
Play and Learning in Summer Camps for Children with Special Needs



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Summer camps provide opportunities for children to experience play, pleasurable activities, and social interaction with other children of similar ages and interests and are an integral part of the modern-day American cultural landscape. The authors discuss the emergence of summer camps for children with special needs, the types of play activities in such camps, and how therapeutic and learning goals are incorporated into this play. They critically examine outcomes of summer camp experiences for children with special needs as reported in the literature. And they provide suggestions for future research that considers the role of play in summer camps.

Summer Camps: A Special Kind of Play World

Summer camps for children in the United States offer opportunities for play and learning. Such camps have existed since the 1860s. More than ten thousand traditional, residential, part-time, or full-time day camps are held each year, and some six and a half million children attend annually. The economic and cultural impact of summer camps in this country is, therefore, extensive.¹ Defined as “a supervised program for children and teenagers conducted during the summer months,”² summer camp is one of the most popular community recreation settings for youth who make many friends there and learn popular sports, hobbies, and games.³ William Burch described summer camps as a special kind of play world. Participation in summer camps includes the experience of many different play forms and play activities. Brian Sutton-Smith noted that these may be called by other names such as recreation and pastimes. They include informal social play such as jumping rope or swimming; solitary play such as crafting or bird watching; performance and audience play such

as music, drama, and puppet shows; contests such as races; and minimally supervised or free play.⁴

Few studies have acknowledged the role of play in summer camps or explored summer camps as a source of play experiences, especially for children with challenges, disorders, and illnesses. But one indication of an increasing awareness of the play component is the use of the term *play* in the names of camps and camping programs, such as Learn and Play and Let's ALL Play. The first, a series of week-long summer camps at the Shelburne Museum in Vermont, includes topics that range from magic and mystical creatures to circus crafts and activities. Let's ALL Play is a model curriculum designed to support the inclusion of children with special needs in summer camps throughout the country.⁵

Some camps primarily support children and families and share resources, whereas others (also known as therapeutic summer camps) focus on interventions that teach specific skills. When summer camps target specific populations and have therapeutic learning goals, unique specialized and goal-oriented products emerge that combine play and learning in interesting ways. A critical component of these camps, like all summer camps, is creating an environment that fosters both skill improvement and acquisition and fun, recreational experiences. Low staff-to-camper ratios and paying special attention to individual needs are important for summer camp programs created for children with disabilities and challenges.⁶

This article examines the historical development of summer camps for children with special needs, and it explores and contrasts differences in the play content of several summer camps. It evaluates evidence of the impact of summer camp experiences on children with special needs. And it proposes future directions for the study of the role of play in specialized summer camp environments.

Historical Emergence of Summer Camps for Children with Special Needs

The first summer camps in the United States were not designed for children with special needs, but many were created specifically for populations considered at high risk for disease or crime. The rise of camping in the United States grew from the ideal of extended childhood, efforts at reducing child mortality, and an idealized view of the benefits of leisure in a nonurban setting. By the

late nineteenth and early twentieth centuries, the Industrial Revolution, child labor laws, and extended compulsory education reflected the changing view from children as small adults to youngsters at a unique stage of development. Charity workers, reformers, professionals, and parents feared the effects that city life would have on youngsters' health and behavior and believed that rural environments were better for children. Adults thought urban children, especially boys, did not know how to play except in mischievous or even delinquent ways—they teased horses, snowballed vehicles, and became petty thieves. The role of summer camps was to teach children how to recreate.⁷

As camps began to include girls and children from ethnic and racial minorities, they also began to serve populations of children with various handicaps. This movement started in the mid-1920s, when physicians opened camps for children with diabetes. In the interwar years, camps for children with physical handicaps grew from less than ten to more than fifty. Social workers began to consider camps as new treatment resources for children with qualified professionals as staff. In 1943 the American Camping Association (ACA) formed the Committee on Specialized Camping Services, which focused on populations of children with medical needs (e.g., heart defects, blindness, hearing loss, and cerebral palsy).⁸ Some campers with disabilities were mainstreamed into regular camps at the same time special education initiatives included children with special needs in mainstream classrooms.⁹

Summer day camps became an important resource for families with children who had disabilities because many such campers could not tolerate overnights away from their parents. Day camps also offered parents opportunities to network with one another. Today, specialized summer camps exist for children with many kinds of special needs, illnesses, and learning disabilities.¹⁰ The term *special needs* refers to children with disabilities or developmental delay. These are children “whose well-being, development, and learning are compromised if special intervention is not provided.”¹¹ They include children with special health needs and children at high risk for learning disorders. For example, a search of the North Carolina careLINK website revealed numerous camps designed for children with developmental disabilities and delays, physical disabilities, autism, hearing impairments, attention deficit hyperactivity disorder (ADHD), learning disabilities, visual challenges, and craniofacial anomalies. Such specialized camps are usually noninclusive (i.e., they serve only children with special needs). Other primarily medical camps were for children with, for example, asthma, burns, cancer, chronic illness, lupus, diabetes, sickle cell anemia, and epilepsy.¹²

General Evidence of Effectiveness of Summer Camps

Camping outcomes for typically developing children

Educators, child experts, and parents have always known that children and adolescents benefit from summer camp experiences, yet detailed evaluations of summer camps have only recently been conducted. In the summers of 2002 and 2003, the ACA undertook a national research project in which thirty-four hundred families associated with eighty randomly chosen summer camps completed pre-camp and post-camp surveys designed to measure growth in the identity, social skills, and physical skills of typically developing children. Children (ages eight to fourteen years) and parents rated how much they agreed with statements that represented each of the three categories. Examples of statements from each area are provided in table 1. Campers experienced significant gains in self-esteem, independence, leadership, friendships, and adventure and exploration. The largest gains appeared in adventure and exploration, indicating that summer camp sessions offered novel experiences and challenging activities.¹³

Camping outcomes for children with special needs

The design, play content, and goals of summer camps have a different impact on children with special needs. Summer camp opportunities for children with special needs, like those for typically developing children, can range from day camp to residential (i.e., overnight) settings. Camps for children with special

Construct	Examples of Survey Statements
Identity	
Self-Esteem	I feel confident in myself. My child believes he or she is an important person.
Independence	I'm good at doing things on my own. My child feels he or she needs help with most things he or she does.
Social	
Leadership	I get other kids together for games. If kids were choosing a leader, they might vote for my child.
Friendship	I like to play with new kids. My child talks to other kids who are different from him or her.
Physical	
Adventure & Exploration	In the past week, I did a new activity. My child likes to try new things.

Table 1. Positive Outcomes for Typically Developing Children (ACA National Research Project)

needs might be inclusive or noninclusive and might be disability specific or disability nonspecific (i.e., children with a variety of disabilities).

Steve Brannan and colleagues reported findings from two national evaluation projects. The first, the National Camp Evaluation Project (NCEP) was a three-year study (from 1993 to 1996) that measured the social, emotional, and outdoor recreational skills of 2,184 campers with special needs who attended fifteen noninclusive, residential summer camps in fourteen states. Parents completed the Affective Behavior Scale for the Disabled (ABSD), and camp counselors used the Outdoor Skills Inventory (OSI) to evaluate children at the beginning and end of camp. Campers experienced significant growth in social skills, communication, domestic responsibility, independence, and self-esteem as measured by the ABSD. Significant growth in the personal and social skills and in the self-help subscales of the OSI was also noted. Interviews with parents and counselors confirmed that the major outcome of what were typically one-week camp experiences was increased self-reliance.¹⁴

The National Inclusive Camp Practices (NICP) project assessed outcomes for 373 campers with and 370 campers without special needs from fourteen inclusive camps. Before the camp sessions, parents completed the Individual Characteristics Survey (ICS) to measure their children's socio-emotional characteristics. Videos of campers on the first day of camp were used to record social interactions with the Social Interaction Observation (SIO). Counselors also completed the Outdoor Skills Inventory (OSI) to measure campers' levels of independence in personal, social, and outdoor recreation skills on the first day of camp. The SIO and OSI were repeated on the last day of camp, and parents completed the ICS after camp ended. All youth experienced significant growth in their outdoor skills and personal development (e.g., self-reliance, communication, social interactions, and self-esteem). In addition, campers with special needs significantly increased the amount of time they spent appropriately engaging in activities and social interactions.¹⁵

The results of these two national surveys indicate that inclusive and non-inclusive summer camp experiences provide benefits to campers with special needs and that these benefits are similar to those experienced by typically developing youth. Children with special needs, however, may also experience a unique benefit. Donna Goodwin and Kerri Staples report that noninclusive summer camps helped reduce the feelings of isolation experienced by some youth with special needs. One adolescent they interviewed stated: "[Camp] was fun. You talked about what it was like being disabled, your experiences.

You didn't have to act. I was more at ease with them."¹⁶ Jean Hall argues that inclusive settings may not account for research that suggests that children with special needs often feel isolated or promote the value of disability culture. Disability culture develops when children with special needs have opportunities to play and learn with others who share identities and life experiences that are often different from those of parents and typically developing peers. Such opportunities increase the likelihood that children with special needs learn to view disability not as a negative condition but as a unique, positive, and integral part of them.¹⁷ It may be that noninclusive camps counterbalance a lack of disability culture that some children with special needs experience in their daily lives.

Looking for Literature about Summer Camps for Children with Special Needs

The NCEP and the NICP studies provide relatively general information on the benefits of summer camp experiences for children with special needs. Although they examined outcomes, there was little focus on play and no evidence to support the contribution of play to such outcomes. For this article, the authors conducted a search of the literature to locate works that described experiences and outcomes of camps for children with special needs. We conducted our own searches with Ebsco and PubMed databases using a combination of the following terms: *summer camp*, *camp*, *play*, *learning*, *disability(ies)*, and *low income*, and we used specific disability terms such as *diabetes*, *autism*, and *learning disability*. We chose disability terms from pull-down search bars from several comprehensive online camp directories (see Appendix). At-risk youth were included in the population of children with special needs.

The search returned a total of 122 articles from academic journals. We read abstracts of these to determine whether the articles provided a description of summer camps in the United States for children with special needs and reported measurable or anecdotal outcomes. Eighteen abstracts appeared to fit the requirements, and we read these articles in full. Of these articles, six met the criteria for inclusion in the review. A reference list of forty-two articles on disabilities was located on the ACA website. We had already located four articles, and we analyzed an additional ten articles because the abstracts appeared to fit the specifications. Of these articles, five met the criteria. An additional three articles that met the criteria were located in the references of other articles.

Many articles provided information about camps but did not report outcomes, so they were not included in the review.

Tables 2, 3, and 4 summarize the fourteen articles (describing fourteen different camps) that provided some detail about the camp and reported outcomes for children with special needs. Twelve camps were noninclusive; two were inclusive. Five were day camps; nine were overnight camps. Camps served between ten and six hundred campers ranging in age from four to twenty-one years. The camps catered to a range of populations. Twelve camps catered to specific populations, including at-risk youth, children with ADHD, learning disabilities, dyslexia, developmental disabilities, intellectual disabilities, autism, significant behavior problems, visual impairment, obesity, diabetes, and cancer. The two remaining camps served multiple populations.

Detailed examination of the purpose, organization, content, and kinds of play activities described in the fourteen articles suggested that the camps could be divided into three types (see tables 2, 3, and 4). The first type, recreational summer camps, offered numerous activities typical of most summer camps like swimming, arts and crafts, and team play). The second type of camps, noncompetitive sports camps, had a recreational sports focus and might have also offered other camp activities. These camps differed from camps that offered typical recreational activities in their focus on sports skills. For example, a sports camp taught the mechanics of swimming, whereas a typical camp offered swimming purely as a recreational activity. Learning in both of these types of camps was embedded in recreation. The third type of camp, pedagogical and recreational summer camps, had clearly demarcated times for goal-specific learning and recreation. For example, children in these camps might have concentrated on learned academic lessons in the mornings and participated in recreational or sports activities in the afternoons. In the following sections, we discuss the play content and outcomes of the fourteen camps.¹⁸ Throughout the paper, present tense is used to refer to camps that are still held each year and past tense to refer to camps that are no longer or rarely held.

Type 1: Recreational summer camps

Four camps offered recreational activities exclusively: Camp Logan served children with significant behavior problems; An unnamed inclusive day camp incorporated children with autism; Camp Nugget accommodates children with various special needs; And a Ronald McDonald Camp caters to children with

cancer (see table 2). These camps differed, however, in the extent to which campers’ special needs were the focus of intervention. Descriptions of camps and camper outcomes are provided in order of those most to least focused on specific needs.¹⁹

Camp Logan, operated by the South Carolina Department of Mental Health, was a residential, therapeutic summer camp for children with significant behavior problems. Camp activities included canoeing, noncompetitive sports, camping, swimming, cooperative games, and field trips (e.g., roller skating). A contingency point system was embedded within camp activities to improve self-help skills, compliance, peer relations, participation, and behavior. Campers who earned points received rewards such as extra recreational time. Individualized behavior treatments were also implemented within the camp environment. Several pre-camp and post-camp measures were collected in the summer of 1980 as part of a camp evaluation. Mothers completed the Self-Control Rating Scale (SCRS), the Walker Problem Behavior Identification Checklist (WPBIC), and the Comprehensive Assessment of Mastery and Problems (CAMP) six weeks before and four to six months after the camp. Campers completed the Children’s Action Tendency Scale (CATS), a self-reporting measure of aggressiveness, several times during the camp session. Mental health therapists also

Reference	Camp Name/ Location	Population	N	Camp Design/Focus	Organized Play Activities*	Purpose of Article	Reported Camper Outcomes
McCammon et al. (1983)	Camp Logan/ South Carolina	BEH 8–14 yrs	46	6-week residential; therapeutic focus	Water play, sports, campcraft, games, roller skating	PD CE	social
Brookman et al. (2003)	Santa Barbara, CA	AU 4–10 yrs	200 (8 with AU)	1- to 3-week inclusive day camp; social and behavioral goals	Water play, performing arts, arts and crafts, rock climbing, gymnastics	PD	social
Kress & Lavay (2006)	Camp Nugget/ Long Beach, CA	DD, ID, AU 5–12 yrs	40	4-week day camp; language skills, social interactions, spatial awareness	Water play, sports, ropes course, games, fitness activities	PD	identity social physical cognitive
Meltzer & Rourke (2005)	Ronald McDonald Camp/ Greeley, PA	oncology patients 13–18 yrs	56	1-week residential; no structured or planned activities	Water play, sports, horseback riding, archery, campcraft, arts and crafts, yoga	CE	identity

PD = program description, CE = camper evaluation

BEH = significant behavior problems, AU = autism, DD = developmental disabilities, ID = intellectual disabilities

*Categories of play activities were adapted from Alan V. Saporin and Elmer D. Mitchell, *The Theory of Play and Recreation*, 3rd ed., (1961), 447–49. Campcraft refers to activities such as campfire building, campfire cooking, hiking, and tent building.

Table 2. Summary of Experiences and Outcomes at Type I Camps

completed the WPBIC on campers before and after their camp experiences. A group of youth matched by age, sex, race, and level of adjustment that received local mental health services during the summer served as a comparison group. Results from the scales were combined to form different areas of functioning. More youth from Camp Logan improved in the areas of social withdrawal, distractibility, and peer relations than those in the comparison group. In fact, between 25 percent and 50 percent of youth in the comparison group showed deterioration in these areas.²⁰

One of the two inclusive summer camps from our review was a university-sponsored day camp in California designed to improve the social skills of children with autism. University students served as aides during the camp session, a service provided in answer to parents' requests. Camp personnel arranged the campers in groups with same-age peers, and the groups participated in play activities such as swimming, dancing, rock climbing, engaging in gymnastics, creating works of art, and playing games. Campers with autism had individualized social and behavioral goals. The article provided only anecdotal evidence of the effectiveness of this camp. The presence of individual aides made it possible for campers with autism to fully participate in activities. Typically developing children, regular camp counselors, and parents also benefited from their inclusion.²¹

Camp Nugget offers recreational activities and focuses less on children's needs. It is a university-sponsored four-week day camp for children with special needs such as developmental and intellectual disabilities and autism. In 2004 a modified ropes course was integrated into the program once a week to encourage physical activity, social interaction, problem solving, and cooperation. Ropes courses are adventure-based education programs in which teams work together to complete challenges such as passing through a "spider web" without touching the rope. Challenges were modified as needed (e.g., spaces in the "spider web" were widened) to ensure success. According to the camp website, Camp Nugget also offers swimming, sports, and games, and the camp serves as a practicum experience for physical education majors. Anecdotal accounts of improvement during the ropes course included increased attention (particularly for children with autism), self-esteem, problem-solving abilities, and teamwork. Challenges also promoted spatial awareness, communication, and conceptual knowledge (e.g., color concepts). Children discovered that they were capable of completing tasks they were hesitant to do (e.g., climbing over a twelve-foot wall).²²

Perhaps the camp that best exemplifies summer camps in this category is the Ronald McDonald Camp outside Philadelphia, a week-long camp for adolescents with cancer. Play activities include swimming, arts and crafts, boating, and archery. The camp session reported in the article included no structured or planned activities that focused on cancer. Because the camp caters specifically to adolescents with cancer, its campers benefit from living and playing with others like themselves, in other words, with a group of peers. Campers completed the Self-Perception Profile for Adolescents (SPPA) and the Children's Loneliness and Social Satisfaction Questionnaire (CLSSQ) on the first and last days of camp. Peer comparison ratings on the last day of camp indicated that adolescents identified more with camp peers than with home peers. Furthermore, campers who felt different from home peers were more likely to report being lonely, socially isolated, unhappy with their appearance, and lacking self-esteem. Scores on the SPPA (perceived social acceptance, physical appearance, and global self-worth) were statistically higher when campers compared themselves to camp peers than when they made comparisons to home peers. Unexpectedly, adolescents with cancer did not report less loneliness on the last day of camp, perhaps because they anticipated returning to "normal" life and losing their friends at camp.²³

Type II: Noncompetitive sports summer camps

Five camps had a focus on sports: the National Sports Education Camps Project and Camp Abilities for children with visual impairments (VI); an unnamed camp for children who are obese; an unnamed camp for boys with ADHD; and Camp Shriver for children with mild intellectual disabilities all focus on sports (see table 3). Most of these camps concentrated on helping children overcome obstacles specific to their special needs (e.g., VI, obesity). The ADHD camp promoted sportsmanship, and Camp Shriver, the only other inclusive camp in our review, promotes social inclusion of children with special needs among typical children.²⁴

The National Sports Education Camps Project, a partnership of Western Michigan University and the United States Association of Blind Athletes, is designed to provide short-term specialized physical education for children with VI. Camps across the nation provide thirty hours of instruction in which adolescents learn sports-specific skills (e.g., wrestling, track and field, bowling, goal ball, and gymnastics) and younger children learn basic skills such as running and jumping as well as skills for specific sports. Before camp, nearly

Reference	Camp Name/ Location	Population	N	Camp Design/Focus	Organized Play Activities ^a	Purpose of Article	Reported Camper Outcomes
Ponchillia et al. (2005)	Nat'l Sports Education Camp/ nationwide	VI 10–18 yrs	144 (2001) 177 (2002)	1-week residential; basic and advanced clinics	Sports, bowling, gymnastics	PD CE	identity physical
Lieberman & Lepore (1998)	Camp Abilities/ Brockport, NY	VI (age not specified)	not given	1-week residential; sports and physical activities	Water play, sports, horseback riding, archery, campcraft, performing arts, cycling, gymnastics, roller blading	PD	identity physical
Gately et al. (2002)	Massachusetts	obesity 10–16 yrs	194, 102 at follow- up	8-week residential; sport skills and exercise; dietary education; parent training	Water play, sports, aerobics, resistance training	PD CE	physical
Hupp & Reitman (1999)	Louisiana	ADHD 8–11 yrs	10 (results for 3 boys)	3-week day camp; academics and basketball; focus on sportsmanship	Sports	PD CE	social physical
Siperstein et al. (2009)	Camp Shiver/ Boston, MA	mild ID 8–13 yrs	67 (29 with ID)	4-week inclusive day camp; noncompetitive sports	Water play, sports, arts and crafts, team-building abilities	PD CE	social physical

PD = program description, CE = camper evaluation

ID = intellectual disabilities, VI = visual impairment, ADHD = attention-deficit/hyperactivity disorder

^aCategories of play activities were adapted from Alan V. Sabora and Elmer D. Mitchell, *The Theory of Play and Recreation*, 3rd ed., (1961), 447–49. Campcraft refers to activities such as campfire building, campfire cooking, hiking, and tent building.

Table 3. Summary of Experiences and Outcomes at Type II Camps

all youth with VI said that they loved sports, but 42 percent had limited or no access to physical education in school. Before and after the camp sessions, campers completed the Sports Camp Evaluation Instrument, which measured sports attitudes (a typical yes or no statement would be “I consider myself a good athlete”) and knowledge of sports (a typical true or false statement would be “A shot put is thrown the same way as a baseball”). Pre-camp and post-camp sports skills were assessed with distance measurements of throws and jumps. Campers made significant gains in attitudes, knowledge, and sports skills. Campers also learned how to adapt sports, which likely has a positive impact on future play opportunities and social development. Many participants reported that they most enjoyed being with VI peers, which indicates that campers might have also benefited from disability culture.²⁵

Camp Abilities, a university-sponsored summer camp, provides sports and physical activities for youth with VI and also serves as a practicum experience for physical education majors. Campers participate in mandatory small-group instruction in swimming and track and field, and they can choose other sports as

well, which include roller blading, canoeing, gymnastics, archery, tandem biking, beep baseball, goal ball, and bowling. The camp also offers recreational activities such as horseback riding, camping, dancing, talent shows, water games, and field events. The camp staff sends letters and photographs explaining its activities and adaptations to campers' parents and physical education teachers. The article provides only anecdotal evidence of improvement. Campers made gains in overall motor skills, specifically in swimming. Camper independence was fostered by guide wires throughout the camp grounds, and trial-and-error exploration and discovery were encouraged. Children learned new, appropriate leisure-time activities and enjoyed meeting new friends. Finally, families reported that the camp provided a welcomed break from the challenges of everyday routines.²⁶

A residential weight-loss camp in Massachusetts combined diet, education, and physical activity to treat obese and overweight children. Physical activity focused on developing campers' sports skills and fitness in five daily sessions of aerobic, water-based (e.g., water polo), circuit-based (e.g., resistance training), and game-based (e.g., football, basketball) sessions. To help keep them motivated, campers chose the activities and social interaction they enjoyed. Although informal education sessions that included quizzes and competitions were held twice weekly, we included this camp in the group of sports summer camps because sports was its major component. Campers' body mass index (BMI) was assessed weekly. A significant reduction (13 percent) in BMI occurred from baseline to the last week of camp. Follow-up measurements of the children who returned to camp the following summer revealed that, although the average BMI had increased by 6 percent, 40 percent of the participants had lower BMIs than when they left camp the previous summer, and over 90 percent had lower BMI scores than when they began camp a year before. The success of this weight-loss camp was attributed to its sports focus. Other treatments, such as exercise prescription, may not be as successful "because they [do] not teach participants that physical activity, exercise and sport can be fun. . . ."²⁷

A university-affiliated day camp for children with ADHD aimed to improve boys' basketball skills and sportsmanship. Although the camp had academic sessions in the morning and thus could be included in the final group of camps, we designated it a sports summer camp because the article did not focus on the content of the academic sessions. Children with ADHD often experience athletic failure, defined as "lack of knowledge necessary for effective play, or social behavior or athletic performance which is so poor that it

results in other children denying the child opportunities to play (rejection).”²⁸ Basketball trainings lasted an hour and a half each day. The camp measured progress in a number of ways: it tested the campers’ dribbling and shooting skills, and staff observed campers’ game performances. On the Basketball Interest Inventory and Social Validity Index, the campers indicated the extent to which they agreed with statements on basketball and satisfaction with the camp. After twenty short basketball games had been played, the camp launched the second phase of training, beginning with a discussion about good sportsmanship. During the second phase, staff provided immediate reinforcement of sportsmanlike behavior. The boys made fewer dribbling errors and demonstrated good sportsmanship more often in the games they played in the second phase. In fact, there were no instances of unsportsmanlike behavior during the period of reinforcement. After the camp, the boys reported significantly higher interest in basketball, and they said that they liked the camp very much.²⁹

Camp Shriver Boston, affiliated with the Special Olympics, fully includes campers with mild intellectual disabilities (ID) in teams with typically developing peers. All campers participate equally in activities with no differentiation between campers with special needs and those without them. Children receive instruction in swimming, basketball, and soccer. The camp also allots time for free play, free swimming, and arts and crafts. At the end of the four-week day camp session, campers were asked who they “hung out with” and who were the new friends they made at camp. Almost all typically developing children named at least one child with ID as a companion, and children with and without ID received equal numbers of new friend nominations. In fact, only two children with ID did not receive any nominations. Athletic ability (as measured by level of independence on skills tests in swimming, basketball, and soccer) significantly correlated with the number of friend nominations received.³⁰

Type III: Pedagogical and recreational summer camps

Five camps had clearly demarcated times for instruction and recreation: Camp Discovery for children with diabetes; Camp Glencoe for children with dyslexia; Harlem RBI for inner-city youth; the Hebrew Academy for Special Children for youth with various developmental disabilities; and Puzzles, Mysteries, and Picasso for twice-exceptional children (see table 4). The educational components of these camps focused on improving youths’ skills, usually in academics. The recreational components of the camps in this section varied.³¹

Reference	Camp Name/ Location	Population	N	Camp Design/Focus	Organized Play Activities ^a	Purpose of Article	Reported Camper Outcomes
Hunter et al. (2006)	Camp Discovery/ Kansas	Type 1 diabetes 7–16 yrs	163	1-week residential; self- esteem, physical activity, educational sessions	Water play, archery, campcraft, arts and crafts, nature activities	PD CE	identity social physical cognitive
Westervelt et al. (1998)	Camp Glencoe ^b / Baltimore, MD	dyslexia 9–14 yrs	48	6-week residential; reading, recreational activities, self- esteem	Sports, nonsports competitions	PD CE	identity cognitive
Berlin et al. (2007)	Harlem RBI/ East Harlem, NY	inner-city youth 9–12 yrs	not given	7-week day camp; literacy, baseball, softball	Sports	PD CE	identity social cognitive
Kahn (2002)	Hebrew Academy for Special Children/ Brooklyn, NY	various DD 6–21 yrs	172 (reports from 67 parents)	6-week residential; classroom academics, leisure activities social skills	Water play, sports, performing arts, arts and crafts, roller skating, nature center, cooking, horticulture	PE CE	identity social physical cognitive
Yssel et al. (2005)	Puzzles, Mystery, & Picasso/ Muncie, IN	twice- exceptional (gifted and LD) 11–14 yrs	14	1-week residential; science, art, and social/emotional skill development	Arts and crafts, scavenger hunts, mystery-solving activities	PD	identity cognitive

PD = program description, CE = camper evaluation, PE = program evaluation
DD = developmental disabilities, LD = learning disabilities

^a Categories of play activities were adapted from Alan V. Saporin and Elmer D. Mitchell, *The Theory of Play and Recreation*, 3rd ed., (1961), 447–49. Campcraft refers to activities such as campfire building, campfire cooking, hiking, and tent building.

^b Camp Glencoe ended in 2008 after 16 years of operation. Camp Jenicy, a co-ed day camp for ages 6 to 11, addresses many of the same learning issues as Camp Glencoe. (Mark Westervelt, personal communication)

Table 4. Summary of Experiences and Outcomes at Type III Camps

Camp Discovery, sponsored by the American Diabetes Association, offered children with Type 1 diabetes opportunities to play and learn in a peer group with similar needs. Goals of the camp were to increase self-management skills, improve self-esteem, and encourage participation in activities. Recreational opportunities included common summer camp activities such as swimming, archery, nature activities, camping, and arts and crafts. The daily educational component included lessons on nutrition, exercise, and self-care. In 1999 campers and parents completed pre-camp, post-camp, and three-month follow-up evaluations including the Self-Management Skills Checklist, Diabetes Family Responsibility Questionnaire, an activity survey, the Self-Perception Profile, and the Kansas Coping Inventory for Children. Campers did not make significant post-camp improvements in various self-management objectives (e.g., administering insulin; understanding the relationship between diet, exercise, and insulin; and planning meals and snacks). Campers also generally did not show

significant improvements in using coping strategies. Significant changes did occur in perceived friendship competence for ninth and tenth graders (the oldest campers) from pre-camp to post-camp, but this perceived competence was not maintained at the three-month follow-up. Ratings of self-worth increased over time for children in elementary school, but decreased for older campers. Almost half of the campers learned a new activity at camp, about 90 percent reported improved skills in an activity, and older campers reported spending more time in activities as a result of the camp. Satisfaction ratings were high for both campers and parents.³²

Two camps aimed to improve campers' reading skills. Camp Glencoe, operated by a school for children with language-based learning difficulties, provided a structured day for children diagnosed with dyslexia. Campers received one-on-one reading instruction every morning and participated in planned recreational activities in the afternoons. Athletic performance was recognized, but there were also competitions and activities for those with less athletic competence. For example, the camp staged staring (no blinking) contests. Both the academic and recreational camp components maintained an explicit focus on building children's self-esteem. Testing sessions before and after the camp included reading subtests from the Woodcock Johnson-Revised, the Diagnostic Potential Spelling Test, and the Gray Oral Reading Test-3. The Self-Description Questionnaire-I was administered to assess campers' self-concept in nonacademic and academic areas. Pre-camp assessments revealed that campers' self-concept in reading, general school abilities, physical abilities, and appearance was lower than the national norm. After the camp, significant increases in phonics skills, reading accuracy, and spelling were noted. There was also a significant increase in total self-esteem scores, reflected by improvements in both academic and nonacademic areas. Children from private schools demonstrated the greatest improvements in self-concept, possibly because they were accustomed to comparing themselves to a more competitive academic group. This led to the conclusion that "homogenous grouping of dyslexic students may be more helpful for self-esteem development than the prevailing practice of universal inclusion."³³

Harlem RBI in New York also provides reading instruction. The REAL (Reading and Enrichment Academy for Learning) Kids program has several goals, including improving children's attitudes toward reading, conflict-resolution skills, speaking and listening skills, and physical health. The children receive daily reading instruction. The recreational component of Harlem RBI includes a competitive baseball and softball league. The day camp ends with a

one-week overnight camp. A 2005 evaluation revealed that about 90 percent of the campers improved or maintained their reading scores over the summer and reported that they enjoyed reading more after the camp. More than 90 percent of campers' parents reported that their children tried harder in school than they used to, and almost all children reported that they challenged themselves to do better. In the area of social skills, 75 percent of children improved their ability to praise, motivate, and support peers.³⁴

The Hebrew Academy for Special Children (HASC) in Brooklyn teaches children and adults with various developmental disabilities. The goal of the summer program is to enhance the educational achievement of its campers. Lessons learned in the classroom (guided by students' Individual Education Plans [IEPs]) are coordinated with after-school activities so that campers can incorporate classroom experiences into activities of daily living. Campers engage in age-appropriate leisure activities such as horticulture, cooking clubs, drama, dance, and art because HASC operates under the philosophy that children learn many skills from participation in hobbies. For the 2001 session, HASC collected data using various questionnaires and observations—including a parent questionnaire. According to parental reports, students made gains in social skills, speech and communication skills, gross motor skills, self-feeding, dressing, washing, and fine motor skills (the list goes from most to least improvement). The majority of parents reported reduced stress when their camper returned home, and all responding parents would recommend the program to other families.³⁵

The final Type III summer camp was unique in its programming and in the population it served. Puzzles, Mysteries, and Picasso was a university-sponsored enrichment program for children who were twice exceptional (i.e., gifted in some areas and learning disabled in others). These children are often discouraged in traditional learning environments because so much time is spent on their weaknesses. The focus of the camp was on the campers' strengths (science, art, and computers). Campers' areas of weakness were in reading and written expression. The culminating camp activity required campers to solve a murder mystery with an art theme. During the week, children participated in science lessons on chemistry, biology, and forensics, as well as art lessons on criticism and aesthetics. Only anecdotal evidence is offered, but students generally enjoyed the camp's theme. Parental feedback was overwhelmingly positive, and one parent commented that her child retained facts about art and shared them with the family when they visited a museum. The critical thinking skills of the

students were enhanced by the crime-solving component, and their self-esteem appeared to improve from being around peers.³⁶

Conclusion and Discussion

Findings from all of the articles we reviewed indicate that children with various special needs experience different benefits from a range of summer camp experiences. In addition to the identity, social, and physical summer camp outcomes reported for typically developing children (see table 1), some camps for children with special needs also reported positive cognitive outcomes, such as learning a new skill that was not related to physical activity. As seen in tables 2, 3, and 4, nine articles reported identity outcomes, eight reported social outcomes, eight reported physical outcomes, and six reported cognitive outcomes. It is possible, of course, that campers benefited in areas not reported or measured. Additional research and evaluations might confirm for parents, schools, and grant-funding agencies that summer camps provide positive experiences for children with special needs.

Our review supports the importance of disability culture for children with special needs and suggests that it can be an outcome of noninclusive summer camp experiences. Four articles referred to this phenomenon in some manner. The descriptions of the camps for children with dyslexia and for twice-exceptional children suggested that a group of peers improved campers' self-esteem. Van Westervelt and colleagues, in fact, suggest that children with dyslexia would not benefit as much from inclusive settings.³⁷ More convincing evidence comes from children with VI who attended the National Sports Education Camps and reported that their favorite part of camp was being with VI peers. Paul Ponchillia and colleagues contend that such peer support, though beneficial, is difficult to measure.³⁸ Lisa Meltzer and Mary Rourke seem to have been successful capturing the effect of disability culture with measurements of peer comparison and self-perception. They showed that children with cancer had higher perceived self-competence when they compared themselves to peers with cancer.³⁹

Although each of the fourteen articles we reviewed described play activities within the camps, the terms *play* or *fun* (or related terms) were only used in nine of them. Examination of the different types of camps reveals a staggering discrepancy between recreational summer camps (Type I) and the other

types of camps. Only one of the four Type I camp articles referred to play, and it used the term *recreational program* to describe play activities at Camp Logan. We examined camp websites to determine if descriptions generated by the camps themselves used terminology related to play. We located two Type I camp websites. The website for the Ronald McDonald Camp touts the camp as “a week of fun.”⁴⁰

Given the sports emphasis in the Type II camps, articles focused on organized play-related activities. As might be expected from such a focus, all five of the articles used the words *play* and *fun* or similar terms. The article describing Camp Abilities used *leisure time* and *recreational experiences* throughout the article. The educational activities at the camp for children with obesity were described as *fun type* and *fun based*.⁴¹ Four of the five articles describing summer camps with separate times for instruction and recreation (Type III) used the words *play* or *fun*. The HASC evaluation used the terms *recreational* and *leisure activities*, and the term *play* was used several times in the parent handbook section. The Puzzles, Mysteries, and Picasso camp article actually used the word *play* in a negative connotation to describe the behavior of children with ADHD.⁴²

Despite the fact that nine articles used play-related terminology, only three studies linked measurable outcomes directly to play. Perhaps the study of Camp Shriver, the inclusive camp for children with mild ID, did this most effectively by correlating levels of play independence with the number of friendship nominations.⁴³ Had the investigators obtained pre-camp and post-camp measures of peer comparisons and self-perception, they also might have concluded that the camp improved the friendship skills of children with special needs. The other two studies that linked play to outcomes also reported on sports summer camps. Boys with ADHD took more shots and made more passes in basketball games when good sportsmanship was reinforced, suggesting that the corresponding increase in sportsmanlike behavior had a positive effect on game performance.⁴⁴ In a camp of longer duration, reinforcement could be phased out to determine whether sportsmanlike behavior continues as a result of improved performance. Finally, children with VI at National Sports Education Camps increased their independence and self-esteem as a result of learning how to adapt play experiences.⁴⁵

Heather Hunter and colleagues contend that “there is a staggering discrepancy between the number of camps in existence and the number of published articles pertaining to the systematic evaluation of these camps.”⁴⁶ Among the

studies we were able to locate, few attempted to account for the role of play or that of the camp environment itself. Organized summer camps are an important component of the play movement in America. They fulfill numerous roles, including recreation, socialization, and education. The typical play activities are not in themselves the most important aspect of summer camps. Rather, it is the setting and camaraderie of organized camps that give them recreational significance, but measuring social and environmental constructs such as play, recreation, fellowship, and attitudes can be difficult.⁴⁷

The evaluation of Camp Logan, though dated, is the only study we found that used a comparison group (i.e., that compared outcomes for children with special needs who did and did not participate in a summer camp). It is likely that the increased gains in the camp group resulted from the play activities because during them the campers earned points for which they received rewards such as additional recreational time.⁴⁸ It would have been worthwhile to examine whether points earned, and thus the amount of time spent in extra play, predicted the degree of improvement. Nonetheless, study designs that include comparison groups are critical for understanding the role of recreational camp environments. For example, comparisons of children from Camp Glencoe and a matched group of children who received the same kind of reading instruction in a traditional environment might uncover whether the camp environment played a role in children's improved self-concepts and reading abilities. Without knowledge of benefits unique to summer camps, parents and educators may opt for other interventions for children with special needs.

Camps that aim to increase children's play can investigate whether there are changes in the types of activities children enjoy before and after camp, the degree of participation when campers return to their home environments, and whether families and schools are able to implement suggestions so that campers continue to participate in and explore activities learned at camp. Even in articles of a more descriptive nature, simple measures such as camper observations, interviews, focus groups, and journaling can uncover whether play at camps is fun or motivating and whether it contributes to improvements. These methods could also reveal the importance of a peer group and disability culture to children with special needs.

Finally, although camps provide ideal settings, experiences, and participants for studies examining the impact of play on learning, they also come with some inherent constraints. The primary goals of summer camps are social and thera-

peutic, not to produce research, and camp organizers typically are not trained in research methodology. University researchers may also face barriers when investigating camp environments. For example, although the evaluation of Camp Discovery aimed to investigate the impact of the overall camp experience, the American Diabetes Association would not allow researchers to collect data during the camp session itself.⁴⁹ The type of information that could have been gathered during both the recreational and instructional activities of the camp (e.g., interviews, observations, and lifestyle and athletic skill tests) might have uncovered additional outcomes that are not easily captured with pre-camp and post-camp self-reporting measures. Effective research requires partnerships between scholars and camp officials or sponsors.

This article has illustrated both the need to pursue camp-related research from a play perspective and the challenges in doing so. Although the history of the American camp and an increased understanding of child play can both be dated to the turn of the twentieth century, scholarship combining the two areas is in its infancy. We hope to see more scholarly consideration of play in recreational summer camps for children with special needs.

APPENDIX : ONLINE CAMP DIRECTORIES

American Camp Association

http://find.acacamps.org/finding_advanced.php

CampResource.com

<http://www.campresource.com/summer-camps/special-needs-camps.cfm>

Family Support Network of North Carolina

<http://fsnnc.med.unc.edu/camps/campSearch.asp>

KidsCamps.com

<http://kidscamps.com/specialneeds-camps.camp>

NOTES

1. The first summer camp for boys in the United States was held by the Gunn family in 1861 in Connecticut (<http://www.acacamp.org/anniversary/timeline>). Estimates of camp attendance come from http://www.pittsburghlive.com/x/pittsburghtrib/s_337226.html, which includes statistics from the National Camp Association; Karla A. Henderson, M. Deborah Bialeschki, and Penny A. James, "Overview of Camp Research," *Child and*

Adolescent Psychiatric Clinics of North America 16 (2007): 755–67; and the American Camp Association, (ACA, previously known as the American Camping Association).

2. http://en.wikipedia.org/wiki/Summer_camp.

3. M. Sherril Moon, Paula Rogerson, and Cheska Komissar, “Including Children with Disabilities at Summer Day Camps,” in *Making Schools and Community Recreation Fun for Everyone: Places and Ways to Integrate*, ed. M. Sherril Moon (1994), 193–208.

4. Brian Sutton-Smith, *The Ambiguity of Play* (1997); William R. Burch, Jr., “The Play World of Camping: Research into the Social Meaning of Outdoor Recreation,” *American Journal of Sociology* 70 (1965): 604–12.

5. http://www.shelburnemuseum.org/education/summer_camps.php; Gary N. Siperstein, Sarah Pociask, and Kristy Barnes, “Let’s ALL Play: Helping Make Inclusion in Summer Camps a Success,” *Camping Magazine* 82 (2009), http://www.acacamps.org/campmag/issues/0911/lets_all_play.php.

6. Bradley A. Warady, “Therapeutic Camping for Children with End-stage Renal Disease,” *Pediatric Nephrology* 8 (1994): 387–90 evaluated twenty camps for children with end-stage renal disease.

7. For a description of city play and child saving see Howard Chudacoff, *Children at Play: An American History* (2007), 98–111; Leslie Paris, *Children’s Nature: The Rise of the American Summer Camp* (2008), 55–60; Abigail A. Van Slyck, *A Manufactured Wilderness* (2006), 45. Eva Nwokah, “Historical Changes in Infant Toys, 1865–1930,” in *From Children to Red Hatters: Diverse Images and Issues of Play*, Play and Culture Studies 8, ed. David Kushner (2009), 54–73, describes how, during the Progressive Era, social awareness and the survival of more children, who were also living longer than a few months, resulted in increased concern about their welfare. This included the need to improve health conditions during the hot summers related to child mortality especially for families in cities.

8. Eleanor Eells, *Eleanor Eells’ History of Organized Camping: The First 100 Years* (1986), 122–26.

9. Martin E. Block, Mel L. Horton, and Timothy D. Davis, “A Camp Inclusion Model,” in *Including People with Disabilities in Camp Programs*, ed. Glenn M. Roswal, Karen J. Dowd, and Jerry W. Bynum (1997), 19–26.

10. Donna L. Goodwin and Kerri Staples, “The Meaning of Summer Camp Experiences to Youths with Disabilities,” *Adapted Physical Activity Quarterly* 22 (2005): 160–78. Children with *special needs* refers to children with disabilities or developmental delay. Our article refers to children with *special needs* and children with *disabilities* interchangeably. This follows a trend by several authors including Ruth Wilson, *Special Education Needs in the Early Years*, 2nd ed. (2003) and Richard M. Gargiulo and Jennifer L. Kilgo, *Young Children with Special Needs*, 2nd ed. (2005). Although the Individuals with Disabilities Act 2004 uses the term *disabilities*, we opted for the interchangeable term *special needs* to give us a broader interpretation of challenges and to follow usage by the Federation for Children with Special Needs (<http://fcsn.org>) and in the name of the annual, international conference, “Young Children with

Special Needs and Their Families,” held by the Division for Early Childhood of the Council for Exceptional Children (<http://www.dec-sped.org/Conference>).

11. Wilson, *Special Education Needs in the Early Years*, (2003).

12. https://www.nccarelink.gov/keyword_search.aspx

13. American Camp Association, “Directions: The Youth Development Outcomes of the Camp Experience,” (2005), <http://www.acacamps.org/sites/default/files/images/research/directions.pdf>; Karla A. Henderson, Leslie Scheuler Whitaker, M. Deborah Bialeschki, Margery M. Scanlin, and Christopher A. Thurber, “Summer Camp Experiences: Parental Perceptions of Youth Development Outcomes,” *Journal of Family Issues* 28 (2007): 987–1007; Christopher A. Thurber, Margery M. Scanlin, Leslie Scheuler, and Karla A. Henderson, “Youth Development Outcomes of the Camp Experience: Evidence for Multidimensional Growth,” *Journal of Youth and Adolescence* 36 (2007): 241–54.

14. Steve Brannan, Joel Arick, and Ann Fullerton, “The National Camp Evaluation Project: A National Study of the Effects of Specialized Camps,” *Camping Magazine* 70 (1997): 28–31.

15. Steve Brannan, Joel Arick, Ann Fullerton, and Joyce Harris, “Inclusive Outdoor Programs Benefit Youth: Recent Research on Practices and Effects,” *Camping Magazine* 73 (2000): 26–29.

16. Goodwin and Staples, “The Meaning of Summer Camp Experiences,” 168.

17. Jean P. Hall, “Narrowing the Breach: Can Disability Culture and Full Educational Inclusion be Reconciled?” *Journal of Disability Policy Studies* 13 (2002): 144–52; Susan Stainback, William Stainback, Katheryn East, and Mara Sapon-Shevin, “A Commentary on Inclusion and the Development of a Positive Self-Identity by People with Disabilities,” *Exceptional Children* 60 (1994): 486–90. For an extensive discussion of therapeutic landscapes as an important restorative resource for the reinforcement of increased morale, skills, and independence in persons with disabilities, see Goodwin and Staples, “The Meaning of Summer Camp Experiences,” 163.

18. An exhaustive review of each article is beyond the scope of this article.

19. Susan McCammon, William A. Roberts, Jean Ann Golden, Charles Gibbs, Wayne Holden, and Michael R. McCammon, “Summer Camp as Therapeutic Context: The Camp Logan Program” (paper presented at the 29th Annual Meeting of the Southeastern Psychological Association, Atlanta, GA, March 24, 1983); Lauren Brookman, Mendy Boettcher, Eileen Klein, Daniel Openden, Robert L. Koegel, and Lynn Kern Koegel, “Facilitating Social Interactions in a Community Summer Camp Setting for Children with Autism,” *Journal of Positive Behavior Interventions* 5 (2003): 249–52; Jeff Kress and Barry Lavay, “Traveling on the OutBAC: Challenging Children with Disabilities on a Low Ropes Course,” *Palaestra* 22 (2006): 20–24, 26, 43; Lisa J. Meltzer and Mary T. Rourke, “Oncology Summer Camp: Benefits of Social Comparison,” *Children’s Health Care* 34 (2005): 305–14.

20. McCammon, et al., “Summer Camp as Therapeutic Context.”

21. Brookman, et al., “Facilitating Social Interactions in a Community Summer Camp Setting.”

22. Kress and Lavay, "Traveling on the OutBAC"; California University, Long Beach, "Summer Camps at the Beach," <http://www.csulb.edu/programs/summer-camps/nugget/index.html>. Project Adventure is a nonprofit organization that assists groups in adventure programs, <http://www.pa.org/>.

23. Meltzer and Rourke, "Oncology Summer Camp."

24. Paul E. Ponchillia, Jennifer Armbruster, and Jennipher Wiebold, "The National Sports Education Camps Project: Introducing Sports Skills to Students with Visual Impairments through Short-Term Specialized Instruction," *Journal of Visual Impairment & Blindness* 99 (2005): 685–95; Lauren Lieberman and Monica Lepore, "Camp Abilities: A Developmental Sports Camp for Youths Who Are Visually Impaired," *Palaestra* 14 (1998): 28–31, 46–48; Paul J. Gately, Carlton B. Cooke, Ron J. Butterly, Peter Mackreth, and Sean Carroll, "The Effects of a Children's Summer Camp Programme on Weight Loss, with a 10 Month Follow-Up," *International Journal of Obesity* 24 (2000): 1445–52; Stephen D. A. Hupp and David Reitman, "Improving Sports Skills and Sportsmanship in Children Diagnosed with Attention-Deficit/Hyperactivity Disorder," *Child and Family Behavior Therapy* 21 (1999): 35–51; Gary N. Siperstein, Gary C. Glick, and Robin C. Parker, "Social Inclusion of Children with Intellectual Disabilities in a Recreational Setting," *Intellectual and Developmental Disabilities* 47 (2009): 97–107.

25. Ponchillia, et al., "The National Sports Education Camps Project."

26. Lieberman and Lepore, "Camp Abilities."

27. Gately, et al., "The Effects of a Children's Summer Camp Programme on Weight Loss," 1450. According to recent estimates of childhood obesity, 16 percent of youth aged two to nineteen are considered obese, defined as a body mass index (BMI) greater than the 95th percentile. Obesity may be considered a special need because children who are obese have an increased risk for severe comorbid issues such as Type 2 diabetes and psychosocial issues. As such, these children may benefit from learning new lifestyle behaviors. See Tracy Hampton, "Pediatric Obesity Guidelines Released," *Journal of the American Medical Association* 300 (2008): 2238.

28. Hupp and Reitman, "Improving Sports Skills and Sportsmanship," 50.

29. *Ibid.*, 35–51.

30. Siperstein, et al., "Social Inclusion of Children with Intellectual Disabilities"; Gary N. Siperstein, Gary C. Glick, Coreen M. Harada, Jennifer Norins Bardon, and Robin C. Parker, "Camp Shriver: A Model for Including Children with Intellectual Disabilities in Summer Camp," *Camping Magazine* 80 (2007): 20–27.

31. Heather L. Hunter, Danielle L. Rosnov, Dawn Koontz, and Michael C. Roberts, "Camping Programs for Children with Chronic Illness as a Modality for Recreation, Treatment, and Evaluation: An Example of a Mission-Based Program Evaluation of a Diabetes Camp," *Journal of Clinical Psychology in Medical Settings* 13 (2006): 64–77; Van D. Westervelt, Daniel C. Johnson, Mark D. Westervelt, and Scott Murrill, "Changes in Self-Concept and Academic Skills During a Multimodal Summer Camp Program," *Annals of Dyslexia* 48 (1998): 191–212; Richard A. Berlin, Aaron Dworkin, Ned Eames, Arn Menconi, and Daniel F. Perkins, "Examples of Sports-Based Youth Development

Programs,” *New Directions for Youth Development* 115 (2007): 85–106; Bernard Kahn, *The Hebrew Academy for Special Children’s Summer Program: An Evaluation Report* (2002): 1–145; Nina Yssel, Judith Margison, Tracy Cross, and John Merbler, “Puzzles, Mysteries, and Picasso: A Summer Camp for Students Who Are Gifted and Learning Disabled,” *Teaching Exceptional Children* 38 (2005): 42–46.

32. Hunter, et al., “Camping Programs for Children with Chronic Illness.” Information about the educational component of the camp provided by Michael C. Roberts, personal communication, March 30, 2010.

33. Westervelt, et al., “Changes in Self-Concept and Academic Skills During a Multimodal Summer Camp Program,” 209.

34. Berlin, et al., “Examples of Sports-Based Youth Development Programs”; Harlem RBI, “REAL Kids,” (2010), http://www.harlemrbi.org/index.php?option=com_content&view=article&id=58&Itemid=79.

35. Kahn, *The Hebrew Academy for Special Children’s Summer Program*.

36. Yssel, et al., “Puzzles, Mysteries, and Picasso.”

37. Ibid.; Westervelt, Johnson, et al., “Changes in Self-Concept and Academic Skills During a Multimodal Summer Camp Program,” 209.

38. Ponchillia, et al., “The National Sports Education Camps Project,” 692.

39. Meltzer and Rourke, “Oncology Summer Camp.”

40. McCammon, et al., “Summer Camp as Therapeutic Context,” 31; Philadelphia Ronald McDonald House, “Ronald McDonald Camp,” <http://www.philarmh.org/our-programs/ronald-mcdonald-camp/about-camp/>.

41. Lieberman and Lepore, “Camp Abilities,” 30; Gately, et al., “The Effects of a Children’s Summer Camp Programme on Weight Loss,” 1446–47, 1450.

42. Kahn, *The Hebrew Academy for Special Children’s Summer Program*, 72–144. The last section of the HASC report is a Parent Manual that includes sections on how play helps children learn, how to adapt toys for optimal play, and sample play activity goals; Yssel, et al., “Puzzles, Mysteries, and Picasso,” 44. The following description of the campers uses *play* in a derogatory sense: “. . . many of them demonstrated the typical excessive behaviors associated with ADHD: They crushed empty soda cans, played with objects, and displayed excessive movement while listening and participating.”

43. Siperstein, et al., “Social Inclusion of Children with Intellectual Disabilities,” 103–4.

44. Hupp and Reitman, “Improving Sports Skills and Sportsmanship,” 49.

45. Ponchillia, et al., “The National Sports Education Camps Project,” 691.

46. Hunter, et al., “Camping Programs for Children with Chronic Illness,” 67 (abstract).

47. Allen V. Sapura and Elmer D. Mitchell, “Camping in Education and Recreation,” in *The Theory of Play and Recreation*, 3rd ed. (1961), 429–32.

48. McCammon, et al., “Summer Camp as Therapeutic Context,” 31.

49. Hunter, et al., “Camping Programs for Children with Chronic Illness as a Modality for Recreation, Treatment, and Evaluation,” 78.