Running Head: Cultural Barriers to Assistive Technology

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The cultural background of AT users (and of the people who surround them) has much to do with the success or failure of attempted AT interventions. The user must always be the primary focus - but aspects of his or her native culture, language, beliefs, and customs as they relate to the person directly, and to the family or larger community in general, must be taken into account. A person's own philosophy or rehabilitation, healing, and progress, as well as his or her beliefs about inclusion and participation in a larger societal role must be honored. To force individuals to acquire and try to use technology that they do not believe in or cannot accept, as part of their lives is a sure way to create AT failure. Matching even the best, most complex, and most expensive high-tech AT with users who are culturally unprepared or unwilling to accept and use such devices will still result in AT failure. The brute force of technological glitz and high cost cannot overcome deep-rooted family and cultural belief systems that may not flavor AT and related activities. Effects of background culture and personal beliefs on each potential AT consumer must be considered, with AT device types, levels, and methods of instruction tailored to fit each person's needs. These must be found out. One size of AT intervention does not fit all (King, 1999)

Culture

Culture can be defined based on next concepts:

1) Culture is a system of learned patterns of behavior;
2) It is shared by members of the group rather than being the property of an individual;
3) It includes effective mechanisms for interacting with others and with the environment.

The first of these is closely related to our definition of activity as a pattern of behaviors and our emphasis on human performance in the use of AT. The social aspect of culture is

underscored by the second of the three concepts, and it emphasizes the interdependence of all of us regardless of disability. The third concept, interaction with the external world both socially and physically, illustrates the relationship of culture to the social and physical aspects of AT context. Thus these elements of culture clearly couple it with the HAAT model and emphasize the importance of cultural considerations in the design and implementation of AT systems (Krefting, Krefting, 1991).

High – Context and Low- Context Countries

Varying cultural and ethnic values, languages, belief systems, and family structures can have a profound impact on whether AT can be successfully included in a consumer's life. An, initial, vital consideration is whether the student, client, or patient with whom we are working from a "high-context" or a "low-context" culture as summarized by Platt (1996). High-context cultures value close and continued connections of family members throughout life, and may often be paternal in orientation and power structure. These cultures place greater value on the surrounding "context" of the father and mother, family members, ancestors, and perceived social position of the family and extended family group as a unit and community rather than on personal advancement or recognition of individual members. Examples of high-context cultures include many Hispanic, Asian, and Native American cultures. By contrast, low-context cultures place more value on the individual and his or her own achievement, independence, and pursuit of success and individual attainment that will increasingly set him or her apart from others in the family or society.

Low-context cultures tend to downplay the role and importance of ancestors, family members, and family status in surrounding society in general, placing responsibility and blame for success or failure on the individual's own abilities and productivity. Examples of low-context

cultures include the mainstream culture in the United States, Canada, and much of northern Europe. Most of the highly educated professionals who prove AT in North America are not oriented in a high content manner and need to be constantly alert to these basic cultural differences. We in the mainstream culture of North America are most frequently low-context in our upbringing, values, orientation to the world, and view of our profession. We must recognize, however, that many of our potential AT-using students, clients, and patients will not share this background.

When an AT professional is working with persons from high-context culture, a number of human factors may pertain that those of us from a low-context culture may not consider. This is probably true even if these persons are from a subculture embedded within a larger national culture, as is true with many Hispanic, Southeast Asian, and Native American families in the United States or Canada. For instance, in general, the lead decision maker and the recognized head of families from high-context cultures is the father. All decisions that may affect the children, wife, or other family members such as elderly grandparents or in-laws must first be brought to the father for his consideration, opinion, and approval. If the father is not living or is unable to act as a leader, the elders surviving son in the family often hold this role. AT professionals who attempt to initiate evaluations, gather or share information, conduct multidisciplinary staffing, or acquire and implement assistive technology for a child or adult family member without working with and through the male head of the family are being shortsighted and unwise in their approach. Their attempts may well be rejected because they have not worked through the family hierarchy in the correct way. Even if these practices seem counter to what the modern, Western AT professional may believe, ignoring such approaches can predispose AT efforts to failure and rejection by the family. In many traditional high-context

families, the father's approval must first be sought before professionals take any other actions. To pected structure that allows the consumer and his or her family to feel honored, secure, and more likely to undertake the transitions that can accompany AT use in a family by one of its members (Sotnik, 1995).

Additionally, independence and productivity of family members with special needs are not valued equally across all cultures. For example, in many high-context Hispanic and Southeast Asian cultures, special needs, disabilities, and limitations of a family member are seen as divine gifts or challenges that are to be met by the family. Outside interventions that draw attention to the family member or to personal achievement are not valued because they set the person apart from the rest of the family. New, expensive assistive devices or equipment may be seen as luxuries that others in the community do not have and that set a family apart from the larger context of their culture. In some cultures, the special need of the family member is viewed as "God's will", a test or even a punishment that must be borne by the family. The need for assistive technology may not be viewed as relevant because the family members themselves will be available and devoted to helping the person with special needs. They become the "Biological" assistive technologies ever present to help with all of the person's needs throughout the remainder of the life span. External mechanical or electronic items are seen as expensive, devisive, and off-putting in a family that most values unity, harmony, and group effort (Nguyen, 1995).

AT professionals may not agree with these beliefs and values, but ethical practice requires that these ideas be respected. Concrete suggestions for AT practice with persons from diverse cultural backgrounds include determining whom in the family to approach first regarding changes to be introduced in the life of the family member, and gaining this leader's permission

and trust before proceeding further with AT. Suggestions also include enlisting the assistance of a wise, respected, and trusted adult within the culturally diverse community. This venerated person may help serve as a liaison and point of entry to families of that culture that have members who can benefit from AT. In all cases of dealing with culturally diverse populations, respect for the beliefs and wishes of the family and the individual they care for must be shown, even if the AT professional finds these contrary to his or her own beliefs.

Human factors related to cultural diversity can be complex and important influences on whether our efforts with AT succeed or fail with certain persons. These differences and the bases for them are often nonintuitive. They may seem irrational and counterproductive for those of us who practice our professionals from a Western, low-context mindset. Nonetheless, we must become aware of these potential differences in the populations we serve, and must attempt to accommodate and work within them as much as possible while pursuing effective AT interventions (King, 1999).

Cultural and Linguistic Backgrounds

It is mandated by law - and recognized as best practices in the field of special education - that families be actively involved in making decisions about assistive technology that is being considered for their children (Browser, 1999; King, 1999). Many teams have found, however, that family decisions involved in such processes are often heavily influenced by cultural/linguistic backgrounds (VanBiervliet & Parette, 1999).

For example, African American family members may prefer not to use assistive technology devices that call attention to their children in public settings (Huer, 1999). The time required for training to use AT devices, attendance at workshops, or transporting devices in the community might be issues for a Native American family (Stuart, 1999). Hispanic family members may

choose to use AT devices that encourage cooperation versus competition. The cultural and linguistically based values reflected in the preceding examples wield strong influence on family perceptions of AT.

Educators and other IEP team members often view AT as a vehicle through which students may achieve greater independence. But again don't forget about some cultures that prefer that their children remain dependent in families and community settings (Asian families may perceive the child's disability in religious terms and there may be strongly held sense that families should "stick together", live in close proximity to one another, and support one another across the lifespan).

When the family is already coping with the stigma associated with the provision of AT (i.e. the child is now different both because of race, disability, and the use of AT that draws attention to the child). Families with cultural or linguistic backgrounds valuing acceptance and blending into community, may reject the use of devices that draw undue attention. If team members expect use of the device in public settings, AT devices must easily accepted by others.

The Immediacy of results of AT

Interestingly, the promise of AT in meeting the needs of children with disabilities is contingent on understanding its appropriateness for particular child and family. While appropriateness has been addressed by many individuals offering various strategies for AT assessment and prescription (King, 1999; Parette, Brotherson,&Huer,2000), team members may often fail to obtain input from family members regarding expectations of the immediacy of results of AT. This is problematic from a cultural/linguistic perspective. For example, Asian family members may want to see immediate results if an electronic speech device is provided for

their child, without regard to the amount of training that may be required t effectively use the device (Angelo, Jones, Kokoska, 1995).

A Hispanic family may want the child to immediately be able to use the device at an important family celebration. After an AT evaluation is conducted, it may become apparent that the child can effectively use a device, yet the family is told that the funding process may take weeks or months before the child will receive the device.

Similarly, a family may expect rapid changes in the child's functioning on receipt of the device, without consideration of the training required by the child and family, limitations of the device, and other implementation issues. If family expectations are not considered and device fails to live up to those expectations, the child or family may opt for abandonment of the device in family and community settings (Parrete, McMahan,).

Cultural Factors that Affect Assistive Technology Delivery

We all view the world through a cultural screen that is the product of our experiences, family relationships, heritage, and many other factors. This cultural screen differs for each of us, and it biases the way we interact with others and the way in which we perceive various activities, tasks, and life roles. For example, in some cultures leisure is recognized as a desirable and socially acceptable pursuit. However, in other cultures pursuit of leisure time is thought to indicate laziness and lack of productivity. If the ATP and the consumer have differing cultural screens, they may have difficulty establishing and achieving mutual goals. For example, if ATP views leisure as a desirable and satisfying occupation, she may recommend AT systems that enable leisure activities to take place. This could include modified computer or video games, an adapted wheelchair for tennis or other sports, or adaptations of board games. However, if the

consumer is from a culture in which leisure is viewed as being nonproductive he may reject these AT systems as frivolous.

There are many cultural factors that must be considered when applying AT systems. These factors must be kept in mind by the ATP throughout the AT delivery process. For example, consider three of this importance of appearance, independence and its importance, and family role. Wheelchair manufacturers now fabricate their product in a variety of colors. This allows a choice and avoids the "institutional chrome" appearance for those who care about such things.

	Cultural factors that affect assistive technology delivery
1	Use of term
2	Balance of work and play
3	Sense of personal space
4	Values regarding finance
5	Role assumed in the family
6	Knowledge of disabilities and source of information
7	Beliefs about causality
8	View of the inner working of the body
9	Sources of social support
10	Acceptable amount of assistance from others
11	Degree of importance attributed to physical appearance
12	Degree of importance attributed to independence
13	Sense of control over thing that happen
14	Typical or preferred coping strategies

15 Style of expressing emotions

(Krefting, Krefting, 1991)

And I would like to refer to these factors through my country, Russia. But to start with I think that barriers to Assistive technology comes from the attitude to any kind of disabilities in Russia. Those attitudes and beliefs about people with disabilities were built through centuries in Russia. There is a proverb saying: “who doesn’t work, doesn’t eat” in Russia. It helps you understand what it means to be disabled in Russia. The history and geographical location of Russia stipulated such an attitude. There were a lot of wars in Russia and the whole country is “in the location of risky agriculture”. If you couldn’t work on the field, you couldn’t live. If you couldn’t defend your country from invasions, you were not count as a person. Then during communism there were collective farms everywhere. Everybody worked and then the results and harvest were divided evenly. So, if you were the disabled member of such a collective farm, people wouldn’t like you, because it would mean that they worked and you got everything.

Some of those factors that Krefting and Krefting suggest are very important in Russia. I want to talk about some of them that are important for Russia.

- Use of term – there is no such a term as Assistive technology. More than that in Russia the name for the Special Education is Difectology. Does it tell anything to you?!
- Balance of work and play – the balance itself may be not very significant in Russia but if you decide to provide the person with Assistive technology for leisure and recreation it won’t work. People could accept something like technology but for work or surviving not for play. It would be a shame to spend money to the technology that you are going to be used for fun.
- Values regarding finances – that is very important in Russia. Being the country with low economic because of our history makes it very important how much you are going to spend on

Assistive technology. Maybe it sounds terrible but the user would better stay at home for the rest of his life than afford the expensive technology. And more than that I think that nobody in Russia could afford these expensive technologies simply because they do not have so much money.

- Russia is a high-context country, so there is a particular role that assumed in the family. And the society will not just understand if somebody will get the AT and send the person with disabilities to live independently. People will think that this is very cruel and that the family does not care about that person.
- There are not so many sources of information of disability. If the person is different from others and has any kind of disability, he/she is just accepted like being “a fool”. This sounds terrible but that’s why Russian parents do everything to protect their child from being diagnosed with any kind of disability.
- It is difficult to talk about resources of social support in the country that sees disabilities like that. There is certainly some recourse, but it’s really difficult to find any and it would definitely be in the big cities only.
- Physical appearance is very important for Russian people, maybe even more important than in any other country. In the school the children are laughing if the child has glasses and saying this offending word about him (I know that, I was on that spot), so imagine the reaction if somebody is coming with all those technologies around himself?!

Closure

The cultural of both the family and the school must be considered in selecting appropriate AT. As ethnic, racial, cultural, and linguistic diversity of the US school population increases (IDEA, 1997), education professionals are becoming more aware that families from varied

backgrounds may hold different views of disability, education, professional assistance, and technology. There are some questions ATP should ask to ensure that cultural issues have been addressed prior to selection the Assistive Technology device:

Do I understand the family's values, beliefs, customs, and traditions?

Do I understand the family's attitude regarding disability?

Does the family accept the idea of Assistive technology as a tool to help their child?

Have I determined important social influences, which might affect children or family perception and use of AT device?

We should never forget that cultural norms and expectations are "shared, common environmental elements that underpin behavior" (Beigle, 2000). We should look at culture of every individual very carefully. There is no way that the consumer will be using AT device is it goes against his culture.

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