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Resource Article



Making decisions about assistive technology (AT) with culturally and linguistically diverse families can be challenging for early intervention providers and families. In the KIT article this month, "Family-centered and Culturally Responsive Assistive Technology Decision Making," authors Paretee and Brotherson examine family-centered AT decision making considerations when working with families across cultures.

Family-centered practices must be effectively implemented with all families, they must also be applied to the AT decision making process. In light of family racial, cultural, ethnic, and linguistic diversity, early intervention providers might need to extend extra efforts to ensure that AT decisions mesh with family values, beliefs, and priorities. Without the application of key family-centered practices and regard for unique family cultural values, a family might feel pulled away from AT decisions and appear to show wavering interest or investment in the decisions about AT. They might even abandon the possibility of AT interventions. However, by valuing and supporting each family and collaborating through the AT decision making process the family can be optimally supported ensuring the greatest potential for AT decisions that meet the needs of the child and fit the

family culture, thereby yielding greater family satisfaction.

The AT decision making process must also consider the role of natural environments. That is AT must match the routines and activities that the child participates in at home, in the community, and with the family members, caregivers, peers, and others who interact with the child. By giving full consideration of the individual child and the family's unique and culturally influenced routines and interactions a natural fit can be achieved. In the end, understanding the goals and expectations of the family in light of each family's cultural values is paramount for coupling family-centered practices with AT decision making. Regardless of the professional beliefs regarding AT, the decisions must mesh with the family's priorities for their child as well as their values, beliefs and dynamic circumstances.

AT for infants and toddlers can increase their independence and opportunities to move, communicate, and interact with others. Ultimately, these abilities yield greater self-determination. Erwin and Brown (2003), as referenced in this month's article describe self determination as supporting a child's a) engagement in simple problem solving, b) development of sense of autonomy, and c) ability to impact the world around them" (p. 358). Yet, when working with families of diverse cultures it is important to be aware of the possibility that the family does not equally value self-determination and independence in young children. For example, an Asian family

may value nurturance and interdependence over a child's autonomy and choice making.

Beyond understanding the family's culture, providers must also self-reflect on their own feelings of what is needed for the child and think about how those beliefs mesh or contrast with the family's beliefs. For example, a provider may believe that the AT will provide greater opportunities for the child to make choices and express his/her wants and needs. However, the family may not share the value of individualism; rather they may value collectivism and expecting the child to hold back their requests in support of family decisions or care giving. The value of promoting individual decision makers and independence in young children is not equally valued across cultures. It might be helpful to think about the continuum of cultural from valuing individualism and independence in young children to valuing interdependence and nurturance of young children. In their 2007 book "Understanding Families" Hanson and Lynch described common culture values using continua table (see below).

Cultural Continua Common Across Cultures
Hanson & Lynch (2007) p. 23

Extended family and kinship networks	↔	Small unit families with little reliance on extended family
Interdependence	↔	Individuality
Nurturance of young children	↔	Independence of young children
Time is given	↔	Time is measured
Respect for age, ritual, and tradition	↔	Emphasis on youth, future, and technology
Ownership defined in broad terms	↔	Ownership, individual and specific
Differentiated rights and responsibilities	↔	Equal rights and responsibilities
Harmony	↔	Control

In this month's article, Parette and Robinson use Kalyanpur and Harry (1999) model of "cultural reciprocity" for defining and describing the steps for promoting collaborative AT related decision making with families from culturally diverse backgrounds.

The four steps are found on page 361 of this month's article and are stated below:

Steps for a Posture of AT Cultural Reciprocity

- 1 Identifying values affecting interpretation of family & child's AT needs or in the recommendation for service
- 2 Determining whether the family values professional AT assumptions; if not, determining how family AT perceptions differ from those of professionals
- 3 Acknowledging and giving specific respect to any cultural differences identified, and fully explaining the cultural basis of professional AT assumptions
- 4 Determining most effective way to adapt professional AT interpretations or recommendations to family's value system

Working with families from diverse cultural and linguistic backgrounds presents unique challenges. Using and believing in the bedrock of early intervention, family-centered practices, can help ease these challenges and ultimately ensure AT decisions that truly match the family and

Parette, H. P. & Brotheson, M. J. (2004).
Family-centered and culturally responsive assistive technology decision making.
Infants and Young Children, 17(4), 355-367.

Hanson, M. J. & Lynch, E. W. (2007).
Understanding families approaches to diversity, disability, and risk. Baltimore, MD: Brookes Publishing.

On the WWW

<http://letsplay.buffalo.edu/>



The Let's Play! Project was designed to promote the power of play for young children with disabilities. This project set out to identify supports families can use to refocus on play rather than becoming totally absorbed with the child's clinical and medical needs. Susan Mistrett, the Project Director, and her staff discovered that parents of children with

disabilities would describe their child in terms of diagnosis, therapies received, and specific skills being targeted. What was missing was play.

The goal of the project was to rekindle the value of play for families of children with disabilities while examining the usability and accessibility of toys for young children and providing input to toy manufactures. For example children with vision impairments would benefit from more texture on toys, children with physical disabilities need to be able to use the toy in different positions and may need to use it in a variety of ways, children with learning challenges need easy and inviting toys.

The resource section of this site includes a variety of downloadable resource that can be very helpful. Check out these resources at: <http://letsplay.buffalo.edu/products/index.htm>

What Do the Data Say?

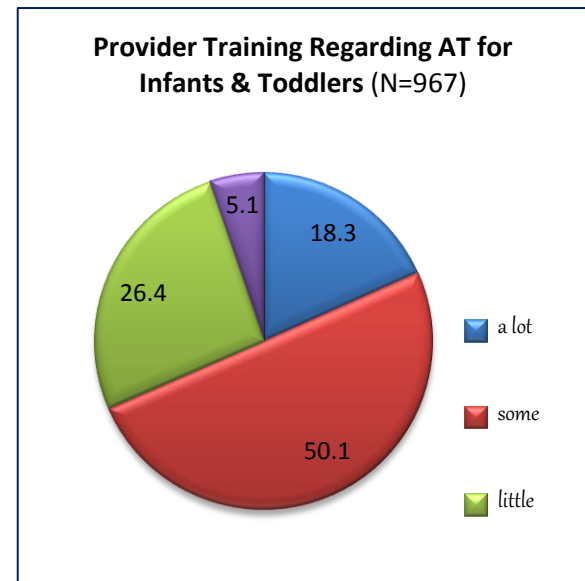
How much training have providers had around AT for infants and toddlers?



Limited provider training and understanding of AT devices and services for infants and toddlers continues to be a common contributing theme for describing the limited use of AT with this very young population. To understand better the extent of training that early intervention providers receive around AT for infants and toddlers Wilcox, Bacon, and Campbell (2001) surveyed a sample of 967 early intervention providers. Each provider worked with early intervention and provided support and services to at least three children per week.

Using a four point scale providers were asked to describe the amount of training they had regarding AT in early intervention. The

response options were “a lot,” “some,” “little,” and “no” training. The following chart illustrates the percentage of replies to each response option.



The majority of respondents (50.1%) reported having “some” training, 26.4% reported having “a lot” of training, and 18.3% and 5.1% reported having “little” and “no” training respectively. Only .2% reported being “unable to judge.”

As the researchers highlighted, these results provide broad insight in to the degree of training providers receive. They do not however provide information about training content, providers training needs, or how training knowledge gained is applied in the context of early intervention.

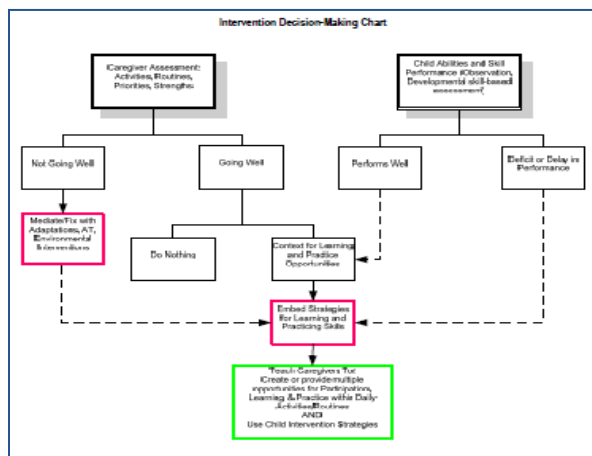
This KIT series on AT in Early Intervention is intended to help contribute to the need for important AT training.

Wilcox, M., Bacon, C., and Campbell, P (2004). National Survey of Parents and Providers Using AT in Early Intervention, *Research Brief Volume 1, Number 3*. Tots n Tech Research Institute. Retrieved from <http://tnt.asu.edu/research/briefs/April2010>.

The Assessment of Caregiver Activities and Routines assesses the degree to which the child's participation in daily activities/routines is meeting the caregiver's expectations and how satisfied the caregiver is with the child's participation in these activities/routines. Based on the caregiver's responses, the provider will have a better understanding of which activities/routines are not going well (and focus

on improving them) and which activities/routines are going well (and focus on embedding strategies for learning functional skills). Ideally, this assessment tool should be used as an interview so that the provider can gain a richer understanding of the family's activities and routines. However, the provider may also use this tool as a checklist.

Intervention Decision-Making Chart

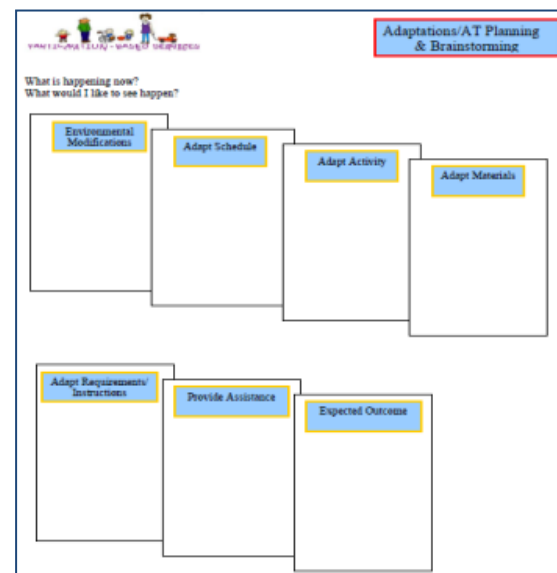


Using information gathered from the Assessment of Caregiver Activities and Routines and from observations of the child's abilities and skill performance, the provider can use the Intervention Decision-Making Chart to inform decision-making about selecting intervention strategies. If an activity/routine is not going well, the provider can focus on developing strategies for improving the child's participation in that activity. For example, if Robert needs to be held up to the sink to wash his hands and he screams and struggles the whole time, a simple footstool would allow him to reach the sink independently. Or, when Malica struggles to communicate what she wants to eat for lunch, her participation could be improved via a simple picture communication device.

When activities and routines are going well, the provider can use these activities/routines as a context for learning and practicing new functional skills. For example, Malica and her

mother love to read books together in the afternoon after naptime and this is a perfect opportunity for her mother to produce single words giving Malica the opportunity to practice saying target words while pointing to the pictures. Or, D'wayn's child care provider made sure she positioned objects away from D'wayn, thereby creating opportunities for her to practice reaching.

Adaptation/AT Planning & Brainstorming Form



Once the child's participation in activities/routines has been assessed, the team can begin to brainstorm ideas for increasing the child's participation in activities/routines that are not going well and ideas for embedding learning opportunities into activities that are going well. Current best practice recommends use of a hierarchy of intervention strategies that go from least intrusive to most intrusive. These strategies include: modifying the environment, adapting the schedule, adapting the activity, adapting materials, adapting requirements/instructions, and providing assistance. Least intrusive strategies modify or adapt the child's environment to promote increased participation in activities/routines. For instance, caregivers focus on reducing ambient noise as a means of increasing a child's ability

to pay attention. More intrusive strategies emphasize modifications that impact direct interactions with the child. For instance, a caregiver who wants a child to complete a multi-step process could provide the child with instructions/directions one-at-a-time.

The Adaptations/AT Planning & Brainstorming form was developed to assist providers/caregivers with thinking about different intervention strategies along the aforementioned hierarchy. The provider/caregiver can note what is currently happening in a particular activity/routine and determine an expected outcome. Using the form, they can list possible ideas for each of the strategies along the hierarchy. AT devices will generally fall into two categories on the hierarchy, environmental modifications involving equipment or positioning and adapting materials. Other types of adaptations, such as adapting an activity or adapting requirements/instructions, help children learn and participate but are not specifically considered AT.

Providers/caregivers should consider the following questions when brainstorming ideas:

- Why am I making the adaptation/AT?
- How will the adaptation/AT improve the activity/routine?
- What steps will I take to make the adaptation/AT?
- How will I know if the adaptation/AT is working? What will I see and hear that will tell me the adaptation has improved or changed the situation?

Once the providers/caregivers have come up with ideas for all of the intervention strategies they should start to implement them into the families' activities/routines, beginning with the least intrusive intervention ideas (environmental modifications). Once an idea has been implemented, the providers/caregivers should review the activity/routine to see if there has been a positive change in what is currently happening.

If the activity/routine has changed for the better, great! If not, try another idea, continuing from least intrusive to most intrusive until something works.

Continuing Education for KIT Readers

The Comprehensive System of Personnel Development (CSPD) is offering a continuing education opportunity for EDIS KIT readers.



In line with the focus on AT in EI, readers are invited to receive continuing education contact hours for reading the monthly KIT publications (March 2010 through July 2010) and completing a multiple choice exam about the content covered in these KITs.

If you are interested, take the exam online at www.edis.army.mil and upon successful completion, you will receive a certificate of non-discipline specific continuing education contact hours.

*Please send your Consultation Corner questions
and KIT ideas via email to*

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