Making Progress with Makaton

Results of a project to introduce the Makaton method of sign language to a group of mentally handicapped women patients were disappointing. But project designers Denise Volpato, David Orton and Derek Blackburn report that they did point the way to more effective methods of sign language teaching.

MAKATON is a language programme comprising a developmentally-based core vocabulary. It follows specific teaching procedures and uses whatever methods of communication are appropriate, verbal and non-verbal - including facial expression, body language, gesture, sign, symbols and speech.

Cranage Hall is a 450-bed hospital for mentally handicapped people. A non-verbal system of communication had been successfully introduced in the local education authority school within the hospital during the 1970s, yet despite staff training, generalisation failed to occur in the ward environment.

In 1982 the various hospital teams and senior officers decided to adopt Makaton as the main system of non-verbal communication. Following this, a multidisciplinary Makaton team was formed from interested representatives, including nurses, psychologists, speech therapists and people from voluntary services. A period of in-service training was offered to all hospital personnel concerned with caring or training. More than 200 staff received training in the principles of Makaton over about a one-year period.

Although interest and enthusiasm were strong, on reviewing the situation after a year it was evident that, although training was being given to residents, it was only in isolated areas and usually within a training environment rather than in a real situation. Earlier studies have commented on the lack of communication by residents in institutionalised settings resulting from the routine anticipation and fulfilment of their basic needs. Makaton should not only be understood but should also be effectively used in spontaneous communication.

In an attempt to introduce signing in the daily environment the Makaton team decided to run a project in one of the hospital villas. To facilitate this, a questionnaire was circulated to each villa and a villa selected which had residents who were considered to include potential signers and whose staff were keenly committed to the project. The villa housed 22 women of varying age and handicap.

The objectives of the project were:
1. To monitor the acquisition and use of Makaton.
2. To monitor staff/resident interaction.
3. To transfer the location for teaching signs from the training area to the ward.
4. To monitor the influence on communication.
5. To monitor the influence of training and how signs were taught.
6. To note any possible influence on behaviour problems.

Before starting, all members of the ward team, including domestic staff, were instructed in the use of Makaton stages one to four, and nine. The training consisted of formal signing sessions together with the use of video and games. The method of implementing the project was discussed, together with the recording system, so that a unified, consistent approach would be achieved.

Of the 22 villa residents, 14 were recommended by ward staff for participation in the project. Eight were finally selected, assessment revealing a broad range of understanding and use of language. Ages ranged from 27 to 62 years with a mean age of 46. The group’s hearing was reported to be within normal limits. Five had no verbal communication, although one used limited spontaneous gesture, and another had experience of one or two signs resulting from her attendance at the hospital training departments.

Assessments used included, the Reynell Developmental Scales\(^5\), the British Picture Vocabulary Tests\(^6\), the Sentence Comprehension Test\(^7\) and the Symbolic Play Test\(^8\). Out of five tested on the Reynell scales, three showed that they had more than a one-year gap between the levels of comprehension and expression.

The project comprised five three-week phases with staff being supported by the Makaton team in alternate phases. In the first phase, having received training, the ward staff introduced signing into the daily routine of the villa.

The psychology department, knowing the objectives of the project, began an independent study to monitor verbal and non-verbal interaction between the residents and the staff and residents. The format was not disclosed to the staff involved in the project. This monitoring continued throughout all phases of the project.

It was agreed that the signing should not be restricted to the residents involved in the project but used generally in the villa, so that all residents could interact and benefit from the introduction of the system.

The input of the Makaton team marked the beginning of phase two. A team member spent two hours in the ward each day, working individually with the eight residents and also in groups which included unselected residents, many of whom had shown a keen interest in, and aptitude for, signing.

The Makaton team visited the villa at meal and leisure times, since the nursing staff saw these as the periods of the day most conducive to communicative interaction.
Recording material was introduced to chart progress and provide a guide for successive trainers. Two recording sheets were used. Sheet 1 (Table 1) was of a general nature summarising the whole session. Sheet 2 (Table 2) contained specific recording on signs taught. A checklist in the form of a teaching procedure was incorporated (Table 3).

Teaching materials used included flashcards, real objects and toys, games such as sign dice (basic sign pictures on a cube), and a Makaton ‘beetle’ (pictures of basic signs numbered to complete a house picture).

Signs were reinforced in the appropriate situations: thus, ‘food’ at mealtimes. Although it had been agreed to draw on the first four stages of Makaton, it was decided at this point to concentrate specifically on signs from stages one and two. Team members conducted the one-to-one sessions and were observed by the nursing staff, who also joined in with the group sessions. During the third phase, while the Makaton team was available to guide if necessary, the nursing staff continued with the project without practical input from the team.

In phase four, the Makaton team again provided two hours’ daily input, as in phase two, while nursing staff were encouraged to conduct the individual sessions. In the final phase the nursing staff continued the programmes without the practical input from the Makaton team.

<table>
<thead>
<tr>
<th>Table 1. Makaton project recording sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
</tr>
<tr>
<td>Residents</td>
</tr>
<tr>
<td>Staff on duty:</td>
</tr>
<tr>
<td>Staff directly involved (state degree)</td>
</tr>
<tr>
<td>Residents</td>
</tr>
<tr>
<td>Group/indirect work</td>
</tr>
<tr>
<td>Exact time started</td>
</tr>
<tr>
<td>Finished</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Details of</td>
</tr>
<tr>
<td>Session</td>
</tr>
<tr>
<td>Materials</td>
</tr>
<tr>
<td>Presentation</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Signs – name and note if appropriate whether modelled, imitated, elicited or spontaneous</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Staff on duty:</td>
</tr>
<tr>
<td>Staff directly involved:</td>
</tr>
</tbody>
</table>

Two members of the psychology department made observations throughout on language use under the reasonably standard conditions of dinner times. Every 15 seconds any communication engaged in by a scheduled person was classified as verbal or non-verbal, to or from a resident or member of staff; the total inter-rater reliability was 94.6%. Any Makaton seen was scored on an adaptation of the critical components classification of
signs after Faw et al[9]. After the project, behaviour records were examined for evidence of systematic variation.

During the Makaton team phases, significantly more Makaton was used by staff to the Makaton group, whether compared with the staff phases (p <1%) or with baseline (p <5%) (Fig 1). Staff use Makaton to all in the villa was also significantly greater at these times (with respective values for p of <1% and <5%). (Of those residents using Makaton, 50% were not in the chosen Makaton group, suggesting that the use of Makaton beyond the initial eight may have had some effect.)

![Diagram](image)

**Fig1. Staff Makaton use to Makaton group (as 1% of all communication from staff)**

There was no trend over time for the acquisition of Makaton. Signs could be given a quality score only when they were of sufficient quality to be seen. This provided insufficient range to show any pattern: 81% of scores were seven or more on a nine point scale.

There was no change in recorded behaviour related to the project or its phases. The level of disturbed behaviour was generally very low (range of 0.02 to 0.17 reports per person per week), and quite constant for each individual; the notable changes in signing were to residents rather than from them which meant that the supposed reduction in frustration should not occur.

An incidental finding was that both staff and residents signed (Makaton and other) significantly more than baseline during the Makaton team phases (p<1%) and the staff alone phases (p<5%).

The teams main expectation of the project was to see Makaton sign language introduced to and established in the living environment of the hospital villa. The results did not indicate that a significant increase in signing had occurred other than during particular training sessions. It is worthwhile to examine the reasons for this and the related issues revealed by the project.

Although the team members attempted to merge with the villa staff and to integrate themselves into the ward routine, an unintentional division remained. Some of the staff reported later that they were inhibited by the presence of the Makaton team and the members of the psychology department who were conducting the recordings. This appeared to be owing to the teams being considered ‘the experts’. A longer period, in which the team members could
have worked alongside the villa staff in carrying out routine tasks, might have obviated this difficulty.

Table 2. Makaton vocabulary training sheet

<table>
<thead>
<tr>
<th>Stage no</th>
<th>Name ........................................................................</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week no</td>
<td>Date training commenced ...........................................</td>
</tr>
</tbody>
</table>

Please ensure that you read the notes of guidance before compiling your recordings*

<table>
<thead>
<tr>
<th>Date</th>
<th>Vocabulary</th>
<th>E</th>
<th>C</th>
<th>E</th>
<th>C</th>
<th>E</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Bed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 Toilet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 Biscuit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Car/Bus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 Drink</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30 No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>31 Goodbye</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>32 Good morning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Notes of guidance
score 0 = No attempt
1 = Inaccurate attempt
2 = Acceptable – needs shown
3 = Correct sign
E = Expression
C = Comprehension

Previous studies have tended to teach and assess the extent of learning achieved in a formal way, that is, on presentation of a cue, such as a picture or an object. This type of study is more readily evaluated than one which, during recording, relies on spontaneous signing and may therefore not reveal sufficiently what has been learned. As recordings were taken at mealtimes it is probable that less opportunity occurred for the use of non-food related vocabulary.

In individual sessions two residents were recorded as having learned 0-5 signs (assessed by response to social greeting or by response to a signed instruction or picture or object cue). Two residents learned 5-10 signs, two residents 15-20 signs. The remaining two residents learned more than 20 signs. All but 13 signs introduced were taken from stage one. The villa sister now reports that, over a year later, basic signs are still used by staff and residents, and their teaching and use has been incorporated into individual nursing process care plans.
Table 3. Checklist for teaching Makaton

Teaching procedure
On commencement of session use social greeting good morning or hello. Use signs for come and sit down, please or go. Praise – use good. Gradually introduce where, here, what, there, yes, I, me and you in later sessions as residents become more proficient.

Presentation
Expression
1. Place one card at a time in front of your resident and make the appropriate sign
2. Encourage imitation - shape if necessary
3. Praise - good (use sign) - immediately

(Group: Repeat the procedure with each resident in turn and encourage group interaction using all the signs selected for the session.
NB 2—5 according to capability)

Comprehension
1. Place 2-5 cards race up (according to capability)
2. Use residents name, for instance: Joe, where’s… ? (expect him to find the picture or discriminate the sign)
3. Praise - immediately for correct response (use sign for good)

Footnote
If a resident makes a mistake never use the sign bad; always use the sign no* - put the emphasis on praise for good wherever possible
*Always re-model the correct sign and encourage the residents to attempt the sign again

Formal structured teaching while successful in training departments may not be as beneficial in the living environment as the habitual reinforcement of signs used at the appropriate time in communication. Considering this, the number of signs introduced might have been considerably restricted and mutually agreed on as far as possible.

After initial training it had been intended that the villa staff would take over and develop the project. This, however, failed to occur, perhaps because the project was introduced into the villa by the team with the staff's support rather than the planning having evolved from within the villa itself with the external support of the team.

Teaching was restricted to the villa. A future study could consider extending this setting more fully to include hospital departments, social outings and so on, although this will undoubtedly present difficulties in recording.

The study revealed the necessity for staff to be prepared more fully in programme planning and implementation. Including associated behavioural techniques. If signing training is isolated from other training procedures, teaching is unlikely to be successful.

In the course of the project it became evident that training staff to sign was insufficient to enable them to devise and carry out signing and language programmes in the living environment.
We have therefore completed a modular method of teaching Makaton to personnel. This incorporates the assessment, planning, implementation and evaluation of an individual training programme for a person with severe mental handicap.

Emphasis throughout is placed on the teaching of Makaton signing to both the mentally handicapped person and a future co-worker. This method, entitled PAM (Practical Application of Makaton) is proving to be a beneficial tool in promoting the confidence necessary for members of all disciplines to become involved in developing Makaton signing/language programmes.

REFERENCES


FURTHER READING


*Derek Blackburn. MA. David Orton. RNMH. and Denise Volpoto. Bsc(Hons), MCST, ALAM, are respectively principal psychologist, resident’s training officer and speech therapist at Cranage Hall Hospital in Cheshire.*

*NURSING TIMES APRIL 30 1986.*