A cross-cultural comparison of services for young children with disabilities using the ACEI Global Guidelines Assessment (GGA).

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Abstract:

Because young children with special needs frequently experience unequal access to quality education worldwide, understanding characteristics of services currently provided to them is critical to identifying practices that work as well as gaps in services and the reasons behind these trends. Two studies were conducted using the ACEI Global Guidelines Assessment (GGA) to investigate the access to and quality of special education services in early childhood care and education (ECCE) programs across eight countries in the Americas and Asia. Study I included 138 participants in 69 programs across five Latin American countries and Study II included 336 participants in 168 programs across four countries and six sites. Results from both studies indicate that ECCE programs strive to provide equal access to young children regardless of ethnicity, religion, language, gender, and socio-economic status. However, insufficient resources and policies were cited as a barrier to services for children with disabilities. This situation was especially true in rural communities. Therefore, national policies are needed to improve the quality of service and to make funds consistently available for services for young children with special needs. This finding is congruent with international reports.

Keywords: young children | children with disabilities | disability | global guidelines assessment | educational assessment | specialized education | early childhood education

Article:

Introduction

Although people with disabilities, including more than 150 million children, constitute the world's largest minority population, access to education and other special services continues to be a major concern worldwide (Center for International Rehabilitation 2004, 2005; United

Nations Children's Fund [UNICEF] 2003). Studies show that early childhood care and education can have a positive impact on children's social, cognitive, physical, and psychological development (Belsky et al. 2007; Yoshikawa et al. 2007; Dowesett et al. 2008). Research further demonstrates that high quality care and education promotes skill development and language performance (Belsky et al. 2007). Therefore, access to quality early childhood care and education is a key factor influencing children's later academic and social performance, especially for children who require systematic support such as children with disabilities. Yet, many young children with disabilities continue to be excluded from education services worldwide.

Understanding the characteristics of special education services for young children from a global perspective is critical to identifying practices that are working as well as gaps in services and the reasons behind these trends. The ACEI Global Guidelines Assessment (GGA) (Association for Childhood Education International [ACEI] 2003, 2006) was used to examine program quality in five countries (Colombia, Guatemala, Mexico, Peru, and Venezuela) during 2003–2004 and in four countries (People's Republic of China [China], Guatemala, Taiwan, and United States) in 2007–2008. This article reports the findings for one of five areas of program services investigated in these studies—Area 5: Young Children with Special Needs.

Special Education and Human Rights Movement

The rights of children were recognized by the United Nations (UN) on November 20, 1959 (now known as Universal Children's Day) when it passed the Declaration of the Rights of the Child as a protection right (Russo et al. 2008). This initiative was expanded in 1989 when the Convention on the Rights of the Child (the CRC) was adopted by the UN General Assembly to ensure children's subsistence rights, development rights (including education), protection rights, and community participation rights (Carvalho 2008). Thus, the CRC was the first international initiative to ensure education rights for children with physical or/and emotional needs (United Nations 1989; United Nations General Assembly 1989). To date, 194 countries have signed the convention for carrying out education services for all children, though many of them still lack of sufficient resources to reach this goal.

Although the CRC specified education rights for all children as a basic human right, only about 1–5% of children with disabilities were receiving an education in the late 1980s (Habibi 1999). In response to this circumstance, in 1994 the Salamanca Statement and Framework for Action on Special Needs Education was enacted (UNESCO 1994). This framework not only reaffirmed education rights for every child, but also specified that schools should accommodate all children regardless of their intellectual, emotional, behavioral, social, linguistic, or any other conditions (UNESCO 1994). The philosophy of inclusive education is viewed as key component of this framework.

In 2008, the Convention on the Rights of Persons with Disabilities (CRPD) was initiated to further ensure the rights of children and adults with disabilities (United Nations General Assembly 2007). This convention stipulates that governments should take responsibility to ensure children with disabilities receive equal rights and freedoms with other children. Furthermore, one of its primary principles is taking "the best interest of the child" into consideration for decision-making concerning children with disabilities.

These initiatives reflect a shift toward an international consensus that children with disabilities should have equal access to quality education in inclusive settings. One example of this shift is the collaboration of The World Bank and the Organization for Economic and Co-operation and Development (OECD) in collecting data concerning children with disabilities, which is used as a strategy to achieve the United Nations Millennium Development goals (Lansdown 2009).

Factors Associated with Children with Disabilities

Though factors impacting education services for young children with disabilities vary by country and even within countries, studies show that environmental context, social practices, policies, and belief and value systems influence the accessibility and quality of services (Clarke 2006; Reid and Knight 2006). Examples of these factors are discussed below.

Poverty continues to be cited as a critical factor contributing to children being identified as having a disability (Cavalcante and Goldson 2009). Studies show that children born in poverty tend to have limited access to food, shelter, and health care services, and which may cause malnutrition, and ultimately cognitive impairments, including 175 million children entering schools in developing countries each year (The World Bank 2006; UNESCO 2010). Another report indicates that children who have moderate and severe disabilities are highly represented in low to middle income countries (World Health Organization [WHO] and UNICEF 2008). Likewise, in their analysis of early childhood intervention in 23 countries, Nores and Barnett (2010) found interventions for young children in low-income countries to be less effective.

Social practices sometimes pose additional challenges for children with disabilities and their families. Inequalities such as insufficient access to education services, particularly with typically developing peers, may restrict socialization opportunities for children with disabilities and reinforce stigmatization (Clarke 2006). Even when services are available, limited resources, untrained professionals, and insufficient instructional materials can lead to an inappropriate education and unpleasant school experiences (UNESCO 2010). In some countries, children with disabilities continue to receive services in separate settings that provide more specialized education (Center for International Rehabilitation 2004). However, often this practice reinforces stigmatization and the social isolation felt by many children with disabilities and their families.

Beliefs and value systems influence national policies and special education practices. For example, the responsibility of caring for children with disabilities may be perceived differently by country or local regions within countries. Traditionally, caring for children with disabilities was perceived as a responsibility of society in China (Deng et al. 2001). Recent legislation has reinforced this belief. For example, the Educational Guidelines for People with Disabilities Bill of 1994 stipulates that the public agency is to provide a comprehensive system of child care, rehabilitation, and education for children with disabilities (Hu and Swente 2010).

In Taiwan, parents usually bear most of the responsibility for ensuring quality early childhood education for their children by paying all the expenses (Duan 2008). This practice has led to social inequity and impacted many children's later academic performance in primary school (Eden Social Welfare Foundation 2008). As a result, the government recently began offering more education resources (Ho 2006; Duan 2008), including the implementation of a plan to ensure quality education for 5-year-old children by providing financial support to families, particularly those from lower social and economic status and/or in rural areas (Duan 2008). However, children who are under age five are not included.

In recent years the Ministry of Education in Guatemala implemented a strategy to increase pre-primary education coverage for children in rural areas or from poverty-stricken areas so they can access adequate resources and education opportunities (UNESCO 2009). However, the implementation of this policy has heavily relied on international financial support, which can be inconsistent in its availability (UNESCO 2009). Specialized services for young children with disabilities are limited, though they are often included in early childhood care and education services for typically developing children without any formal special education services (Hardin et al. 2008).

Until 1975 when the Education for All Handicapped Children Act (Public Law 94-142) was enacted mandating free appropriate public education (FAPE) for school age children with disabilities, the care and education of children with disabilities in the United States (US) was mainly a family responsibility. In 1986, federal legislation was passed that expanded FAPE to children ages 3–5 years old. These laws, and subsequent iterations up to the most recent reauthorization, the Individuals with Disabilities Education Improvement Act (IDEA 2004), ensure that all children ages 3–21 in the United States will receive special education services in the least restrictive environment. These special education laws were instrumental in promoting inclusion, family involvement, individualization, and many other practices supported by international initiatives.

The purpose of this analysis was to examine GGA results to better understand trends in early care and education services for young children with special needs across multiple countries. International and federal policies and the laws that govern these services require time, funding, and trained personnel to make needed changes, particularly in relation to disabilities in which cultural beliefs and practices within countries may differ from international initiatives. Thus,

even though the first study took place a few years ago, international studies continue to report that many of the same practices are used today (UNESCO 2006, 2010). The trends identified in this research can help inform professionals, families, and policy makers as they work toward enacting changes supported by scholars and international groups that increase the quality of services for children with disabilities.

Method

Early childhood professionals were recruited from five Latin American countries (Colombia, Guatemala, Mexico, Peru, and Venezuela) in Study 1 and four countries in different world regions for Study 2 (Guatemala, People's Republic of China, Taiwan, United States, Kenya). Both samples were generated through contacts established by the principal investigator in collaboration with ACEI Global Guidelines Task Force members and early childhood professionals in each country. All programs were typical of the locations and program type for each country.

Study 1

Research Sites, Programs, and Participants

Study 1 included 138 participants in 69 programs across five Latin American countries. Five research sites (one per country) were selected to represent a variety of Spanish-speaking populations in Latin America: Bogota, Colombia; Guatemala City, Guatemala; Campeche, Mexico; Chiclayo, Peru; and Maraciabo, Venezuela. Peru contained the largest proportion of the sample (27.5%). The remaining portion of the sample was distributed between the other four sites as follows: Columbia (16.0%), Guatemala (21.7%), Mexico, (20.3%), and Venezuela (14.5%).

Approximately equal numbers of private and public programs participated in Study 1 as shown in Table 1. Most programs were located in urban areas (84%). Of the remaining programs, 13% were located in rural areas and 3% in suburban areas. The total enrollment in individual programs ranged from 18 to 600 children, although more than half of the programs enrolled 150 or fewer children (64%) and only five programs enrolled more than 301 children. The age range of the children varied within and across research sites. For example, 23% of the programs offered services to infants, 54% offered services to toddlers, and all of these programs plus the remaining programs enrolled children 3–5 years old (called preschool, pre-primary, or kindergarten age children depending on the country). The majority of programs (62%) was classified as full day (opened more than 5 h per day) and most operated 10–12 h per day.

Table 1

Study 1: program type, service area, and total enrollment by program

Country	Program type			Service area			Total enrollment				
	Private	Public	Other	Rural	Urban	Other	1–75	76–150	151–225	226–300	<301
Colombia	2 (6%)	7 (23%)	2 (40%)	0 (0%)	11 (19%)	0 (0%)	4 (15%)	4 (24%)	1 (7%)	1 (20%)	1 (20%)
Guatemala	9 (26%)	5 (17%)	1 (20%)	1 (11%)	14 (24%)	0 (0%)	5 (19%)	4 (24%)	6 (40%)	0 (0%)	0 (0%)
Mexico	14 (41%)	0 (0%)	0 (0%)	0 (0%)	14 (24%)	0 (0%)	8 (30%)	3 (18%)	3 (20%)	0 (0%)	0 (0%)
Peru	4 (12%)	13 (43%)	2 (40%)	6 (67%)	11 (19%)	2 (100%)	10 (37%)	4 (24%)	1 (7%)	1 (20%)	3 (60%)
Venezuela	5 (15%)	5 (17%)	0 (0%)	2 (22%)	8 (14%)	0 (0%)	0 (0%)	2 (12%)	4 (27%)	3 (60%)	1 (20%)
Total	34 (49%)	30 (43%)	5 (7%)	9 (13%)	58 (84%)	2 (3%)	27 (39%)	17 (25%)	15 (22%)	5 (7%)	5 (7%)

Teams of two people, a director and non-director (all but six non-directors were teachers), each independently completed the GGA for their program. However, two cases were excluded from the analyses because of incomplete data, an administrator from Colombia and a non-director from Mexico, resulting in an analysis sample of 136 participants. All but three of the participants were female.

Study 2

Study 2 included 336 participants in 168 programs across four countries and six sites. The research sites included: Dalian in the People's Republic of China (19.6%); Guatemala City, Guatemala (18.4%); a 21-county area in mostly urban areas in Taiwan (17.9%); Changhua County, a large agriculture county in a rural area in Taiwan (17.9%); the Appalachian area of Ohio, including Adams, Athens, Highland, Jackson, Lawrence, Pike, Ross, Scioto, and Vinton counties in the United States (13.1%); and the Triad Area of North Carolina, including Guilford, Forsyth, and Alamance counties in the United States (13.1%).

As shown in Table 2, most programs were private (63.1%), another 26.8% were public, and 10.1% were reported as "other" (e.g., suburban). More than half of the programs (53.9%) were located in urban areas, 37.6% in rural areas, and 8.5% were reported as "other." Most programs were open 10–12 months a year (87.9%), and were opened 9–12 h per day (83.8%). Of the 127 programs who reported their total enrollment, approximately two-thirds ranged from 1 to 100 children (1–50 children at 26.0% and 51–100 children at 40.9%. Another 24.4% had enrollments of 101–200 and the remaining programs (8.6%) had enrollments ranging from 201 to 433 children. Most programs (38.0%) provided services to children who were a combination of toddlers and preschool age children or preschool age children only (28.3%).

Table 2

Study 2: program type, service area, and total enrollment by program

Country	Program type (*N* = 168)			Service area (*N* = 165)			Total enrollment (*N* = 127)						
	Public	Private	Other	Rural	Urban	Other	0–50	51–100	101–150	151–200	201–250	251–300	301+
China	14 (31%)	16 (15%)	3 (18%)	3 (5%)	29 (33%)	1 (7%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Guatemala	4 (9%)	24 (23%)	3 (18%)	2 (3%)	28 (32%)	1 (7%)	13 (39%)	8 (15%)	1 (5%)	2 (18%)	0 (0%)	3 (60%)	4 (80%)

Country	Program type (N = 168)			Service area (N = 165)			Total enrollment (N = 127)						
	Public	Private	Other	Rural	Urban	Other	0–50	51–100	101–150	151–200	201–250	251–300	301+
Taiwan1	8 (18%)	22 (21%)	0 (0%)	11 (17%)	18 (2%)	1 (7%)	4 (12%)	17 (33%)	7 (35%)	2 (18%)	0 (0%)	0 (0%)	0 (0%)
Taiwan2	0 (0%)	30 (28%)	0 (0%)	19 (31%)	3 (3%)	8 (57%)	1 (3%)	13 (25%)	4 (20%)	3 (27%)	0 (0%)	2 (40%)	1 (20%)
United States1	13 (29%)		9 (52%)	19 (31%)	1 (1%)	1 (7%)	11 (33%)	7 (13%)	1 (5%)	0 (0%)	1 (100%)	0 (0%)	0 (0%)
United States2	6 (13%)	14 (13%)	2 (12%)	8 (13%)	10 (11%)	2 (14%)	4 (12%)	7 (13%)	7 (35%)	4 (36%)	0 (0%)	0 (0%)	0 (0%)
Total	45 (27%)	106 (63%)	17 (10%)	62 (38%)	89 (54%)	14 (8%)	33 (26%)	52 (41%)	20 (16%)	11 (9%)	1 (1%)	5 (4%)	5 (4%)

Teams of two people, typically a director and teacher, each independently completed the GGA for their program. However, one case was excluded from the analyses because of incomplete data, resulting in an analysis sample of 335 participants. All but 15 of the participants were female.

Measures

The 2003 edition of the GGA was used in Study 1 (ACEI 2003). This first edition contained 98 items across five areas to examine program quality: Environment and Physical Space; Early Childhood Educators and Caregivers; Curriculum Content and Pedagogy; Partnerships with Families and Communities; and Young Children with Special Needs. Study 1 was completed with the 2003 edition of the GGA. Area 5, Young Children with Special Needs, included 24 items that were divided in seven subcategories, including: access and equity of services (6 items), basic health and nutrition (2 items), common philosophy and common aims (4 items), staff and service providers (4 items), adaptations to indoor and outdoor environments (2 items), service delivery (3 items), responsiveness to individual needs (3 items).

The second edition of the GGA, published in 2006, was used in Study 2 (ACEI 2006). It contained 88 items across the same five program areas. The 2006 GGA included 15 items for Area 5 (Young Children with Special Needs) divided into four subcategories, including (a) access and equity of services (5 items), common philosophy and common aims (3 items), staff and service providers (4 items), and service delivery (3 items). Each version of the GGA was the most recent edition available during the time of the studies, which is why two different versions were used. Also, this analysis of Area 5 data from both studies was part of larger studies that included the entire GGA.

For both studies, a cover sheet was added to the GGA to gather basic demographic information for the individual completing the assessment (name, gender, position in program, contact information). Each item was rated on a scale ranging from not applicable/available to excellent, along with space to describe examples that support the selected rating as well as space for additional comments. Respondents were directed to provide examples that supported their ratings. In addition, program directors were asked to complete a Program Information Form to obtain information such as the type of program (e.g., public/private), service area (rural, urban, suburban), ages served, months/days/hours of operation, and total program enrollment. All written materials were provided in the participants' home language. It should be noted that GGA translations were completed for ACEI prior to the study using the consensus method (see Geisinger 1994).

Procedures

Research Site Coordinators were recruited to implement the study at the local level in both studies. Two-hour conference calls were held with each Research Site Coordinator in which they were trained on confidentiality requirements, procedures for selecting programs, data collection procedures, and the GGA. Follow-up conference calls and emails were conducted weekly (or

more frequently if needed) with the project director for each study. Once trained, Research Site Coordinators recruited local program participants and supervised the data collection. Each Research Site Coordinator met with program directors to describe the study and request consent to participate in the study. Two people (typically a director and teacher) were asked to complete the GGA at each program. In addition, each director completed the Program Information Form. Each individual received a certificate of participation from ACEI in appreciation of his or her participation.

Completed assessments were mailed to the principal investigators for data entry and analysis. Individual ratings and the evidence for the rating of each item were entered into a database. Examples and comments serving as evidence were translated into English for data analyses. Ratings for each item were assigned a numerical value from 0 (not applicable/available), 1 (inadequate), 2 (minimum), 3 (adequate), 4 (good), to 5 (excellent) and entered into the database. After all data were entered, two individuals verified the results for each item against the original protocol, and all errors were reconciled and corrected. Item means were calculated for each item by research for the analysis used in this study. Also, examples and comments are reported that further explain the participant ratings. In Study 1, there were four items in which 15% or more of the data were missing. These four items pertained to federal policies for children with disabilities. The translation of the term "policy" caused confusion on these items. Thus, these items were omitted from the analyses resulting in a total of 20 items used in the analyses. All 15 items were used in the Study 2 analyses. The comparison of 12 items taken from both studies included a subset of the overall number of items in each study.

Results

Descriptive results for each study by research site are reported first, including comparisons by type of program (public/private), participant (administrator/teacher), and location (urban/rural). Next, comparisons by item means for the overall samples are reported. Last, results of analyses completed with 12 items across both studies are presented to examine trends in services in four areas: (a) access and equity of services, (b) common philosophy and aims, (c) staff and service providers, and (d) service delivery.

Study 1

Total Sample Comparisons

Comparisons of program characteristics for the total sample (N = 69) were conducted by program type, location, and participant type. Private program participants rated their special

needs services mostly adequate (M = 3.16, SD 0.55) whereas public programs rated their services mostly inadequate (M = 1.80, SD = 0.74). As this result suggests, private programs participating in this study were better funded and often had state-of-the arts facilities, better trained staff, and funds to support a wide variety of materials and equipment, including those for children with special needs. Private programs often had specialists (e.g., physical therapists, psychologists) who provided additional services. By contrast, the public programs frequently had high teacher-child ratios (e.g., 40 children with one teacher in a class in Guatemala) with few materials, only basic equipment such as tables and chairs, and limited access to supports for children with special needs, if any.

Comparisons by location (rural/urban) resulted in a mean of 0.89 (1.20) for rural programs and a mean of 2.10 (1.42) for urban programs. However, because only a small number of rural programs participated in the study and since most of them were in one country these results have limited meaning. Even so, without a doubt these GGA results are similar to findings by international organizations that indicate there are few, and often no services for young children with disabilities in the rural areas of Latin American countries such as Colombia, Guatemala, and Peru (Center for International Rehabilitation 2004; UNESCO 2008).

Correlations using Pearson's r were computed between the two groups (directors and teachers) for the 168 cases and 69 programs to examine the consistency in their ratings. Interestingly, the results indicated ratings by directors and teachers were fairly closely aligned with a correlation of 0.76 at the p < 0.01 level. Upon closer examination of individual items, differences in rating included items pertaining to inclusive services, family participation in decision-making, and advocacy, which teachers rated slightly higher than directors.

Research Site Comparisons

Item means for the total sample (N = 138) were compared to look for patterns of similarities and differences in program services by research site. As shown in Fig. 1, though the distribution of item means by research site varied widely, ranging from 0.32 (0.66) in Peru to 3.18 (1.26) in Mexico, ratings on many items indicated similar high and low patterns, particularly for Colombia, Guatemala, Mexico and Venezuela. Likewise, some ratings did not fit the general patterns, but instead reflected unique features of the special education services in a particular research site.
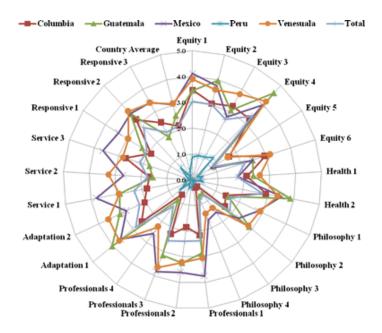
Fig. 1

Item mean comparison by country for study 1 (N = 138)

Peru participants rated their program services lower than the other four countries for the entire special needs area. All item means were in the inadequate range with item mean ratings of 1.17 or lower. There were several possible reasons for the low ratings in Peru. First, approximately a third of programs were located in rural areas, where few, if any, services for children with disabilities were available. Second, participants from urban programs reported that children with disabilities received educational services in special centers, typically in urban areas. Lastly, participants across the Peru sample reported they did not have the equipment or materials to support children with disabilities.

Study 2

Total Sample Comparisons

Comparisons of program characteristics (N = 168) for the total sample were conducted by program type, location, and participant type for Study 2. Both public and private program participants rated their special needs services adequate with means of 3.13 (1.05) and 3.35 (1.19), respectively. When examined by country, the ratings remained similar in China and Taiwan. However, in Guatemala similar to Study 1, the public program mean was lower (M = 1.52, SD 1.24) than the private ones (M = 2.53, SD 1.28). In the US, public program ratings,

which included Head Start, were somewhat higher than the private programs, 3.92 (0.84) and 3.24 (0.81).

Comparisons by location (rural/urban) resulted in a mean of 3.71 (0.88) for rural programs and a mean of 2.85 (1.12) for urban programs. Ninety-two percent of the rural programs were located in Taiwan and the United States. One explanation for the higher ratings in the rural US programs is because most of them were Head Start programs. Head Start requires that a minimum of 10% of their enrollment be children with disabilities (US Department of Health and Human Services 2003) and contains an infrastructure that supports their needs (e.g., teacher training, materials and equipment). Though children with disabilities in the other US programs receive special education services as mandated by IDEA 2004, participants in many of the urban programs were in private child care centers and did not feel equipped to fully serve children with disabilities.

Correlations using Pearson's r were computed between the two groups (directors and teachers) to examine the consistency in the ratings. This analysis was conducted with 334 cases from 167 programs. Two participants from one Taiwan2 program were deleted due to incomplete data. The results showed moderately good agreements of 0.70 at the $p < 0.01$ level.

Research Site Comparisons

Item means for the total sample (N = 335) were compared to look for patterns of similarities and differences in program services by research site. A comparison of general patterns of participant ratings for the 15 item means in Study 2 is depicted in Fig. 2 by research site. Item means ranged from 1.00 (1.72) in Guatemala to 4.84 (0.37) in the US1 site for the total sample. As shown in Fig. 2, US1 item means were higher than the other sites overall, ranging from 3.33 (1.51) to 4.84 (0.37). By contrast, Guatemala participant item means were generally lower than the other sites, 1.00 (1.72) to 4.33 (1.08). The highest rating pertained to equal access for children with diverse religious, ethnic, language, or cultural affiliations.
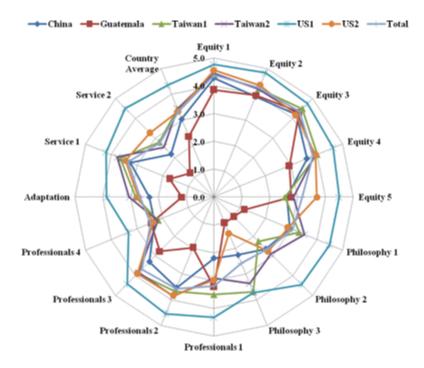
Fig. 2

Item mean comparison by country for study 2 (N = 336)

Twelve Item Comparison Across All Research Sites

Twelve items across both studies, which included 237 programs and 474 participants, were compared to gain insights about the services being offered to young children with special needs from an international perspective. Table 3 depicts the 12 items used in the comparison within each of four categories of program services (described earlier). These items were either identical or almost the same in both studies.

Table 3

Study 1 and study 2 item analysis comparison (N = 474)

Analysis item number	Study 1 2003 GGA area 5 items	Study 2 2006 GGA area 5 items
Subcategory: access and equity of services		
1	Both female and male children have equal access and equity in types and levels of support	Both female and male children have equal access and equal opportunities in types and levels of support and services
2	Children from low-income groups have access and equity similar to that of high-income groups	Children from low-income groups have access and equal opportunities to those of high-income groups
3	Children have access and equity irrespective of their religious, ethnic, language, or cultural affiliation	Children have access and equal opportunity irrespective of their religious, ethnic, language, or cultural affiliation
4	Information about opportunities for access and equity of services are made available to all groups through culturally relevant and effective media channels	Information about the program is communicated to all groups in the community
Subcategory: common philosophy and common aims		
5	A multi- or trans disciplinary team is composed of the parents of children with disabilities and staff relevant to meeting the particular child's needs	A team of parents of children with disabilities, program staff, and/or other specialists works together to meet a particular child's needs
6	There is an identified person for planning, coordinating, and monitoring the delivery of services	There is an identified person in charge of planning, coordinating, and monitoring the delivery of services for children with disabilities
Subcategory: staff and service providers		

Analysis item number	Study 1 2003 GGA area 5 items	Study 2 2006 GGA area 5 items
7	At least one staff member and/or service provider in a setting has the skills to identify the special needs of children or there is access to a professional with those skills	A staff member and/or specialist in the program has skills to identify special needs of children or a professional with those skills is available
8	Staff members and/or service providers are able to individualize and make appropriate modifications for education and care of children according to their individual needs	Staff members and/or specialists individualize, adapt, and modify to meet the individual educational or care needs of children with such needs
9	Staff members and/or service providers are able to establish ongoing relationships with parents/guardians and families in meeting the needs of their children	Staff members and/or other specialists establish ongoing relationships with parents/guardians and families in meeting the needs of their children
Subcategory: adaptations to indoor and outdoor environments		
10	Adaptive equipment and materials to facilitate special needs children's full involvement in the environment are provided	Adaptive equipment and materials are provided to children with special needs in the program. (in next category on 2006 GGA)
Subcategory: service delivery		
11	Services are delivered to the greatest extent possible within an inclusive environment of special needs children and non-special needs children	Services are delivered within an inclusive environment of special needs children and non-special needs children
12	Families of children with special needs are involved in decision-making, planning, delivery, and assessment of services	Families of children with special needs are involved in decision-making, planning, delivery, and assessment of services

Table 4 shows the means and standard deviations for each of the twelve items by research site. These statistics will be used to describe similarities and differences in services using the combined samples.

Table 4

Items means and standard deviations for twelve items for both studies combined ($N = 474$)

Research site	Access and equity				Common philosophy and aims		Staff and service providers			Adaptations	Service delivery	
	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12
	M(SD)	*M*(SD)	*M*(SD)	*M*(SD)	*M*(SD)	*M*(SD)	*M*(SD)	*M*(SD)	*M*(SD)	*M* (SD)	*M*(SD)	*M*(SD)
Colombia	3.47 (2.02)	3.04 (2.25)	3.23 (2.12)	2.94 (2.21)	1.42 (1.74)	1.63 (1.83)	2.15 (1.95)	1.84 (1.98)	2.26 (1.82)	2.05 (2.09)	1.78 (1.99)	1.66 (2.14)
Guatemala	3.44 (1.70)	3.96 (1.25)	4.60 (0.67)	2.44 (2.03)	1.53 (1.94)	2.85 (2.07)	2.86 (1.98)	3.24 (1.88)	3.14 (1.99)	3.10 (1.32)	2.85 (1.96)	1.53 (1.98)
Mexico	4.07 (1.57)	3.74 (1.79)	3.92 (1.83)	2.44 (1.95)	2.77 (1.89)	2.23 (2.07)	3.74 (1.68)	3.59 (1.50)	3.77 (1.58)	2.78 (1.85)	3.77 (1.58)	2.62 (2.10)
Peru	0.87 (1.52)	0.96 (1.56)	1.17 (1.97)	0.41 (0.98)	0.00 (0.00)	0.14 (0.76)	0.17 (0.77)	0.30 (0.88)	0.33 (1.03)	0.27 (0.80)	0.25 (0.75)	0.00 (0.00)
Venezuela	3.89 (1.49)	3.60 (1.23)	4.15 (0.69)	3.16 (1.47)	2.88 (2.00)	2.80 (2.14)	3.05 (1.83)	3.22 (1.83)	3.64 (1.58)	3.58 (1.58)	2.88 (1.87)	3.26 (1.85)

Research site	Access and equity				Common philosophy and aims		Staff and service providers			Adaptations	Service delivery	
	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M (SD)	M(SD)	M(SD)
China	4.28 (0.89)	3.91 (1.14)	4.20 (0.85)	2.62 (1.35)	2.96 (1.46)	2.63 (1.45)	2.19 (1.39)	3.52 (0.77)	3.28 (1.21)	2.32 (1.37)	3.25 (1.22)	2.18 (1.35)
Guatemala 2	3.86 (1.58)	3.96 (1.52)	4.32 (1.08)	2.77 (1.85)	1.17 (1.86)	1.00 (1.73)	3.22 (1.68)	1.96 (2.05)	2.75 (1.94)	1.15 (1.76)	1.72 (2.02)	1.22 (1.89)
Taiwan1	4.41 (0.65)	4.23 (1.09)	4.50 (0.70)	2.55 (1.67)	3.31 (1.67)	2.25 (1.73)	3.50 (1.48)	3.66 (1.23)	3.86 (1.21)	2.82 (1.55)	3.64 (1.09)	2.79 (1.71)
Taiwan2	4.45 (0.68)	4.20 (1.36)	4.24 (1.29)	2.85 (1.73)	3.51 (1.67)	2.89 (1.67)	2.91 (1.57)	3.85 (1.09)	3.83 (1.38)	3.05 (1.54)	3.76 (1.24)	2.54 (1.73)
United States1	4.77 (0.48)	4.84 (0.37)	4.75 (0.53)	4.50 (0.73)	4.50 (0.85)	4.45 (1.13)	4.32 (1.04)	4.53 (0.70)	4.41 (0.70)	3.86 (1.47)	4.20 (1.13)	4.51 (0.67)
United States2	4.56 (0.70)	4.34 (0.95)	4.16 (1.19)	3.70 (1.30)	2.88 (1.87)	2.76 (1.81)	2.97 (1.81)	3.83 (1.21)	3.88 (1.18)	2.71 (1.71)	3.44 (1.65)	3.26 (1.62)

Access and Equity of Services

Three items pertaining to access and equity by gender, socioeconomic status, and religious, ethnic, language, and cultural affiliation were rated in the good to excellent range in all research sites except Peru (rated inadequate), ranging from 3.04 (2.25) in Colombia to 4.84 (0.37) in the US1 site. The second item concerning access and equity for low and high income groups was rated lowest in all sites except Guatemala from Study 1, Peru, and US1. Participants from Mexico commented on differences in accessibility by geographic location (e.g., urban, rural) as well as income, indicating that rural, low income families did not have equal access to services.

The last item in this group, "Information about opportunities for access and equity of services are made available to all groups through culturally relevant and effective media channels," was rated lower than the other three items in all research sites. Ratings fell in the inadequate to minimum ranges for all sites but Venezuela, US1, and US2 as shown in Table 4. Many rural communities in some sites (e.g., Peru, Guatemala) lacked access to television or other media. Also, television, radio, and other modes of communication are typically presented in the dominant official language, which makes communication with the general public challenging. For example, in Guatemala there are more than 20 official languages other than Spanish yet the major television stations are in Spanish (Hardin et al. 2008). Also, the surge in diverse language populations in the US during the past decade has found many professionals unprepared to provide written and verbal communication in the children and families' home languages (Hardin et al. 2009). The GGA ratings appear to reflect these contextual factors.

Common Philosophy and Aims

This category included two items. The first item asked the extent to which special services included multidisciplinary or transdisciplinary teams composed of parents and staff. Item means ranged from not available in Peru (rating of 0 by all participants) to a mean of 4.50 (0.85) in the US1 site. As mentioned earlier, the high rating by US1 participants likely reflected Head Start's infrastructure designed to support children with disabilities and their families. In Peru, participants indicated that because few services for young children with disabilities existed, there were no special services teams. Guatemalan participants reported the teams in association with the one diagnostic center in the country, which serves a limited number of children and families located in or around Guatemala City. The second item focused on whether there was an identified person for planning, coordinating, and monitoring the delivery of special education services. Item means in all sites but US1 were in the inadequate to minimum range, 0.14 (0.76) in Peru to 2.89 (1.67) in Taiwan2, suggesting a uniform lack of trained personnel in most sites.

Staff and Service Providers

The next category included three items pertaining to availability of qualified staff, individualization, and professional-family relationships. Whether the program had at least one staff member trained to identify the special needs of children was the focus of the first item, and if the program established ongoing relationships with families to meet their children's needs the focus of the last item. With the exception of Peru (inadequate) and the US1 (excellent) sites, item means for both items were in the adequate to good range, from 2.16 (1.95) in Columbia to 3.74 (1.68) in Mexico for the first item and 2.26 (1.82) in Colombia to 3.88 (1.18) in US2 for the third item in this category.

The second item focused on individualizing the curriculum and making appropriate modifications for children with special needs. Both China and US2 had higher item means in this area than the previous item, 3.53 (0.77) and 3.83 (1.21), respectively; however, Guatemala's was lower 1.96 (2.05). These findings reflect the need for more training for teachers on how to individualize the curriculum for children with disabilities as well as the need for funding to support adequate amounts and types of materials.

Adaptations

Ratings on items related to the availability of adaptive equipment and materials that facilitated the full involvement of children with special needs were in the inadequate to good range with many participants commenting they did not have funding for special equipment.

Service Delivery

Two items were included in the analyses for this category, the first pertained to inclusion practices and the second focused on the role of parents in decision-making. Although some participants mentioned they delivered services for young children with special needs in inclusive settings, most reported services were provided in separate settings or not at all. One interesting observation based on comments by Guatemalan participants was the distinction between children with special needs and hard-of-hearing children. Many participants stated that they do not consider hard-of-hearing children included in the population of children with disabilities. In China, some participants reported children with special needs are not accepted in their programs but rather special education schools are an available option. Also, Chinese participants reported that insufficient training and resources prevented them from accepting children with disabilities. They further reported that providing services for young children with special needs is still not perceived as a responsibility of the school. Participant comments from the Taiwan2 site suggested that specific guidelines for making referrals, accessing services and funding, and

collaborating with service providers were in place. These examples may explain why Taiwan participants gave a higher rating on this item compared to China and Guatemala. However, in the United States, although there are specific guidelines in place, participants from the US2 site rated this item lower than the US1 participants.

For the last item focused on community and parent collaboration, US1 item means were in the excellent range, 4.51 (0.67), and Venezuela and US2 means were within the adequate range, 3.26 (1.85) and 3.26 (1.62), respectively. All other sites were in the inadequate to minimal range. Many participants from China, Guatemala, and Taiwan reported that they perceived parents as important collaboration partner; however, they did not perceive information sharing to the community as an important responsibility of the school. Although some participants reported that they use bulletin board, activity, or information sheet to share information with parents and the community, the major audience for their information sharing is parents. Some participants from Taiwan2 and Guatemala did not perceive information sharing as a necessary responsibility.

Discussion

The twenty-first century has ushered in a new age of global connectedness. Early care and education services for young children with disabilities are no exception. Though each nation oversees the education of their children and youth, international initiatives have reshaped global thinking about how services are implemented, including: a greater emphasis on inclusion of children with disabilities in settings with typically developing peers, the call for higher quality services, better trained teachers, and meaningful family engagement as decision-maker partners. These changes require early care and education professionals and special educators to rethink old practices and develop new solutions that are viable within the beliefs and values of each society and the world at large. Similarly, the shift toward higher quality services and equal access for all young children, including those with disabilities, requires resources and policies that emphasize best practices. The results of this research reflect the old and new ways of thinking about services for young children with disabilities.

While participants appeared to strive toward providing equal access to young children regardless of ethnicity, religion, language, gender, and socio-economic status, insufficient resources and policies were cited as major barriers that undermined access to services for children with disabilities. This situation appeared to be especially true in rural communities. The exception to these identified needs was the US1 site, where national policies (e.g., Head Start) help ensure equal access for children with disabilities and funding is available to help realize these policies. However, equal access does not necessarily mean inclusive services. The majority of participants suggested inclusion is not implemented to a satisfactory extent yet. Many children with special needs still receive services in a separate, setting such as a special center or special education school. In other words, while professionals may agree with the principle of inclusion, funding,

government policies, and cultural beliefs and practices appear to create barriers to inclusion in many countries.

Most participants appeared to have a positive attitude toward supporting the special needs of children with disabilities and providing individualized instruction for all children. However, many identified lack of training and professional knowledge as major barriers preventing them from providing appropriate services. Another issue that emerged from this study is the shortage of special education staff and service providers. These findings correspond to similar concerns expressed by international organizations (UNESCO 2006, 2010). Most countries require teachers to have at least an associate degree and yet very few of them have a special education degree. As a result, teaching staff at the early childhood education program may be qualified to teach children with typical development but may lack the professional skills and knowledge needed to serve children with disabilities. Increasing training requirements for prospective teachers and special education staff would help address this need. Policy support for professional training is equally important to ensure quality services for children with disabilities.

Family and community collaboration are well-documented in the literature as a positive influence on children's learning outcomes (Dempsey and Keen 2008). Yet, some participants did not perceive community collaboration as a responsibility for program professionals. Results across both studies suggest that parents of children with disabilities have a limited voice in decisions impacting their children, although programs seem to recognize the importance of parental input.

Communication channels between policymakers and professionals, including those in leadership positions, are very important. Yet, this type of communication was not well-established in many of the participants' countries. One consequence of this situation is that policymakers do not understand how to improve services for children with disabilities or what resources and support they can provide for school professionals working with this population.

This research has several limitations as discussed below. First, the number of programs included in both studies is limited and caution should be taken concerning generalizations about the services for children with special needs. Therefore, conducting research involving multiple sites in each country and collecting data using stratified sampling strategy would provide additional insights global perspectives on early care and education services for children with disabilities. Second, the researchers recognize the GGA items were interpreted by participants from their unique cultural perspectives. However, the GGA was designed with input from professional from more than 25 countries so that the items had meaning across cultures. Further research on trends identified in this research such as the interface between inclusion and cultural beliefs and values, needs to be conducted within the context of local communities and countries to provide additional insights. Third, because early care and education is at an early stage of development in some countries, especially for children with disabilities, questions concerning attitudes, awareness, and beliefs pertaining program and services for children with disabilities and those

related to what is actually being implemented should be investigated further. Such distinctions can clarify what quality services for children with disabilities mean under various cultural contexts at a deeper level. Fourth, data collection for these studies was collected between 2003 and 2008. Future studies should be conducted to examine the trends found in this research and whether the field has changed.

In conclusion, by using the GGA to examine services for young children with disabilities, trends and gaps in services were identified. Since 90% of children with disabilities in developing countries do not attend school (UNESCO 2010) and many other countries continue to struggle to provide inclusive services for young children with disabilities, it is imperative that cross-cultural research be implemented to shed light on factors impacting services and thus improve national and international policies.

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