CLINICAL BOTTOM LINE: Formal sign training to staff improves the recall and use of sign in communicative exchanges with adults with intellectual disability.

Clinical Question [patient/problem, intervention, (comparison), outcome]:
Does formal staff training increase the knowledge and use of signing in communicative exchanges between staff and adults with intellectual disabilities?


Design/Method:
Independent groups design comparing knowledge of signs and use of signs between the training intervention group and the untrained control group.

Participants:
60 People who worked with adults with intellectual disabilities in a variety of settings (day program, health, residential).
- 30 trained in 20 signs.
- 30 untrained.

Experimental Group:
The training group received a “series” of half day sessions. This included formal training, introduction to AAC and Communication, a training video illustrating signing being used to support communication with adults with intellectual disabilities and a set of cards illustrating the signs, to be taken away by all trainees. 6-12 months after training trainees were interviewed and tested on their knowledge and use of signs. They were asked to rate the effectiveness and usefulness of the training strategies. They were tested on their sign recall and accuracy and asked to rate how frequently they used the signs with their clients. Qualitative feedback was also facilitated.

Control Group:
The untrained group received no formal training, did not see the video or receive the cards.

May 2002
Is replication possible in clinical practice?
Yes. We have an established KWS training workshop and an evidence based interactive vocab. Of 60 signs plus a natural gesture set. Sign with Me is a DVD illustrating using KWS for communication. We also have some sign cards developed by Harmony Turnbull.

What barriers might prevent results from being applied to clinical practice?
Organisations priorities, staff availability and attitudes.

What could be done to address barriers?

If barriers can’t be modified how could procedure be modified to address these barriers?
- Use KWS workshop for teaching.
- Select vocab form interactive vocabulary sets,
- Use sample observations of client and staff interaction to record KWS used.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tr>
<td>Design showed cause and effect</td>
<td>50% of staff tested said they rarely used the signs.</td>
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<td>Staff did not know they were going to be tested.</td>
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<tr>
<td>Well written and possible to replicate</td>
<td>Number of training sessions not specified.</td>
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<tr>
<td>Accessible summary</td>
<td>Post training was between 6-12 months.</td>
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<td>Multi element training strategy clearly described.</td>
<td>Many staff reported that they did not work with clients who use sign to communicate.</td>
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<td>Signing vocabulary selected could have been more interactive</td>
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<td>Awareness of signs was increased but this often did not translate into practise.</td>
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<td>Staff may have been embarrassed to sign signing.</td>
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<td>Signing was not a part of any of the establishments communication policies</td>
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Level of Evidence (NH&MRC):
Level iii 2 or 3

Results:
The formal training was rated as more effective than the cards
The cards were rated as more effective than the video.
The trained group produced signs more accurately after 6-12 months
(Apart for the signs for: sleep, car, drink, eat, for which there was no significant difference between the trained and untrained groups).
There was a significant increase in the use of signing with adults with intellectual disabilities and the staff from the trained group.

Appraised By: Bettina Bacall Arenstein
Clinical Group: AAC EBP group
Date: 22.6.12
Guidelines for completion of the CAP

Clinical Bottom Line
The consensus of the reviewers on implications of the paper on clinical practice. Whilst this may be somewhat subjective, it is hoped that robust discussion, the Level of Evidence and your comments on the design will enable you to produce a practical/realistic ‘bottom line’. Many of the papers in Speech Pathology may have limitations, but the Clinical Bottom line should be aimed to help clinicians apply what evidence there is.

Clinical Question
This should ideally include four components:
- the patient or problem
- the intervention (or diagnostic test or prognostic factor)
- the comparison intervention or test (optional)
- the outcome

Design
Refer to pages 12 to 15 of the EBPIG Resource Package for guidance in reviewing the design used.

Comments on Design
Pages 12 to 15 of the Resource Manual should again assist here. You may also find it useful to refer to the forms 'Evaluating case studies/case series' and 'Critical appraisal sheet' adapted from Dr Lil Mikuletic's (see 'Critiquing/Appraising the Evidence').

**Level of Evidence**

It is recommended that the paper you are reviewing be rated against the NH&MRC Levels of Evidence, as reproduced here. The levels may be updated from time to time by the NH&MRC, but use of the ratings listed here will ensure consistency across CATs and groups. These levels are listed with comments on pages 15 and 16 of the Resource Package.

<table>
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<tbody>
<tr>
<td>I. Evidence obtained from a systematic review of all relevant controlled trials</td>
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<tr>
<td>II. Evidence obtained from at least one properly designed randomised controlled trial</td>
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<tr>
<td>III. 1 Evidence obtained from well-designed pseudo-randomised controlled trials (alternate allocation or some other method)</td>
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<tr>
<td>2 Evidence obtained from comparative studies with concurrent controls and allocation not randomised (cohort studies), case-control studies, or interrupted time series with a control group</td>
</tr>
<tr>
<td>3 Evidence obtained from comparative studies with historical control, two or more single-arm studies or interrupted time series without a parallel control group</td>
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<tr>
<td>IV. Evidence obtained from case series, either post-test or pre-test and post-test</td>
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