

Does public transport training versus no intervention help clients with TBI/CVA increase their independence in accessing their local community?

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Clinical Scenario

Many clients post TBI/CVA are unable to return to driving, thus the need for mastering community transport is greatly increased.

Summary of Key Findings

- 6 studies were located which met the inclusion/exclusion criteria
- No RCT's, Clinical practice guidelines, Systematic reviews or controlled trials were found, therefore the level of evidence gathered is scientifically regarded as being weak.
- Study using the client with a TBI used in vivo training plus daily planning sessions to review the route and instructions prior to traveling. Client also used a checklist on the journey.
- Goal achievement was 1 week only with this client
- Study using CVA clients looked retrospectively through case notes as to whether OT's had done a "transport assessment" or provided any information.

Clinical Bottom Line

- Systems like pre paid bus passes reduce the amount of steps and transactions
- Checklist may be helpful to focus attention
- Mass repetition is beneficial
- All studies used task analysis approach to identify component skills and develop a skills acquisition format

However, there is no current evidence that transport training whether it is in vivo, via classroom teaching or on an individual basis increases a client's independence in accessing their local community.

Limitation of this summary of evidence/CAT

This summary of evidence has been individually prepared and has not undergone a process of formal peer review.

Methodology- Search Strategy

Using the levels of evidence as defined by the NHMRC (2000), the search strategy aimed to locate the following study designs;

- Systematic reviews and meta- analysis;
- RCT;
- Controlled trials, cohort or case control analytic studies;
- Case series: Post test only, Pre test/Post test
- Expert opinion including literature/narrative reviews, consensus statements, descriptive studies and individual case studies.

Search Terms

Patient: TBI, Head Injury, Stroke, CVA
Intervention: Transport training, public transport, community access, community integration, transportation
Comparison: No intervention
Outcome: Independence

Sites/Resources Searched

- NHMRC
- National Guidelines Clearinghouse
- Journals @ Ovid
- Cinahl
- Pubmed
- Cochrane library
- Embase
- Pedro
- Psychinfo
- OTDBase
- OTBibSys

Inclusion/Exclusion Criteria

Include: studies which included clients with an intellectual handicap (due to lack of literature on CVA/TBI population).

Exclude: Studies which looked at issues not related to independence e.g. 1 study looked at the level of fear experience by the person, or their social skills in public situations.

Studies using clients with visual impairments

Any studies not published in English

Results

Six relevant studies were located and categorized as shown below.

Table 1: Study design of articles retrieved by search

Methodology of Studies Retrieved	No. Located	Source of evidence
Clinical Practice Guidelines (Evidence-based)	0	
Systematic reviews or meta analysis	0	
RCT	0	
Controlled trials, cohort or case control analytic studies	0	
Case series: Post test only, pre test/Post test	0	
Expert opinion including literature/narrative reviews, consensus statements, descriptive studies and individual case studies	6	Pub Med

References

Level 5

- Neef, N., Iwata, B., & Page, T. (1978) Public transportation training: In Vivo versus classroom instruction. *Journal of Applied Behavior Analysis*, 11 (3), pp331-344.
- Marchetti, A., Cecil, C., Graves, J., & Marchette, D. (1984) Public transportation instruction: Comparison of classroom instruction, community instruction, and facility-grounds instruction. *Mental Retardation*, 22 (3), pp 128-136
- Neistadt, M., & Marques, K. (1984). An independent living skills training program. *American Journal of Occupational Therapy*. 38(10), pp 671-676.
- Logan, P., Gladman, J., & Radford, K. (2001). The use of transport by stroke patients. *British Journal of Occupational Therapy*, 64 (5), pp. 261-264.
- Newbigging, E., & Laskey, J. (1995). Riding the bus: Teaching an adult with a brain injury to use a transit system to travel independently to and from work. *Brain Injury*, 10 (7), pp. 542-550.
- Welch, J., & Nietupski, J. (1985). Teaching public transportation problem solving skills to young adults with moderate handicaps. *Education and Training of the Mentally Retarded*. 12, 287-295.