

Mexican American Mothers' Perceptions and Beliefs About Language Acquisition in Infants and Toddlers With Disabilities

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Abstract

This study examined the perceptions and beliefs about language acquisition of seven Spanish-speaking Mexican American mothers who had young children (age 24–37 months) with language disabilities. These children were served in an Early Childhood Intervention (ECI) program in central Texas. How mothers' perceptions and beliefs influenced their decision as to whether ECI services were provided in Spanish or English was examined, as was their understanding of how to support their children's language development. Data were gathered using a home language questionnaire, a structured interview, and observations of mother-child interactions. Data were analyzed using a modified grounded theory approach. Themes that emerged from the interviews and mother-child interactions are examined and implications for early childhood intervention are discussed.

Children from birth to 2 years of age with developmental delays, and their families, are eligible for Early Childhood Intervention (ECI) services through Public Law 105-17, part C, of the Individuals with Disabilities Education Act of 1997. A developmental delay may be present in one or more of the following areas: cognitive, gross or fine motor, language and speech, social or emotional, and self-help skills. ECI services are designed to enhance a child's learning and developmental potential and allow parents to play a major instructional role in the intervention.

ECI services provided to young children with developmental delays and their families must be family centered. The concept of family-centered services in ECI is based on respect and acceptance of each family's ethnicity, language, culture, structure, roles, values, and beliefs (Hartman & Laird, 1983; Shelton, Jeppson, & Johnson, 1987). Parents provide input into the services their children need and in the development and implementation of the Individualized Family Services Plan (IFSP) (O'Connell & Sontag, 1992). This plan describes the child's level of development and need for intervention, the family's priorities and concerns related to enhancing their child's development, and the expected outcomes (Johnson, McGonigel, & Kaufmann, 1989).

One of the major obstacles to providing linguistically and culturally sensitive ECI services is the lack of research in this area. Little is known about the effects of disabilities on the development of native language and English

as a second language skills of infants and toddlers from homes where a language other than English is spoken, and even less is known about effective ECI programs and services for this population. Given the lack of research in this area, early interventionists often rely on intervention practices designed for Anglo American infants and toddlers from English-speaking homes (Lynch & Hanson, 1992). As a result, culturally and linguistically diverse (CLD) children with disabilities and their families are under-served or inappropriately served by dedicated early interventionists. It is thus important to understand the nature of services provided to infants and toddlers who will at age 3 be transitioned to early childhood special education programs in public school.

To begin to address the gap in the literature associated with serving CLD children with disabilities, this study was designed to explore the issues, concerns, and priorities of language minority parents whose young children are enrolled in ECI programs. Because Spanish speakers comprise the majority of this population in Texas and the United States (Han, Baker, & Rodriguez, 1997), the investigation focused on Mexican American mothers' knowledge and beliefs about language acquisition among infants and toddlers, and on their perceptions of how the presence of a disability affected the development of their children's communication skills. Of further interest was how parents decided whether ECI services should be delivered in Spanish, English, or both languages.

Method

Participants

Seven Mexican American mothers whose children were receiving services from an ECI program located in central Texas consented to participate in this study. The mothers, all of whom were native Spanish speakers who spoke little or no English, had an eighth-grade education or less. All participated in public assistance programs such as Aid to Families with Dependent Children (AFDC). Their children had been identified as having a developmental delay or being at risk for such delays. Because the purpose of the study was to explore their beliefs about how disabilities influenced language acquisition, only mothers whose children had communication disorders were eligible for participation. Children with communication disorders (such as auditory impairments, articulation, or language disorders) or with cognitive deficits that affected age and rate of acquisition were included in the study. Also, participation was limited to mothers whose children were at an age when they would be expected to have already developed some verbal skills. The participants' children were between the ages of 24 to 37 months and had been in the ECI program for at least three months. Four of the mothers had older children without disabilities between the ages of 48 to 54 months.

Instruments

The following instruments were used to confirm the mothers' language status and language use in the home, and to guide the interviews conducted by the researcher. The Home Language Questionnaire and the Mother Interview Guide were translated into Spanish.

Language proficiency rating scale

The Language Proficiency Rating Scale (LPRS) was based on the Foreign Languages Services Institute (Educational Testing Service, cited in Oller, 1979) and the Student Oral Language Observation Matrix (California Department of Education, n.d.). The scale consists of five language fluency ratings with a score of 1, indicating that speech is so halting and fragmented as to make conversation virtually impossible, to a score of 5, indicating that everyday conversation is fluent and effortless as is characteristic of native speakers. Each mothers' language proficiency was rated using the Language Proficiency Rating Scale by a bilingual ECI staff member and by the researcher; only those mothers' for whom there was agreement about Spanish and English proficiency levels were included in the study.

Home language questionnaire

The Home Language Questionnaire (HLQ) (Payan, 1989) takes about 15 minutes to administer and consists of eight questions designed to describe the child's home language environment. Respondents are asked to indicate the language(s) spoken in the home, the language(s) their children with disability understand and speak with members of the family and caretakers, and the language(s) the mother typically uses with the child. The HLQ was administered orally by the researcher and responses were recorded on the protocol.

Mother interview guide

This was a structured, open-ended questionnaire designed by the researcher to elicit information in four areas: (a) mothers' perceptions and beliefs about their children's disabilities, (b) similarities and differences in the communication skills of the child enrolled in the ECI program as compared to those of other children without disabilities, (c) the purpose and nature of the ECI services the families were receiving, and (d) the languages in which these services were being provided. Interviews were conducted in Spanish by the researcher.

Procedures

The researcher met with the ECI program director to explain the purpose of the study, the data to be collected, and to obtain permission to invite mothers of children enrolled in the ECI program to participate in the investigation. The director assigned three bilingual professional staff to

assist with determining which mothers met the criteria for participation and to assist in obtaining consent agreements. The researcher met with these staff, provided information about the study, and shared the sample selection criteria. Using these criteria (refer to the description of the sample), the staff identified seven eligible participants. The researcher sent these mothers a letter explaining the purpose of the study and invited them to participate. The confirmation letter and consent form sent to the mothers were translated into Spanish. The staff conducted follow-up telephone contacts with mothers who did not return the form within a two-week period. Once the consent forms were signed, the researcher contacted the mothers and set up an appointment to discuss the study further and to schedule interviews.

Both the interviews and the observations were conducted in the participants' homes. The Mother Interview Guide provided the framework within which to ask questions related to the topics of interest to this study. However, the researcher continued probing until she felt she had obtained adequate information in the targeted areas (Patton, 1990). The interviews were audiotaped and then transcribed verbatim for analysis.

In another session, the mothers were asked to select two of their children's toys or games and to interact with their children as they would normally. The researcher took notes describing the communication context, including the activities taking place and the language used by the children and the mothers; she also audiotaped the interactions and then transcribed the tapes verbatim. The observer collected a minimum of 50 utterances (Lee, 1974; Tyack & Gottsleben, 1974) over a 20-minute interaction period.

The researcher also kept field notes related to the administration of the HLQ, interviews, observations, and follow-up contacts. These field notes provided background information not only about the context, but also about parents' reactions to questions and the researchers' own impressions associated with data collection activities and resulting information (Patton, 1990; Yin, 1989).

Data Analysis

The interview data were analyzed using a modified grounded theory approach (Strauss & Corbin, 1990). The analysis involved: (a) organizing the data; (b) generating categories, themes, and patterns; (c) interpreting the data; and (d) developing alternative explanations and drawing conclusions (Marshall & Rossman, 1989). The researcher first examined the transcripts of each interview line by line and then incident by incident to identify "emerging" themes, concepts, or ideas (Strauss & Corbin, 1990). She focused on what the participants said they believed, the feelings they expressed, and the explanations they gave (Locke, Spirduso, & Silverman, 1993). These themes were labeled and then compared against each other to identify similarities and differences; similar concepts were grouped together.

Each of these new categories was organized into subcategories as appropriate. For example, based on the mothers' responses, the topic of Spanish language acquisition was subdivided into importance of acquisition, process of acquisition, context of acquisition, and strategies used to facilitate acquisition. The categories from each of the mothers' interviews were compared, and, again, similarities and differences were identified and regrouped as necessary. After these analyses were completed, the researcher developed narrative descriptions of the major themes that emerged.

The observations of mother-child interactions were analyzed by examining the transcripts and the field notes and labeling the children's receptive and expressive communication acts (e.g., gestured to request an object, labeled a picture, answered a yes/no question) and their verbal responses (e.g., vocalization, label, number of words in an utterance). Secondly, the interactions of the mothers were analyzed with a focus on their communication acts (e.g., giving directions, asking yes/no questions, labeling objects) and how they facilitated their children's communication (e.g., modeling or expanding utterances). The researcher tallied the frequency of occurrence for each act and verbal response for each mother and compared the resulting patterns against the mother's report of her child's communication skills and of her efforts to support language acquisition. Data were then aggregated to identify the most frequent patterns of interaction and support characteristics of this group of mothers.

The researcher shared her findings and interpretations of the data with the mothers and gave them an opportunity to confirm or reject those interpretations and/or to provide additional information or clarification. These "member" or participant checks (Lincoln & Guba, 1985) helped ensure that the mothers' ideas were accurately captured and described. In addition, a fellow speech/language pathologist and the dissertation committee chair, also a former speech/language pathologist, reviewed interview data and the researcher's codes and emerging themes to determine if they agreed with the researcher's categories and subcategories. This was an ongoing process throughout the data analysis phase.

Findings

Language Proficiency of Mothers

Results of the LPRS and the researcher's observations verified that all mothers were fluent Spanish speakers (Level 5) and spoke little or no English (Level 1). In addition, all of the mothers requested that the interviews be conducted in Spanish.

Home Language

The results of a Home Language Survey confirmed that Spanish was the primary language used in all of the homes. Spanish was used by all individuals who interacted with the children, including parents, siblings, grandparents, and caretakers, although the children had some exposure to English. English exposure typically occurred through media (television or radio) or as a result of children's interactions with siblings. Some of the mothers reported they used the limited English they knew in talking with their children. All responded that exposing young children to literature is important and that they read to their children in Spanish.

Perceptions and Beliefs About Disabilities

These mothers did not believe that their children had communication disabilities, nor were they concerned about their children's language development in relation to expected milestones. They noted that their children had limited verbal skills, used nonverbal gestures more often than their peers, had poor retention skills, and were frustrated by their inability to communicate. Yet, the mothers did not associate these characteristics with disabilities. Instead, they felt their children were "slow" but would "catch up" as they grew older. This was surprising because their children had been diagnosed as having a developmental delay or being at risk for such delays and thus eligible for ECI services. Moreover, in the judgment of the researcher, a bilingual speech pathologist certified by the American Speech, Hearing, and Language Association assessed that the children's language skills were significantly deviant from their Spanish-speaking peers.

Age seemed to be the important criterion the mothers used to gauge their children's language development. Since they did not expect their children to comprehend and speak until the age of 3, they were not concerned about their children's communication difficulties. The following excerpts from the interviews illustrate this:

Yo digo que a la mejor [le faltan palabras] porque todavía tiene dos años. Pienso yo que a la mejor es por eso, porque apenas tiene dos años. (Sra. Olvera)

Probably [he lacks words] because he is still 2 years old. I think that it's probably because of that, because he is only 2 years old. (Sra. Olvera)

De los tres años para arriba empiezan [los niños] a hablar un poco más mejor. El [Ernesto] sabe mucho, sabe muchas cosas. Pero, no sabe muy, muy bien decirlas, y yo me imagino que es por la edad. (Sra. Ruiz)

From 3 years and up, they [children] begin to talk a little bit better. He [Ernesto] knows a lot, knows a lot of things. But he doesn't know how to say them very well, and I imagine it's because of his age. (Sra. Ruiz)

Attribution of Problems to Factors Other Than Disabilities

Since they did not perceive that their children had disabilities, it followed, then, that the mothers attributed the cause of communication problems to a variety of other factors. Unlike findings in previous research (e.g., Maestas & Erickson, 1992), their explanations could not be categorized as folk beliefs. Maestas and Erickson (1992) found that some families believed that *susto*, a scare during pregnancy, affected their unborn child, or that *mal ojo*, or evil eye, caused birth defects and other disabilities or illnesses. The mothers in the present investigation attributed communication difficulties to such factors as the child's young age, isolated events (e.g., teething), ear infections, and personality characteristics. For example, Sra. Flores reported that Carlos' communication skills regressed when he began teething:

Y no mas le empezaron a salir los dientes y ya casi se fue para atrás. Ya no comió, todo lo vomitaba y se ponía bien mal de eso. Desde ahí fue cuando empezó [con problemas]. . . y nos hablaba a nosotros, a los dos, de chiquito más bien, que de grande. (Sra. Flores)

And just when he started teething, it was about then that he began to regress. He no longer ate, he would vomit everything, and he would get very ill from that. From then on he started [to have problems] . . . and he used to talk to us, the two of us, better when he was little than when he was older. (Sra. Flores)

Sra. Padilla initially thought Adan's communication difficulties were due to numerous ear infections. She took him to an ear specialist who determined that Adan's hearing acuity was normal and, thus, Sra. Padilla ruled out the possibility that those infections might have contributed to Adan's delayed language skills:

Porque tuvo muchas infecciones cuando estaba chiquito y decían que a lo mejor era debido de tantas infecciones que tenía, que a lo mejor no escuchaba bien y lo llevé a un especialista de oídos y no, todo está perfectamente bien. (Sra. Paz)

Because he had a lot of infections when he was little and they would say that it was likely due to so many infections that he had, that probably he didn't hear well and I took him to an ear specialist and no, everything is perfectly all right. (Sra. Padilla)

Perceptions and Beliefs About Language Acquisition

As a group, the mothers verbalized the importance of facilitating their children's language development. They saw themselves as active participants in their children's language learning and described what they did to facilitate language growth, including listening to their children, interacting with them, labeling objects and ideas, and creating opportunities for interactions with others.

Acquisition of Spanish in the home

The mothers felt that learning Spanish was important for several reasons. For example, Sra. Padilla reported that her husband wanted their children to be able to communicate with them and with other Spanish-speaking relatives. Sra. Padilla and Sra. Ruiz both felt that learning Spanish was an important aspect of maintaining their children's cultural heritage:

O, pues porque es la cultura que uno tiene . . . Y por eso tienen que aprender ellos primeramente . . . el español. Porque es la lengua que nosotros hablamos y que no les dé [a los niños] vergüenza también [de hablarlo]. (Sra. Padilla)

Oh, because it is the culture that one has . . . and that's why they have to first learn . . . Spanish. Because it is the language that we speak and that they [the children] should not be embarrassed [to speak it]. (Sra. Padilla)

Lo que estamos [mi esposo y yo] haciendo ahorita es llevarlo mucho a México que conviva y que aprenda las cosas de México también. Porque me he fijado que muchos niñitos . . . no sé si estoy equivocada, pero hay niñitos que no quieren hablar español . . . son Mexicanos y no quieren [hablar español], van a México y no hablan español. Yo quiero enseñarles las costumbres mejicanas o sea que las [costumbres] de aquí [los Estados Unidos] las sepan . . . [que las aprendan] en la escuela, y las de allá [de México] pues, por nosotros [les enseñamos] las costumbres de allá. (Sra. Ruiz)

What we [my husband and I] are doing right now is taking him to Mexico so that he can also live and learn the things about Mexico, too. Because I have noticed that many young children . . . I don't know if I am mistaken, but there are children who don't want to speak Spanish . . . they are Mexicans and they don't want to [speak Spanish]. I want to teach them the Mexican customs, or, that is, the ones [customs] from here [the United States] . . . these they will know [will learn] in school, and the others [from Mexico], well, from us [we will teach them]. (Sra. Ruiz)

The mothers expected their children to be enrolled in bilingual education programs at school entry, which they felt would provide them opportunities to enhance their Spanish skills. In fact, all of the mothers wanted their children to be bilingual. However, when they discussed bilingualism, they did not seem to be aware of the relationship between native language proficiency and the acquisition of English as a second language, although one mother did comment that children who attempt to learn both languages at once do not learn either well.

English as a Second Language Acquisition

The mothers believed that children without disabilities learn English easily, and that those with communication disabilities can also learn English, only later, perhaps at age 4 or 5. The researcher asked the mothers when and how their children would learn English. They thought one way was through exposure to English at home through interactions with siblings and via electronic media (e.g., television and videos). Surprisingly, most of the mothers believed that, even though they spoke little or no English, they nonetheless could help their children learn English or, conversely, that they could learn English from their children:

Pues, hablarle [a Adan] tambien lo que yo estoy aprendiendo. Sea cosas basicas, como de aquí de la casa. (Sra. Paz)

Well, also talk [to Adan] about what I am learning. Be they basic things, like from here at home. (Sra. Paz)

Mi niño el mas grande, luego quería hablarme o sea decirme cosas en inglés y le dijo mi esposo, “No, tu madre no te entiende.” Le digo, pues por eso, porque no entiendo, me tiene que hablar para enseñarme yo también. Si no, ¿cuándo me voy a enseñar? (Sra. Padilla)

My oldest child then wanted to talk to me, or that is to say, tell me things in English and my husband told him, “No, your mother does not understand.” I tell him, well, for that reason, because I don’t understand, he has to talk to me, so I can learn, too. If not, when am I going to learn? (Sra. Padilla)

Only Sra. Lopez reported that she could not help her child learn English because her own skills were too limited:

No me gusta hablarle en inglés porque yo no puedo decir las palabras bien y no quiero que [Federico] se confunda. Y no quiero [hablarle en inglés] porque luego, él las menciona como yo las menciono. Y yo no las puedo decir bien. (Sra. Lopez)

I don't like to talk to him in English because I can't say some of the words right and I don't want him [Federico] to be confused. And I don't want [to speak English to him] because then he will pronounce them like I pronounce them. And I cannot say them well. (Sra. Lopez)

Home-Based Interventions

The mothers indicated that Spanish was prescribed as the language of intervention by ECI program staff. They agreed with this decision because Spanish was the dominant language of the home and thus was the language that they and their children understood. None of the mothers indicated that the ECI personnel modeled the types of language activities they should use to help their children become more effective communicators, nor did they indicate that the providers had them practice language development strategies with their children during the home visits. Instead, the interviews suggested that the mothers observed as the ECI personnel worked directly with the children. The mothers tended to describe what the interventionists did as simply "playing" with the children:

Quando viene se sienta con ella y se pone a jugar. (Sra. Barrera)

When she comes, she sits with her and begins to play with her. (Sra. Barrera)

O sea venía la trabajadora social cada ocho días aquí a jugar con el [Adan] . . . jugaba con Adan y Carmen, durante una hora en los viernes. (Sra. Padilla)

That is, the social worker would come here every eight days to play with him [Adan] . . . she played with Adan and Carmen, for one hour on Friday. (Sra. Padilla)

Pues, ella [la maestra] intenta jugar con mi hija [mi hija]. (Sra. Olvera)

Well, she [the teacher] tries to play with my daughter. (Sra. Olvera)

Or, the mothers indicated that ECI personnel came to their homes to help their children learn to speak a little better:

O, porque le hicieron una evaluación [a Ernesto] y no hablaba bien. Querían [ECI Program] ayudarlo, ayudarlo a que hablara un poquito más mejor. (Sra. Ruiz)

Oh, because they did an evaluation [on Ernesto] and he didn't talk well. And they [ECI Program] wanted to help, to help him talk a little bit better. (Sra. Ruiz)

Viene la maestra para ayudarle [a Monica] hablar . . . ellos [ECI Program] me dijeron que van a trabajar con ella por seis meses, y si ella no habla más, me van a decir que la ponga en una escuela. Se llama Early Childhood. (Sra. Barrera)

The teacher comes to help her [Monica] talk . . . they [ECI Program] told me that they are going to work with her for six months, and if she doesn't talk more, they are going to tell me to place her in a school. It's called Early Childhood. (Sra. Barrera)

Although the mothers did give specific examples of recommendations for language stimulation made by ECI staff, these suggestions were not consistently evident in mother-child interactions.

Mother-Child Interactions

As a group, mothers reported that their children demonstrated good comprehension skills, understood yes/no questions, and used nonverbal communication skills such as pointing or crying. The mothers reported that their children used word approximations and single words to communicate their needs, but only three mothers reported that their children combined two-word phrases. In addition, three mothers indicated that their children exhibited articulation difficulties (e.g., omission of the /r/ sound in the Spanish word for hurry, i.e., *ponto/pronto* or substitution of the /r/ sound in the Spanish word for want, i.e., *quielo/quiero*). However, these difficulties would be considered developmental errors because of the children's ages.

Interactions between the mothers and their children occurred exclusively in Spanish with two exceptions. Sra. Robles used an English label once, and Sra. Padilla used one- or two-word labels in English and English ritualistic speech (e.g., "Thank you"). The interaction patterns observed by the researcher were similar to those reported by the mothers. The mothers regularly used yes/no questions and requests for labels. Although the mothers indicated that the ECI staff asked them to expand their children's utterances and model short phrases, and the mothers reported that they did so, such patterns were not consistently evident in their interactions.

Discussion

The themes that emerged from the interviews suggest that it is important that ECI personnel examine how well Spanish-speaking Mexican American families understand the nature and purpose of the ECI program and whether IFSPs are culturally responsive. Because this was an exploratory study and involved only a small sample, it would be inappropriate to draw conclusions about the findings or to generalize these to all Spanish-speaking mothers. However, considering possible explanations for the themes that emerged can help inform future investigations related to early childhood intervention.

Alternative Explanations for Communication Difficulties

When parents are initially told their child has a disability, they may not be able to accept the diagnosis (Drotar et al., 1975; Marion, 1981). They expect their children to develop normally and, thus, may feel that the condition is a temporary one (Thurman & Widerstrom, 1990). This seems to be the case for those mothers who felt their children were too young to be talking yet or that they were simply “slow” in developing communication skills. According to Langdon (1992), parents find it easier to understand that their children have disabilities when these are physically apparent, such as a cleft palate, deafness, blindness, etc. Speech and language disorders, whose causes are not always apparent, are more difficult to understand or accept, especially in the early stages of language acquisition. Some researchers (Paul, 1995; Whitehurst et al., 1988) caution that parents may actually be correct. Some children are late talkers and will “catch up,” achieving normal expressive vocabulary and generally fluent production, but not until age 5. These children’s development would be more accurately described as delayed rather than disordered.

It is also possible, though, that these mothers’ parameters of “normal” language development were much broader than those used by the early interventionists (Harry, 1992). Because these children had good comprehension skills and some form of communication (e.g., gestures, single words) to express their needs, the mothers believed their children would eventually learn to talk. In their view, their children were not disabled. Harry (1992) found this to be the case among Puerto Rican parents of children who had difficulty learning to read, write, or speak clearly. The parents understood that their children were having difficulty learning, but did not attribute these problems to disabilities. Rather, the Puerto Rican parents indicated that a number of extrinsic factors in either the home or school environment had interfered with their children’s progress. Or, they interpreted behaviors in terms of individual and family characteristics, indicating that it was the child’s nature to be slow or shy, or because she is “just like her father.”

Language Acquisition

These mothers focused on helping their children develop Spanish language skills, which will make it easier for their children to learn English (Garcia, 1993; Miller, 1984). The literature suggests that children should receive intervention in the native language when it is the predominant language of the home (von Vacano, 1994; Ortiz, 1984), because a strong foundation in the native language is important to development of English skills (Collier, 1995; Garcia, 1993; Miller, 1994). Furthermore, if children are not provided intervention in the native language, they may lose the ability to communicate with family members who are monolingual speakers of languages other than English (Wong Fillmore, 1991).

It was somewhat surprising that the participating mothers believed they could help their children learn English, even though they themselves did not speak English. It appears that even monolingual Spanish-speaking mothers who have limited interactions with English speakers develop a sense that it is important that they and their children learn English and they express a commitment to having this happen. Fortunately for these children, their mothers did not speak enough English to give in to this pressure and, thus, their children benefited from good language models.

Maternal Speech

The interactions of these mothers were consistent with research that shows that maternal speech input for toddlers with expressive language delays is different from the input mothers give normally developing children (Marshall, Hergrenes, & Goldstein, 1973; Rosenberg & Robins, 1988; Whitehurst, et. al, 1988). Parents of language-impaired children use more yes/no questions, labels, and directives to elicit speech than do parents of children acquiring language normally. However, there may be cultural differences in the content and style of interactions. These mothers adapted their interactions to fit the expressive language skills of their children. Their responses were consistent with what they felt their children could do. These interactions were also consistent with patterns observed among other Spanish-speaking mothers. For example, Quinn (1995) found that specific vocabulary that is considered important by English-speaking families may not be part of Spanish-speaking children's semantic knowledge. Moreover, Quinn also found that when Puerto Rican mothers interacted with their children, they focused their infant's attention, demonstrated and directed play, and encouraged turn taking. The mothers and infants did not label objects or actions, and the mothers generally did not request imitation or clarification, or elicit communication with their infants.

Cultural differences may thus explain why the participating mothers' interactions were inconsistent with recommendations for language development found in the literature and why they did not consistently follow the recommendations of the ECI staff. Another explanation may be that the ECI staff was not familiar with the family's patterns of interactions used in the home and the recommendations did not match the mothers' ways of interacting with their children.

Recommendations for Early Childhood Intervention

ECI personnel may need training to ensure that they understand differences in parents' perceptions of their children's problems. At the same time, interventions must be consistent with the family's language, culture, values, beliefs, and expectations, especially if parents are expected to be their

children's first or lead "teacher." For intervention to be successful, parents must understand the rationale for services, information they receive from medical personnel, specific data describing their children's functioning, and the significance of the impairment for their children's future development.

In addition to providing direct services to children, ECI personnel should involve parents in addressing IFSP goals and objectives. Identifying how mothers interact with their children is a prerequisite to planning and implementing goals that facilitate language acquisition. Thus, ECI personnel may need to be trained about cultural differences in communication styles and expectations for performance. Recommendations provided to mothers on how to facilitate their children's language skills must be developed within a culturally responsive framework. Parents should be involved in identifying communication goals, interaction styles used in their home, routines, and activities they will use to support language development. They should also be provided specific rationales for the activities being recommended. For Mexican American mothers, demonstrations, guided practice, and opportunities to practice may be needed to increase the likelihood that they implement the recommended strategies and interventions. The strategies need to be culturally appropriate, taking into account the family's styles of interactions. Strategies that match the parents' patterns of interaction and language used in the home will make it easier for them to remember and use these strategies with their children. When early interventionists observe parents using specific strategies, they can reinforce and provide feedback (Cripe & Venn, 1997) and give parents opportunities to discuss difficulties they may be having and to discuss the interventions and their effectiveness (Fey, 1986; Paul, 1995). Lastly, ECI personnel, in collaboration with parents, should monitor the implementation of recommendations and evaluate children's progress on an ongoing basis (Cripe & Venn, 1997; Fey, 1986).

Both ECI personnel and parents must understand the importance of developing a child's native language. Parents should be cautioned against speaking English to their children when they are not proficient English speakers. When parents use a language in which they are not fluent, they offer their children limited or inappropriate language models (Lewitt & Baker, 1994; Ramirez & Politizer, 1976). In turn, children learn inappropriate linguistic structure, incorrect pronunciation, and inexact expression that may further impair their communication development (Baker, 1995). The children in this study had not developed basic communication skills in Spanish and thus may not be ready to acquire English. ECI personnel should focus on supporting the child's native language development. The stronger this foundation, the higher levels of English competence children will acquire (Cummins, 1984).

Summary

As a group, these mothers lacked information about language acquisition, the rationale for ECI services in Spanish, and the relationship between native language and English as a second language acquisition. They also did not consistently implement the strategies recommended by providers to enhance their children's language skills. These findings are surprising because these mothers and their children were being provided ECI services in Spanish. This suggests that services in the family's native language are an important, but not necessarily sufficient factor in making early intervention successful. If the problems noted in this study occur when parents and service providers share the same language, one can only imagine what happens when their languages are incompatible. Future research should focus on developing models to ensure compatibility between the characteristics and needs of CLD children and their families, and the characteristics and needs of the ECI programs and personnel which serve them.

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