☑ CE Article

Physical Education and Transition Planning Experiences Relating to Recreation among Adults Who Are Deafblind: A Recall Analysis

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Structured abstract: *Introduction:* Children who are deafblind have unique educational needs, especially when it comes to developing a foundation for recreation. This foundation includes a well-rounded physical education program. *Purpose:* The purpose of this study was to explore the experiences of adults who are deafblind as they recall their involvement in physical education and transition planning relating to recreation. *Methods:* A panel of experts validated a questionnaire related to participation in physical education, the Individual Education Program (IEP), and transition meetings. Individuals who are deafblind were interviewed at the Seabeck Deafblind Retreat and at the International Deafblind Expo in Orlando, Florida. Data were analyzed by demographics, frequency counts, and qualitative responses to the open-ended questions. *Results:* The study had three major findings: (1) Most participants were involved in their IEP meetings, yet the physical education teacher was not included in these meetings and the need for physical education and accommodations during physical education were not typically addressed. (2) Most participants attended their transition meetings, yet most never discussed recreation or physical activity—let alone how to overcome barriers to their preferred activities. (3) The majority of participants revealed that they are currently not involved in the recreation activities that they want to be. They expressed dissatisfaction with the support they received in the transition process that would have enhanced quality recreation in their lives. *Discussion:* Based on the results presented here, participants were dissatisfied with the lack of physical education teacher involvement with IEP meetings and the limited discussion of recreation and physical activity during transition, which may have caused them to be less prepared for engagement in physical activity and recreation as adults than they might have been if more attention had been paid to these issues. Ensuring that professional preparation programs in both physical education and deafblind education emphasize the importance of modifications to the physical education curriculum as well as involvement of the whole multidisciplinary team in IEP meetings can set the student up for a successful adult life. Last, transition meetings should include the

student's preferred recreation and physical activities as well as discuss the barriers to those activities. Including these topics in every transition meeting may help adolescents who are deafblind navigate their preferred recreation activities in their future. *Implications for practitioners:* Training for current interveners and deafblind specialists should include ideas for modification to physical education. In addition, training for physical education teachers should include how to modify activities for children and youths who are deafblind. Transition training programs throughout the United States should include information about the children's recreation interests (inside and outside of the home) as well as how to overcome barriers they may face in accessing those choices.

According to the Individuals with Disabilities Education Act (IDEA, 2004), *children who are deafblind* are defined as students who have "concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness" (Sec. 300.8). Approximately 9,300 children and young adults (aged 0 to 22 years) are diagnosed in the United States as being deafblind, which is a low-incidence disability (National Center on Deaf-Blindness [NCDB], 2016). The term *deafblind* does not necessarily mean one is completely deaf and blind but refers to a spectrum of those who are within that category.

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There are many reasons a person becomes deafblind. Among the most common are genetic conditions such as Usher syndrome, CHARGE syndrome, and Down syndrome. Usher syndrome, for example, is an inherited autosomal condition that typically results in hearing loss at birth, followed by progressive vision loss caused by retinitis pigmentosa. It is important to note that no matter the cause, deafblindness need not be characterized as a complete loss of either sense, but rather if it is impactful enough that it affects the child's communication and education needs (NCDB, 2016).

The benefits of a physically active lifestyle are well documented and available to all individuals, regardless of ability or disability, who regularly engage in physical activity. For example, regular engagement in physical activity can help to improve overall health, fitness, and health-related quality of life, while reducing the risk for chronic lifestyle-mediated diseases (Cardinal, Kang, Farnsworth II, & Welk, 2015; Haegele, Famelia, & Lee, in press; Jaarsma, Dekker, Koopmans, Dijkstra, & Geertzen, 2014; Lieberman & Stuart, 2002). Unfortunately, there is evidence that individuals who are deafblind

tend not to participate in regular physical activity (Dalby et al., 2009). Furthermore, they tend to report being unsatisfied with their current lack of physical activity during recreational pursuits (Lieberman & Stuart, 2002). A number of barriers have been reported that discourage adults who are deafblind from participating in physical activities; for instance, transportation, guides, time, and money (Lieberman & Stuart, 2002). Transition services are designed to address these barriers during childhood so that those with disabilities can engage in activities in community settings throughout their lives.

Lieberman and Stuart (2002) discussed a number of barriers that may have disengaged those who are deafblind from participating in physical activities, including transportation issues, lack of others to participate with, and a lack of adequate programming (meaning that individuals could not find programs where they could participate). Limited access to transportation and related services can hinder participants' ability to fully gain equal access to community- and fitness-related events, which can also hinder obtaining valuable information related to the prevention of health-related issues. Because individuals who are deafblind tend not to participate in physical activities, they are at greater risk for developing health-related issues associated with sedentary lifestyles, such as obesity (Haegele, Zhu, Lee, & Lieberman, 2016).

Physical activity participation for adults who are deafblind can be greatly affected by school-based practices experienced during youth, such as physical education classes and transition services focusing on recreation (Lieberman, Ponchillia, & Ponchillia, 2013). According to Pan, Frey, Bar-Or, and Longmuir (2005), school-based physical education may be the best setting for individuals with disabilities to learn about physical activity. The Society of Health and Physical Educators of America (SHAPE America, 2014) noted that one of the main goals of physical education is to produce "physically literate" adults who value and participate in physical activity in their lifespans. Allman, Lewis, Lieberman, and Ross (2014) and Haegele and Porretta (2015) noted that properly implemented physical education programming can help develop the fundamental motor and balance skills that are needed by visually impaired and deaf and hard-of-hearing students to maintain a physically active lifestyle. Moreover, physical education programming can contribute to the development of a positive identity and promote pathways to increased physical activity for those who are deafblind (Lieberman, Modell, Ponchillia, & Jackson, 2006; Porcelli, Ungar, Liebenberg, & Trepanier, 2014). Because of the importance of physical education, federal legislation (IDEA) mandates that schools must provide individuals with disabilities with opportunities to participate in physical education including, if necessary, individually designed instruction that is equal to that of peers without disabilities. However, little is known about how those who are deafblind experience physical education, including how involved their physical education teachers are during essential planning exercises such as Individualized Education Program (IEP) goal development.

In addition to physical education programming, transition services may also provide instruction that can enhance

physical activity participation in adulthood. Included as part of an IEP, transition services include planning for and a description of the services to be provided. The content of transition services can, and should, vary and is designed to reflect the student's needs, preferences, and interests, and may include community-based physical activity and recreation (IDEA, 2004). These transition plans must be developed by the time a student reaches age 16, but can begin earlier. Like the IEP itself, guardians must approve all items on a transition plan. When appropriate, the students themselves should be involved in the development of transition plans so that they reflect their interests. A number of barriers have been reported that discourage adults who are deafblind from participating in physical activities (Lieberman & Stuart, 2002). Transition services are designed to address these barriers during childhood so that those with disabilities can engage in activities in community settings.

Individuals who are deafblind can learn about how to engage in recreational physical activity during school-based physical education or transition services. However, little is currently known about what experiences those who are deafblind have during these educational practices. Therefore, the purpose of this study was to explore the experiences of adults who are deafblind as they recall their involvement in physical education and transition planning relating to recreation. This retrospective study focused on the childhood experiences that adults (ranging from 23 to 36 years) reflected on. Because of the varying ages of participants, the experiences described in this study should not be viewed as a depiction of the current status of physical education or transition services in schools.

Methods

Instrument

A 25-item questionnaire was utilized to collect data for this study. It was developed with four subsections: demographic information (seven questions), an IEP and physical education plan (four questions), a transition meeting (five questions), and current satisfaction with recreation and physical activity (nine questions). Its purpose was to explore participants' experiences within each of these subsections in an effective and efficient manner. A variety of question formats were utilized, including closed-ended (for example, yes or no and a 1–10 scale) and open-ended (such as short answer) responses. The questionnaire was initially developed by the authors, after which it was sent to a panel of experts to ensure content validity, relevancy, and clarity. The panel of seven individuals included two adapted physical education professionals working in higher education, one higher education professor expert in questionnaire research with over 22 years experience, three adults who are deafblind, and one parent of an individual who is deafblind. After receiving initial feedback from the panel, a number of questions were reworded and the questionnaire was redistributed. Each panel member expressed satisfaction with the final version of the questionnaire.

Participant recruitment and data collection

The target participants for this study were adult-aged individuals who are deafblind during their primary and secondary (K-12) school experience. Participants were

recruited from two organizational meetings for individuals who are deafblind: the 2015 Deafblind Retreat at the Seabeck Conference Center (Seabeck, Washington) and the 2016 International Deafblind Expo (Orlando, Florida). The lead author attended both conferences, and recruited participants in person. The author presented the purpose, inclusion criteria, and data collection procedures of the study to potential participants, and those who agreed to participate were asked to complete the questionnaire.

Participants were offered two options for completing the questionnaire. Most (22 of 26) completed it in an interview protocol in which the lead author asked questions (using sign or tactile sign, when necessary) and recorded answers onto hard copy questionnaires. These interviews took between 30 and 45 minutes and remained in a conversational tone throughout. Participants were assured that they could answer (or not answer) any questions that they would like, and that they could discontinue their participation at any time. In order to support trustworthiness during the data collection process, the interviewer repeated the participants' responses back to them for each open-ended question after they were written down. This method was also necessary because there was only one person recording the answers to each question. In addition to those who completed the questionnaire using the interview protocol, four participants asked to complete the questionnaire electronically and to e-mail the document to the first author. They were sent the document from the lead author at the time of the conversation, and they returned the questionnaires after the meetings concluded. All participants consented to be part of this study, and recruitment and data collection procedures were reviewed and approved by the first author's institutional review board.

Data analysis

After data collection was completed, all hard-copy and electronic data were entered into an Excel spreadsheet. Data from closed-ended and short-response open-ended questions (for example, What recreation, physical activity, or sports do you do now?) were analyzed descriptively, using frequencies and percentages. Several questions, specifically those that asked participants to elaborate, provided follow-up descriptions to support closed-ended answers (for example, asking participants for comments about why they did not attend meetings) and warranted additional analyses; a content-analysis inductive process was utilized for these.

Per the analytic techniques utilized by Haegele and Lieberman (2016), responses on the Excel spreadsheet were organized into themes. Two researchers reviewed the responses to the open-ended questions to develop these themes. Recurring themes were determined to be those that were common for a majority of the participants. Themes were reviewed between researchers and discussed until agreement was reached. Common themes were agreed upon and were summarized with supporting quotes and included in the final manuscript. A description of each theme and the frequency of the responses in each theme are displayed in Table 1.

Results

Results are provided in the four sections that follow the structure of the survey.

Table 1
Comments of meaningfulness of physical education and transition meetings.

	Supportive	Frequency (%)	Critical	Frequency (%)
Physical education	Helped me with basic skills to participate.	3 (12)	Too many team sports in physical education.	2 (8)
	Improved confidence to participate with typically developing people.	1 (4)	Not enough focus on accommodations or modifications.	2 (8)
	Knowledge of how to participate in different sports.	1 (4)	Little help, but not really.	2 (8)
	Helped with team-building skills.	1 (4)	Typically developing kids were the focus, not me.	2 (8)
	Helped me become stronger.	1 (4)	Activities did not align with my life.	1 (4)
			Peer interactions were detrimental to learning.	1 (4)
			Was never taught skill development.	1 (4)
			We just watched people play.	1 (4)
Transition meetings	I set my own goals.	1 (4)	We never discussed physical activity.	18 (69)
	It helped me learn my limits.	1 (4)	Did not attend transition programming.	4 (15)
			I wasn't given resources or supports.	1 (4)
			It did not align with my life.	1 (4)
			Wish they discussed more options in the deafblind community.	1 (4)

Throughout this paper, person-first terminology was used within the voices of the authors; however, language related to disability descriptors used within quotes from participants was left uncensored to respect each participant's conceptualization of disability (Peers, Spencer-Cavaliere, & Eales, 2014).

Participants

A total of 26 individuals successfully completed questionnaires and were included in this study. The participants' age ranged from 23 to 36 ($M = 31.23$; $SD = 5.64$) years, and 50% were female and 50% were male. The majority of participants (54%) reported having a B2 level visual impairment (travel vision), with 27% and 19% reporting B3 (low vision) and B1 (blind) visual impairment levels, respectively. The B1-B3 classification used in this study is a medically based Paralympic classification for blind sport designated by the United States Association for Blind Athletes (USABA). Furthermore, most participants (88%) reported being deaf or hard of hearing (quietest sound: 95dB+), whereas 12% reported being severely deaf or hard of hearing (quietest sound: 70–94dB+). Seventeen (65%) reported having travel vision (or worse) and being profoundly deaf or hard of hearing. The cause of sensory loss varied: 18 (69%) reported having Usher syndrome type 1, two (8%) reported an unnamed genetic condition,

one (4%) reported having neurofibromatosis type 2, one (4%) reported having optic atrophy in combination with nerve damage to his ears, and one (4%) reported that his sensory loss was caused by spinal meningitis. Last, three participants (12%) reported not knowing what the cause of their dual sensory loss was.

IEPs and physical education

Of the 26 participants, most (23 of 26; 88%) reported attending at least some IEP meetings during their K-12 school experience. Of those, however, six noted that they only occasionally attended, or began attending only in high school. Three (12%) noted that they never attended an IEP meeting. Regarding physical education, 19 (73%) reported that physical education goals were not included on their IEPs, five (19%) reported that physical education goals were included, and two (8%) were unable to recall whether or not these goals were included. Although the majority attended their IEP meetings, physical educators did not attend 22 of the 26 participants' (85%) IEP meetings, leaving just four (15%) who reported that their physical education teacher regularly attended IEP meetings.

Participants were asked to share further descriptions of their IEP experiences in relation to physical education in an open-ended format. Of the 26, just three (12%) provided some additional description of these experiences. One, whose physical educator never attended an IEP meeting, explicitly confirmed that physical education was "never discussed in my IEP meetings." Two shared vision-related comments in regard to their physical education experience. One said that he was unaware he was losing his vision, so therefore vision-related accommodations were not discussed for physical education. A participant reported that she:

> Did not disclose my blind[ness] status because I come from a sociocultural standpoint on deafblind people. Deaf culture disregards the measurement of one's hearing level. This principle applies to my standpoint as a deafblind person.

Because of this participant's beliefs about disability, she did not find it appropriate to explicitly disclose her disability to her teachers. The other 23 (88%) participants in this study did not offer additional descriptions regarding their IEP and physical education experiences.

Transition meetings

Twenty-two of the 26 (85%) reported attending their transition meetings. Of those, 13 (50%) reported beginning transition meetings during their senior year of high school (aged 17 to 18 years), whereas six (23%) recalled beginning their transition meetings between the ages of 13 and 16 years (three at 13, two at 14, one at 15). Three (12%) recalled beginning to attend transition meetings at 16 years of age. Four (15%) reported never attending a transition meeting.

Of the 22 participants who attended transition meetings, most (18; 82%) reported never discussing physical activity, recreation, or sport participation during those meetings. Another three (14%) reported that they had an occasional conversation about physical activity, recreation, or sport, and just one (5%) described regularly discussing these topics. Similarly, just one reported discussing

Table 2
Items participants would have liked to discuss in transition meetings.

Desired item	Frequency (*n*)	Percentage (%)
Specific sports and physical activities	8	31
Biking	1	4
Dance	1	4
Golf	1	4
Karate	1	4
Rock climbing	1	4
Swimming	3	12
Yoga	1	4
Walking	1	4
Options, alternative activities, what to do with free time	5	19
Physical activities available for adults who are deafblind	4	15
Accommodations, adaptations, how to overcome barriers	3	12
Communication and independence	2	8
Equipment	1	4
Physical activities available in college	1	4
Safety	1	4

Frequency and percentage exceeded expected maximums because some participants reported responses that were coded multiple times.

barriers to physical activity in the transition meetings (5%), whereas the rest (21 of 22; 95%) reported never discussing barriers. Of the 22 who attended transition meetings, two (9%) said that these meetings were helpful in regard to physical activity, recreation, and sport, and the other 20 (91%) noted that they were not helpful. Participants were asked what they would have preferred to discuss regarding physical activity, recreation, and sport in these transition meetings. Their responses are categorized and displayed in Table 2.

Current Satisfaction with Recreation and Physical Activity

In a dichotomous yes-or-no question, 11 participants (42%) reported being satisfied with their current physical activity participation. Conversely, 15 (58%) reported not being satisfied. The most common physical activities among participants were swimming and walking (54% each). Table 3 shows frequency and percentages of common physical activities reported by the participants. Of the 26, 21 (81%) stated that they would prefer to do more physical activity than they currently do, whereas five (19%) reported not wanting to do more. Of those who would prefer to do more, cycling, tandem cycling, and tricycling were the most commonly reported desired activities. Table 4 shows which additional activities participants had a desire to participate in.

On a scale from 1 (not helpful) to 10 (very helpful), participants scored a mean of 5.9 ($SD = 3.00$, $M = 6.5$), with the middle 50% of answers falling between 4.0 and 8.0, when reporting how helpful physical education was for their current physical activity participation. Eleven (42%) reported critical comments, eight (31%) reported supportive comments,

Table 3
Frequency and percentage of common physical activities among participants.

Physical activity	Frequency (*n*)	Percentage (%)
Swimming	14	54
Walking	14	54
Cycling and tandem cycling	8	31
Running	6	23
Fitness activities and going to the gym	4	16
No physical activities	4	16
Hiking	3	12
Fitness classes	2	8
Kayaking	2	8
Rock climbing	2	8
Yoga	2	8
Basketball	1	4
Bowling	1	4
Golf	1	4
Outdoor water sports (e.g., tubing)	1	4
Rowing	1	4
Skating	1	4
Skiing or snowboarding	1	4

Frequency and percentage exceeded expected maximums because some participants reported responses that were coded multiple times.

and seven (27%) did not report any comments. Similarly, participants scored a mean of 2.6 (SD=3.54, M = 0.5, interquartile range = 5.0) when reporting how helpful transition programming was for their current physical activity participation. Of the 26 participants, 20 (77%) provided critical comments about their transition programming, two (8%) provided supportive comments, and four (15%) did not comment. Participant comments regarding the helpfulness of physical education and transition meetings were coded and summarized in Table 1.

Discussion

The purpose of this study was to explore the experiences of adults who are deafblind as they recalled their involvement in physical education and transition planning relating to recreation. Findings support the fact that children who are deafblind have limited experiences in physical education planning and that their transition programming does not typically address preparation for participation in recreation activities.

Federal legislation (IDEA) mandates that schools must provide school-aged individuals with disabilities with opportunities to participate in physical education. Unfortunately, however, most participants in the current study reported that physical education goals were not included in their IEPs and that physical educators did not attend their IEP meetings. Because IDEA requires physical education as a direct service, all IEPs must address physical education (Lieberman & Houston-Wilson, 2018). Physical education involvement on the IEP team can vary according to the needs of the students. For example, several participants noted that they did not explicitly describe

Table 4
Frequency and percentage of desired physical activities among participants.

Desired physical activity	Frequency (*n*)	Percentage (%)
Cycling, tandem cycling, tricycling	7	27
Exercise or fitness activities	4	15
Mountain or rock climbing	4	15
Yoga	4	15
Martial arts	3	12
No additional physical activities	3	12
Hiking	2	8
Horseback riding	2	8
Snowboarding	2	8
Archery	1	4
Basketball	1	4
Bocce	1	4
Bowling	1	4
Dancing	1	4
Kayaking	1	4
Obstacle course (e.g., tough mudder)	1	4
Running	1	4
Skydiving	1	4
Snowshoeing	1	4
Team building	1	4
Water activities	1	4

Frequency and percentage exceeded expected maximums because some participants reported responses that were coded multiple times.

a need for accommodations in physical education and, therefore, did not need the physical educator to attend the meetings. Yet the situation of not needing accommodations in physical education only accounted for a small percentage of the participants in this study. Therefore, it is logical to suggest that the needs of those with dual sensory disabilities, and the barriers that they tend to experience when attempting to participate in physical activities (Lieberman & Stuart, 2002; Lieberman & MacVicar, 2003), would justify the inclusion of physical education teachers in IEP meetings. Because those who are deafblind can find physical education programming challenging to navigate due to the free-flowing nature of the subject area and potential lighting issues (Moller & Danermarck, 2007), having physical educators participate in IEP meetings and become aware of the students' specific needs may enhance the success of those who are deafblind in these classes. In addition, it would be beneficial for the physical educator to attend IEP meetings to share the curriculum and current successes of the student who is deafblind with the multidisciplinary team.

Transition services should provide these students with the skills they need to engage in activities, including physical activities, in community settings after high school graduation. Unfortunately, most participants in this study noted that physical activity, recreation, and sport participation were never discussed during

their transition meetings. Furthermore, just one stated that they discussed barriers to physical activity and strategies to overcome these barriers.

Because of the lack of instruction regarding physical activity during these transition opportunities, it is likely that students would never learn how to overcome common barriers to participation in physical activity in adulthood, contributing to their dissatisfaction with their adult recreational activities (Dalby et al., 2009; Lieberman & Stuart, 2002). When discussing their preferences for what they would have liked to discuss during transition programming, many participants described wanting to learn about specific physical activities, most of which were individual sports or activities such as biking, dance, or golf. Tellingly, many of the other items that were desired to be discussed included items that have been previously described as barriers to physical activity participation (Lieberman & Stuart, 2002), such as knowing about programming (for instance, options, alternative activities, or what to do with free time) and accommodations.

Previous evidence shows that adults who are deafblind tended not to participate in regular physical activity (Dalby et al., 2009) and are unsatisfied with their physical activity (Lieberman & Stuart, 2002). Somewhat surprisingly, 42% of those in this study described themselves as being satisfied with their current physical activity. Many of them were engaged in individual sports, such as swimming, walking, cycling, running, or fitness activities.

Interestingly, participants reported that physical education classes were more helpful than not in helping them become physically active as adults. However, they reported that their transition programming failed them in this respect; participants reported that they felt as though transition services did not adequately prepare them for physical activity after graduation.

Implications for practitioners

The results of this study provide several important implications for consideration among practitioners. For example, they suggest that it is important that physical educators be included on multidisciplinary teams that assess students' needs, develop IEPs, and plan for transition to adulthood; that students be included in IEP meetings and transition planning activities; and that university programs that prepare specialists who work with these students emphasize the importance of both.

Results support the need for physical educators to be included on multidisciplinary teams that assess students' needs, develop IEPs, and plan for transition to adulthood, which should include physical educators being active members of IEP and transition planning processes. Involving the physical educator in multidisciplinary meetings will allow them to communicate various needs of students in physical activity environments, such as appropriate modifications with lighting, sound, positioning, and communication (Arndt, Lieberman, & Pucci, 2004). In addition, the physical education teacher can share the units in the curriculum that the student will be learning, which can then be pre-taught (Conroy, 2012) or sent home to parents or guardians to work on there.

The results from this study also demonstrate the importance of involving students in IEP and transition planning

activities. This involvement will allow them to have a voice in these meetings as they participate in decisions made about their education programs. Allowing them to have a choice in their education can enhance academic achievement, social adjustment, and quality of life (Brooks & Young, 2011; Cote Sparks & Cote, 2011). Furthermore, providing choices about recreation and physical activities can provide students with opportunities to practice everyday skills such as deciding to be active that will be carried over into all aspects of their lives (Cole, 2008). Giving choices and providing a variety of activities can help youths who are deafblind find lifelong activities.

Last, university programs should prepare specialists (for example, adapted physical education teachers, special education teachers, and teachers of students with visual impairments) to understand and value the input of physical educators and students. This preparation could include training that emphasizes the importance of modifications to the physical education curriculum, as well as involvement of the whole multidisciplinary team in IEP and transition meetings. This process has the potential to set the student up for a successful adult life.

Limitations

There were several limitations in this research. First, all participants were recruited from either the Seabeck Deafblind Retreat or the Deafblind Expo. Because of the nature of these events, the participant group may be more inclined to have an interest in physical activity and recreation. Another limitation is that although all participants reported being deafblind during their K-12 school experiences, some may have had more vision and hearing at that time. This variety of vision and hearing may have fundamentally altered the way in which the participants experienced physical education and transition planning. Last, only one researcher interviewed and recorded the responses to each question. Since the interviewer used sign, or often tactile sign, while also taking notes, some details may have been missed about the participants' experiences.

Conclusions

The current research provides new evidence about transition experiences of adults who are deafblind related to recreation. In this study, adults who are deafblind recalled that, mostly, their physical education teachers did not attend their IEP meetings, and that their transition meetings did not cover recreation or any barrier to recreation. Furthermore, they suggest that there are activities that they would prefer to currently be engaging in, but that they may not have the tools to do so. In order to ensure that every child who is deafblind grows to be a competent and independent adult, more efforts can be made in these weak areas of the curriculum. With some attention and careful planning, children who are deafblind can grow up to be active adults.

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