaway 2:** Participation in summer camp was associated with decreases in anxiety and depression, increases in happiness and calmness, and increases in self confidence

**Takeaway 3:** Based on the differences between campers that did and did not experience decreased negative mood levels - providing social interaction and community support is central to summer camp's beneficial mental health effects

## Implications For Practitioners

**1.** Emphasize early relationship and team building by dedicating more time to cabin-centered activities in the first few days of a camp session.

**2.** Include a screening within camp registration asking about sibling and peer interaction to assess the parental/guardian perception of social and community support for their child to identify campers that may enter a summer with a diminished sense of well-being.

**3.** These results can serve as the basis for outreach programs and scholarship for socioeconomically disadvantaged and racial/ethnic minority communities, disproportionately affected by anxiety and depression.

## Presenters

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# CAMP STAFF PERCEPTIONS OF EMPLOYMENT SKILL DEVELOPMENT AND TRAINING RELEVANCE

Authors: Barry A. Garst, Leslie Heffington, and Ryan Gagnon- Clemson University

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Properly prepared staff are a critical dimension of high-quality programs (Epley et al., 2017; Salas et al., 2012), yet program administrators are often challenged to balance subject matter volume with available time and resources (Herrington et al., 2009; Mason, 2015). Strategies for staff training evaluating are often poorly designed (Stańczyk & Reinfuss, 2019), which has created an opportunity gap for assessing staff training quality and usefulness. Prior research has established that camp employment can enhance staff competency and skills in a variety of dimensions related to communication, leadership, and other workforce development skills (Botting et al., 2021; Wahl-Alexander et al., 2017), but no known camp studies have examined staff perceptions of training relevance after training or following employment. This study assessed camp staff training efficacy over time based on skill development and training relevance. The research questions were: (RQ1) How do staff perceive skill development associated with staff training and camp employment over time? and (RQ2) How do staff perceive the relevance of training topics following staff training and camp employment?

## Methods

Data were collected from staff employed by three U.S. camps. Using a longitudinal design, staff completed Qualtrics questionnaires at three time periods: pre-training, post-training, and end of the summer. Out of 185 staff surveyed, 116 completed all three questionnaires for a 62% response rate. Questionnaire items included staff demographics, staff characteristics (e.g., experience level, current profession, desired career path), a 15-item measure of staff perceptions of camp employment skills informed by previous studies of camp staff outcomes (DeGraaf & Glover, 2003; Duerden et al., 2014; Ferrari et al., 2006; Garst et al., 2009; Garst & Johnson, 2005), and a 16-item measure of staff perceptions of camp training topics developed in cooperation with the three collaborating organizations. To evaluate (for RQ1) how staff perceived skill development at the three time periods and (for RQ2) how staff perceived training relevance at the three time periods, means and standard deviations were calculated. Then, repeated measures Analysis of Variance (RMANOVA) tests were performed to compare perceptions of skill development and training relevance scores across time, including a statistical significance test and an effect size. When statistically significant differences were identified, post-hoc pairwise comparisons were conducted.

## Results

Respondents tended to be female (81%), between the ages of 18–32 years old (avg = 20 years old). Most respondents identified as White (85%); 12% identified as Hispanic, Latino, or Spanish; and 9% identified as Black or African American. Most (53%) respondents had no prior camp employment experience.

To assess RQ1 and RQ2, two RMANOVAs were performed to evaluate change in staff perceptions of skill and training relevance over time. Table 1 provides the means and standard deviations for skill development and training relevance at the pre-camp, post-camp, and end-of-summer periods. Mauchly's test indicated that the assumption of sphericity was violated in both cases, so a Greenhouse-Geisser correction was applied (*skill development* =  $\chi^2(2) = 20.92$ ,  $p = <.001$  with a Greenhouse-Geisser correction,  $\epsilon = 0.856$ ); *training relevance* =  $\chi^2(2) = 22.49$ ,  $p = <.001$  with a Greenhouse-Geisser correction,  $\epsilon = 0.847$ ). For RQ1, time (i.e., training and camp employment) elicited statistically significant changes in staff perceptions of skill development,  $F(1.713, 196.974) = 3.636$ ,  $p < .001$ , partial  $\eta^2 = 0.031$ . Post-hoc pairwise comparisons

(Bonferroni adjustment) indicated a statistically significant difference between skill development scores from pre-training to post training ( $p = .007$ ), but no statistically significant difference from pre-training to end-of-summer ( $p = .116$ ) and no statistically significant difference from post-training to end-of-summer ( $p = 1.00$ ). For RQ2, time (i.e., training and camp employment) elicited statistically significant changes in staff perceptions of training relevance,  $F(1.695, 193.191) = 3.322, p < .001$ , partial  $\eta^2 = 0.196$ . Post-hoc pairwise comparisons (Bonferroni adjustment) indicated statistically significant differences between training relevance scores from pre-training to post training ( $p < .001$ ), from pre-training to end-of-summer ( $p < .001$ ), and from post-training to end-of-summer ( $p = .006$ ).

Table 1  
Descriptive Statistics

	N	Mean	SD		N	Mean	SD
Skill development (Pre)	116	4.69	.24	Training relevance (Pre)	115	4.75	.23
Skill development (Post)	116	4.55	.40	Training relevance (Post)	115	4.57	.37
Skill development (End of summer)	116	4.56	.64	Training relevance (End of summer)	115	4.43	.54

### Discussion and Implications

The study findings indicate staff perceptions of skill development regressed from pre-training to post-training, and then plateaued by the end of summer. Such a decline (or lack of consistent growth) may reflect response shift bias in how staff evaluated their skills (Sibthorp et al., 2007), influences from other variables related to staff culture and support (Botting et al., 2021), lack of training durability (Garst et al., 2018), or differences in staff experiences with camp employment (Botting et al., 2021). A similar regression in staff perceptions of training relevance (from pre-training to post-training and to the end-of-summer) was indicated by the study findings, suggesting a misalignment between training topics and on-the-job requirements of camp staff positions. The persistent decline in staff perceptions of training relevance may point to differing employee attitudes toward training and their experience with training, unused or lack of demand for specific competencies/skills, and perceptions of training topics as unnecessary or incongruents with job roles and responsibilities (Heyes & Stuart, 1996; Stańczyk & Reinfuss, 2019).

Camp employers can learn from the study findings and recent literature on staff training (Cooper, 2008; Wahl-Alexander et al., 2017; Warner et al., 2021). Specifically, employers can: (1) place greater emphasis on communicating the purpose of camp training topics, (2) strengthen the alignment between training received by staff and the utilization of that training on the job, (3) more explicitly and tangibly teach staff how and why to implement training, thus labeling relevance, (4) focus on establishing a culture of improvement among staff, which places the emphasis on process rather than content, and (5) ensure staff have access to the care and support needed to encourage both skill development as well as an openness to training application.

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**Camp Staff Perceptions of Employment Skill Development and Training Relevance**  
Barry A. Garst, Leslie E. Heffington, and Ryan J. Gagnon, Clemson University

**KEY FINDING AND IMPLICATION:**

**Camp staff reported a decrease in the alignment of pre-camp training and on-the-job needs. Camp practitioners should be intentional about aligning staff training content with staff responsibilities.**

**Background:**

Properly prepared staff are a critical dimension of high-quality programs, yet program administrators are often challenged to balance subject matter volume with available time and resources. Strategies for staff training evaluation are often poorly designed, which has created an opportunity gap for assessing staff training quality and usefulness.

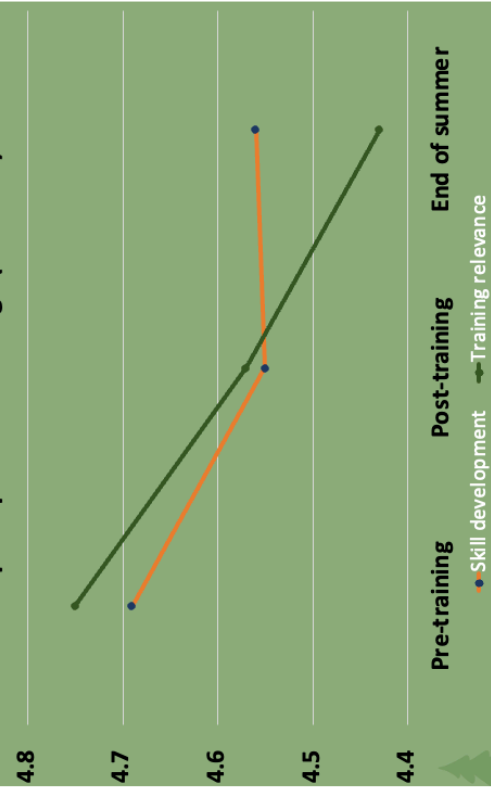
**Research questions:**

(RQ1) How do staff perceive skill development associated with staff training and camp employment over time?  
(RQ2) How do staff perceive the relevance of training topics following staff training and camp employment?

**Method:**

- Data collected from 185 staff employed by three U.S. camps.
- Longitudinal design (116 staff completed three surveys: pre-training, post-training, end of summer)
- Survey items:
  - ✓ Demographics
  - ✓ Staff characteristics
  - ✓ 15-item measure of staff perceptions of camp employment skills
  - ✓ 16-item measure of staff perceptions of training topic relevance

Staff perceptions on average (1-5 scale)



**Results:**

- Staff perceptions of skill development regressed from pre-training to post-training and then plateaued by the end of the summer.
- A similar regression existed in staff perceptions of training relevance which suggests a misalignment between training topics and on-the-job requirements of camp staff positions.
- The persistent decline in staff perceptions of training relevance may point to differing employee attitudes toward training and their experience with training, unused or lack of demand for specific competencies/skills, and perceptions of training topics as unnecessary or incongruent with job roles and responsibilities.

**Implications:**

- Camp employees should consider
- placing emphasis on communicating the purpose of camp training topics
  - strengthening the alignment between training received by staff and the utilization of that training on the job
  - teaching staff how to implement training
  - establishing a culture of improvement
  - ensuring staff have access to the support needed to encourage skill development and an openness to training application



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# STAFF PRACTICES AS THE MISSING PIECE OF THE LOGIC MODEL PUZZLE: SUCCESSFULLY LINKING ORGANIZATIONAL MISSION TO CAMPER EXPERIENCES

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Overnight camp programs ought to provide youth with safe, positive experiences which lead to outcomes identified in an organization's mission (Jordan & Aycok, 2022). Staff members leading and facilitating the programs play a crucial role in whether campers are provided with positive or growth-promoting opportunities. No matter how high the quality of a youth development curriculum may be, the behavior of staff members delivering it may have a significant impact on youth participants (Albright & Ferrari, 2010). Halsall et al. (2016) identified positive attributes of influential and positive camp counselors, including compassion, equanimity, sense of humor, and positive role modeling.

Logic models are used as tools to demonstrate visually the "theory of change" of a given program, curriculum, or intervention (Frechtling, 2007; Knowlton & Phillips, 2013). However, logic model elements typically flow directly from program inputs to program outputs, which leaves a lack of clarity regarding how staff members should behave in delivering an effective program. The purpose of this comprehensive study was to examine the usefulness of defining staff behaviors within an amended logic model framework to better align an organization's values with camper experiences in the context of a faith-based overnight adventure camp. Using a classic approach to evaluation within a research lens, we amended the logic model framework to include staff practices as an essential element guiding training, implementation, and evaluation.

## Methods

Our study incorporated multiple modes of data collection over the course of 11 months with campers and staff from a faith-based overnight camp in a northwestern state. From fall 2022 through spring 2023, we met with camp leaders to create a mission-based logic model and identify essential staff practices which they predicted would lead to desired outcomes for campers. Based on identified practices, we created tailored camper surveys and staff focus group protocols. During staff training, the primary researcher led a semi-structured focus group with 13 staff members to discuss the logic model and solicit input on the identified staff practices. Throughout the summer, campers completed written surveys on the final day of five weeks of camp. The primary researcher also conducted on-site observations during three weeks at camp. Finally, the two senior staff members involved in pre-camp planning participated in a focus group at the end of summer to discuss how the staff put the essential practices into action.

Data from staff focus groups and systematic observations were useful in triangulating and interpreting responses on camper surveys, which are the central data source for this abstract. The most important staff practice identified by camp administrators during planning sessions before camp was respectful behavior. We analyzed assessment measures exploring camper perceptions of feeling respected at camp, as well as their overall perception of camp. Participants included 92 campers (entering grade 1 to college; 46.7% male, 46.7% female, 3.3% nonbinary) participating in any of five sessions of overnight camp. Adult participants included 13 staff members (age 19–56; 38.5% male, 61.5% female). Campers participated in written surveys on the final day of camp. The primary data for this analysis includes written camper surveys with numeric and open-ended responses. Camper surveys were designed based on targeted staff practices and outcomes identified through development of the multi-faceted logic

model. Camper demographics included gender identity and grade entering. Perceptions about respect and the overall camp experience were assessed using both quantitative (5-point Likert type scales of labeled faces) and open-ended questions. Qualitative data from camper surveys were manually coded using inductive values-based and descriptive coding. Quantitative survey data were analyzed using descriptive statistics, Pearson's correlation, and the Cochran-Mantel-Haenszel chi-square test. Our study was approved by the University of Idaho Institutional Research Board (#22-103).

### **Results**

When conducting data analysis related to camper perceptions of respect and overall enjoyment of camp, we identified two significant relationships using Pearson correlation tests and qualitative coding. Older campers reported feeling more respected during camp than younger campers ( $r(85) = .34, p < .001$ ). A Cochran-Mantel-Haenszel chi-square test confirmed a statistically significant difference ( $X^2_{MH}(1) = 4.12; p < .05$ ) in perceived levels of respect between younger campers ( $n = 40$ ; entering grades 2–6) and older campers ( $n = 47$ ; entering grades 7–college). Written responses related to respect for younger campers were more often related to feeling disrespected by fellow campers, while older campers were more likely to write about feeling respected by counselors.

The second respect-related correlation we found indicated that campers who reported feeling respected more often also reported higher overall enjoyment of camp ( $r(87) = .43, p < .001$ ). Prevalent themes in written responses from young campers about what was hard at camp included issues related to respect, such as bullying, rudeness, and arguing within the cabin group. When writing about good or hard things at camp, older campers were more likely to write about activities and circumstances than about issues related to respect.

### **Discussion and Implications**

Our study demonstrated a strategy for connecting camp mission-based values with staff practices and assessment of camper experiences. Camper survey questions were developed based on the content of the staff practices element of the logic model. Our data indicates that younger campers felt less respected than older campers, and that feeling more respected increased overall enjoyment of camp. These relationships in the data may demonstrate a breakdown in staff practices. Data from focus groups and observations contextualized where some of the respectful staff practices identified in the logic model broke down. During the reflective focus group in staff training, staff members expressed feeling unprepared for some aspects of respect-based practices, such as creating "community covenants" within cabins. We observed that cabin covenants were not created by staff during some of the younger camps. Standards for respectful behavior between cabinmates were not clarified and may have been more difficult for staff members to enforce. Considering that younger campers were more likely to write about disrespectful behavior from other campers, the lack of community covenants is relevant. Camp directors can provide clear training on expectations for practices related to respectful behavior, especially when staff members express a need for it. Field notes from on-site observation also supported the camper survey data related to younger campers feeling less respected. In several instances, camp staff members related to the primary researcher that they did not know how to interact with or adapt curriculum for younger campers. Additional training on adapting staff behavior and curriculum to all ages of campers may help staff members feel more prepared.

Limitations of our study include the convenience sample, small sample size, and unique nature of the camp as a faith-based adventure camp. Sorenson (2018) has identified several characteristics of Christian camps which may be less applicable to other types of camps, such as the infusion of Christian themes within camp activities. Future research in other faith-based camps would be valuable in testing a similar mission-based logic model. Future research should



also include testing a study design centered around an adapted logic model in other types of camps. While conducting on-site research was a critical factor in understanding our data, at times we impacted activities at camp rather than simply observing them. Especially when we observed safety-related issues, discussions with the camp director sometimes resulted in amendments to staff behavior. The role of an on-site researcher is complex, balancing a desire to observe with an ethical duty to ensure the safety of staff and participants.

One major purpose of the study was to develop an amended logic model framework that could be applicable to all camp programs. Our study demonstrated how a logic model with a list of essential staff practices was successfully integrated into the yearly planning, training, evaluation, and assessment cycle of a particular camp. Camp leaders responsible for training, implementation and evaluation may benefit from developing their own adaptive logic models with the additional component of staff practices.

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# Staff Practices as the Missing Piece of the Logic Model Puzzle: Successfully Linking Organizational Mission to Camper Experiences

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University of Idaho

## Study Aim/Purpose

To examine the usefulness of defining staff behaviors within an amended logic model framework to better align an organization's values with camper experiences in the context of a faith-based overnight camp.

## Methods

### Timeline and Setting

- Oct. 2022 – Aug. 2023
- Faith-based overnight adventure camp in a northwestern state

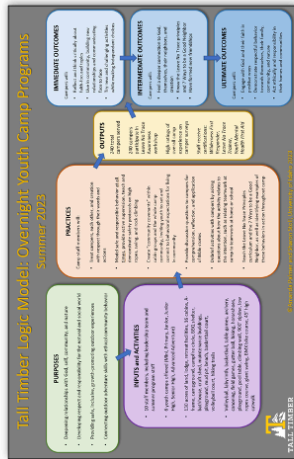
### Participants and Measures

- 92 campers (entering grade 1 to college) took written surveys
- 13 adult staff members (age 19-56) participated in focus groups pre- and post-camp

### Data Analyses

- Descriptive statistics, Pearson's correlations, and Cochran-Mantel-Haenszel chi-square test of independence

## Adapted Logic Model Including "Practices" Element:



**PRACTICES**

Camp staff members will:

- Treat campers, each other, and creation with respect through their words and actions
- Model safe and responsible behavior at all times, provide active supervision, teach and demonstrate safety protocols on high ropes, swing, and rock climbing
- Create "community covenants," within cabin groups and the whole camp community, inviting youth to set and commit to behavioral expectations for living in community of Bible stories
- Provide discussion questions to campers for comprehension, reflection, and application
- Brief activities with campers by asking questions about how the activity relates to the intention, such as relating teamwork at camp to teamwork at home or school
- Teach the Leave No Trace Principles curriculum and the 7 Ways to be a Good Neighbor, as well as identifying examples of these behaviors in action throughout camp

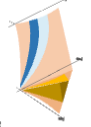
## Staff Practices Element of Logic Model Influenced:

- Pre-camp preparation through brainstorming and planning sessions
- Staff training through reflective staff focus group
- Program quality evaluation through tailored observation tools
- Assessment of camper experiences through customized surveys
- Post-camp reflection & goal-setting through admin staff focus group



## Select Data Based on Camper Perceptions of Respect at Camp:

- Campers rated how respected they felt at camp on a 5-point scale
- 72% of campers felt respected "All" or "Most" of the time, and 12% of campers felt respected "A little of the time" or "Never"
- Younger campers (n = 40; entering grades 2-6) felt significantly less respected than older campers (n = 47; entering grades 7-college) [ $\chi^2_{MH}(1) = 4.12; p < .05$ ]
- Campers who felt more respected at camp rated their camp experiences more positively overall (r(87) = .43, p < .001)



## Implications for Practice

1. Identifying and articulating observable staff practices early in the planning process helps administrative leaders bridge the gap between organizational mission and intended program outcomes.
2. Clearly discussing expectations for staff behavior during training sessions lays the groundwork for effective program implementation as well as accountability protocols.
3. Specific training on how practices apply to different camper age groups will demonstrate to staff members how expected behaviors can be enacted in a variety of contexts.
4. Staff members who consistently treat campers with respect will provide them with more positive camp experiences overall.

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# TRACKING CHANGES IN PHILOSOPHY AND PROGRAM PRIORITIES AMONG CHRISTIAN SUMMER CAMPS

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Faith-based summer camps comprise a quarter of the industry, yet their diversity and common priorities are little understood. Faith-based camps are distinguished from the rest of the industry by their inclusion of religious teachings and practices in their programs and/or an explicit connection to a religious tradition. However, they are far from identical, even among those of the same tradition (e.g., Muslim, Jewish, or Christian). Among Jewish camps, for example, researchers observed that some incorporated and taught a distinct theological viewpoint, while others served mainly as socializing experiences for those representing a minority religion (Sales & Saxe, 2004). It is well established that camp philosophy and program priorities impact camp outcomes, including at faith-based camps (Henderson & Bialeschki, 2008; Sorenson, 2018; Warner et al., 2021). However, existing studies tend to focus on religious camps in aggregate, without considering the diversity of priorities and desired outcomes within each tradition. To better understand and characterize the diversity, this study examined the variability and changing perceptions in philosophy among Christian camp directors.

Faith-based camps vary considerably in the degree to which they incorporate faith into their programs and the prioritization of faith-specific outcomes. One researcher observed that some Christian camps are mostly “indistinguishable from similar camps in non-Christian settings” or, perhaps, “an extension of their youth culture...with a spiritual gloss” (Yust, 180, 187). Other Christian camps are overtly Evangelical, seeing the camp experience as “an effective delivery system” of the Christian message (Senter, 220).

Christian camps have generally coalesced into two groups, representing the major streams of American Protestant Christianity (Sorenson, 2021). One stream, exemplified by the more than 800 member organizations of the Christian Camp and Conference Association (CCCA), represents the American Evangelical perspective. This group tends to emphasize biblical literalism and encourage personal conversion experiences (Christian Camp and Conference Association, 2023). The other, known as Outdoor Ministries Connection (OMC), represents the Mainline Protestant perspective and comprises denominational camp associations consisting of nearly 700 camps. They are generally more socially progressive and emphasize Christian nurture, rather than personal conversion moments. These groups differ considerably in their theology, which greatly impacts desired outcomes and program philosophy.

## Methodology

Since OMC formed in 2014, one of the major collaborative efforts has been industry research, including a bi-annual survey of OMC directors. The most recent of these took place from October 2022-January 2023. The survey included six Christian denominational groups associated with OMC, representing Lutheran, United Methodist, Presbyterian, Episcopalian, United Church of Christ, and United Church of Canada camps and conference centers. Each denominational group distributed the survey electronically to their members, garnering a total of 277 responses from unique organizations, representing 328 individual sites (a response rate of 51%). Similar surveys with a majority of questions identical each year were available from the same groups in 2020 (54% response rate), 2018 (43%), and 2016 (43%). CCCA distributed similar surveys to their membership in 2020 and 2023, though they declined to participate in the secondary analysis. However, 22% of responding camps to the 2022 OMC survey indicated they were CCCA members, comprising a sub-group that was OMC-affiliated and CCCA-aligned.

Responses from all four OMC surveys were compared to measure change over time. The philosophy section of the survey included a question bank asking respondents to rate the importance of 18 camp priorities on a Likert scale, including both general (e.g. “fun for all participants”) and specifically Christian (e.g. “Familiarity with the Bible”) items. Independent samples t-tests were used to measure change in the Likert-type questions of the aggregate data over the different years of the survey. The 2022 survey data were used to compare responses of the CCCA-aligned camps with the other respondents, again using independent samples t-tests.

### Findings

In terms of program, Christian camps were remarkably similar. While many camps in the broader summer camp industry offer day-only experiences or multi-week camps, the overwhelming majority of Christian summer camp experiences last for one week: 95% of OMC respondents offered week-long overnight summer camp in 2022, while only 15% offered multi-week programs and about a third offered day camp programs. Another common program that set these camps apart from the wider industry was inclusion of Christian educational time, most often in the form of daily Bible study (94% of OMC camps regularly had Bible study or Christian education time in 2022).

Philosophical priorities among OMC directors showed some consistency over time, but there were also notable variations. In terms of consistency, four items ranked among the top five in terms of average importance each year of the survey and showed no significant variations over time. These included, in descending order of average importance: participant safety, fellowship/community building, self-esteem/character building, and fun for all participants. Only one of these (fellowship/community building) showed statistically significant variation between any two years of the study (decline from 2020 to 2022).

The items related to faith showed an intriguing pattern. The more explicitly evangelical items showed consistent, significant declines in average importance over time, while the less explicitly evangelical items showed less significant declines or no change at all. Those that showed no variation in any year of the survey were the most general of the faith-related items: taking a stand on moral/ethical issues, knowledge of/fellowship with creation, and peace and justice awareness. Two faith-related items showed a pattern of gradual, non-significant decline in average importance over each of the four surveys, with the cumulative change over all four surveys significantly different. These items were facilitating participants’ experiences of/encounters with God ( $t = 2.358, p < .01$ ) and learning faith language/practices ( $t = 1.657, p < .05$ ). The most explicitly evangelical items (in the sense of conversion or faith formation) showed the most decline in average importance. In addition to showing consistent and significant decline, these items declined significantly in one or more successive years of the survey. The overall decline from 2016 to 2022 was most significant for these three: individual faith formation ( $t = 3.984, p < .001$ ), developing Christian leaders ( $t = 5.053, p < .001$ ), and familiarity with the Bible ( $t = 5.371, p < .001$ ).

Along with declines in the perceived importance of faith formation, there were declines in connection to congregational ministries. Perceived importance of strengthen/support congregations declined each year of the survey, with a significant decline from 2020 to 2022 and a very significant overall decline ( $t = 3.363, p < .001$ ). There was a similar decline in the level of agreement with the statement, “Camp worship and programs are designed to get participants more excited about and engaged in their home congregation” ( $t = 4.877, p < .001$ ).

In the 2022 survey, the CCCA-aligned sub-group was significantly different from the other respondents in nearly every philosophy question. There was a clear pattern to these differences. The CCCA-aligned respondents placed significantly higher importance on the faith-related items (e.g. facilitating participants’ experiences of/encounters with God) and significantly less importance on the items not related to faith (e.g. fun for all participants). Participant safety and

fellowship/community building showed no significant differences between the groups. The more explicitly evangelical items (familiarity with the Bible, individual faith formation, participating in Christian practices, and developing Christian leaders) had the greatest differences between the groups. Intriguingly, respondents who were not CCCA-aligned placed significantly higher importance on items related to engagement with social concerns: peace and justice awareness and taking a stand on moral/ethical issues.

### Discussion

These findings show a secularization trend among Mainline Protestant Christian camps that mirrors trends in North American culture. Pew Research has documented a progressive decline in Christian affiliation and faith practices (such as church attendance) among Americans over the past few decades that has been most pronounced among Mainline Protestant denominations (Pew Research Center, 2022). The declining emphasis on priorities explicitly related to the Christian faith may, therefore, be in response to the sensibilities of the clientele. However, the findings indicate a more complex narrative, since not all priorities declined at the same rate and not all camps showed the decline. On the contrary, emphasis on the more socially progressive priorities (e.g., care for creation and peace and justice awareness) was maintained over time, while the explicitly evangelical priorities showed the greatest decline. This reflects not just the secularization of American culture but also the widening gap between progressive and socially conservative Christianity.

Though they lean progressive, the denominations of the OMC network include camps that align with the more conservative elements of Christianity represented in CCCA. These camps followed the expected trend of maintaining evangelical priorities (such as familiarity with the Bible) much more so than other OMC camps. It is expected that a survey of CCCA camp directors would prioritize evangelical values much more than the CCCA-aligned OMC camps, but further research is needed to confirm this.

Mainline Protestantism has long committed to peace and social justice awareness, notably through ecumenical work in the National Council of Churches and more recently on behalf of the LGBTQIA+ community. Evangelicalism, in contrast, has often aligned against progressive social movements, including a widespread stance against same-gender marriage and transgender rights. It is no surprise, therefore, that the priorities showing the largest differences between the groups were “familiarity with the Bible” and “peace and justice awareness.” These philosophical differences have serious consequences in terms of inclusion, especially of those who identify as LGBTQIA+. Disagreements within these traditions related to inclusion of LGBTQIA+ individuals (most recently with the United Methodist Church) have precipitated disaffiliation and division between progressive and conservative factions. These fault lines appear to be affecting affiliated camps, as well.

Changes in philosophy and program priorities have consequences for outcomes. Previous research with OMC camps has indicated that the most consistent program outcomes were related to faith formation and affiliation with Christian communities (Sorenson, 2014; Warner et al, 2021). Further research should examine the degree to which differences in program philosophy among Christian camps impact these outcomes. Additionally, recent research from the National Camp Impact Study indicates that camp functions as “one piece of a larger developmental ecosystem,” with complimentary settings reinforcing the impacts of camp (Spielvogel et al., 2022). One of the crucial partnerships for OMC camps has been with affiliated congregations, allowing the opportunity to mutually reinforce the faith-based impacts of camp and congregation. The weakening of these congregational partnerships over time evident in the OMC surveys has potential consequences for camp outcomes that can be examined in future studies.

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# Tracking Changes in Philosophy and Program Priorities Among Christian Summer Camps

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## INTRODUCTION

Outdoor Ministries Connection (OMC) is an association of Mainline Protestant Christian camp organizations comprising Lutheran, United Methodist, Presbyterian, Episcopalian, United Church of Christ, and United Church of Canada camps. They have conducted a biannual survey of camp directors since 2016.

## METHODS

### Secondary Analysis of Camp Director Surveys

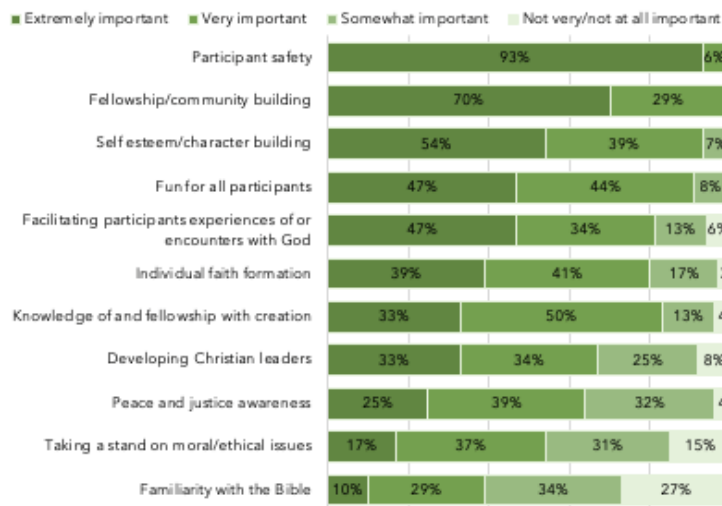
*t-tests of Likert questions*

2016: 313 responses  
 2018: 303 responses  
 2020: 321 responses  
 2022: 277 responses

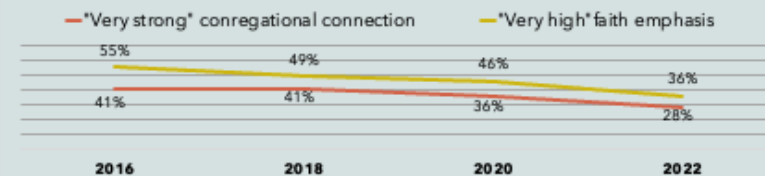
## LESSONS TO SHARE:

- ❖ The norm for Christian summer camp programs were 1-week sessions (95% offered) that included daily Bible study (94%)
- ❖ There was generally no change in average importance for priorities not related to faith (e.g., fun for all participants and safety)
- ❖ There was a progressive decline in perceived importance of program priorities related to faith formation from 2016-2022
- ❖ The more evangelical faith priorities had the greatest decline in importance over time, while those related to more general faith outcomes showed little or no change
- ❖ Connection to congregations also declined

## Importance of Selected Program Priorities (OMC 2022)



## Impressions of Congregational Connection and Faith Emphasis over Time



## Variation in Average Importance Over Time

	2016	2018	2020	2022	t-value
Familiarity with the Bible	3.60	3.50	3.22	3.12	-5.371***
Christian education	4.08	3.96	3.81	3.65	-5.203***
Developing Christian leaders	4.29	4.17	4.08	3.89	-5.053***
Individual faith formation	4.42	4.32	4.23	4.16	-3.984***
Facilitating participants' experiences of God	4.40	4.30	4.25	4.22	-2.358**
Learning faith language and practices	3.62	3.57	3.48	3.48	-1.657*
Knowledge of and fellowship with creation	4.13	4.16	4.12	4.11	-.194
Peace and justice awareness	3.80	3.88	3.90	3.83	.423
Taking a stand on moral/ethical issues	3.51	3.53	3.56	3.56	.697

*t-values, calculated comparing 2016 and 2022, were significant at p<.05 (\*), p<.01 (\*\*), and p<.001 (\*\*\*)*

2024 ACA Camp Research Forum, New Orleans, LA

**HIGH QUALITY ACTIVITIES DRIVE POSITIVE CAMPER OUTCOMES**  
Anna Hutchins, Director of Grants & Outcome Measurement



## High Quality Activities Drive Positive Camper Outcomes



### Aim / Purpose

1. Train summer staff on Social & Emotional Learning Program Quality Assessment (SEL PQA) elements of scaffold learning, emotion coaching, fostering growth mindset, and promoting responsibility and leadership, in order to impact camper outcomes.
2. Improve camper outcomes of sense of belonging and self-acceptance from summer 2022 to summer 2023.

### Methods

1. Staff training time was increased to build summer staff knowledge of and implementation skills in program quality areas of scaffolding learning & emotion coaching.

Campers were ages 8-10 and 18-25 with muscular dystrophy, brain injuries, and intellectual and developmental disabilities, including autism. Campers completed surveys on the last day of their Camp session.

2. Observers evaluated four activities during CTL's summer 2023 season, providing staff feedback & coaching immediately afterward. Program quality data was gathered using a modified ACA SEL PQA form and scored using the ACA SEL PQA tool.



*Camp Twin Lakes is a residential camp for children, teens, and young adults with mental and physical illnesses, disabilities, and other life challenges.*

### Findings

#### Summer staff emotion coaching & scaffold learning skills improved.

80% of emotion coaching and scaffold learning skill items received scores of 5/5, indicating that skill was always present (↑ from 31% in 2022)

#### Summer 2023 camper outcomes increased.

- 81% of campers reported growth in sense of belonging (↑ from 73% in 2022)
- 95% reported growth in self-acceptance (↑ from 87% in 2022)

### Implications for Camp Leaders

1. Create opportunities for immediate feedback and coaching for summer staff. Don't wait until summer is over!
2. Program quality drives positive camper impact. Choose PQA elements for focus that tie with the outcomes you want to improve!
3. Use activity debriefing time to help campers connect an activity/experience with the intended outcome. This also reinforces program quality skills for staff!

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