

NeuroRehab Evidence Database

Target Area: Challenging Behaviour

Neurological Group: Traumatic Brain Injury

Burke et al. (1991). Improving executive function disorders in brain-injured clients. *Brain Inj*, 5(3): 241-252.

RoBiNT score - 5/30

Method / Results

Rehabilitation Program

Design

• **Study Type:** SCD. Multiple baseline across behaviours (tasks).

- **Population:** n=5.
 - o Jake: male, age 38, head injury (motor vehicle accident)
 - Jack: male, age 32, brain injury (being thrown from an automobile)
 - O Chris: male, age 40, TBI (stuck by an automobile while riding his motorcycle)
 - Mike: male, age 28, TBI (physical altercation)
 - o Kathy: female, age 19, closed head injury (motorcycle accident)
- Setting: Study 1 woodshop of a rehabilitation facility; Study 2 – local restaurant / woodshop of a rehabilitation facility; Study 3 – public places, rehabilitation facility.

Target behaviour measure/s:

- Percentage of selected behavioural tasks (or the number of components for each task) completed correctly (Study 1 and 2). For example, carpentry or cooking tasks.
- Percentage of appropriate interaction with males, frequency of exhibitionism (Study 3).

Primary outcome measure/s:

• No other standardised measure.

Results: Study 1: the patient was able to perform the vocational tasks in the right order when given a checklist, and continued to perform it even after the checklist was removed.

Study 2: The introduction of a self-initiation checklist reduced the amount of prompting and increased the number of tasks completed correctly.

Study 3: In one case, simple scheduled feedback, at first on a 30-minute basis, then on a daily basis and finally on a weekly basis, was enough to control this behaviour. In the second case, a treatment package consisting of self-monitoring, dating skills training and required self-stimulation allowed this client to regulate his exhibitionism.

Aim: To improve executive functioning in three areas: problem solving (Study 1), self-initiation (Study 2) and self-regulation (Study 3).

Materials: Task checklists, self-monitoring notebook.

Treatment Plan:

- **Duration:** 25 days to 15 weeks.
- **Procedure:** Not specified.
- Content:

Study 1: Checklists (based on task analysis) given to the patient with the verbal instruction to perform the task. Once he demonstrated the ability to perform the task, checklists were withdrawn and problem-solving condition introduced. There, the vocational specialist altered equipment or hid tools so that the task would be performed incorrectly unless corrected by the patient.

<u>Study 2</u>: Patient provided with self-initiation checklists. Once checklists were no longer needed, they were withdrawn and patients continued to perform the tasks without them.

Study 3: Scheduled feedback (every 30 minutes) informing the patient about appropriateness of her interactions with males. After 25 days, feedback was only provided at the end of each day. For another patient: detailed interview of his urges, feelings and fantasies prior to and during an act of exhibitionism. Patient provided with a self-monitoring notebook to record all urges and feelings. Dating skills training including role-play.