Mixed methods evaluation of training:
A practical guide to supporting people with cognitive and behavioural impairments after acquired brain injury

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Introduction
This practical training for direct support workers (DSWs) addresses a recognised need to improve workers' knowledge, confidence, and practice in working with the target population (1).

- The prevalence of challenging behaviour among traumatic brain injury rehabilitation clients is over 50% (2). Clients' challenging behaviours contribute to (2):
  - Poor outcomes
  - Increased levels of unmet need
  - Reduced participation
  - Higher levels of care & support

- Disability workers surveyed in Victoria (70% DSWs) reported that in a one month period (3):
  - 65% were exposed to physical aggression resulting in injury (almost half reporting injury to themselves)
  - 86% were exposed to verbal aggression (72% to themselves)
  - 97% were exposed to other challenging behaviours

Most these workers felt the general training they received didn't provide useful strategies and, as a result, they often implemented reactive behaviour management strategies (3).

Exposure to challenging behaviours is known to contribute to DSW depression, stress, and burnout (3,4).

Results
Participants met their goals
Improve their knowledge and understanding
Develop their skills and confidence
Learn strategies, particularly for behavioral impairment
Increase their capacity to support other team members
Better help clients to achieve their goals

Knowledge of Outcomes of ABI Increased

<table>
<thead>
<tr>
<th>Cognitive</th>
<th>Memory impairment</th>
<th>Memory impairment</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Post-training</td>
</tr>
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Knowledge of Strategies to Use with Clients Expanded

<table>
<thead>
<tr>
<th>Pre-training</th>
<th>Post-training</th>
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<tbody>
<tr>
<td>Short, clear, simple verbal communication</td>
<td>Distraction and redirection</td>
</tr>
<tr>
<td>Routines and structure</td>
<td>Memory and organisation strategies and aids</td>
</tr>
<tr>
<td>Reminders, prompts, and cues</td>
<td>Short, clear, simple verbal communication</td>
</tr>
<tr>
<td>Memory and organisation strategies and aids</td>
<td>Reminders, prompts, and cues</td>
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<tr>
<td>Feedback to the client</td>
<td>Listening to the client</td>
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<tr>
<td>Routines and structure</td>
<td>Exercise</td>
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<tr>
<td>Enourage or reinforce positive behaviour</td>
<td>Restoring calm, not taking behaviour personally</td>
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<tr>
<td>Identify and control triggers to behaviour</td>
<td>Repent and consistency</td>
</tr>
<tr>
<td>Non-verbal communication and visual aids</td>
<td>Goal setting and realistic expectations</td>
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<tr>
<td>Repetition, consistency and practice</td>
<td>Distraction and redirection</td>
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Confidence and Self-Efficacy Improved

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<thead>
<tr>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
<th>Neutral</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post</td>
<td>Pre</td>
<td></td>
<td></td>
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<tr>
<td>(n=44, t=4.77, p &lt; .001)</td>
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Agreement with individual self-efficacy statements increased:
- Performance when things are tough
- Success overcoming many challenges with clients
- Confidence to work with the target population
- Knowing how to respond to difficult behaviours

Conclusions
The training successfully provided the required knowledge in order for participants to work effectively with clients with cognitive impairment and behaviours of concern following acquired brain injury:
- Before training, participants identified they lacked knowledge in this area and that ultimately impacted on their ability to support clients achieving person-centred goals
- After training participants understood the impairments and deficits and the thought process behind addressing these
- Following training, participants were confident they could improve their practice even when novel difficult situations arise, and would be less reliant on professionals once their clients' profiles of strengths and weaknesses had been identified
- In particular, participants now recognise the importance of environmental factors, which they can contribute to, in modifying behaviour and promoting goal attainment
- The training illustrated to participants the different types of supports that clients may need (e.g. physical assistance, prompting, supervision, feedback etc.); they were surprised that non-hands on support can be equally important to promoting goal attainment

The knowledge, skills, and confidence obtained by the participants from the arbias training indicates that empowering all support staff to work effectively with people with an acquired brain injury will ultimately result in improved outcomes for the individuals and potentially less reliance on formal supports in the future.

Methods

Training
- Co-facilitators:
  - Clinical psychologist
  - Occupational therapist
- Training:
  - Comprehensive Participant Manual
  - Interactive discussion, case examples, video & role play to:
    - Understand impairments
    - Reflect on strategies
    - Consider case examples
- Qualitative content analysis with NVivo
- Statistical analysis with SPSS
- University Human Research Ethics Committee

Participants
- 3 trainings
- 12 organisations
- 60 attendees (9 males)
- 34 support workers
- 16 managers / co-ordinators / care assessors
- 8 qualified clinicians
- 1 unknown
- Questionnaires:
  - 53 at Time 1, 52 at Time 2, Time 3 in progress

Evaluation
- Survey and interviews
- 3 time points
  - Pre (Training)
  - Post (3 months)
  - Follow-up

<table>
<thead>
<tr>
<th>Participants (n=52)</th>
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<tbody>
<tr>
<td>Post</td>
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<tr>
<td>0</td>
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<tr>
<td>0</td>
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<tr>
<td>Excellent</td>
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Satisfaction Rating

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<tr>
<th>Developers’ Knowledge</th>
<th>Developers’ Delivery</th>
<th>Structure &amp; Content</th>
<th>Visual Aids</th>
<th>Venue</th>
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Acknowledgments
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Literature cited
(1) NSW Government Lifetime Care and Support Authority