

Regular Paper

Measuring Youth Outcomes Over Six Years at a Medical Speciality Camp

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The Hole in the Wall Gang Camp

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Abstract

Summer camp can be a setting for positive youth development, yet more understanding is needed about how camps measure youth development outcomes. The purpose of this study was to examine the experiences of The Hole in the Wall Gang Camp—a medical speciality camp—using the American Camp Association’s Youth Outcomes Battery (YOB) over six years. In this case study, we examined challenges and successes in the use of the YOB to measure friendship skills, interest in exploration, and independence, and how findings from evaluation studies were used to improve camp practice. Data were analyzed from evaluation reports, participant observations of internal staff gatherings and communications, and document review. Results revealed lessons learned about scheduling data collection and contemplation of intentional outcomes, ease in YOB usage, and utility for stakeholder communications and program improvement.

KEYWORDS: Medical speciality camp; illness; youth outcomes battery; friendship skills; interest in exploration; independence

Since the mid-2000s, much research in camps has focused on the presence or extent of developmental outcomes for campers (e.g., Bialeschki et al., 2007; Hickerson & Henderson, 2014; Thurber et al., 2007; Wilson & Sibthorp, 2018). The American Camp Association (ACA), representing over 12,000 camp professionals and 3,100 member camps (<https://www.acacamps.org/news-publications/press-release/summer-camps-successfully-prevented-mitigated-covid-19-transmission-says-new-cdc-study>), developed the Youth Outcomes Battery (YOB; Ellis & Sibthorp, 2006; Ellis et al., 2007) and several researchers have used the YOB to examine the camper outcomes of friendship skills (Gillard & Roark, 2017), camp connectedness (D’Eloia & Sibthorp, 2012), affinity for nature (Eastep et al., 2011), teamwork (Lower et al., 2017), and assorted other youth outcomes (Hall et al., 2018; Hill et al., 2016). Besides these published studies, an examination of abstracts submitted to the annual ACA Camp Research Forum since 2012

(available at www.acacamps.org/resource-library/research/aca-research-forum) suggests several camps have used the YOB to examine camper outcomes but few have published their full studies in peer-reviewed journals.

Considering camper outcomes for participants of medical specialty camps (e.g., those specifically serving children and youth with illnesses or disabilities), even fewer published studies exist about the YOB in this setting (Allen et al., 2019; Gillard & Roark, 2017; Hall et al., 2018). However, measuring outcomes of a medical specialty camp experience is important to understand the potential effects on participants and to use evidence to advocate for the continuation or expansion of such camps. Concurrent with the beginning of the institution of summer camp (Ramsing, 2007), medical specialty camps were specifically created as an intervention to promote outdoor and social experiences for youth living with illnesses and disabilities. Aiming to create opportunities for youth with disabilities or illnesses to “just be a kid,” camp professionals structure camp to encourage campers to make new friends and engage in fun activities while being medically supervised. This is important for youth living with serious illness or disabilities because they often face isolation and limitations and have difficulty achieving developmental milestones (Pinquart, 2014). Understanding the potential outcomes of participation in medical specialty camps can support researchers and practitioners in shaping camp programs to maximize camper outcomes. However, very few published studies have used the YOB to examine potential outcomes of a medical specialty camp experience. Further, to our knowledge, no studies have explored camp researchers’ or professionals’ experiences using the YOB with campers in medical specialty camps although two reported on camper learning (Allen et al., 2019; Hall et al., 2018) and one discussed camper friendship skills in the context of measuring effects of staff training (Gillard & Roark, 2017).

Even with several camp researchers and practitioners using the YOB to measure youth outcomes, it remains unclear how camp professionals choose to use the YOB, decide which outcomes to measure, address challenges, and how camps use findings. Understanding challenges and opportunities faced by camps in their use of the YOB can advance camp research and practice. Further, partnerships between researchers and camp professionals can be enhanced through increased understanding of the utility of the YOB. Finally, more attention to the process of using the YOB can facilitate camp professionals’ efforts to draw on lessons about YOB use learned at other camps. Case studies of camps using the YOB can be instructive for camp researchers and professionals considering the YOB.

The purpose of this study was to examine the experiences of a medical specialty camp in using the YOB over six years. In this case study, we examined challenges and successes in the use of the YOB, and how findings from evaluation studies were used to improve camp practice.

Literature Review

The American Camp Association (ACA) developed the Youth Outcomes Battery (YOB) in 2011 to provide camps with valid and reliable measures that can be customized, administered in the field, and used to inform decisions (Sibthorp et al., 2013). The 11 youth development outcomes in the YOB include: family citizenship, friendship skills, independence, interest in exploration, perceived competence, responsibility, teamwork, affinity for nature, problem-solving confidence, camp connectedness, and spiritual well-being (ACA, 2011). There are two formats of the YOB: basic and detailed. Both formats employ a retrospective design in which data are gathered at the end of camp rather than a traditional pre- and post-test design which can reflect response-shift bias (Davis, 2003). The basic format is for campers aged 10-17 and offers measures of perceived change (increase) from participation in the camp experience using a five-point response scale with five to fourteen items per outcome measure. The detailed format is for campers aged 13-17 and offers measures of perceived gains through the camp experience plus how much the gain was specifically camp-related using a six-point response scale with five to fourteen two-

part items per outcome measure. Sibthorp et al. (2013) established the construct, discriminant, and convergent validity of the YOB through an analysis of data from 3,750 youth representing 37 summer camps. The YOB was included in Wilson-Ahlstrom et al.'s (2014) *From Soft Skills to Hard Data: Measuring Youth Program Outcomes*, which was a collection of 10 youth outcome measurement tools. In addition to Sibthorp et al.'s and Wilson-Ahlstrom et al.'s works, several other published works used the YOB to measure youth outcomes in camps (e.g., Allen et al., 2019; Gillard & Roark, 2017; Hall et al., 2018; Hill et al., 2016).

However, the YOB has issues with discriminant validity within the full instrument (Sibthorp et al., 2013). Some have pointed out issues of poor variation across outcomes and high between-factor correlations (Gagnon & Garst, 2019; Gagnon & Sandoval, 2020; Lower et al., 2017). While the YOB might be psychometrically weak in some ways, the appeal of the YOB can be robust for practitioners. As Sibthorp et al. (2013) explain, "A focus on developing a practical and useful field-based tool has sacrificed some of the ideals of scientific measurement" (p. 530).

Many camp professionals aim to influence some or many of the camper outcomes reflected in the YOB and wish to measure the potential success of their efforts. The YOB's structure allows for the mixing and matching of outcomes to measure, based on the stated goals of camps. The use of a retrospective design approach in which data are collected at the end of camp can be appealing for camp professionals wishing to decrease the amount of time campers spend on evaluation activities that could be considered less fun than other traditional camp activities. Given limited time and personnel resources, camps also search for measures that are easy to administer and analyze for novice evaluators.

Researchers have suggested several implications for practice in using the YOB. Some pointed out that the ease of use and ability to be customized would appeal to camp practitioners (Eastep et al., 2011; Sibthorp et al., 2013). Program improvement was another common implication, specifically allocating organization resources (Hall et al., 2018) and training summer staff (Gillard & Roark, 2017). Implications from several studies included the need to use the YOB in a variety of settings with different youth populations to further validate the YOB (D'Eloia & Sibthorp, 2012; Hall et al., 2018). However, to date there has not been a full description or case study of how a camp for a specific population used the YOB.

One specific population of campers are those living with serious illnesses or health conditions. A meta-analysis examined the association between camp attendance and changes in self-perceptions in children with chronic health conditions and found small, but statistically significant, improvements in self-perceptions (Odar et al., 2013). In a study of 19 camps for children with cancer and their siblings, campers reported high levels of emotional, physical, social, and self-esteem functioning (Wu et al., 2016). Other studies of medical specialty camps have found improved attitudes toward illness (Austin & Huberty, 1993; Briery & Rabian, 1999), goal setting (Woods et al., 2013), self-esteem and self-efficacy (Török et al., 2006; Wellisch et al., 2006), and social support and other outcomes (Barr et al., 2010; Devine et al., 2015; Gillard & Watts, 2013; Gillard et al., 2011; Knapp et al., 2015; Körver et al., 2017). Still, none of these studies used the YOB to measure outcomes that align with stated goals of many medical specialty camps, such as helping campers build friendship skills, independence, or interest in exploration. Using the YOB to measure outcomes in medical specialty camps could provide an easy opportunity for camp professionals to assess the type and strength of outcomes associated with camp participation.

However, only a few studies have used the YOB in medical specialty camps. Hall et al. (2018) conducted a study with 1,979 campers at a camp for children with serious illnesses, disabilities, and life challenges to examine four YOB outcomes: responsibility, affinity for nature, friendship skills, and independence. Means for all four outcomes ranged from 3.9 to 4.0 on a scale of one to five, with five indicating more increase. Age significantly but weakly correlated with affinity for nature (negative) and friendship skills (positive). Years at camp significantly but weakly correlated with responsibility, friendship skills, and independence; all relationships were positive. Camp satisfaction was positively and significantly correlated with all four outcome measures.

Allen et al. (2019) found that campers reported learning “a little” or “a lot” in the outcomes of independence, competence, family citizenship, responsibility, interest in exploration, teamwork, and friendship skills at a camp for children with Type 1 diabetes. Gillard and Roark (2017) found that camper friendship skills improved when a session on building camper friendship skills was added to the camp staff training. In other studies, Hill and colleagues adapted the YOB for various purposes at a camp for youth with Type 1 diabetes, such as using the Camper Learning Scale designed for younger campers (Hill et al., 2015; Hill et al., 2016b). To our knowledge, these are the only published studies that used the YOB in a medical specialty camp context.

While the studies above and others have used the YOB to show some positive gains made by campers in several outcome areas, less attention has been paid to the process of using the YOB. More information about how camps use outcomes measurement tools is needed. In this case study of The Hole in the Wall Gang Camp, a medical specialty camp for children aged 7-15, we examine the experiences, challenges, and successes of using the YOB to improve camp practice over six years. Specifically, this study aimed to answer the following questions:

- What was the decision-making process for choosing the YOB?
- What YOB outcomes were measured and what were the results?
- What were the challenges and successes in measuring these three outcomes?
- How were the findings used?

Methods

Setting

The Hole in the Wall Gang Camp, located in northeast Connecticut in the United States, was founded in 1988 by actor and philanthropist Paul Newman. The Hole in the Wall Gang Camp is dedicated to providing “a different kind of healing” to seriously ill children and their families throughout the Northeast, free of charge (<https://www.holeinthewallgang.org/about/Our-Mission/>). During the time of this study, Hole in the Wall’s summer program served approximately 1,000 children living with serious illnesses such as cancer, sickle cell disease, blood disorders, and rare diseases. There were eight sessions of resident camp lasting seven days each, attended by approximately 125 campers each session, and one session reserved for siblings of children with serious illnesses. Campers participated in typical camp activities such as swimming, arts and crafts, horseback riding, talent shows, and archery. Hole in the Wall campers were medically supported by a team of dozens of nurses, pediatricians, and other health care providers in addition to counselors and program staff. The focus of the experience at Hole in the Wall was fun, and there were no formal illness-specific educational sessions provided to campers.

Case Study

A case study was employed for this study to investigate a contemporary phenomenon within its real-life context (Yin, 2003b). This research used a descriptive single-case study (Yin, 2003a), organized according to questions posed about the phenomenon under investigation: use of the YOB over time at The Hole in the Wall Gang Camp. This camp represents a “typical case” (Yin, 2003b, p. 41) in which lessons learned from this case can be assumed to be informative about the experiences of the average medical specialty camp.

Data collected for this case study involved several units of analysis including camper evaluation results, evaluation reports, interviews with the second author and other staff, and participant observations of camp staff meetings. At each level of analysis, different data collection techniques were used ranging from document review to survey and interview analyses.

Data Collection and Analysis

Four types of data were collected for this case study. First, camper outcome evaluation results included data on Friendship Skills (three summers), Interest in Exploration (two summers), and Independence (one summer). Second, participant observations of internal staff gatherings included summer staff trainings, post-summer data parties, reviews of outcomes report findings, and logic model workshops. Third, interviews with key informants (e.g., camp staff personnel) are included as data. Fourth, document review of staff training outlines, outcome evaluation reports, weekly schedules, logic model (blueprint of the connections between the camp's inputs or resources, outputs, and intended participant outcomes), and the Hole in the Wall website provided the final set of data for this study.

Data were analyzed in an iterative and reflective process extending over six years and culminated in the writing of this case study. Data were organized according to the four research questions, in a question-and-answer format. Analyses followed Yin's 2013 recommendations to promote validity in case studies: triangulation, plausible rival explanations, and logic models. Triangulation of the four types of data led to the development of the study purpose and four key questions and subsequent answers. Member checking with the second author provided credibility of findings, and both authors and other colleagues discussed at length plausible rival explanations. Finally, the authors reviewed the camp's logic model to explore the boundaries of answers to the four key questions guiding the results.

Results

Before we share the results that are centered on this study's four key questions, we summarize Hole in the Wall's process for choosing the YOB, results of YOB measurement over six summers, challenges and successes, and use of findings. First, the process of choosing the YOB involved identifying outcomes of interest for a population of children with serious illnesses (Friendship Skills, Interest in Exploration, and Independence). Second, results from six summers of data collection are shared with the purpose of exploring the outcome results in the context of this study. Third, challenges included a lack of fit of the Independence outcome as measured by the YOB for Hole in the Wall's population of campers and successes included changing the culture of camp to be more integrative of evaluation. Fourth, findings from the YOB-based evaluations were used for program improvement and communication with stakeholders.

Question One: What Was the Decision-Making Process for Choosing the YOB?

In 2013, the Board of Directors of The Hole in the Wall Gang Camp set a strategic plan to build a "more data-friendly culture." One of the goals was to hire a director of research and evaluation (the first author). In addition to measuring satisfaction with programs, Hole in the Wall also aimed to measure potential changes in campers that could be attributed to the camp experience. Hole in the Wall wanted a camp-specific outcomes scale to use to measure campers' outcomes at the end of their camp experiences, and a scale that was normed so that Hole in the Wall could compare its results to a larger sample. Another important factor was using a scale that was already psychometrically tested to avoid the need to pilot test a new scale, which can be time-consuming and arduous. Hole in the Wall chose to use the "basic" version of the YOB because the basic version was designed for children aged 10 and older which allowed for data to be collected from more campers, and because the basic version was less cognitively burdensome than the "detailed" version.

According to the YOB (2011), the basic version of the Friendship Skills scale contains 14 items and answers the question "Have camp experiences helped campers develop skills in making friends and maintaining friendships?" Friendship skills is an outcome of great importance

to children living with serious illness. Many Hole in the Wall campers are isolated in their everyday lives, and summer camp is a place they can go to meet and interact with new people, while having their medical needs cared for by staff. One of the core values of Hole in the Wall is “camaraderie,” which is defined as “a community that fosters friendship, inclusivity, a little bit of mischief and a whole lot of laughter,” (<https://www.holeinthewallgang.org/about/Our-Mission/>).

Interest in Exploration is an 8-item scale and answers the question “Have camp experiences helped campers be more curious, inquisitive, and eager to learn new things?” (YOB, 2011). Interest in Exploration was an outcome of interest to Hole in the Wall because of the items’ focus on desire to meet new people, travel to new places, and do new things, among other indicators. In the context of Hole in the Wall campers living with serious illness, Interest in Exploration items also seemed to connote “thriving.” If campers were interested in exploring their worlds more, they would be more likely to thrive. “Thriving” is a desirable long-term or distal impact of camp, according to Hole in the Wall’s logic model.

Independence is an 8-item scale and answers the question, “Have camp experiences helped campers learn to depend less on adults and other people for solving problems and for their day-to-day activities?” (YOB, 2011). Independence was an outcome of interest to Hole in the Wall because much discourse about the value of a medical specialty camp experience involves encouraging campers in being self-determined about their health and becoming more independent from parent or caregiver involvement in their health care.

Question 2: What YOB Outcomes Were Measured and What Were the Results?

Over the six summers contained in this case study, Hole in the Wall examined the YOB outcomes of friendship skills, interest in exploration, and independence (Table 1). Besides an interest in assessing the potential increase of these outcomes at the end of a week-long residential camp experience, Hole in the Wall wanted to see if changes to staff training could make a difference to camper outcomes. That is, would training staff to be intentional about particular camper outcomes make a difference to those outcomes? In 2017, Gillard and Roark published an article on the Friendship Skills training intervention that showed a statistically significant difference in camper outcomes between “no training” and “45-minute training” but not between either of these conditions and the “90-minute plus mid-season booster” training. However, when this approach was applied to the camper outcome of Interest in Exploration, no statistically significant differences emerged between “no training” and “45-minute training.”

Both the Friendship Skills and Interest in Explorations trainings were similar in delivery, involving a combination of paired and large group discussions, role plays, brainstorming, and lecture. Both trainings were held in the same location (theater) at the same time during staff orientation (day seven of an eight-day training). Upon reflection, it is possible that the concept of Friendship Skills was more tangible and absorbing for staff working at a medical specialty camp, and Interest in Exploration could be seen as an outcome that was less critical and less of a priority for children with serious illnesses.

Comparing the results of Hole in the Wall to ACA’s publicly available norms (see <https://www.acacamps.org/resource-library/research/youth-outcomes-battery-norms>), Hole in the Wall outcomes were higher than ACA’s normative statistics for all campers for all three outcomes. Friendship Skills and Interest in Exploration were about 0.4 of a point higher for Hole in the Wall campers than ACA norms, but Independence was only about 0.1 of a point higher for Hole in the Wall campers than ACA norms. Certainly, factors other than staff training could have led to these results such as shifts in the individual camp staff and camper populations or different summer themes or macro changes in the larger society. However, no major changes in the camp system or structure occurred over the six summers.

Table 1*YOB Descriptive Statistics 2014-2019*

Year	N	Outcome	<i>M</i>	<i>SD</i>	Range	Cronbach's α	Inter-item Range
Friendship Skills							
2014	405	No staff training	3.38 ^a	.58	1-4 ^a	.943	.41 - .84
2015	508	45-min. staff training	4.22	.8	1-5	.957	.51 - .88
2016	580	90-min. staff training + booster	4.21	.82	1-5	.949	.51 - .85
Interest in Exploration							
2017	546	No staff training	4.32	.69	1-5	.906	.40 - .70
2018	559	45-min. staff training	4.3	.67	1-5	.913	.45 - .70
Independence							
2019	562	No staff training	3.71	.98	1-5	.883	.40 - .82

Note. For full results, contact the first author or visit <https://www.holeinthewallgang.org/about/Program-Impact-Research/>.

^a In 2014, Hole in the Wall compressed the response options from five to four in an effort to simplify the survey, but in subsequent years response options expanded to the typical five of the YOB. See Gillard and Roark (2017) for a discussion of how data were standardized to compare years.

Although the results over six years suggest mixed results for how staff training might influence camper outcomes, Hole in the Wall was pleased that many campers reported that their Friendship Skills, Interest in Exploration, and Independence increased over the course of their camp experience. Findings suggest that Hole in the Wall seemed to support increases in campers' Interest in Exploration the most, followed closely by Friendship Skills. Interestingly, Independence was about one-half of a point lower than the other two outcomes measured, suggesting that Hole in the Wall might be less effective at increasing this outcome compared to other outcomes.

Question 3: What Were the Challenges and Successes in Measuring These Three Outcomes?

The process of collecting data from campers improved over the six years. Data collection for all years involved campers completing surveys using the iSurvey app on mini iPads on the afternoon of the last full day of their camp session. Each of the 15 cabins received an iPad to use, and campers were supervised by counselors. During the afternoon of the last full day, campers stayed in their cabins to rest, pack, and get ready for the evening activity so it was easy for campers to "float" to the main table in the cabin to take the survey. Only campers 10 and older completed YOB items, per recommendations in the YOB manual (YOB, 2011). Only campers who received parental permission to participate in "evaluation activities" completed the anonymous surveys. This permission was similar to the "media release" found in the camper application forms.

In 2014, collecting camper data was a new process so there was a high degree of training, coaching, and support of counselors to facilitate camper data collection. However, the "activity" of data collection did not appear on the weekly schedule until 2016 so several counselors forgot or were distracted from administering the surveys throughout the first two summers. As time went on and more campers grew into counselors, data collection on the last full afternoon simply became part of the routine, something that Hole in the Wall had "always" done, and scaffolding decreased regarding support for counselors.

Another challenge faced in measuring the outcomes of Friendship Skills, Interest in Exploration, and Independence was considering how the items comprising each scale reflected a good or poor fit for the population of campers served by Hole in the Wall. Friendship Skills

was an outcome that seemed quite relevant to the population of campers with serious illnesses who often missed opportunities to make friends due to health concerns and hospitalizations. Interest in Exploration was less clearly relevant to Hole in the Wall's camper population, but upon inspection of the individual items, the scale itself seemed appropriate even if the definition or title of Interest in Exploration did not. Independence was the least-relevant outcome for Hole in the Wall's camper population for two reasons. First, several open-ended question responses from campers over the years indicated dissatisfaction with the high level of surveillance they experienced from counselors. For example, when asked to provide recommendations to Hole in the Wall in 2019, one camper replied

I thought it was a little bit strange how you needed counselors to do everything for you. For example 2 counselors to [to go with you to the] bathroom. At least 1 everywhere you went. And they had to get food for you.

Another 2019 camper shared, "I feel like the rules about counselors ALWAYS being with campers is a little extreme, I know that they are just following rules, but I can't get a bagel by myself? I find this infuriating." Second, the Independence scale items might not be as relevant to children with medical issues as they would be to children without health challenges because children with serious illnesses might realize that their levels of independence are inhibited by the needs of their parents and caregivers to keep them safe. This lack of fit might have been reflected in the lower levels of increases in Independence reported by campers in 2019 compared to other outcomes. Although Independence was validated for the YOB (Sibthorp et al., 2013), it seemed to have less face validity for children with serious illnesses. Further, "independence" was not an intended outcome for campers according to the Hole in the Wall summer program logic model, while "camaraderie" (similar to Friendship Skills) and "thriving" (similar to Interest in Exploration) did appear in the logic model.

Question 4: How Were the Findings Used?

The stated purpose of conducting the evaluations each summer was to improve the camp experience for children and for program improvement. The results of the three summers measuring Friendship Skills led to an established annual 45-minute staff training session. Recognizing that Interest in Exploration did not seem to be affected by staff training, the following summer that session changed to a different topic on camper care. Hole in the Wall did not operate during the summer of 2020 due to the COVID-19 pandemic, but Independence was unlikely to be measured anyway due to its lack of validity for the population of campers with serious illnesses, and uncertainty about how to train staff to promote independence in campers when the scale items and goals of Hole in the Wall were not in clear alignment.

Results of the program evaluations were shared with multiple stakeholders. First, reports were presented and discussed with Hole in the Wall's board of directors and staff. Responses to the reports generally reflected appreciation for the insights and satisfaction that campers were improving in the three areas. Responses reflected pride that Hole in the Wall was a "data- and research-friendly organization." Staff also expressed satisfaction in the results showing increased camper Friendship Skills and that staff training made a difference to campers, which was both affirming and motivating. Staff appeared to be more outcome-driven and intentional in their training after seeing the results and feeling a part of the process. Second, fact sheets about camper outcomes were shared with referring hospital partners and health care professionals and are available upon request from the first author. Responses to the fact sheets were positive, with some hospital partners indicating they would share the information with colleagues unfamiliar with camp to emphasize the benefits of camp for children with serious illnesses. Third, Hole in the Wall staff presented findings and provided handouts about camper outcomes to parents and caregivers of campers. These meetings were opportunities to thank parents and caregivers for

allowing their children to participate in evaluation activities and to close the circle by reporting results. Overall, sharing evaluation findings seemed to improve the confidence of stakeholders such as hospital partners and parents and caregivers in trusting Hole in the Wall and deepening their understanding of camp's potential.

Discussion

The findings from this case study suggest that the YOB can be a useful tool for exploring and measuring the potential outcomes of a medical specialty camp. While challenges existed in terms of face validity of some outcomes and systematizing data collection, the process of choosing outcomes and reflecting on results led to a more intentional and outcomes-focused approach to implementing camp. This case study demonstrates that using the YOB can help to articulate outcomes of the camp experience.

There are several explanations for the findings in this study. First, other researchers have found the YOB to be easy to administer in the field (e.g., Eastep et al., 2011) and easy to use (e.g., Sibthorp et al., 2010). The YOB is customizable to programs' intended purposes and can help with accountability, program improvement, marketing, and funding (Sibthorp et al., 2013). The answers to Questions One (decision-making process), Three (challenges and successes), and Four (use of results) in the Results support the claims made by these and other researchers who used the YOB.

Another explanation for this study's findings about Question Three (challenges and successes) is that there were differing alignments between the YOB outcomes measured, the population of Hole in the Wall campers, and the intentions and culture of Hole in the Wall. For example, Browne et al. (2015) discussed "affordances" in their study, which were staff-related processes that supported continuous program improvement, such as an explicit focus on youth development outcomes, staff buy in, and using data for accountability. Browne et al. (2015) also discussed "ill-defined outcomes" as one of the barriers that impeded camps' use of data. Certainly, the Independence outcome in the present case study could be considered an ill-defined outcome, given the population of campers living with serious illnesses for whom independence is perhaps less important than Friendship Skills or Interest in Exploration. Further, Independence as measured by the YOB was not a valuable or intentional outcome in the culture of Hole in the Wall. More information is needed to explore the potential existence of poor variation across outcomes reported by Gagnon and Garst (2019), Gagnon and Sandoval (2020), and Lower et al. (2017). Future research could also explore outcomes conceptually similar to independence such as self-determination or autonomy (e.g., Ryan & Deci, 2017).

This study was limited by the potential biases of the authors who worked at Hole in the Wall for several years. While familiarity bias can impede openness to alternative views and inflation of positive results, familiarity can also allow for deeper understanding of nuance and access to data and interpretations not easily experienced by outsiders. Replication of this study in other medical specialty camps could help to generalize the findings and address familiarity bias. Further, similar case studies could be conducted in other camps serving children with other diagnoses such as diabetes or asthma. Case studies could be conducted with camps for other specific populations such as children from low-resourced communities, military families, or specific racial or ethnic groups. Other case studies could be conducted with camps with different activity specialties such as sports, nature, technology, or arts. Future studies could benefit from using methods beyond camper self-report. ACA offers tools to measure staff and parent perceptions of camper outcomes that could easily be used at Hole in the Wall. Finally, other validated scales for children and youth could be used to investigate other camper outcomes.

Future research could also examine potential setting-level factors that might influence outcomes. For example, program-level characteristics such as the social environment, staff-participant relationships, and challenging activities could make a difference to outcomes (D'Eloia &

Sibthorp, 2012). Examining setting-level factors can also address potential fidelity issues in terms of how consistently the “intervention” of camp is applied over time and across different groups of campers (Browne et al., 2011).

Camps can use YOB results to inform staff training, refine programming, and further development areas in need of improvement. Advisory boards, funders, and other organizational stakeholders can use these results to inform decision-making and promote efficient and equitable allocation of organizational resources (Hall et al., 2018). YOB results can also be used for marketing to potential camper parents, funders, and community supporters to show evidence of program effectiveness (Sibthorp et al., 2010). As Sibthorp et al. (2010, p. 9) point out, “positioning these programs as invaluable” is vital to promoting camp as a setting for positive youth development and ensuring young people can have positive developmental experiences.

Conclusion

The purpose of this case study was to examine the experiences of a medical specialty camp in using the YOB over six years. We described Hole in the Wall’s decision-making processes about the YOB in terms of ease of use in data collection, desire to measure outcomes important to the camp and for the population of campers living with serious illness, and use of findings for program improvement. We also described the data results over six years for the outcomes of Friendship Skills, Interest in Exploration, and Independence, and how these items aligned (or were misaligned) with Hole in the Wall’s camper population and logic model. Findings suggested that the YOB was useful for Hole in the Wall to consider and reflect on camper outcomes and to share findings with stakeholders.

This case study contributes to the research on camps and other settings for youth development. Lessons learned from Hole in the Wall’s experiences with the YOB can be instructive for other camps considering using the YOB. The YOB aligns well with camps’ efforts toward using systematically collected data to inform practice and improve camp experiences and outcomes for children and youth. Perhaps the most important contribution of the YOB is that camp practitioners have a resource to help them highlight their efforts to stakeholders to intentionally build positive youth outcomes through camp experiences. This study highlights for camp professionals the potential of user-friendly data in helping to improve camper outcomes and creating more intentional programming which can benefit children and youth.

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