Mapping Patterns of Perceptions: A Community-Based Approach to Cultural Competence Assessment

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Unclear definitions and limited system-level assessment measures inhibit cultural responsiveness in children's mental health. This study explores an alternative method to conceptualize and assess cultural competence in four children's mental health systems of care communities from family and professional perspectives. Concept Mapping was used to generate relational maps reflecting indicators of cultural competence and pattern match comparisons within and across communities. Differences and similarities in conceptualizations and participant group comparisons of average statement ratings on three criteria were found among communities. An aggregated map containing 117 statements within 15 clusters of cultural competence is presented. Concept mapping offers promise for contextually conceptualizing and assessing cultural competence. Implications for practice in systems of care are discussed.

Keywords: *cultural competence assessment; children's mental health; systems of care; community based; concept mapping*

Current national data indicate that one in five children will need mental health services at some point before reaching adulthood. Approximately 21% of U.S. children ages 9 to 17 have a diagnosable mental or addictive disorder (U.S. Department of Health and Human Services [USDHHS], 1999); 9 to 13% of all children suffer with a serious emotional disturbance. The challenges experienced by families with children who are seriously emotionally disturbed often result in their involvement with multiple public service systems including child welfare, juvenile justice, mental health, public school services, and alcohol and drug services (Garland, Hough, McCabe, Yeh, Wood, & Aarons, 2001).

Given that children are already an exceptionally vulnerable group of society, it is important to consider the impact of culture in serving children suffering from mental health disorders. Census data indicate the population growth of children and adolescents is extremely diverse. It is estimated that by the year 2025, 48% of U.S. children will be children of color (USDHHS, 2001a). The Surgeon General suggested that the "fundamental components of effective [mental health] service delivery include integrated *community-based services*, continuity of providers and treatments, family support services (including psychoeducation), and *culturally sensitive service*" (USDHHS, 1999, p. 455, italics added).

As American society becomes more structurally complex and ethnically diverse, organizations must be prepared to effectively provide services that meet the needs of a wide variety of ethnic and nonethnic cultural groups. Addressing issues related to cultural competence in children's mental health is especially critical as research indicates a history of unsatisfactory performance by mental health service systems in serving youth and adults with diverse backgrounds (Hernandez & Isaacs, 1998; Knitzer, 1982; Roizner, 1996; Smedley, Stith, & Nelson, 2002). For example, problems experienced by ethnic consumers of color in the mental health system include receipt of fewer and less intense services, fewer positive

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outcomes, prejudice from therapists, and a higher dropout rate from services (Davis, 1997; Lu, Lum, & Chen, 2001; Sue, 1992). Roizner points out, however, that research also shows services can be improved by developing culturally competent work with children and families. For example, consumer satisfaction increases, consumer dropout of services decreases, and service effectiveness increases when work with families demonstrates cultural competence.

Systems of care for children's mental health is a specific community of service designed to meet the needs of children with serious emotional disturbances and their families (Stroul & Friedman, 1986). Systems of care philosophy holds that services must be child- and family-centered, strengths-based, culturally competent, and provided within the community. To successfully implement the type of wraparound service delivery approach advanced in systems of care (cf. Burchard & Clarke, 1990; VanDenBerg & Grealish, 1998), practitioners must possess the ability to work with the family's culture, the culture of the family's identified community, and the multiple organizational cultures of children's service systems. Communities are challenged to implement and measure cultural competence at both practice and systems levels (USDHHS, 2001a). Yet determining the best method for assessing cultural competence is a difficult task if the researcher is uncertain about what she or he is to observe.

Defining Cultural Competence

In searching for ways to discuss and examine cultural competence, theorists across the social sciences offer a variety of definitions of the concept based on their respective worldviews. Not unlike concepts of culture, ethnicity, and race, the meaning of *cultural competence* continues to evolve. Indeed, one may say that even attempting to ascribe a static definition to cultural competence is antithetical to the fluid character fundamental to the concept because what is culturally competent to one may not reflect critical elements important to another. Yet mental health practitioners increasingly learn that effective practice requires integration of cultural references into their work with all people. Such successful integration depends on numerous personal and organizational factors but the process begins with practitioners and organizations attaining an understanding about the cultures within their specific communities of service.

Terms used to describe culturally competent work and models developed for implementing and assessing culturally competent practice have proliferated across disciplines in the past two decades. Fong (2001) identified 14 terms, some reflecting models for practice, used in social work alone. The historical lack of clarity around the conceptual meaning of *cultural competence* leads one to question the constructs underlying the models and evaluative measures based on those models. Consequently, this ambiguity delays research progress, resulting in a lack of empirical research validating the theoretical practice models, measures, and impact of culturally diverse practice in mental health services. Thus, whereas the professions of social work and psychology alike have published standards and guidelines for culturally competent education and practice (American Psychological Association, 2002**;** National Association of Social Workers, 2001), limited empirical evidence exists that substantiates the relationships between components of culturally competent care and outcomes (USDHHS, 2001a; U.S. Health Resources and Services Administration, 2001).

Cultural Competence Assessment

Development of cultural competence measures in mental health is hampered by the lack of clarity around the construct's meaning. Thus, assessment methods have not kept pace with developing approaches to culturally competent practice (Lu et al., 2001; Pope-Davis & Dings, 1994). Measuring multiple levels of competence is important to understanding the overall effectiveness of mental health care. Competence of an individual provider or clinician in the delivery of services is the first layer typically considered and assessment often stops at the level of the individual provider. Although measuring provider competence is necessary, this approach unfairly places sole responsibility for culturally competent mental health care on direct practitioners. It is becoming increasingly understood that service delivery organizations and systems must also be held accountable for efforts in supporting cultural competence through policies, structures, environment, and so forth. Finally, mental health care happens within the context of a community and assessment efforts should help organizations and providers learn about their responsiveness to the broader community.

Although a number of cultural competence measurement instruments were developed across disciplines in the past decade (Hernandez & Gomez, 2000; Roizner, 1996), the majority was developed specifically to assess individual provider competence during provider-consumer interaction. These tested and validated measures are based in large part on the model of cultural competence outlined by Sue, Arredondo, and McDavis (1992; cf. D'Andrea, Daniels, & Heck, n.d.; LaFromboise, Coleman, & Hernandez, 1991; Ponterotto et al., 1996; Sodowsky,

Taffe, Gutkin, & Wise, 1994, as cited in Pope-Davis & Dings, 1994). Two additional measures published after this research was conducted also target individual provider competence. A measure by Gamst et al. (2004) pulls items from the measures described above and is a practitioner self-assessment tool. Cornelius, Booker, Arthur, Reeves, and Morgan (2004) developed a measure to assess consumers' perspectives of providers on a wider range of experiences beyond the actual clinical interaction.

Measures are more recently being developed to assess cultural competence at the organizational level, including extensive lists of performance measures often adapted for accreditation and managed-care models (cf. Siegel, Haugland, & Chambers, 2003; USDHHS, 2000, 2001b). One organizational level measure, the Cultural Competence Agency Self-Assessment Instrument (Child Welfare League of America, 2002), was developed primarily for use in child welfare organizations. Two models of assessment developed specifically within the framework of children's mental health systems of care include the Cultural Competence Self-Assessment Questionnaire (Mason, 1995, 2000) and the Systems of Care Practice Review (Hernandez & Gomez, 2000; Hernandez, Worthington & Davis, 2005). The Systems of Care Practice Review serves as a measure to assess the overall fidelity of the system's adherence to systems of care philosophy including cultural competence. In addition, two wraparound fidelity measures include cultural competence and systems of care–related indicators (cf. Bruns, Burchard, Suter, Leverentz-Brady, & Force, 2004; Epstein et al., 2003).

Although these assessment methods provide valuable options, they have some notable limitations. For example, the Cultural Competence Self-Assessment Questionnaire does not gather input from family members. As a case study approach, the Systems of Care Practice Review requires an intensive amount of training for data collectors and a lengthy data gathering process. Additionally, all of the measures discussed were developed with a priori conceptualizations of cultural competence, limiting their ability to delineate specific uniquenesses across systems of care as defined by communities.

Traditional top-down, expert-driven models of measurement, typically guiding cultural competence assessment measures available in mental health, are largely developed with key expert consensus around a particular concept and assumed to be transferable across cultures (Rogler, 1999). Rogler (1999) asserted, "The procedural norm that unwittingly promotes the easy transferring of concepts can be a source of cultural insensitivity, depending on the degree of such cultural differences or similarities" (p. 430). He advocated adapting research designs that engage members of the group under study in all phases of the research, from planning to interpretation of findings.

One common method of conceptualizing and assessing cultural competence is the list technique described by Spitzberg (1989). As previously noted, adaptations of this technique are widely used in standards models of assessment. The list technique is a process whereby researchers identify skills or characteristics through literature or expert reviews and then use those items to measure competence. Spitzberg argued that although items on a list may well contribute to competent interaction the ideas are often based on the conceptions of the authors rather than having been empirically derived from the interactants themselves. He further suggested that lists present an "illusion of validity" that is magnified when characteristics appear to be consistent across lists but where the constructs (or characteristics) were actually conceptualized within a different context by each author without "conceptual integration" across the lists (p. 246).

Rationale for Use of Concept Mapping

Mental health evaluators have used concept mapping for a variety of purposes such as program planning and needs assessment (Johnsen, Biegel, Shafran, 2000; Trochim, Cook, & Setze, 1994) and program fidelity assessment (Shern, Trochim, & LaComb, 1995). With regard to culturally related research, Biegel, Johnsen, and Shafran (1997) used the method to assess barriers and identify solutions for involving African American families in planning services for family members suffering from severe mental illness. More recently, Herman, Onaga, Pernice-Duca, Oh, and Ferguson (2005) used concept mapping to explore community development within clubhouse programs. A more thorough discussion of past uses of concept mapping in mental health can be found in Johnsen, Biegel, and Shafran (2000).

There are many different approaches to the use of concept mapping (see Jackson & Trochim, 2002, for a detailed review). This study used a structured participatory conceptualization process adapted from Concept Systems (2001; Trochim, 1989). In this approach, a qualitative research design is used in combination with quantitative analytic techniques to understand multiple ideas from multiple levels of participants. Such mixed-method approaches are suggested for increased understanding of the cultural context of a community (Hernandez, Isaacs, Nesman, & Burns, 1998). A brainstorming data collection process gathers participants' words and phrases to describe a concept, and multivariate analyses provide a

sound data structure from which additional analyses are conducted. The results provide graphical output illustrating how the concepts are linked in a meaningful way. Additional analyses and graphics provide for scaled comparisons of perceptions between groups. The Concept Systems process is intended to produce information in a way that can be used in planning for action. This study implemented concept mapping in a way not previously applied to culturally related research to better understand how participants' conceptualizations of cultural competence are similar and different across communities. The article reports conceptualizations of cultural competence generated from the perspectives of adults participating in systems of care service communities.

Two specific research questions guided the concept mapping stages of this study: (a) To what extent are there differences and similarities in conceptualizations of cultural competence among groups of participants across four systems of care communities? (b) Is the concept mapping methodology, a participatory mixed-research method, a viable approach to conceptualizing and assessing cultural competence in individual communities? Community conceptualizations of cultural competence were further compared with various theoretical models of diversity practice and are reported elsewhere (see Davis, 2003). On a practical level, the study sought to assist multiple systems of care in one southwestern state establish baselines for monitoring cultural competence development and provide information to the state consortium responsible for systems of care development. Experience from a pilot study indicated the method's utility in identifying concrete training needs related to cultural competence (Davis, Johnson, Barraza, & Rodriguez, 2002).

METHOD

Concept mapping was used in two phases of this study: first in a cross-sectional study of four systems of care communities, two urban and two rural, in one southwestern state and secondly in an aggregated study across these communities. All four communities received modest state monetary support for systems of care infrastructure development and were in their 2nd year of funding. A specialized team of four social workers was assembled to conduct the study. The core team consisted of a family evaluator who is a caregiver of a child with a serious emotional disturbance, two facilitators experienced in teaching and training cultural diversity, and the principal investigator with multicultural experience and knowledge of systems of care processes and the research method. The team reflected the primary ethnic, racial, and linguistic diversity of persons served in the local communities.

Overview of Concept Mapping

The six stages typically advanced by Concept Systems (2001) were used for individual community assessments. Stage 1 involves the preparation of the study design. With the exception of its participatory approach, this stage is similar to any other research planning effort. In Stage 2, idea generation, participants brainstorm responses to a focus statement or question to generate ideas around a particular concept with the descriptive statements serving as the core data for the study. In Stage 3, structuring ideas, participants give meaning to the data by individually sorting the statements into conceptual piles. Completion of Likert-type scales to rate each descriptive statement on predetermined criteria adds interpretive value. In Stage 4, representation of ideas, the individual sorts are used as input for multivariate analyses to produce spatial maps depicting conceptual similarities and differences between statements. Correlation analyses are conducted to make group comparisons based on participant ratings. Stage 5, interpretation, involves sharing results of the analysis with participants and obtaining their feedback. The final stage, utilization, uses study findings for action planning. A brief summary of how the first five stages were implemented within each individual community provides a framework for placing the aggregate process and findings in context.

Preparation. Community representatives received information about available assessment methods and attended a presentation about the proposed use of concept mapping. A collaborative committee was formed with community representatives to plan the study. Local staff and families were primarily responsible for logistical arrangements and participant recruitment. A similar series of 3-day meetings were facilitated in each community. Family participants were offered onsite childcare and reimbursement for transportation expenses. Food and beverages were provided for all participants.

Idea generation. Day 1 consisted of the consent process and idea generation with professional and family participants generally attending separate meetings. Spanish translation was conducted in both rural communities. Sessions lasted from 1.5 to 2 hours; family participants received a $10 Wal-Mart gift card. Based on the pilot study experience, multiple variations of the focus statement considered to reflect the same intent were used to generate

ideas. Participants completed the following sentence(s) with specific examples:

1. I know services to families are culturally competent when . . . [Yo se que los servicios a familias son culturalmente competentes cuando . . .]
2. I know services to families are respectful when . . . [Yo se que los servicios a familias son respetosos cuando . . .]
3. I know services are culturally responsive when . . . [Yo se que los servicios a familias son culturalmente sensible cuando . . .]

After first engaging participants in a discussion to stimulate thinking about the meaning of cultural competence, we led them in brainstorming the focused responses. Participants uncomfortable sharing aloud also had the option of submitting ideas on an index card. Statements generated from each group were combined into one list with no data reduction.

Structuring ideas. On Day 2, blocks of time were available for participants to complete the sorting and rating. Concept mapping allows that, given a shared understanding of the ideas generated, different groups of participants may complete the various tasks of the method (Jackson & Trochim, 2002). Thus, additional participants attended Day 2. Bilingual rating assistance was provided because the short turnaround from statement generating to sorting and rating prohibited the statements from being translated into Spanish and back-translated into English in written form.

Consenting participants were briefed and given a set of computer-generated cards reflecting each idea generated. Participants were asked to sort the cards into piles in whatever way made the most conceptual sense to them (using standard sorting instructions from Concept Systems, 2001) and to assign each pile a name to reflect its contents. Participants then rated the statements on the criteria determined by the planning committee. Two 5-point Likert-type scales were rated by all participants on (a) the importance of each idea for meeting the unique needs of families (5 = *extremely important* to 1 = *not important*) and (b) frequency of demonstration of the idea in the community's system of care (5 = *always demonstrated* to 1 = *never demonstrated*). Systems-of-care professionals used a 3-point scale to rate the extent of each statement's coverage in agency policies (3 = *fully covered* to 1 = *not covered*). This last scale included an "I don't know" category to obtain a percentage of total responses reflecting no related knowledge of policies. The sorting and rating tasks averaged 1.5 hours. Family participants received a $25 Wal-Mart gift card for Day 2.

Representing ideas. The research team conducted preliminary analyses prior to Day 3. Concept maps were produced for each community, providing graphic representations of relationships and relevance of the ideas (Trochim, 1989). Concept mapping uses individual sort data as input for nonmetric multidimensional scaling (MDS) to obtain a combined matrix of proximities. The analysis places points (i.e., the statements) into a bivariate distribution of X-Y coordinates on a graphical (point) map to create two-dimensional spatial maps of points representing the underlying structure of how participants conceptualized the relationship (similarity or difference) between ideas (Trochim, 1989). Using the MDS results as the basis for hierarchical cluster analysis, statements plotted on the X-Y map are grouped into conceptual clusters based on similarity of ideas using Ward's method for agglomeration (Trochim, 1989). It is the task of the researcher or participants to determine how many clusters make sense for the data as there is no objective standard or mathematical solution to determine the appropriate number of clusters (Hair, Anderson, Tatham, & Black, 1998; Shern et al., 1995). Standard Concept Systems (2001) processes assisted in determining the final number of clusters for each community's map but it is important to note that map interpretation was largely informed by interpretive feedback received from community participants as described below.

Finally, average ratings for each statement and cluster were created for all three rating criteria. Group comparisons (pattern matches) were made within each and across all communities. As suggested by Johnsen and colleagues (2000), group comparisons included no fewer than five participant ratings per group. These pattern matches reflect the relationship strength (level of consistency) between groups' patterns of average ratings. Pattern matches were also produced comparing participant ratings of importance and frequency of demonstration, establishing baselines for cultural competence development. Detailed discussions of the statistical analyses used in concept mapping can be found in Trochim (1989) and Jackson and Trochim (2002).

Interpretation. A smaller group of participants selected by local communities assisted in the data interpretation on Day 3. Participants engaged in dialogue about potential meanings of the preliminary results. Participants discussed and chose the number of clusters to best reflect their data, providing researchers with added contextual understanding of data groupings. A computer-generated list of labels from participant sorts was used to develop final cluster labels reflecting the

words and interpretations of participants. With the final map determined, various graphs of cluster ratings and pattern matches were produced and discussed.

Aggregate Assessment

A second concept mapping process was conducted across the four communities. Secondary analysis of qualitative data (Thorne, 1994) was employed whereby the principal investigator and family evaluator engaged in separate data reduction processes to synthesize the ideas generated across communities. They met on several days and used a qualitative consensual methodology (Hill, Thompson, & Williams, 1997) to compare results and come to consensus on one unduplicated list of statements. Statements were retained in the words of participants as often as possible. The 303 original statements were reduced to 117 unduplicated statements.

New sets of sort cards and rating sheets were produced from the combined list of statements. Packets were mailed to participants with a self-addressed, postage-stamped return envelope for returning completed packets. One month past the initial return deadline, a second mailing was sent to participants who had not yet responded. All statements, the demographic form, instruction sheets, and rating forms were translated into Spanish and back-translated into English for the second mailing to increase return of rating forms by Spanish-speaking participants. Having obtained more sorts than required for statistical analysis in the first mailing, sorting packets were mailed again only to participants with selected demographic characteristics. Family participants were mailed an additional $25 Wal-Mart gift card upon receipt of their completed returned packet.

The principal investigator conducted final data analyses for the aggregate phase. An aggregated concept map was produced, keeping labels as close to the data as possible to reflect the words of the participants. New rating comparisons across communities were based on available groupings of at least five participants.

FINDINGS

Participant Characteristics

The study included participants from four systems-of-care communities: two urban and two rural. Table 1 reflects the participant sample at each stage of the study by total and by community. Data were gathered on a total of 186 adult participants across the four individual community assessments; 150 individuals participated in data generation, and data from 126 participants were used in the sorting and rating analyses. Family and professional participant return rates for Day 2 were 87% and 44%, respectively. Thirty-six additional family member and professional participants attended Day 2 only.

Adult participants across phases ranged in age from 19 to 74 with a mean age of 43.26 (SD = 11.09). Distinct differences were noted between family and professional household incomes with most professional participants reporting incomes of more than $50,000 (61.6%) and nearly half of family participants (47.1%) reporting incomes of $15,000 or less ($\chi^2$ = 91.85, df = 5, p = .000). In the 2 years prior to the study, 18% of professionals attended two cultural competence trainings, 33% attended one training, and 37% attended no cultural competence training.

Aggregate Response Rate

Of the 100 packets distributed for the aggregate phase, 45 completed packets were returned and another 3 family member packets were returned as undeliverable. This resulted in a 46% overall completed return rate (45 / (100 – 3) × 100) (Dillman, 1978). A 50% return rate on mail surveys is considered adequate for analysis and reporting but achieving sample representativeness is more important than the actual response rate (Rubin & Babbie, 1997). The aggregate return rate was considered adequate given that the time required to complete the sorting and rating process (1 to 1.5 hours) was longer than is typically required for mailed questionnaires. As noted in Table 1, the aggregate response was demographically representative of participants in the individual community sorting and rating samples. No significant differences were found in the number of participants from each community, family or professional membership, gender, race or ethnicity, income, or age.

Concept Mapping Data Generation and Cluster Maps

The concept maps produced in all phases serve, in part, to answer both research questions—one asking the extent to which there were differences and similarities in conceptualizations of cultural competence across four systems of care communities and the other asking whether concept mapping is a viable approach to conceptualizing cultural competence in individual communities. The number of individual community statements ranged from 65 to 82. Of the 117 statements identified during data reduction, 4 were common across all communities, 20 were common to three communities, 44 were

TABLE 1: Study Participant Characteristics (All Concept Mapping Phases)

	Total		Urban 1		Rural 1		Urban 2		Rural 2	
Category	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Total participants										
Community assessment	186	100.0	56	30.1	66	35.5	33	17.7	31	16.7
Community sort/rate	126	100.0	22	17.5	54	42.9	26	20.6	24	19.0
Aggregate sort/rate	45	100.0	8	17.8	25	55.6	6	13.3	6	13.3
Family member										
Community assessment	72	38.7	9	16.1	42	63.6	9	27.3	12	38.7
Community sort/rate	61	48.4	6	27.3	37	68.5	8	30.8	10	41.7
Aggregate sort/rate	26	57.8	3	37.5	16	64.0	4	66.7	3	50.0
Professional										
Community assessment	114	61.3	47	83.9	24	36.4	24	72.7	19	61.3
Community sort/rate	65	51.6	16	72.7	17	31.5	18	69.2	14	58.3
Aggregate sort/rate	19	42.2	5	62.5	9	36.0	2	33.3	3	50.0
Gender										
Female										
Community assessment	142	76.3	41	73.2	46	69.7	31	93.9	24	77.4
Community sort/rate	98	77.8	18	81.8	37	68.5	26	100.0	17	70.8
Aggregate sort/rate	34	75.6	6	75.0	18	72.0	6	100.0	4	66.7
Male										
Community assessment	44	23.7	15	26.8	20	30.3	2	6.1	7	22.6
Community sort/rate	28	22.2	4	18.2	17	31.5			7	29.2
Aggregate sort/rate	11	24.4	2	25.0	7	28.0			2	33.3
Race or ethnicity										
Asian American										
Community assessment	6	3.2	2	3.6			4	12.1		
Community sort/rate	2	1.6	1	4.5			1	3.8		
Aggregate sort/rate										
Black/African American										
Community assessment	24	12.9	7	12.5	2	3.0	11	33.3	4	12.9
Community sort/rate	19	15.1	3	13.6	2	3.7	10	38.5	4	16.7
Aggregate sort/rate	5	11.1	2	25.0	1	4.0	1	16.7	1	16.7
Mexican American										
Community assessment	28	15.1	3	5.4	24	36.4	1	3.0		
Community sort/rate	20	15.9	1	4.5	19	35.2				
Aggregate sort/rate	10	22.2			10	40.0				
White/European American										
Community assessment	114	61.3	40	71.4	34	51.5	15	45.5	25	80.6
Community sort/rate	77	61.1	16	72.7	28	51.9	14	53.8	19	79.2
Aggregate sort/rate	28	62.2	6	75.0	13	52.0	4	66.7	5	83.3
Biracial/Other group										
Community assessment	9	4.8	4	7.1	3	4.5	1	3.0	1	3.2
Community sort/rate	5	4.0	1	4.5	3	5.6	1	3.8		
Aggregate sort/rate	2	4.4			1	4.0	1	16.7		

NOTE: Table excludes "no response" categories. No information was available for two Urban 1 data generation phase–only participants; they are excluded from the total community assessment participants.

common to two communities, and 49 were unique to individual communities. Table 2 identifies which individual communities generated statements similar in meaning to the aggregated statement.

The requirement of a minimum of 10 to 15 sorts needed to ensure a reliable MDS analysis (Trochim, 1993; Jackson & Trochim, 2002) was met for all maps generated. An MDS goodness-of-fit measure, or stress value, is produced from a number of computational iterations that configure the map to the data (Kruskal & Wish, 1978). Stress values attained in concept mapping typically average .27 to .30 (Trochim, 1993). Stress values for all maps in this study were within or below the average range.

Community-based conceptualizations of cultural competence were generated from multiple perspectives of participants in systems of care service communities. *Community-based conceptualizations* are defined as the elements identified by participants that reflect (a) their perceptions of cultural competence, (b) how their ideas are structured, and (c) the value they assign to the structural elements. Conceptual maps were produced for

(text continued on page 368)

TABLE 2: Aggregate Statements of Cultural Competence by Cluster and by Individual Community Assessment

		U-1	R-1	U-2	R-2
Cluster 1: Service Provider Competencies					
1	Providers take time to get to know and build rapport with children and families they serve.		X	X	
11	Service providers welcome the involvement of an objective family advocate.	X		X	
69	Providers don't assume families won't understand what's going on with the family or situation.		X		
81	Service providers know when to offer empathetic or sympathetic support to families.		X	X	
91	Services are child centered and allow children to have a voice in what services they receive.			X	X
93	Providers work with and provide services to the entire family rather than only the identified child.		X	X	X
96	Service providers don't impose their own values and beliefs on families.	X	X	X	
100	Providers are willing to ask questions and allow families to be experts on their own cultures.		X		X
Cluster 2: Family-Centered Services					
8	Services provided are based on the specific needs of families.	X	X	X	
73	Roles of each person involved in services are clear (parent, counselor, child).				X
79	Service providers truly understand what's important to families.	X	X	X	X
85	Services and programs meet the scheduling needs of the family.	X	X		
98	Services to families are nonjudgmental and affirming of families' cultures and backgrounds.	X	X	X	X
105	Service provision involves mutual understanding between providers and families.		X	X	
113	Services are family driven (families are in charge of their own services).			X	X
Cluster 3: Provider-Family Interaction					
3	Service providers truly support, value, and preserve the individual cultures of the families.	X		X	X
12	Service providers and families are able to use humor in their relationships.		X	X	
28	Trusting relationships are built between providers and families.		X	X	X
35	Service providers and families truly work as a team.		X	X	
47	Providers value and honor input from the whole family.	X	X	X	
74	Families and service providers are not judgmental of one another.			X	
76	Parents are kept informed of their child's treatment and progress.	X	X		
111	Service providers use family-friendly language that is free of technical jargon.		X	X	X
114	Service providers respect parents' choices without being judgmental.	X		X	
Cluster 4: Culturally Accountable System Policies					
4	Services are inclusive of all persons without discrimination.	X			
7	A continuum of coordinated services and providers enables smooth service transitions for families.			X	X
16	The service systems support efforts to broaden services beyond "traditional" service provision.	X			X
21	Services lead to improving families' progress toward meeting their goals.	X	X	X	

(continued)

TABLE 2: (continued)

		U-1	R-1	U-2	R-2
22	Agencies work together (combine resources, information, and efforts) to meet families' goals.	X		X	X
25	There is equal opportunity for services for all individuals.	X		X	
61	Consumers are not submitted to abusive workers (verbal abuse, physical management, environmental constraints).	X			
97	Service providers are educated about the cultural differences of families they are serving.	X	X		X
101	Culturally appropriate services are ensured to meet the needs of families.			X	
104	Systems and service providers reflect ("look like") the diverse cultures in their community.	X	X		X
Cluster 5: Provider Accountability to Families					
5	Service plans are put in writing so everyone can be held accountable.	X			
9	Providers think outside the box of their job description and extend themselves in serving families.		X	X	X
42	Service providers have a credible reputation for serving families.	X			
56	Services are available for mental health and mental retardation dual diagnoses needs.	X			
75	Care is developmentally appropriate and not diagnosis driven.			X	
89	Providers make every effort to find help for families without passing the buck to another agency.		X		
92	Providers actually do what they say they are going to do.	X			X
95	Providers can admit they don't have the understanding necessary for working with a family.		X		X
102	Providers consider the culture of the whole person (spiritual, physical, financial, mental, family unit).			X	X
Cluster 6: Culturally Appropriate Services					
13	Services to families are provided using a multidisciplinary approach.		X	X	
39	Flexibility is built into the service system to provide unique or nontraditional services to meet family needs.	X		X	
72	There is consistency in who provides services to families.			X	
90	Services are individualized (not everyone is offered the exact same services in the exact same way).			X	
107	Services are provided within families' own communities.			X	
108	Services are available to families regardless of families' financial resources.	X		X	X
116	Services and supports are strengths based and draw on the existing resources of families.	X		X	X
Cluster 7: Government or Agency Community Involvement					
2	The government's understanding of the community's service needs is supported through appropriate funding allocation structures.	X			X
15	Decision-making bodies change services to meet the needs of the whole community.	X			X
17	Policy (legislated and agency) permits providers flexibility to do what's needed for families.	X			X
37	Organizations provide community-specific cultural competence training to employees at all levels.	X			
41	There is interagency cultural and historical understanding.	X	X		
45	Community ownership of services is valued by community members and supported by providers.		X		X
65	Practitioners can actually affect changes in the system of care.	X			
103	The cultural demographics of those served reflect the community's population.	X		X	

TABLE 2: (continued)

		U-1	R-1	U-2	R-2
Cluster 8: Agency Policies					
52	Workers are given rapid due process for accusations made by consumers.	X			
53	Agency policies allow employees to have case-related grief time.	X			
54	Professional and direct-care staff receive equitable pay.	X			
55	Staff are hired who have experienced mental health illnesses.	X			
63	Services and systems are noncompetitive.	X			
Cluster 9: Removing Restrictions to Access					
6	"Red tape" is not a barrier to families accessing services.				X
18	Services to families remain consistent across political parties.	X			
19	Employers are supportive of employees who have family members with special needs.	X			X
40	There is continuity of care for families over the long haul.			X	X
57	There are no more waiting lists.	X			
62	People don't hear professionals make remarks based on ethnic origins.	X			
109	Agency forms and documents are printed in the cultural language of families.				X
Cluster 10: Education Involvement and Expectations					
24	The educational system is prepared to be a positive participant.	X			
43	The educational needs of all children are met and supported.	X			X
48	Higher education institutions know their communities and can teach students about alternative types of referrals.	X			
58	There is not an overrepresentation of children in alternative education.	X			
59	Continuing education is offered to both families and professionals.	X			
Cluster 11: Family Empowerment					
10	Families are empowered by the strengths and differences of their culture.			X	
34	Families are active in all aspects of services.		X		
36	Families are invested in the service process.				X
44	Families have a lot of options for services.		X		X
46	Families view providers, policy makers, and agency administrators as helpful and motivating.	X	X	X	
49	Family voice and choice are prioritized.		X	X	
50	Families are given the time and consideration their situation deserves.			X	
78	Opportunities are available for families to support and share information with one another.				X
80	Families feel they are treated with dignity and respect.	X	X	X	X
84	Families know that the service providers care.		X	X	X
87	Families feel listened to and heard by service providers.		X		X
112	Families are able to communicate in their own language with service providers.		X	X	X
115	Families feel comfortable accessing services and asking questions of service providers.	X	X	X	X
Cluster 12: Respectful Responsiveness to Families					
68	Families get a response when they make a request.		X		
70	Families have a lot of options available when choosing service providers.		X		
71	Families are happy to see providers.		X		
77	Families are referred to as people and don't feel labeled or stigma associated with receiving services.	X	X		X
86	Families' time is respected.		X	X	
94	Families are accurately informed of services and resources that are available to them.			X	X
99	Families and service providers are willing to share their cultures and beliefs with each other.		X	X	

(continued)

TABLE 2: (continued)

		U-1	R-1	U-2	R-2
110	Families can access services and providers with no barriers (transportation, language, education, cost).		X	X	X
Cluster 13: Outcomes and Accomplishments					
14	Families get politically involved in advocating for change in government policies.	X			X
20	Noticeable progress is made in child outcomes.		X		
26	Kids are happy with themselves.	X			
27	Children are allowed to be children.				X
31	Communication between parents and their children improves.		X		
64	The elderly are valued.	X			
67	There are ways to measure achievement.		X		
83	Kids begin taking responsibility for their own behavior.	X	X		
Cluster 14: Positive Family and Provider Regard					
23	People know how to appropriately respond to crisis situations.	X			
33	Everyone is treated equally in the service process.		X	X	
51	Services enhance family life.			X	
60	Persons don't insult one another by trying to be too culturally polite.	X			
66	Animosity is not present between systems and families.	X			
Cluster 15: Responsive Family and Provider Communication					
29	Families understand how to use impartial grievance procedures.		X		
30	The needs of families are met.		X		X
32	Families are satisfied with the services they receive.	X		X	X
38	Families are educated about the organizations' cultures and mandates.		X		X
82	There is two-way respectful communication between children and service providers.		X		X
88	Parents and children are individually treated with respect.		X		X
106	The line of communication is always open.		X	X	
117	Families are able to find resources on their own and use new resources to help themselves.	X			X

NOTE: Words such as *that*, *the*, etc. were removed from statements to conserve table space; in some cases "service" was removed from "service provider." U-1 = urban community 1; R-1 = rural community 1; U-2 = urban community 2; U-2 = rural community 2.

each community. One community selected a seven-cluster solution, two selected eight-cluster solutions, and one selected a nine-cluster solution. Statements and clusters generated in all communities reflect many systems of care and wraparound values and principles.

Table 3 summarizes and compares the cluster conceptualizations of all four communities. Community clusters are listed by column, and clusters reflecting similar ideas are placed along the same row. All four systems of care identified four clusters with similar concepts. Cluster Row A reflects numerous examples of relational interaction with regard to respect, trust, communication, and valuing family input in the care process. Statements in Row B clusters represent issues related to family empowerment and partnering with families in developing service plans. Issues that coalesce around service and agency quality are found in Row C. Statements in these clusters relate to issues such as staff and agencies reflecting the diversity of the community, accessibility to services, and culturally relevant approaches to service provision. Cluster Row D reflects concepts specifically related to agency and systems issues such as policies, coordinated and collaborative service systems, and provider training.

Clusters in Rows E and F indicate similar issues identified by three communities. Row E centers on service providers' genuine interest in, commitment to, and regard for families, including individualizing services to the needs and strengths of entire family units and their cultures. Statements in Row F clusters concern issues related to cultural responsiveness of agencies and systems to the persons and communities they serve, including keeping services and processes grounded in the needs of communities, understanding organizational

TABLE 3: Map Clusters by Individual Community

	Urban 1 (80 statements, 8 clusters)	Rural 1 (76 statements, 7 clusters)	Urban 2 (82 statements, 8 clusters)	Rural 2 (65 statements, 9 clusters)
A	Respect and/or dignity of client and family	Provider-family respect and rapport	Empowering and respecting families Developing positive, trusting relationships	Mutual trust and respect
B	Family-driven service delivery system	Families as partners	Family/provider partnerships	Family follow-through and empowerment Family barriers
C	Characteristics of effective agencies	Good service practices	Characteristics of quality services Role of the service provider	Service Accessibility
D	Local service policy implications	Positive interagency interaction	Continuity of care	Enhancing policy to facilitate collaboration
E		Responsive to family uniqueness	Individualized services Family-focused services	Meeting individual family needs Providers embrace family culture
F	Changes in system services with needs of consumer	Culturally responsive services		To prevent cultural barriers
G	Quality assurance of system-of-care reform	Positive measurable progress		
H				Children's rights
I	Responsive resource allocation policies			
J	Cultural competence: staff and training			

cultures and cultures of the community, and responding to differences in cultural language.

All four communities included statements related to achieving goals or meeting families' needs but two communities developed clusters related specifically to outcomes and accountability (Row G), ranging from child- and family-specific outcomes to roles of providers in helping families achieve outcomes. Rows H, I, and J reflect cluster issues of emphasis for two individual systems of care communities, although a few statements are similar to those found within the maps of other communities.

An aggregated conceptualization was developed from the community assessments. Because participants in the aggregate phase were drawn from the original sample it was reasonable to expect a conceptually valid and reliable aggregated map solution. Based on individual community conceptualizations, examination of the aggregate cluster merges, statement and cluster bridging values which indicate participant perceptions of similarity in conceptual meaning (see Jackson & Trochim, 2002, for a detailed description of bridging analysis and resulting values obtained), and objectives of the research, the researcher chose a 15-cluster solution to represent the combined data. The aggregate cluster map developed with Concept Systems software illustrated in Figure 1 reflects the synthesized ideas from across all four communities and is structured with the following 15 areas of cultural competence: Service Provider Competencies, Family-Centered Services, Provider-Family Interaction, Culturally Accountable System Policies, Provider Accountability to Families, Culturally Appropriate Services, Government and Agency Community Involvement, Agency Policies, Removing Restrictions to Access, Education Involvement and Expectations, Family Empowerment, Respectful Responsiveness to Families, Outcomes and Accomplishments, Positive Family-Provider Regard, and Responsive Family and Provider Communication.

Table 2 delineates the 117 aggregated statements sorted by cluster. The education involvement and expectations cluster was the least cohesive of the 15 clusters. That is, although the MDS analysis of individual sorts grouped these ideas together, the cluster bridging value indicated greater variation among participant sorts for statements in this cluster than for statements in other clusters. As evidenced by the differing content of the statements in this cluster, there is little visible collective relationship between the statements except that they are all related to educational issues. Differential sorting of statements in this cluster was also noted in the individual community assessments.

Overall results of the multidimensional scaling and cluster analyses in the aggregate map represent the synthesized statements in a meaningful and understandable contextual structure for systems of care. Whereas the

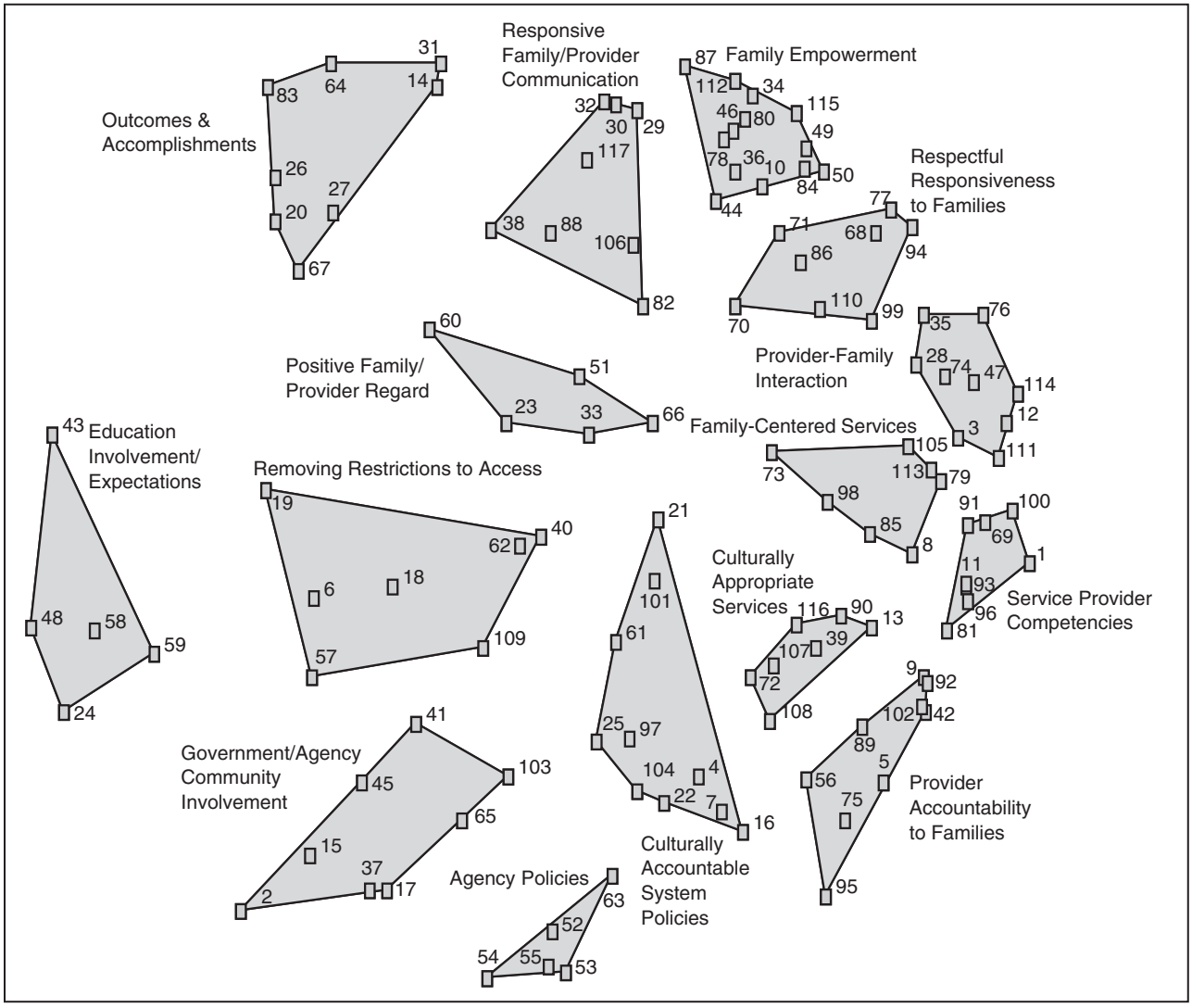

Figure 1: Aggregate Point (Statement) Cluster Map (Stress Value = .297)

individual systems of care maps group statements according to their meaning for the specific community, the aggregate map indicates how a sample of participants from across the systems of care gave meaning to the entire dataset.

Concept Mapping Ratings and Pattern Match Comparisons

The rating scale results in all phases served to answer the research question about the viability of concept mapping as an approach to conceptualizing and assessing cultural competence in individual communities. Rating data enhance conceptual understanding of the ideas and maps generated by placing value on the statements. Although the aggregate findings related to the ratings and pattern matches between groups are not as remarkable as those found at the individual community level, the aggregate findings offer an overall picture of cultural competence development across the four systems of care communities, which is the primary focus of the findings.

Concept Systems software produces rating output in multiple formats that can be illustrated with a variety of graphics. One compelling graphic produced by the concept mapping software is the pattern match comparison. Average cluster ratings (computed from the averages of each statement in the cluster, i.e., an average of averages) are used to compare the results from one participant group with another or to compare two different ratings. A Pearson's *r* is produced, indicating the

strength of relationship (level of consistency) between groups' patterns of averages. These graphs produce an overall picture of the differences and similarities in participant conceptualizations.

Pattern matches were developed in each community for two specific group comparisons: (a) family and professional participants and (b) people of color and White participants. Although obtaining a large enough sample to compare rating differences between and within ethnic groups of color was desired, the samples attained limited the number of such comparisons. As a result, all persons of color were placed into one group to gain at least some sense of rating differences between people of color and White. The assumptions of universality behind Lum's (2000) process-stage approach to diversity practice lend support to this type of comparison. Additional group comparisons included those based on gender and household income. Diverse participation from across the four systems of care in the aggregate assessment allowed for demographic comparisons not available in the individual assessments. Finally, pattern matches were produced that compare participant ratings of importance and frequency of demonstration.

Concept mapping graphical output along with the vast amount of rating data produced are very beneficial for communicating findings to participants but space restrictions limit their inclusion in journal publications. For purposes of efficiency, Table 4 reports the correlation coefficients for pattern match comparisons in the individual community assessments and Table 5 reports the aggregate pattern match correlations. Pattern matches are not intended to make comparisons whereby a test of significance is produced, as the correlations alone tell only part of the story. Additional meaningful information related to rating discrepancies between groups and scales is illustrated through the graphics.

Importance. In reviewing the overall ratings across all assessments, ideas in aggregate map cluster 15, Responsive Family and Provider Communication, were consistently rated among the most important for all four communities and the aggregated assessment. Aggregate cluster 8, Agency Policies, with ideas generated from only one community, was rated least important overall in the aggregate assessment. Aggregate cluster 7, Government and Agency Community Involvement, was rated among the least important of all clusters in the aggregate phase and in the respective community clusters containing similar statements.

Across assessments in general, family and professional participants were fairly consistent in how they rated importance of the items. This was not the case with the comparisons between people of color and White. In the Rural 1 and Urban 2 communities and in the aggregate study, importance ratings by the people of color group were higher than those assigned by the Whites. This finding was also noted in the Rural 1 community comparison between Mexican American and White groups; however, average importance ratings for the Mexican American group were lower than those for the combined people of color group.

The aggregate study found a good deal of consistency in the clusters rated most important for meeting the unique needs of families across all comparison groups. All clusters were rated important, ranging from 3.21 to 4.08. The Outcomes and Accomplishments cluster was rated most important by all comparison groups except the professional and urban groups, which rated it second and third, respectively. Two clusters, Provider Accountability to Families and Responsive Family-Provider Communication were ranked second overall and were among the top three in importance for most groupings. The Agency Policies cluster was ranked the least important by all groups except males, who rated Government or Agency Community Involvement as least important.

The aggregate phase also found interesting differences noted between groups. The professional group rated all but three clusters (Agency Policies, Outcomes and Accomplishments, and Positive Family-Provider Regard) as important as or more important than the family group did. The people of color group assigned the same or higher ratings of importance than the White group did to all clusters except Provider Accountability to Families and Culturally Appropriate Services. The urban group assigned higher ratings of importance than the rural group did to all clusters, and females assigned higher importance ratings than males did to all clusters except Agency Policies and Respectful Responsiveness to Families.

Another comparison available with the aggregate data was between persons with and without a disability. There were 11 people across communities who identified as having a disability, inclusive of both physical and mental disabilities. All of these individuals except one were family participants. Therefore, as a more meaningful comparison, a pattern match was examined between family participants with and without a disability. The importance comparison indicated a strong level of consistency ($r = .81$) between the two groups.

Frequency of demonstration. More variation was found in demonstration cluster ratings across comparison groups in all phases of the study where larger

TABLE 4: Individual Community Pattern Match Correlations for Importance and Demonstration Ratings

Group and Comparison	Importance	Demonstration	Importance vs. Demonstration
Urban 1 (*n* = 22)			.50
Family (*n* = 6)			.19
Nonfamily (*n* = 16)			.55
Family vs. nonfamily	.81	.85	
People of color (*n* = 6)			.83
White or European American (*n* = 16)			.38
People of color vs. White or European American	.89	.92	
Gender			
Female (*n* = 18)			.46
Male (*n* = 4)			—
Female vs. male	—	—	
Household income			
$15K or less (*n* = 1) vs. more than $15K (*n* = 21)	—	—	
$15K or less (*n* = 1) vs. more than $50K (*n* = 10)	—	—	
Rural 1 (*n* = 54)			.67
Family (*n* = 33)			.84
Nonfamily (*n* = 17)			.25
Family vs. nonfamily	.96	.69	
People of color (*n* = 22)			.66
White or European American (*n* = 28)			.77
People of color vs. White or European American	.93	.54	
Gender			
Female (*n* = 37)			.62
Male (*n* = 17)			.75
Female vs. male	.95	.89	
Household income			
$15K or less (*n* = 19) vs. more than $15K (*n* = 28)	.94	.88	
$15K or less (*n* = 19) vs. more than $50K (*n* = 9)	.96	.81	
Urban 2 (*n* = 26)			.31
Family (*n* = 8)			–.11
Nonfamily (*n* = 18)			.54
Family vs. nonfamily	.82	.08	
People of color (*n* = 12)			.53
White or European American (*n* = 14)			.15
People of color vs. White or European American	.82	.30	
Gender			
Female (*n* = 26)			.31
Male (*n* = 0)			—
Female vs. male	—	—	
Household income			
$15K or less (*n* = 2) vs. more than $15K (*n* = 24)	—	—	
$15K or less (*n* = 2) vs. more than $50K (*n* = 13)	—	—	
Rural 2 (*n* = 24)			–.23
Family (*n* = 10)			–.21
Nonfamily (*n* = 14)			.16
Family vs. nonfamily	.71	.01	
People of color (*n* = 4)			—
White or European American (*n* = 19)			–.40
People of color vs. White or European American	—	—	
Gender			
Female (*n* = 17)			–.35
Male (*n* = 7)			–.11
Female vs. male	.76	.78	
Household income			
$15K or less (*n* = 6) vs. more than $15K (*n* = 18)	.55	.38	
$15K or less (*n* = 6) vs.more than $50K (*n* = 9)	.49	.01	

NOTE*:* Pattern match correlations reflect consistency between groups in their patterns of average cluster ratings. They are not intended to produce a test of statistical significance.

discrepancies generated more distinct correlations. The family-professional demonstration comparisons in two community assessments (Urban 2 and Rural 2) reflected inconsistencies among cluster ratings, with some clusters rated higher by family members and some rated higher by professional members. In contrast, the professional group in the Urban 1 community consistently rated demonstration higher than the family group did, and in the Rural 1 community the family group consistently rated demonstration higher than the professional group did. A notable

TABLE 5: Aggregate Pattern Match Correlations for Importance and Demonstration Ratings

Group and Comparison	Importance	Demonstration	Importance vs. Demonstration
Total participants (N = 45)			.74
Urban 1 (n = 8)			.30
Rural 1 (n = 25)			.66
Urban 2 (n = 6)			.43
Rural 2 (n = 6)			.42
Family (n = 26)			.76
Nonfamily (n = 19)			.67
Family vs. nonfamily	.86	.75	
People of color (n = 16)			.59
White or European American (n = 28)			.70
People of color vs. White or European American	.78	.70	
Gender			
Female (n = 34)			.72
Male (n = 11)			.58
Female vs. male	.85	.67	
Household income			
$15K or less ($n$ = 13) vs. more than $15K ($n$ = 32)	.73	.59	
$15K or less ($n$ = 13) vs. more than $50K ($n$ = 13)	.71	.64	
Rural (n = 31)			.73
Urban (n = 14)			.43
Rural vs. urban	.65	.67	
Family member disability (n = 11) vs. no disability (n = 16)	.82	–.22	
Professional member disability	—	—	
Religious affiliation (n = 36)			.71
No religious affiliation (n = 9)			.70
Religious vs. no religious affiliation	.75	.72	
Median age 43 or less (n = 22) vs. older than 43 (n = 21)	.84	67	

NOTE: Pattern match correlations reflect consistency between groups in their patterns of average cluster ratings. They are not intended to produce a test of statistical significance.

finding was the demonstration comparison between the people of color and White groups across all individual community assessments, whereby the people of color groups consistently assigned higher ratings of demonstration than did the White groups.

Differences were again noted with specific group comparisons in the aggregate study. Cluster demonstration ratings among groups in the aggregate phase ranged from 2.34 to 3.94. Aggregate cluster 8, Agency Policies, was among the lowest in demonstration across communities in the aggregate phase. Overall, the Family-Centered Services and Positive Family-Provider Regard clusters were rated the highest across groups with one distinct exception. The rural group rated the Family-Centered Services cluster least demonstrated of all clusters. Most other groups rated the Education Involvement and Expectations cluster least demonstrated. Except for the Family-Centered Services cluster, rural participants rated all clusters much higher on demonstration than did urban participants.

Professional participants in the aggregate phase generally assigned higher ratings of demonstration than did family members, with the professional group rating all except three clusters as more demonstrated than did family participants. Family participants assigned higher demonstration ratings to Government and Agency Community Involvement, Agency Policies, and Education Involvement and Expectations. The people of color group again rated all clusters as more often demonstrated than were indicated by the White ratings. In contrast to the importance comparison, male participants in the aggregate phase rated all clusters higher on demonstration than did female participants. Where a high level of consistency was found on importance ratings between family participants with and without a disability, the demonstration comparison indicated much less consistency (r = –.22). Family members with a disability rated statements much less demonstrated than did those without a disability.

Pattern matches were produced for each assessment comparing participant ratings of importance and frequency of demonstration establishing baselines for cultural competence development. All baseline pattern matches illustrated that the clusters were rated more important than demonstrated with varying levels of consistency between rating patterns. The aggregate correlation of r = .74 indicated a moderately strong level of consistency between these two ratings in the aggregate study. This correlation is similar to that obtained in the Rural 1 community (r = .67), which represented half of the aggregate participants. In stark contrast, the baseline comparison for the Rural 2 community assessment resulted in a weak negative correlation of r = –.23, similar to the correlation obtained (r = –.21) from its family member participants. The Rural 2 community experienced the lowest demonstration ratings of all communities and the most inconsistency in average rating patterns.

Policy. The policy rating scale asked professionals about the degree to which statements were reflected in their agency's policies. This scale used a narrower range, with overall average ratings ranging from 1.91 to 2.33. Fewer comparisons were made between

groups; however, one notable distinction was found in the people of color and White comparisons across all assessments where this comparison was available. People of color consistently assigned higher ratings to statement inclusion in agency policy than did the White groups. Urban professional participants generally indicated less statement inclusion in agency policy than did rural professional participants. Rural professionals rated all but two clusters, Family Empowerment and Positive Family-Provider Regard, higher on the policy scale.

Similar to individual community assessment findings, 9% of all professional responses in the aggregate phase indicated that participants had no knowledge of policies addressing the related statements of cultural competence. Overall, aggregate statements related to Positive Family-Provider Regard were rated most often reflected in agency policies. However, for the rural and White groups, statements in the Culturally Appropriate Services cluster were rated more often included in policy. The Provider Accountability to Families cluster was rated one of the highest overall on the policy scale. Aggregate cluster 8, Agency Policies, was among the lowest rated across all four communities on inclusion in policy.

LIMITATIONS

Although study participants were determined appropriate for gathering a broad range of conceptual ideas, the early developmental stage of the systems of care in this study limited the number of involved families who could be included in the study. Making conceptual comparisons among ethnic groups is a noted need in cultural competence research (Mason, Benjamin, & Lewis, 1996); however, the small sample size and underrepresentation of ethnic persons of color in two communities limited the possible within- and across-group comparisons. Conceptualizations of cultural competence constructed in this study are not generalizable beyond the study participants, although they do offer a sense of how participants perceive issues of cultural competence within and across their respective systems of care.

The literacy level of participants affects their abilities to effectively participate in the sorting and rating phases of concept mapping. This issue is heightened when the first language of the participants differs from that of the language used in the process. In instances where participants could not read English, regardless of their first language, they often were accompanied by another participant who assisted them in the process. In other instances, the bilingual facilitators orally translated instructions and statements from English to Spanish. The inability to readily back-translate the statements into English limited assurance of communicating similar meanings. Thus, although accommodations were made related to literacy, the impact of these accommodations on the results cannot be known for certain.

A retrospective examination of the rating scales used in this study indicated that the highest and lowest anchors used might have limited variation of importance ratings obtained. Rather than definitive all-or-nothing anchors, selection of different anchors may have increased the range of ratings. Additionally, past studies question the reliability and appropriateness of using Likert scaling with some ethnic groups of color. For example, potential issues include difficulty for Latinos in completing Likert-type scales (Land & Hudson, 1999) and a tendency for African Americans to use the extreme ends of scales (Bachman & O'Malley, 1984a; 1984b). Such a tendency may offer one explanation for the higher demonstration ratings reflected for people of color. Implementation efforts with Latino participants attempted to address potential difficulties but the impact on improving rating reliability is unknown.

DISCUSSION AND APPLICATIONS TO SOCIAL WORK

This study explored the viability of an innovative approach in examining the construct of cultural competence in children's mental health systems of care. Concept mapping demonstrated considerable potential for conceptualizing and assessing culturally responsive care within specifically identified cultural contexts. Concrete and abstract examples of cultural competence were generated from multiple perspectives of adults in four systems of care communities and the aggregate phase identified 15 clusters with common and unique examples across communities. Qualitative and quantitative data were used to produce graphical depictions of participant conceptualizations. The data structure increased understanding of participants' perceptions about the interrelatedness of the generated conceptual components of cultural competence. The brainstorming data collection effort gathered words and phrases to describe participant conceptualizations, and the sorting and related statistical processes illustrated aggregated perceptions of how these concepts were linked and clustered in a meaningful way.

A comparison of importance, demonstration, and policy ratings assigned to clusters in the individual community

assessments and those assigned to statements (thus clusters) in the aggregate assessment reflected differences in priorities and needs for the four systems of care. The pattern match comparisons examined ratings between groups offering an overall picture of the differences and similarities between participant group perceptions. Whereas the aggregated baseline offered an overall picture for the four communities, the individual community baselines were more meaningful from a practice standpoint. It became clear during the interpretation stages of the study that in some cases service systems thought they knew what was important to families or that they were doing much better than what was indicated in the family ratings. These findings clearly illustrate a need to assess both provider and consumer perspectives of the service delivery system. Obtaining an assessment by both groups of participants is significant to identifying discrepancies between participants' perceptions of competence (Spitzberg & Cupach, 1987).

The demonstration comparisons made service providers aware of specific areas in which families felt the system needed improvement. Participant awareness was increased around how different cultural groups perceive the relevance of cultural competence concepts generated. Developing related knowledge is critical as systems of care providers prepare to engage in collaborative work with one another and with families. A particular result somewhat contrary to expectations was the finding that the people of color groups consistently assigned higher ratings of demonstration than did the White groups. This may be a function of the aforementioned scaling limitations. However, considering the historically poorer mental health care experienced by persons of color, the demonstration results are worthy of further exploration.

Policy rating comparisons were limited by the professional participant sample and the narrow range of its rating scale. However, the consistently higher ratings by the people of color groups on the policy scale suggest the groups' greater knowledge of statement inclusion in agency policies. This seems a reasonable explanation given an often heightened awareness of cultural disparities by people of color, although scaling limitations may also be a factor. The policy question generated discussion among the professional members as they considered how the statements might apply to policies. With the importance of policy in supporting implementation of systems of care values and principles (Stroul & Friedman, 1986), this question was of particular import to state and local policymakers responsible for oversight of systems of care implementation as well as to the local system policymakers. Raising the consciousness of professionals related to policy support of culturally responsive practice was considered a positive result of the study's process.

In many ways, the research process and findings were reflective of systems of care principles. The participatory process ensured that community participants were included from the beginning planning stages through interpretation of the data. As Cross, Bazron, Dennis, and Isaacs (1989) suggested, "New methods of research that involve the community—from planning to dissemination—need to be developed and implemented" (p. 11). Moreover, the clusters generated in all communities reflected many systems of care and wraparound values and principles. Clusters in four communities identified systems of care concepts such as culturally competent interaction (e.g., respect, trust, communication, and valuing family input in the care process), family empowerment and partnering with families, issues of service and agency quality (e.g., service accessibility and culturally relevant approaches to service provision), and agency- and systems-related issues (e.g., policies, coordinated and collaborative service systems, and provider training). Three communities identified systems of care issues related to service providers' genuine interest in, commitment to, and regard for families (i.e., individualizing services to the needs and strengths of entire family units and their cultures) and cultural responsiveness of agencies and systems to the persons and communities they serve (i.e., keeping services and processes grounded in the needs of communities, understanding cultures of the community, and linguistic competence). Whereas all four communities included statements related to achieving goals or meeting families' needs, two communities developed clusters related specifically to outcomes and accountability.

As communities develop plans for cultural competence development, they are challenged to consider how to delineate between concepts related to cultural competence and those of systems of care and wraparound. Untangling child- and family-centered and individualized care from culturally competent practice is especially difficult. There appears to be no consensus proffered in the existing literature for an approach to making such distinctions at an organizational or system level. The intertwining concepts leave one to wonder whether such attempts might ultimately be an academic exercise with limited added gain to the actual development of culturally competent systems of care. If cultural competence is to be defined by the participants involved in an interaction, then operationalization must be based on the interactant conceptualization. For example, each of the four communities generated a statement reflecting that family members should "feel comfortable"

accessing services. The systems of care or wraparound operationalized elements constituting individual comfort (such as going to an agency within one's community, being treated as a full partner in service planning, and being served by a provider sharing a cultural background) may differ within and across communities and may change over time. Many family members even spoke of a need for providers to recognize the concept of "family culture" within the scope of cultural competence. Following the Cross et al. (1989) cultural competence model espoused by children's mental health systems of care, operationalization of a culturally competent system would reflect many systems of care and wraparound principles and values. Related system-level cultural competence elements identified by Cross and colleagues, such as valuing and responding to the diversity of those served, assessing and responding to provider-family cultural differences, and developing institutionalized knowledge and responsiveness to the cultural and community contexts of those served, further illustrate the overlapping nature of the concepts.

In a recent examination of cultural competence in children's mental health, Pumariega, Roberts, and Rothe (2005) suggested that cultural competence standards developed over the past several years may be used to operationalize cultural competence within a system of care. Indeed, the development of standards is resulting in assessment measures based on these standards (e.g., see Siegel et al., 2003), and as previously noted, there are increasing efforts to develop related empirically based standardized instruments. Although there are many benefits to using standardized measures (thus standardized conceptualizations) in cultural competence research, such as the ability to conduct controlled experimental research studies, there is also a risk that the measure alone may not adequately capture essential concepts of cultural competence specific to a community. Perhaps using a contextualized and a standardized approach in combination with one another would ensure a more complete assessment process garnering the benefits of both.

With few established measurement tools available for assessing cultural competence beyond the individual counseling interaction, this study used a nontraditional method to better understand similarities and differences in concepts across communities. Some practice indicators generated across communities, such as treating persons with respect, providers that value and affirm the cultures of those they serve, and consumer comfort in accessing services, are also found in recent measures developed (e.g., Cornelius et al., 2004; Mason, 1995). Yet indicators unique to communities were also identified as illustrated in Table 2 that would not have been otherwise captured. These noted differences told a story about the environment within which the systems of care were developing and in some cases they were indicative of barriers to the system's cultural competence development. This study recognizes these unique aspects of the communities' cultures and validates them by their inclusion in the findings.

The last stage of the concept mapping process involves using the information gathered to develop action plans. Developing local contextual conceptualizations of culturally competent care prepared systems of care to plan and implement related policies. From their unique perspectives, participants defined and described how a complex construct could be deconstructed and conceptualized for practical application. The consumer perspectives did not often reflect those of the provider system. Findings from each community assessment were translated into identified areas of training and technical assistance needs related to cultural competence. Detailed reports produced for all participants in each community included interpretation of the findings and recommendations for potential training and technical assistance. The final aggregate report was written to support the decision-making processes of the state legislated oversight committee.

The findings suggest the importance for policymakers to recognize the unique needs of each community and how the assessment method might aid public mental health systems to respond to these needs. Examining discrepancies between groups of participants provided useful information for developing community-specific training plans. The brainstorm and interpretation processes revealed that different types of training were needed across participant levels, including training family members about provider cultures. Although the aggregate assessment included a small sample, it and the community reports helped establish baselines to monitor progress of cultural competence development as conceptualized by communities. Although contractual limitations precluded such application in this study, the rating scales can be used longitudinally with pattern matches to assess change over time. Longitudinal results could be used to further assist in policy and decision making around allocation of resources related to improving a system's cultural responsiveness.

Concept mapping is a mixed-method participatory approach to evaluation and research. As such it provides a bridge between quantitative and qualitative research paradigms. The method is a consumer-friendly applied method that does not require an inordinate time commitment from participants. Many family members expressed appreciation for the opportunity to share their perceptions with the hope of helping to improve the

service system. In contrast to employing focus groups alone, this method gathers contextual and numerical data and uses them with established statistical techniques to produce a vast amount of information. The graphics produced by the software provide clear visual depictions of the data for immediate feedback and later dissemination of information back to community participants.

Although the study's findings must be tempered with caution because of its limitations, important issues emerged from the findings. Cultural competence is understood as a developmental process (Cross et al., 1989) and there is no particular reference point in time by which a system of care should be expected to have fully achieved cultural competence, if ever. Thus, a method is needed for assessing incremental achievements and changes in the systems' development over time. The approach used in this study allows communities to self-define the cultural competence construct and offers a means for tracking development. In recent practice, more attention has been given to individuals and families than to the communities in which they live (Green, 1999). This study looks at the cultural needs of families and providers, through their own lenses, at a system-of-care community level. From the results of this study, a definition of cultural competence within a children's mental health system-of-care community context might sound something like the following: Cultural competence in a defined community of care reflects a shared understanding among community members of how policies, providers, services, and families will be respectful of and accountable and responsive to one another within the complex and diverse context of each.

Conceptualization of cultural competence in children's mental health systems of care requires individualization at the family, organizational, and community levels. Identification of common and unique cultural elements is important to understanding the cultures of the community (Guerra & Jagers, 1998). Indeed, Cross et al. (1989) called for the development and implementation of new research methods that involve the community throughout the entire assessment process. The challenge for related research is to offer a culturally responsive way for systems of care communities to identify elements of cultural competence they share with other communities while providing them an opportunity to identify the unique cultural characteristics that strengthen their communities.

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