

## **Building a Culturally Appropriate Intervention Program to Assist Children's Rehabilitation after the Sichuan Earthquake of 12 May, 2008**

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### **Abstract**

Based on the findings of the survey and the interviews, the work in this stage of the research was to build a culturally acceptable program to aid the children's recovery. The study was conducted in three project sites of a village, a large school and a hospital, all in the same locations as the baseline research. A group-based participatory approach is being employed to develop a variety of activities, in progressive steps dealing with children's themes of rehabilitation in their own contexts. The total program includes a range of activities differing according to age, category, and site. To ensure comparability, a core of three activity types (drama; story-telling and writing; singing and music in Qiang style) is taken by all age and category groups. The aim is to encourage healthy personal and social development, self efficacy and cultural identity. Cultural leader-based advocacy and cultural events promoting health have been designed to support the children's activities. Volunteer Leaders and Activity Leaders conduct the activities, and monitor progress using Observation Check Lists to record children's perceived general activity and group involvement.

In this paper we show how we addressed our dual aims of building a culturally appropriate rehabilitation program to help the children and of evaluating its effectiveness.

What would be culturally appropriate? With the information gained from the Survey and interviews with the children described by Shuguang Wang in the previous paper, and the greater knowledge gained from working closely with Chai, Yang and the other Qiang leaders, as described in Chai's paper, we now had a better understanding of what would be culturally appropriate. Three key features of the situation emerged: (1) We would need to make the group the focus of the children's rehabilitation rather than work with each child on an individual basis, (2) The role of the Qiang traditional cultural leaders must be considered and respected and (3) Oral traditions, expressed in story, song and opera, were the key to cultural identity rather than written history.

Culturally appropriate also had to mean culturally acceptable. We were reminded of the villagers' sense of impotence in the face of the building projects which were carried out by outsiders without consulting the local peoples' needs or feelings. Also, their experiences with foreign and other Chinese volunteers had left unfavourable attitudes to outside interventions, especially by psychiatrists and counselling volunteers. There were no psychological tests or scales which we could apply to Qiang children, and even if we found a usable scale in the Chinese test literature, it would be rejected by the Qiang.

### **The Activities Program**

To ensure that the rehabilitation program would be both culturally appropriate and culturally acceptable, we devised a program of activities which could foster the children's social, physical and educational development, could contribute to fostering pride in their cultural identity, and could be integrated into familiar group settings such as school and village life.

We prepared a list of some suggested activities with therapeutic benefits and theoretical support, including the following examples:

*Traditional dance and songs, including original compositions.* These develop the sense of cultural identity and foster creativity and self esteem.

*Choral and group singing and music.* Singing and music enhances group support, improves participatory communication skills, and contributes to cultural renewal. Participation in these activities also improves some physical functioning such as heart and lung capacity. Moreover, they can be used in situations where physical injuries limit activity.

*Story-telling, writing and reading.* Oral story telling contributes to communication in a popular Qiang cultural tradition, encouraging the expression of emotions, and helping both tellers and listeners to express feelings which are negative and suppressed. Writing can be fictional, or autobiographical. Both are used as projective clinical techniques in work with children. Both oral and written story telling can help to promote communication skills and cognitive development. Books for children's reading can stimulate interest and enjoyment. They can be provided to a school library or in a travelling "book box" library which can be circulated around schools and villages. With local villages managing the books in their own village, adults with low levels of literacy can also benefit. Titles can be chosen to augment school lessons, for enjoyment only, to stimulate motivation, to provide role models, and as an outlet for dealing with fears and anxieties.

*Sand and doll play.* This is a well-used projective method in clinical work with young children. Doll figures can represent various persons through which children can play out their experiences, emotions and relationships. The method can be adapted for small groups as well as used individually. Plane surfaces can be used as well as sand boxes. An advantage of using sand is that the child can easily make changes in the arrangement of the sand to express different emotions and ideas.

*Drawings, painting and modelling with clay or plasticine.* These are standard techniques in clinical work with children and adolescents. They are adaptable for all ages and for groups as well as individuals.

*School projects.* The school classroom project can be a vehicle for assisting children to work through their experiences, to develop cognitive skills and focus on growth and renewal in positive ways. A project can be carried out individually or as a group. The work involved can encourage creativity and critical thinking and enhance self efficacy. Topics can be linked to topics in the usual classroom syllabus or, in this case, to the earthquake, but to be effective the topic must be attractive to the child.

*Photography.* This can be a very effective, and attractive, activity for many older children. As they record their own experiences and show the changes to their environment, they can increase their knowledge and improve their own coping skills. Photographs can be used to illustrate school projects.

*Dramatic performances.* These can include many kinds of activities, such as mime, puppetry, making up stories to perform, and making scenery and costumes, opera style. Children with different skills and abilities can all be involved. Psychodrama is a well-established form of projective clinical intervention. Participatory communication fosters creativity and self efficacy and helps to alleviate depression.

*Group discussions.* Group discussions can be used to contribute to planning an activity, working through its conduct and discussing the outcome. Focus groups are frequently used to stimulate discussion of personal problems, but for this rehabilitation program it is suggested that they focus on positive goals rather on eliciting expression of stressful emotional states.

*Helping another person.* There are many benefits for both the helper and the one who is helped. The process of learning to understand the point of view of another person, namely social perspective taking, fosters empathy and understanding of the child's own situation as well as that of the other. In the interdependent Qiang culture, helping behaviour can work across age levels as well as among the child's peers. Even modest acts of helping can have mutually beneficial effects.

*Sport, games and gymnastics.* These activities promote physical well-being, and the group involvement promotes social interaction. Providing a variety of activities should enable a wide range of children of differing abilities to participate.

*Computer skills.* If the equipment is available, helping them to develop these skills will be likely to attract many of the older children. Mastery of computer skills will also help them to look to the future rather than dwell on present and past losses.

*The Activities Diary.* In addition, a book was provided for children to write in their own entries about their activities. The purpose of the book is to record their own feelings and ideas, and entries are not counted in any evaluation. The books are only given to children in the groups who can write. If children want to share some of their entries with their teacher or friends, they can do so.

It can be seen that these activities cross many disciplinary boundaries: they draw upon social, clinical and developmental psychology, the creative arts, music, singing and drama, writing and oral communication skills, physical and motor skills and health psychology. They all have the common characteristic of being attractive to children, to be enjoyed, while promoting healthy personal development.

Although many of the suggested activities have links to clinical and other psychological fields, it was important not to treat the children's performance on any of these activities as comparable to performance on a psychological test. The limitations of the projective test are well documented (See, for example, Anastasia & Urbana, 1997, *Psychological Testing*, Seventh Edition), especially the problems of meeting the measurement criteria of validity and reliability, compounded in a non-western cultural environment. For the informal situations in these classroom and peer group activity sessions we adopted a different approach, based on the systematic observation of a child's change in behaviour rather than on psychological interpretations of mental state.

## **Administering the Program**

### **Selection and training of Volunteer Leaders and Activity Leaders**

To administer the activities program we selected local Qiang speaking volunteers who had had experience working with children in school or kindergarten. Guidelines were prepared and training workshops were conducted before commencing the program. Using the participatory communication approach, all volunteers took an active part in preparing the program, giving suggestions for improving their roles and ideas for other activities.

The Volunteer Leaders were made responsible for the overall conduct of the activities program in their classroom or village group and for carrying out the observations on each child's behaviour over a period of five months. The Activity Leaders were responsible only for the conduct of a particular activity and worked closely with the Volunteer Leader for the group.

To ensure comparability between groups in different situations and age ranges, three common activities were conducted in all groups. These were: story-telling and writing; singing, and drama. Each of these has a strong tradition in Qiang culture and was regarded as important to the aim of developing a sense of pride in their cultural heritage. The research team worked closely with the Qiang people, using the three level participatory communication approach.

### **Evaluating the Children's Progress**

*Ineffectiveness of counselling.* We could not use test data as bench marks of children's progress since no psychological tests were available from either western or Chinese psychological literature. In any case, it was unlikely that such testing would be acceptable to the Qiang people. However, the Government has been persuaded that counsellors should be provided for all children and appointed village doctors to the task. After a very brief few weeks training they were given a modified version of the Mini Mental State scale, as used by psychiatrists, to use with the children. This was quite inappropriate for the Qiang children's situation and there was no expectation of evaluating its effectiveness.

Data obtained by Shuguang Wang show that the counselling experience did not differentiate between those who had received the counselling and those who had not, as is shown in Tables 1 and 2, below. After a slight change in the early days among the least affected children, the effect soon dissipated over a longer term. In the children most affected by the earthquake, there was no difference in either the short or long term.

**Table 1** *Parents' descriptions of effects of access to counselling on children slightly affected by earthquake*

Affected slightly within 6 months after earthquake_(n = 314)	Counselling and non-counselling groups (%)		
	Access to counselling	No access to counselling	<i>p</i>
Third month (Base line )	14.33	15.67	
Fourth month	12.14	14.70	
Observed Change	2.17	0.97	**
$\chi^2 = 18.792$ $df = 3$ $p = 0.026$			
Fifth month	11.61	13.63	
Observed Change	2.70	2.04	n.s
$\chi^2 = 0.334$ $df = 3$ $p = .718$			
Sixth month	7.65	9.14	
Observed Change	6.66	6.53	n.s
$\chi^2 = 0.912$ $df = 3$ $p = .978$			

*Note.* n.s: no significance; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

**Table 2**

*Parents' descriptions of effects of access to counselling on children strongly affected by earthquake*

Affected strongly within 6 months after earthquake <i>n</i> = 1601	Access (%)	
	Access to counselling	Not access to counselling
Third month (Base line )	35.32	35.46
Fourth month	34.44	34.90
Observed Change	0.88	0.56
$X^2 = 0.426$ <i>df</i> = 3 <i>p</i> = .560		
Fifth month	33.71	33.93
Observed Change	1.60	1.53
$X^2 = 0.904$ <i>df</i> = 3 <i>p</i> = .229		
Sixth month	33.15	33.34
Observed Change	2.17	2.12
$X^2 = 1.747$ <i>df</i> = 3 <i>p</i> = .124		

*The Observation Check Lists.* We did not try to turn our Volunteer Leaders into amateur psychologists. They were not counsellors but supporters. Rather than attempt to introduce psychological interpretations of behaviour, we devised a set of Observation Check Lists which could be completed by the Volunteer Leader or Activity Leader. Items for the Observation Check Lists were derived from the findings reported in the Survey and interview studies presented in the previous paper by Shuguang Wang.

As shown in Figure 1, below, the items in the Observation Check Lists focussed on observable behaviour. It was important that the volunteers became familiar with the meaning of each of the items in the training workshop before commencing the observations. It was also important that the task should be easy to complete so that local volunteers in all centres would have no difficulty in understanding their task. The Volunteer Leaders were also responsible for referring any child with serious problems to the researchers, who would refer the child on to the medical consultant if needed.


## Results

Because of the large number of children involved (see data from Wang's paper), we decided to begin with a small number of locations where there had been high losses, representing the major locations of large schools, villages and hospitals.

Yen Men School is the largest school in the Wen Chuan town area with a large majority of Qiang students from Years 1 to 12. The present enrolment is around 780 children. Since the earthquake, when the old school was severely damaged, new buildings have been erected and a new hostel now caters for many Qiang village children who stay on during the school week.

Lou Bu Village is situated high in the mountains; it suffered severe losses of family members and extreme building damage. Most of the older children were taken to safety and have been brought back home slowly. The older children attend schools in Wen Chuan, most to Yen Men School. The younger children attend the village school. The village has a strong Qiang leadership and Qiang cultural heritage.

An example of a Volunteer Leader's check list is shown in Figure 1.

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<p><b>The Behaviour Check List for Volunteer Leaders</b>          The research program of psycho-cultural rehabilitation for Ethnic Qiang children affected</p>						
Child Code No:		Date:		Name of the activity:		
Session:		Site		Category of the activity:		
Name of Volunteer:						
<b>Background for observed child</b>						
1. Name:		2. Sex:		1) Male	2) Female	
3. Age:		4. Involved in survey		1) Yes	2) No	
5. Home location:		6. Involved in interview		1) Yes	2) No	
<p><i>For each of the following behaviour situations there are four possible answers. Please tick the one which best matches your observation of this child in your Activity session to-day.</i></p>						
<b>Tick for your observation</b>						
<b>Behavior situations</b>	Always	Sometimes	Seldom	Hardly ever		
1. Participation						
2. Enjoyment						
3. Eye Contact						
4. Alertness						
5. Communication						
6. Cooperation						
7. Achievement						
8. Concentration						
9. Language usage						
10. Attempting new tasks						
11. Attention to activity leader						

**Figure 1.** Volunteer Leaders Check List

Yu Li and Shuo Qiao villages are both small villages high in the mountains and here we worked with the kindergarten level children.

The Wen Chuan Hospital Trauma Clinic was to have been the hospital setting, but the hospital is now being repaired and the children have been removed to another location, so we have had no access at this time.

Results so far have been received for five months from two groups in Yan Men School and from Yu Li and Shuo Qiao Kindergartens and are shown in the following prepared by Shuguang Wang.



**Table 4***Changes from baseline to post test recorded twice per month (Jan. – Jun 2010)*

<b>Behavior situations</b> ( <i>n</i> = 350)	<b>Jan. 2010</b> (baseline)	<b>Jun 2010<sup>a</sup></b> (Post-activity,%)	<b>Observed Change</b> % (95% CI) <sup>a, b</sup>	<b><i>p</i></b>
1. Participation	1.32	3.77	2.45 (0.7, 4.2)	***
2. Enjoyment	1.12	3.79	2.75 (0.9, 4.6)	***
3. Eye Contact	1.04	2.85	1.95 (0.5, 3.4)	*
4. Alertness	3.02	3.82	0.80 (-0.4, 1.2)	ns
5. Communication	0.78	3.04	2.25 (0.5, 4.0)	***
6. Cooperation	2.12	3.97	1.85 (0.4, 3.3)	**
7. Achievement	0.78	3.68	2.90 (1.1, 4.7)	***
8. Concentration	0.60	3.36	2.70 (0.8, 4.6)	***
9. Language usage	1.21	3.62	2.41 (0.6, 4.2)	***
10. Attempting new tasks	0.60	3.15	2.55 (0.7, 4.4)	***
11. Attention to activity leader	3.37	3.88	0.51 (-0.3, 0.8)	ns
Total:	21.19	42.53	21.34 (11.47, 31.21)	***

ns: not statistically significant; \* =  $p < .05$ ; \*\* =  $p < .001$ ; \*\*\* =  $p < .000$

<sup>a</sup>Observation was conducted twice per month. Data was summarized from records of ten times of observations.

<sup>b</sup>The level toward situational change was scored using a Likert-type scale with four levels of response - "Always", "Sometimes", "Seldom", "Hardly ever", scored four, two, one and zero respectively. High scores on the scale indicate a high level of positive comments to children's progress of psychological facilitate. Scores on this scale range from 0 to 44. The reliability of this scale as measured by Cronbach's alpha was 0.68 at baseline.

The results so far show positive changes over the five months period in all the behaviour situations, except alertness and attention to activity leader. The children did not change because they already were alert and paid attention (as do all Chinese children).

The observed activities at Yu Li and Shuo Qiao kindergartens included traditional games, singing and drawings of their village and family.

The observed activities in the school groups included traditional Qiang cultural history, traditional story-telling and dramatic performance. These activities were brought together in a dramatic presentation to the school on Children's Day on 1 June, 2010. While some children read the story, others enacted life in the early period of Qiang culture, and the legend of the daughter of the God who came down to earth and met up with the Qiang young man, thus bringing down the ire of the God, resulting in the earthquake. The role of the Shi Bi, the cultural leader, was shown as mediating in resolving their problems. The performance was thoroughly enjoyed by the rest of the school and was the first time many had learned so much of their own cultural history.

### Summary and Conclusions

We had two major aims in planning the rehabilitation program: first, to develop a culturally appropriate program to help the children and second, to evaluate the effectiveness of that program. With the information gained from the first two stages of the research, presented by Shuguang Wang in the previous paper, and greater knowledge of the Qiang culture, as shown in the paper by Chai and Wang, it became clear that western-style individualist rehabilitation methods would not work in the Qiang collectivist cultural context. To be effective, the rehabilitation program had to help the children restore pride in their heritage, and we the researchers had to devise a program which respected the views of the Qiang traditional leaders while helping the children to go forward. We would also have to devise a method which did not isolate individual children from their peer groups and their communities. Moreover, we had to include all the children in the groups: in these collectivist

communities there was no possibility of having control groups in which some children could not participate while others, their peers, could.

The method we came up with, the Activities Program, adapted some well-known psychological techniques to the group setting, offering a variety of appealing activities which are known to have beneficial effects, some with a strong basis in the rich Qiang cultural heritage.

The participatory communication approach of working with Qiang people at all levels allowed the community to be aware of what the children were doing, and many offered help. It was local Qiang people who were trained as Volunteer Leaders, who administered the program and collected the data for evaluating the children's progress. The Observation check lists were effective because the Volunteer Leaders were involved in their preparation, and were acceptable because they could be completed easily and were focused on behaviour rather than psychological states.

Teachers and Volunteer Leaders all had intimate knowledge of the children in their groups, so any child causing concern could be referred to the research team and to the medical consultant if needed. Evidence from the survey and the interviews showed that these cases were not great in number. The children who had suffered severe family losses were now being returned to their home environments and were watched over with loving care by extended families or other villagers.

The work is ongoing, and data from other sites are still coming in. The data presented in this symposium is the first available, but thus far the results are supportive. Certainly the Qiang local government authorities are anxious for the work to be extended into other locations, possibly also introducing a training program for local Qiang workers to continue themselves. Such a development would be in keeping with our own aims.

The three stage program has taken longer than attempting to introduce a rehabilitation program from the outset, but has provided a surer foundation, with large samples and strong empirical evidence from which we can now progress to further rehabilitation sites. The evaluation aspect of the program must be continued to ensure that the methods are working.

In this symposium we have presented only part of what has been a challenging undertaking. I hope that in these papers you will have seen the program as a whole, not as separate studies.

Finally may I, on behalf of Shuguang Wang and Melissa Gao, acknowledge the support of all the research colleagues, Volunteer Leaders and Activity Leaders, the Qiang local Government and former Director of Qiang Ethnic Affairs, Mr Yang Xian Gui, the Qiang village and cultural leaders, the China-Australia Centre for Cross-Cultural Studies and the University of Newcastle for its continuing support for this project.