Chinese Attitudes Toward Cleft Lip and Palate: Effects of Personal Contact

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Objective: **The purpose of this study was to investigate the effect of personal contact on the attitudes of individuals towards persons with cleft lip and palate (CLP) and the possible cultural differences in these attitudes for Chinese respondents living in Hong Kong.**

Design: **Chinese parent, teacher, and employer groups were administered a cleft lip and palate attitudinal questionnaire and the Scale of Attitudes Toward Disabled Persons inventory.**

Subjects: **Thirty-nine parents of children with CLP, 27 teachers of children with CLP, and 37 employers with no previous contact with individuals with CLP participated in the study.**

Results: **The results showed significant intergroup differences on several items involving beliefs concerning emotional health, social development, and employment-related barriers for individuals with CLP, and whether such individuals should seek nonmedical help to treat speech problems. Employers showed a comparatively less favorable attitude to persons with CLP than the two other groups.**

Conclusion: **Parent, teacher, and employer groups in the Chinese community studied showed differences in their attitudes towards individuals with CLP. The findings suggest the need for further community health education to help develop more positive attitudes towards disabled persons in general, as well as programs targeted at reducing negative stereotyping of adults and children with CLP.**

KEY WORDS: *attitude, cleft lip and palate, personal contact*

Cleft lip and palate (CLP) is a common craniofacial developmental abnormality, affecting 1 in every 500 to 1000 live births (Murray, 1995). The attitudes of patients, patients' families, and the community towards the nature, cause, effect and treatment of this disorder are often important to the therapeutic process as well as to the social and emotional development of patients (Patel and Ross, 2003).

Previous studies have demonstrated that parental attitudes to, and expectations of, a child with CLP have a strong impact on the child's self-concept (Lansdown et al., 1991; Krueckeberg and Kapp-Simon, 1993). Teachers have been found to misjudge the intelligence of students with CLP with more noticeable facial disfigurement. This may lead to reduced teacher expectations and poor school performance (Richman and Eliason, 1984; Broder et al., 1998). Teachers and others have rated schoolchildren with CLP as more withdrawn and inhibited compared to children without CLP (Nash, 1995; Kapp-Simon and McGuire, 1997) and this has been associated with academic underachievement of children with CLP (Richman and Eliason, 1982). Employers were found to react negatively to a prospective employee with a cleft palate (Scheuerle et al., 1982) and overall socioeconomic status of CLP patients may be lower compared to that of non–CLP patients (Broder and Strauss, 1991). In some cases, the speech of individuals with CLP can be sufficiently deviant to hinder career development (Van Demark and Van Demark, 1970). Children's attitudes toward similar-aged peers with any degree of facial disfigurement generally reflect a low preference for social interaction, across many cultures (Harper, 1995). Seventy percent of speakers with CLP and their parents reported having to deal with teasing and ostracism because of CLP (Noar, 1991). Although the majority of children and adults may not suffer major psychosocial consequences as a result of CLP, a recent large systematic review of the literature suggests that behavioral problems, depression, and anxiety are associated with the disorder for some individuals (Hunt et al., 2005).

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However, although there have been a number of reports on attitudes towards CLP, they may not accurately reflect attitudes for contemporary non-Western cultures. Traditional religious as well as philosophical beliefs affect many of the attitudes of Chinese people toward birth defects or handicap (Cheng, 1990). Many Chinese people have misapprehensions and superstitions toward people with CLP. For example, Cantonese-speaking Americans, unlike English-speaking Americans, tend to view CLP as indicative of emotional disturbance and feel that persons with CLP could ''try harder'' in order to speak in a less disordered manner (Bebout and Arthur, 1997).

Attitude has been defined as an ''enduring pattern of evaluative responses towards a person, object or issue'' (Colman 2001, p. 63). Olson and Zanna (1993), and many other authors, have defined attitude in terms of three components: (1) affect, (2) cognition, and (3) behavior. The behavioral component is jointly influenced by the affective and cognitive components. Many researchers have stressed the importance of past experience with the person or object of attitude formation (Yuker et al., 1966; Olson and Zanna, 1993). However, there is disagreement on the effects of degree of contact on attitude toward disability. Yuker et al. (1966) reviewed 25 studies investigating the relationship between attitudes and the extent of contact with people with disabilities. They concluded that increased contact with disabled persons tends to result in more positive attitudes. Jordan (1971) claimed that contact may increase the certainty or intensity of the respondent's reaction to an attitude statement but will not always lead to a positive attitude. Work with children in Western countries suggests that contact does lead to more positive attitudes towards peers with disabilities (Maras and Brown, 2000). Bakheit and Shanmugalingham (1997), however, found no relationship between degree of contact and attitudes to physical disability for adults in a rural Indian community.

According to Antonak and Livneh (1988), attitudes toward people with disability may be envisaged as existing in three distinct but interacting social circles or levels: the innermost level (e.g., relatives, friends, and peers), the intermediate level (e.g., teachers, clergy, social workers), and the outermost level (the general community). The attitudes of people in all three levels can have a significant influence on individuals with disabilities throughout their lives. No one would doubt that family and school are very important environments for the child with CLP. The attitudes, support, and expectations of family members and teachers can have profound effects on development of self-concept in children with CLP (Lansdown et al., 1991) and on the socialization of children with CLP into community activities (Altman, 1981). At school entry, children with CLP may experience a greater frequency of speech and learning problems in comparison to their peers who do not have CLP (Lefebvre and Arndt, 1988). Such problems may lead to a false estimation of their intellectual ability by teachers (Richman, 1978). Later, when individuals with CLP enter the workplace, people around them may impose different attitudes towards and expectations from them in comparison with persons without CLP. Antonak and Livneh (1988) suggested that negative societal attitudes could be detrimental to people with disabilities, and may impede the fulfillment of their life goals.

Because there has been no previous study investigating the effects of personal contact on attitudes towards CLP in general, and within a Chinese cultural community in particular, the possible effects of degree of contact on attitude toward CLP should be examined. The present study surveyed parents, teachers of children with CLP, and employers in Hong Kong—representing three social circles, respectively—and investigated the respondents' attitudes toward CLP, because these groups are believed to have a significant impact on the development of people with CLP from birth to adulthood. Differences in attitudes between two groups who had close contact with individuals with CLP (i.e., parents and teachers) and one group who had not had contact with individuals with CLP (i.e., employers) were examined. An understanding of the general attitudes of these groups, in a Chinese cultural context, could provide professionals with valuable information for speech-language and other habilitative programs, and for policy-makers when developing habilitation programs for Chinese people with CLP.

Method

Questionnaires

The subjects were surveyed by means of two questionnaires. The Cleft Lip and Palate Questionnaire (CLPQ) contained items about general attitudes and contact experience concerning persons with CLP. The second questionnaire, the Scale of Attitudes Toward Disabled Persons (SADP) contained statements concerning attitudes toward people with disabilities in general.

The CLPQ

This questionnaire was prefaced with a brief definition of CLP, written in nontechnical language, followed by three introductory questions about the respondent's familiarity with the disorder and the degree of contact the respondent had with people who have CLP. The main section surveying attitudes of the respondent towards CLP then followed. This was closely adapted from a questionnaire probing cross-cultural attitudes toward speech disorders developed by Bebout and Arthur (1992, 1997). In the CLPQ, 12 statements were given and respondents used a four-point scale to indicate the degree to which they agreed or disagreed with each statement. The points were labeled as *probably no*, *maybe no*, *maybe yes*, and *probably yes.* Of the 12 statements, 3 were worded so that *probably yes* indicated a favorable attitude to the statement and 9 were worded so that *probably no* indicated a favorable attitude to the statement. The scoring system developed by Bebout and Arthur (1997) was applied to the completed questionnaire responses. Responses were assigned scores ranging from 1 to 4, where 1 indicated a very unfavorable attitude and 4 indicated a very favorable attitude to each statement. This

questionnaire inventory was chosen because it explored attitudes that may concern professionals involved in the habilitation of persons with CLP, including the supposed causes of the disorder, family and community attitudes towards persons with CLP, and the perceived need for professional help with treatment (Bebout and Arthur, 1992). Previous research indicated that the inventory had construct validity, with a range of cultural groups fully understanding and differentially responding to questionnaire items (Bebout and Arthur, 1992, 1997). The questionnaire inventory had no published reliability data, and therefore test-retest reliability measures were included in the present study. An English list of the CLPQ items used in this study is shown in the Appendix. A native Cantonese speaker with a background in translation translated the English version of the questionnaire into Chinese. The accuracy of translation was checked and approved by the first author, a native Cantonese speaker, to assure that the desired nuances of meaning were maintained.

The SADP

The other questionnaire used in the study was the SADP (Antonak, 1982), a widely-used, 24-statement, self-administered instrument. Statements in the SADP can be summarized as items that portray a variety of moral, intellectual, or psychosocial attributes for disabled people or items that affirm or deny basic rights for disabled people. The six response categories of the SADP are labeled as *strongly agree*, *quite agree*, *agree a little*, *strongly disagree*, *quite disagree*, and *disagree a little.* Of the 24 statements, 12 are worded so that *strongly agree* indicates a favorable attitude to the statement, and 12 are worded so that *strongly disagree* indicates a favorable attitude to the statement. The SADP has been found to be a reliable and valid instrument for assessing general attitude towards disabled people in both the original English (Yuker and Block, 1986; White and Olson, 1998) and Chinese versions (O'Donnell, 1993). A previous Chinese translation of the scale (O'Donnell, 1993; O'Donnell and McPherson, 2002) was used and standard SADP scoring procedures (O'Donnell, 1993) were followed. Final SADP scores may range between 0 and 144; a higher score reflects a more positive attitude toward people with disabilities. Previous studies found good internal, intrasubject consistency for the Chinese SADP, with Cronbach's $\alpha = .6$ to .74 (O'Donnell and McPherson, 2002) and $\alpha = .73$ (O'Donnell, 1993). Both the SADP and the CLPQ were designed primarily to probe attitudes at the cognitive level, although such attitudes will often be strongly informed by the affective domain and will only indirectly influence actual behavioral outcomes.

Subjects

The questionnaires were distributed to parents of children and adolescents with CLP, teachers who had contact with children with CLP, and employers who had no prior contact with individuals with CLP. The parents of 40 children with CLP were chosen at random from primarily adolescent patients (mean age = 13.9 years; SD = 1.7; range 11 to 16 years; 22 boys) attending the Child Speech and Language Clinic of the Department of Speech and Hearing Sciences and the Cleft Lip and Palate Centre, the University of Hong Kong/Prince Philip Dental Hospital. All children were Cantonese-speaking Hong Kong residents, and children came from the whole range of socioeconomic groups living in Hong Kong. All children in this sample had repaired clefts. Surgical closure of the lip at 4 to 6 months of age and surgical closure of the palate at 18 months to 2 years is typical for children attending the Cleft Lip and Palate Centre (King et al., 1996). Surgical intervention is followed by a multidisciplinary habilitation program that may include speech therapy, orthodontic treatment, and orthognathic surgery. Thirty-nine parents of children attending the Cleft Lip and Palate Centre accepted an invitation to participate in this study. Forty teachers of the children with CLP were invited by telephone to participate in the study after parental consent to make contact was obtained. All were teachers who had daily contact with one of the children during the year of data collection.

Stratified random sampling was used to select employers in this study. There are over 290,000 small and medium enterprises (SMEs) in Hong Kong, accounting for more than 98% of all local enterprises (Tung, 2000) and employing about two thirds of the local workforce. Manufacturing firms with less than 100 employees and nonmanufacturing firms with less than 50 employees are regarded as SMEs in Hong Kong. In this study, the employer sample was comprised of individuals working within SMEs, because they compose the majority of local enterprises in Hong Kong. Six major SME sectors have been identified by the Trade and Industry Department, Hong Kong (2006). These sectors are (1) industry, (2) import and export, (3) wholesale, retail, restaurants, and hotels, (4) financing, insurance, real estate, and business services, (5) community, social, and personal services, and (6) transport, storage, and communication. The target numbers of sample respondents taken from the six sectors were calculated according to the proportion of sector SMEs in Hong Kong. Enterprises selected for inclusion in the study were selected randomly from available listings of Hong Kong SMEs. The employer and/or the manager(s) of these enterprises were invited by the researchers to take part in the survey and complete the questionnaires. Employers had no relationship with the parent or teacher groups.

Materials and Equipment

Because the employer respondents may not have been familiar with CLP, all the respondents in the three groups were shown pictures and played samples of speech from individuals with CLP before they completed the questionnaires. The speech of two adults, one man and one woman, with CLP was recorded on cassette tape. The speakers were native Cantonese speakers with no other associated problems or craniofacial deformities. The speech production of the woman had been di-

TABLE 1 Occupational Distribution of the Parent and Employer Respondents

Occupational Grouping	*Parents*	*Employers*
Self-employed	5	13
Business executive	3	24
Government/professional	10	0
Teacher	1	0
Transport/laborer	5	0
Homemaker/other	15	0
Total	39	37

agnosed by a speech-language pathologist experienced in CLP speech disorders as moderately hypernasal, with a mild articulation disorder. The man had been diagnosed as having a moderate to severe articulation disorder. Five color photographs and six line drawings of Chinese children with repaired and unrepaired CLP were shown to the subjects.

Procedure

Each parent, teacher, and employer respondent was provided with a definition of CLP in nontechnical words. Then, pictures of Chinese patients with CLP were shown to respondents, followed by playback of a 20-second sample of each speech recording. The speech samples were included to give respondents an indication of the potential speech disorders that may be associated with CLP. The SADP and CLPQ questionnaires were then completed by each respondent. The survey was administered in the living or working places of the respondents by the first author. In order to investigate the intrasubject reliability of responses over time, 5% of the respondents in each group were asked to complete the same questionnaires by mail 6 weeks after they had completed the first one.

Data Analysis

A one-way ANOVA was used to determine group differences in the means of each of the CLPQ items and in the composite scores of the SADP. Pearson's correlation was conducted to assess test-retest reliability of the questionnaires and to determine whether there was any significant relationship between the SADP and the CLPQ. Although the SADP and CLPQ are ordinal scale measures, parametric analysis was chosen because the results obtained from the two questionnaires showed acceptable normality of distribution and homogeneity of variance.

Results

A total of 39 parents (18 men), 27 teachers (11 men), and 37 employers (26 men) participated in the study. Sample size for the teacher respondent group was smaller because 13 teachers declined the researchers' invitation to participate in the study. The mean age of parent respondents was 43 years (range, 31 to 46 years), of teachers, 38 years (range, 25 to 50 years), and of employers, 38 years (range, 25 to 50 years). The occupational distributions of the parent and employer respondents are shown in Table 1 and the educational background of the respondents is noted in Table 2. The number of employers from the six SME sectors is listed in Table 3.

TABLE 2 Educational Background of the Survey Respondents

Educational Level Achieved	*Parents*	*Teachers*	*Employers*
Elementary school	7	0	4
Secondary school	28	7	17
College graduate	4	18	12
Postgraduate	0	2	4
Total	39	27	37

SADP Results

The mean SADP scores were 98.67 (±14.19 SD) for the employers, 100.92 (±15.98 SD) for the teachers, and 99.36 (±15.45 SD) for the parent group, with an overall score range of 50 to 130. Analysis of variance showed that there was no significant difference between the mean scores of each group ($F = 0.176$; $df = 2$; $p = .839$). Intrasubject reliability of the scale was assessed using Cronbach's α. The individual α values for each group were: parent group $\alpha = .69$, teacher group $\alpha = .79$, and employer group $\alpha = .66$, indicating that this scale was a reasonably reliable instrument.

CLPQ Results

The first part of the CLPQ contained three introductory questions about the respondents' familiarity with the disorder and the contact experience of the respondents with people with CLP. Table 4 reports the group differences in the answers to the three questions.

The means and standard deviations of the 12 statements in the CLPQ for each group are shown in Table 5. The groups with previous contact with CLP (i.e., the parents and teachers) were found to have more favorable attitudes in 7 out of 12 statements when compared to the noncontact group (i.e., the employers). However, analysis of variance showed there were significant differences among the three groups for only four items: item 1, item 4, item 7, and item 11. *Post hoc* comparisons among the groups for each of these items are shown in

TABLE 3 Target and Actual Number of Employers Interviewed From Small and Medium Enterprise Sectors in Hong Kong

Small and Medium Enterprise Sectors	*Target Number of Employers*	*Actual Number of Employers Interviewed*
Industry	3	4
Import/export	14	11
Wholesale/retail/restaurant/hotel	11	10
Financing/insurance/real estate/business services	7	7
Community/social and personal services	4	3
Transport/storage/communication	1	2
Total	40	37

TABLE 4 Group Differences in Familiarity With Cleft Lip and Palate (CLP) Disorder and Contact With Persons With CLP

	Aware of CLP		*Watched CLP Documentary Program*		*Contacted Person with CLP*	
	Yes	*No*	*Yes*	*No*	*Yes*	*No*
Parent	39	0	34	5	39	0
Teacher	27	0	11	16	27	0
Employer	27	10	16	21	0	37

Table 6. The two statements concerning friendship and marriage as well as job problems showed similar patterns of difference among the groups. With decreasing degree of contact, respondents agreed more with the statements that CLP people have trouble making friends and getting married as well as having job problems. In these two statements, *post hoc* analysis with the Tukey honestly significant difference (HSD) procedure showed that significant differences existed between the parent and employer groups. A contrastive pattern of results emerged for the statement concerning emotional disturbance with CLP. Although the parents had the highest degree of contact with people with CLP among the three groups of the respondents, they agreed significantly more strongly that CLP people were emotionally disturbed. Teachers showed the most favorable attitude to the statement item, with a significant difference between teachers and parents. Analysis of variance also showed a significant group difference in agreement with the statement concerning persons with cleft palate going to a nondoctor for help with speech problems. The group difference appeared between parents and teachers; significantly fewer parents indicated that CLP people should consult nondoctors for their speech problems.

Another distinctive pattern of results emerged for the statement that the person with CLP could lessen the severity of disordered speech by trying hard. This statement received the highest agreement among the groups but indicated the least positive attitude to CLP disability by the respondents. There was no significant difference in mean ratings across the three groups. Subjects in all three groups showed a very supportive attitude to individuals with CLP for the questionnaire items concerning hiding a person with CLP from the community; viewing CLP as a punishment from fate or God; believing that people with CLP are less intelligent; and joking and teasing people with CLP. The lowest rating for these items was 3.49 (near the *probably no* response).

TABLE 5 Mean (and Standard Deviation) for Each CLPQ Item for the Three Groups and F-Score

Item	*Parent Mean (SD)*	*Teacher Mean (SD)*	*Employer Mean (SD)*	*F-score Mean (SD)*
1 Have trouble making friends and/or getting married	2.44 (1.05)	2.33 (0.88)	1.86 (0.92)	3.70*
2 Go to a doctor or other professionals	3.64 (0.58)	3.74 (0.45)	3.62 (0.49)	0.46
3 Jokes acceptable if a person with CLP is not listening	3.64 (0.81)	3.70 (0.67)	3.49 (0.99)	0.58
4 Job problems	2.61 (0.94)	2.37 (0.88)	2.05 (0.97)	3.43*
5 Punished by God/fate	3.74 (0.75)	3.59 (0.80)	3.49 (0.93)	0.92
6 Less intelligent	3.80 (0.57)	3.70 (0.54)	3.49 (0.77)	2.27
7 Go to nondoctor	2.87 (1.22)	3.48 (0.58)	3.18 (0.78)	3.48*
8 Could speak more clearly if they tried harder	1.79 (0.92)	1.63 (0.69)	1.68 (0.91)	0.33
9 Hide at home	3.94 (0.22)	3.81 (0.62)	3.86 (0.54)	0.69
10 Teasing or making fun of a person with CLP is acceptable	3.82 (0.60)	3.82 (0.48)	3.70 (0.70)	0.42
11 Emotionally disturbed	1.92 (0.90)	2.56 (0.97)	2.19 (1.08)	3.29*
12 Should get help with speech problems	3.28 (0.83)	3.44 (0.64)	3.43 (0.69)	0.55

* $p < .05$.

Correlation between SADP and CLPQ

There were significant positive relationships between the SADP and CLPQ for teachers (Pearson's $r = .64$; $p < .01$) and employers (Pearson's $r = .49$; $p < .01$). However, no significant correlation was found for the parent group (Pearson's $r = .16$; $p > .01$).

CLPQ test-retest reliability

Five percent of the participants, across the three respondent groups, were sent the same two questionnaires 6 weeks after the first interview. The completed return rate was 100%. The test-retest correlation was significant at the .01 level for the SADP ($r = .80$) and the CLPQ ($r = .87$). According to

TABLE 6 Tukey HSD Multiple Comparisons Among the Survey Groups' Scores for Each Significant CLPQ Item

Variable	*Parent*	*Teacher*	*Employer*
Trouble making friends and getting married			
Parent	—	.10	.57*
Teacher		—	.47
Employer			—
Job problems			
Parent	—	.25	.56*
Teacher		—	.32
Employer			—
Go to nondoctor			
Parent	—	.61*	.32
Teacher		—	.29
Employer			—
Emotionally disturbed			
Parent	—	.63*	.27
Teacher		—	.37
Employer			—

* $p < .05$.

Shaughnessy and Zechmeister (1997), ''a desirable value for test-retest reliability coefficients is in the range of .80 or above'' (p. 128). Thus, the CLPQ questionnaire in this interview had acceptable test-retest reliability.

Discussion

The SADP profiles were very similar for all the subject groups in this study. When compared to the average SADP scores of Hong Kong university students (O'Donnell, 1993; O'Donnell and McPherson, 2002) little difference was noted for general attitudes to people with disabilities. At entry to a professional speech pathology program, Hong Kong students were noted to have a mean SADP score of 103.8 (O'Donnell and McPherson, 2002), only slightly higher than the 98.67 to 100.92 mean scores found in survey groups in the present study. However, all measured Hong Kong groups have been found to have appreciably less favorable attitudes to disabled persons compared to those found in Western studies. Mean SADP scores in the Hong Kong surveys cited above were very similar to those found by Chan et al. (1984) for Hong Kong college students, which were 20 points lower than for college students in the American SADP norms (Antonak, 1982). A group of first-year Australian college students had a mean SADP score of 129 (Beckwith and Matthews, 1995). This may reflect a general Chinese cultural bias to a less positive attitude towards persons with disabilities.

In the present study, the effect of personal contact on attitudes towards CLP in particular was also investigated. Significant differences were found in participants' agreements to statements about CLP. With decreasing degree of contact, respondents agreed more with statements that people with CLP have trouble making friends or getting married, as well as having job problems. Parents, with the most intimate contact with persons with CLP, showed the most favorable attitude towards these two items. The influence of personal contact on positive attitude formation can be accounted for by two mechanisms. Prior to the experience of having a child with CLP, parents very likely had internalized societal beliefs about CLP (Mori, 1983). However, contact leads to interaction and closeness. When parents have direct interaction with their children and are more familiar and understanding about their children, a positive sentiment regarding their children and other people with CLP may be induced. In other words, internalized societal beliefs and negative stereotypes may be eliminated. Secondly, Festinger's cognitive dissonance theory (Horne, 1985) states that with direct experience, dissonance occurs when one engages in counterattitudinal behavior, as there is a discrepancy between one's attitude or belief and one's behavior. Dissonance leads to psychological discomfort, in turn motivating the individual to seek to reduce the dissonance and avoid information and situations that might increase the dissonance. Because the parents of children with CLP cannot avoid being with their own children, when they engage in counterattitudinal behavior, they may change their negative attitudes to reduce the aversive tension that such behaviors induce. In this way, their attitudes towards children with CLP would become more positive.

However, parents showed a significantly less favorable attitude to a statement about emotional disturbance (emotional imbalance or mental health disorders) in people with CLP. An explanation for this finding could be linked to the relationship between contact and knowledge. According to Wilson et al. (1989), contact with and knowledge about a person have been found to have a significantly positive correlation. Through contact with children with CLP, parents have more knowledge and better understanding of the causes and effects of CLP. Throughout the prolonged process of habilitation of children with CLP, children have to face the anxieties caused by hospitalizations and surgeries, absence from school, and queries and teasing from others. Moreover, the children with CLP of the interviewed parents in this study were often in the adolescent stage of development, when their self-concepts were undergoing change and development. Thus, the fact that significantly more parents agreed that CLP people were emotionally disturbed may be because of the external and internal factors affecting their own children. The negative reactions of parents to such changes can be transformed into less positive attitudes and parents may let the existence of the CLP affect their evaluation of their children's personalities. Thus, the parents may tend to believe that negative behaviors and emotions of their children are linked to the CLP disorder (Clifford, 1973). Alternatively, parents may consider other children when making their response to this CLPQ item, rather than their own children, or may themselves have a CLP disorder and have experienced social challenges during their own lives.

The employer group was found to have the least favorable attitude to people with CLP, although significant differences were shown in only a few items. According to Desforges et al. (1991), the first two stages of the process of possible stereotype and attitude change are the categorization and adjustment stages. In the categorization stage, when the perceiver notes the target person's social category, he or she sets up assumptions and expectations of the target person's characteristics. In the second, or adjustment stage, after direct experience with the target person, the perceiver learns new information about the individual, which results in an impression adjustment away from the previous expectations. The parents, teachers, and employers in this study all have gone through the categorization stage, and their assumptions and expectations towards people with CLP are established. Without any direct contact, the attitude of the employers towards CLP could be based only on their assumptions in the categorization stage, formed by the brief written introduction of CLP, the pictures and the speech samples of CLP introduced during the interview, and, for some, prior television documentary information. Studies have highlighted the negative effects of category labels of handicap on attitude (Brophy and Rohrkemper, 1981; Horne, 1985). Given that all subjects in the study were given this information, but with no direct CLP contact among the employer group, and because the type of information given in the setting was primarily focused on possible disabilities as-

sociated with people with CLP, attitudes would likely be less positive for the employer group. In addition, for practical reasons, only two speech samples, which could not represent the full range of speech found in patients with CLP, were played to the respondents. An area for future research could entail the study of the self-perceived social acceptance of children and adults with CLP compared to general community attitudes.

The results of this survey suggest the presence of differences across the three social circles defined by Antonak and Livneh (1988), which could have an impact in habilitative situations and on the overall development of individuals with CLP. Some of the results confirm the findings of an earlier study with Chinese Americans (Bebout and Arthur, 1992). First, all three groups tended to agree with the statement that people with CLP could improve their speech if they tried hard. According to Lee (1989), for many Chinese people, ''when given the opportunity, everyone is expected to excel, which can be done only when one tries hard'' (p. 41). Hence, parents may not voluntarily seek professional help for their children with CLP. This speculation was supported by the finding in the current study that significantly more parents believed that people with CLP do not need to seek help from nondoctors for speech disorders. Even if they seek professional consultation, they may refuse to accept or may underrate the clinician's recommendation in the treatment process, which could have a negative impact on habilitative progress. Or, as Bebout and Arthur (1992) suggested, they may have ''false expectations about the efficacy of therapy and believe that success is guaranteed as long as their CLP children tried hard'' (p. 49). Based on the CLPQ findings in the present study, teachers and employers may have a false belief that the speech problems of students or employees with CLP were because of laziness, which would result in lower expectations of, and reduced confidence in, their students or employees. This implies that employers may overestimate the potential speech ability of persons with CLP and that they would be unlikely to recommend speech therapy for their employees or potential employees.

Surprisingly, many parents believed that individuals with CLP do not need to seek help from nondoctors for their speech problems, but indicated a very positive attitude when they were asked whether consultation with a doctor was advised for speech disorders. This implies that many Hong Kong parents do not know the role of speech pathologists in the habilitative process. As Cheng (1990) noted in reference to a Chinese population, the role of a speech pathologist may not be understood or appreciated by the parents of a child with a cleft palate, and this may lead to reduced attendance at speech therapy services. This finding in the CLPQ points to the key referral role medical practitioners play in Chinese communities in relation to speech disorders.

The CLPQ item that asked whether persons with CLP were likely to be emotionally disturbed also showed a response pattern similar to that noted in the studies of Bebout and Arthur (1992, 1997), in which Cantonese-speaking Chinese Americans were more in agreement with this statement than other Americans. Chinese parents may think that the emotional problems of their children with CLP are normal concomitants of the CLP disorder. As for teachers, they may have different expectations of students with CLP if they tend to believe that children with CLP are emotionally disturbed. Negative teacher expectations may affect the self-concept, motivation for achievement, and levels of aspiration of students (Cooper, 1979). Based on CLPQ results, employers may also underestimate the working abilities of potential employees with CLP and falsely believe that employees with CLP cannot undertake positions of responsibility if they consider such workers more prone to emotional disorders.

All three groups generally agreed with the statement that individuals with CLP have trouble making friends and developing intimate relationships, with employers showing a significantly less favorable attitude. Many researchers have already indicated the social difficulties encountered by individuals with CLP in Western countries (Van Demark and Van Demark, 1970; Richman, 1997) and in China (Berk et al., 2001). However, not many have noted that negative social reactions could further remove people with CLP from pleasant everyday social encounters. During social interaction, people with CLP may expect that their disorder would have an effect on the behavior of others. The anticipation of negative reactions and evaluations from the perceivers can generate anxiety of a magnitude equal to or greater than that occurring secondary to active evaluation and negatively affect their own behavior, social skills, and self-esteem (Berk et al., 2001). Based on this, we hypothesize that the negative attitudes of study respondents regarding the social development of people with CLP could lead to less satisfactory interpersonal relationships of individuals with CLP in general. At the same time, with a strong emphasis on the value of good interpersonal skills in the workplace, many employers in Hong Kong may simply view employees with CLP as less preferable or exclude them from certain jobs that require good personal relations skills (Tang, 1995). This hypothesis is consistent with the CLPQ finding in our study that significantly more employers agree that people with CLP may have job problems.

Although earlier reports often highlighted folk beliefs and superstitions in the Chinese population, this study showed somewhat different findings. Consistent with the study of Bebout and Arthur (1997), our subjects showed a very supportive attitude for CLPQ items concerning hiding persons with CLP from the community; viewing the CLP disorder as a punishment from fate or God; believing persons with CLP are no less intelligent than others; and that joking and teasing of individuals with CLP should be avoided.

Although the three subject groups showed very close results in their SADP average scores in this study, parents and teachers showed comparatively more favorable attitudes on CLPQ items than employers when compared to their SADP scores. Their more positive attitude towards individuals with CLP than to disabled persons in general may relate to their contact with CLP. This would suggest that a favorable attitude to individuals with CLP does not necessarily generalize to a more positive

than average attitude towards persons with other disabilities. However, it should be pointed out that the study questions focused on attitudes at the cognitive level. Further research needs to be conducted to relate these findings to actual behaviors towards persons with CLP.

In summary, our findings indicated that parents, teachers, and employers in Hong Kong show differences in their attitudes towards persons with CLP. There are implications for medical and allied health services in Chinese communities arising from these findings. Appropriate informational and affective counseling should be emphasized. Clients with CLP and their families need to be clearly introduced to the functions of all professionals in the CLP rehabilitation team. The important role of allied health practitioners, such as speech pathologists, should be outlined. The need for professional support in the development of normal speech and the limited gains that can be made by individual effort should be communicated to patients with CLP and their families. Second, parents should be reassured that most children and adults with CLP do not experience major psychosocial problems (Hunt et al., 2005). The study also indicates the need in this Chinese community for health education that further shifts community attitudes towards disabled persons in a positive direction and for specific community programs that reduce negative stereotyping of persons with CLP. The study found significant differences for a number of CLPQ items among the three groups—parents, teachers, and employers—surveyed. These findings point to the need to consider the level of personal contact that survey respondents have with individuals with CLP when conducting attitudinal research in this area.

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APPENDIX

Cleft Lip and Palate Questionnaire (CLPQ) Statement Items

1. Persons with cleft lip and palate have trouble making friends or getting married.
2. Persons with cleft lip and palate should go to a doctor for help with their speech.
3. It is OK to make jokes about cleft palate if no one with cleft palate is listening.
4. Persons with cleft lip and palate have trouble getting a good job.
5. Persons with cleft lip and palate or their families are being punished (by fate or God, for example).
6. Persons with cleft lip and palate are likely to be less intelligent than other people.
7. Persons with cleft lip and palate should go to a person who cures or helps people (not a doctor) for help with any speech problems.
8. Persons with cleft lip and palate could speak more clearly if they tried.
9. The family should keep a person with cleft lip and palate at home to hide the problem from other people.
10. It is sometimes OK to tease or make fun of persons with cleft lip and palate.
11. Many people with cleft lip and palate are emotionally disturbed.
12. Persons with cleft lip and palate should get help with their speech problems sometime in their lives.