

## Behavioural Intervention for Siblings of Children with Autism: Effects on Social Communication During Play

THE following article summarises the results of the third-year project of Miss Chin Hsiao Yun. The project was conducted at the homes of children. It was supervised by Dr Vera Bernard-Opitz.

RESEARCH has shown that exposure to peer play in integrated play groups decreases the amount of isolated play and increases the amount of social forms of play in autistic children (Wolfberg and Schuler, 1993). In comparison to peer-mediated intervention sibling play groups have additional advantages. Firstly, the sibling of the child with autism is relatively more intrinsically motivated to relate to the autistic child than the peer since the relationship is more permanent than peer relationships (Odom and Strain, 1984; Celiberti and Harris, 1993). Secondly, siblings act as models of language, play and social behaviours outside the therapy or class setting.

Unfortunately, under normal circumstances, many siblings are discouraged by their brother's or sister's non-compliance, lack of responding and maladaptive behaviours. Hence, it is necessary to train siblings to acquire the skills required to relate to their brothers or sisters with autism. Research on training siblings of autistic children has yielded encouraging results. Not only do the siblings learn to use behavioural procedures proficiently, the behaviour of their brothers and sisters with autism also improved.

This study was conducted to investigate whether the social communicative behaviour of autistic children shows improvement when normal siblings are taught behaviour modification procedures. Specifically joint attention and appropriate responses to social initiations by siblings were investigated. Joint attention was defined as two children focusing their attention on the same play object, or directing speech and or actions at a specific goal.

### METHOD

Three sibling dyads participated in a multiple baseline across participants' design. Each of the three children with autism had a sibling who was not more than six years older. Each dyad participated in a total of nine sessions. Every

session was carried out in the home of the sibling dyad.

Five types of skills were taught to the sibling: getting attention, eliciting play, eliciting appropriate social behaviour, reinforcing appropriate responses and responding to non-compliance.

#### • Getting attention

This set of skills included establishing eye-contact with the child with autism, getting the attention of the child and establishing joint attention (e.g., playing the same game along a common theme).

#### • Eliciting play

This involved delivering a variety of commands and requests during play, giving the child sufficient time to respond, and if necessary prompting the child effectively.

#### • Eliciting appropriate social behaviour

This included teaching the child with autism to verbally request for things and to answer questions appropriately. The sibling would reward the child upon the correct response. The use of multiple exemplars was also taught.

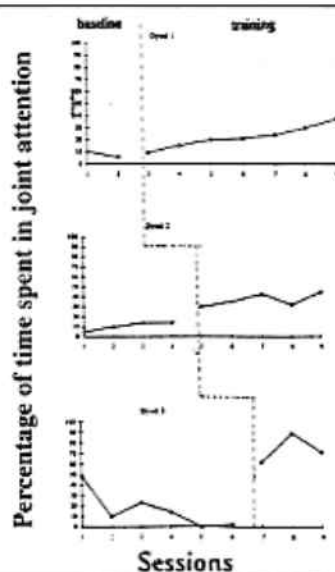
#### • Reinforcing appropriate behaviour

This entailed social praise, food reinforcers and reinforcement with a favourite toy or game. The sibling was taught to reinforce the child every time he or she gave an appropriate response to the (sibling's) request or command.

#### • Responding to non-compliance

This included teaching the sibling to provide feedback to the child every time he or she failed to respond. This was done by repeating the request and modelling for the child. The sibling was also taught how to regain the child's attention if the child was distracted, how to generate a variety of prompts and how to ignore inappropriate behaviour.

Figure 1



## RESULTS

Figure 1 shows the percentage of time the children with autism displayed joint attention with their siblings. By training the sibling in behaviour modification skills and applying them to the play situation, the amount of time the sibling pair spent in joint attention increased.

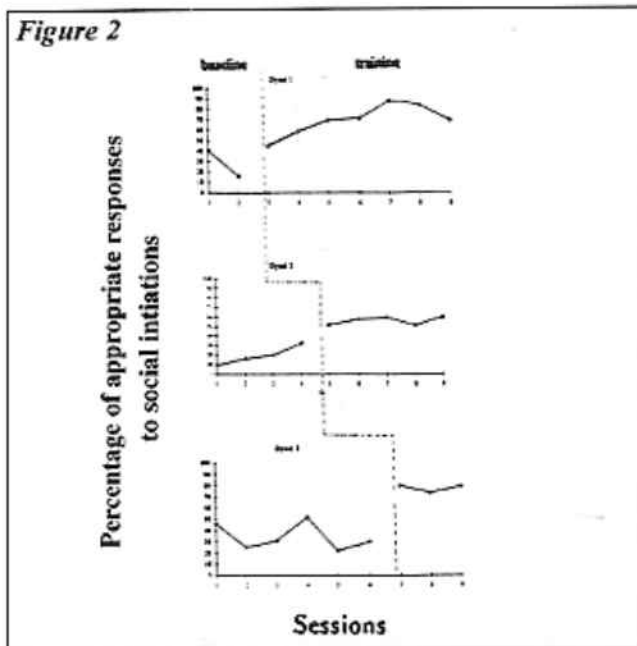


Figure 2 shows the percentage of social initiations appropriately responded to by the child with autism. After training, all three children with autism exhibited an increase in the percentage of appropriate responses to their sibling's social initiations.

**Table 1**

*Sample of comments made by parents and siblings regarding sibling's enthusiasm, effectiveness, play interaction between the two children and child's interest in sibling*

	Prior to Training	After Training
Sibling's enthusiasm	"Last time, I play with him only a bit."	"I like playing with him. We play 'sailing' and all that."
Sibling's effectiveness	"I don't know how to play with her. Sometimes she listens (to me), sometimes she doesn't."	"(It is) easier to play with her now." "The training was useful (He is) much better now. ... He is initiating the first move (towards his autistic brother) now."
Play interaction	"They seldom play together."	"They are playing more nowadays."
Autistic child's interest in sibling	"He is always on his own, doing his own things."	"Now he is playing more with his cousins. (He) is more willing to be with them. He is now socializing more."

Table 1 shows an informal assessment of the effects of the training through interviewing the parents and siblings.

In general, the siblings was perceived to be more enthusiastic and more effective in applying behaviour modification skills. According to parental reports play interaction increased from pretraining levels. The children with autism were seen to be generally more interested in their siblings. In the case of dyad 1, this interest generalised to other people as well.

Why does social communication improve as a result of training the normally developing sibling?

Firstly, Lord (1984) posited that training in skills on behaviour intervention simplified the sibling's behaviour. Thus, this reduced the cognitive demands on the child with autism, causing him or her to feel more comfortable and hence respond more. Secondly, simplifying the behaviour of the sibling allows the child with autism to "free up" his or her attention to better cope with the social input (Brownell, 1987). A third possible reason is that the nature of the training is such that the sibling persists in obtaining a response from the child with autism. The child becomes more comfortable to the nature and extent of the demands placed upon him or her and becomes intrinsically more interested in the activities. Thus, an increase in social communication occurs during play.

## CONCLUSION

The conclusion that training siblings in behaviour modification skills produces quantitative improvements in the social communicative behaviour of children with autism has several implications.

Firstly, there is often a discontinuity in the education programme when the child returns home from school. The child with autism attends school, then returns home to a very different environment for the rest of the day. By training the sibling, there is a possibility for the contrast between the school and home environment to lessen.

Secondly, if the trained siblings can help improve the social behaviour of children with autism, this also means that the siblings can act as facilitators between children with autism and other normal children. Given more opportunities to interact with normal peers, the child with autism is exposed to a normal social environment.

In conclusion, this study has shown that the amount of social communicative behaviours (specifically, joint attention as an appropriate response to social initiations) between a normally developing sibling and a child with autism increases with sibling training. The results have implications for future research and present training programmes for the family members of the person with autism.