# Visual, Verbal, and Tactile Cues on Improving Gait in a 71-year old Male with Dementia of the Lewy Bodies

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## BACKGROUND PURPOSE:

Dementia of the Lewy Bodies (DLB) is a neurodegenerative dementia which presents with the cognitive impairments of dementia as well as the motor impairments of Parkinson's Disease (PD). DLB is estimated to account for 3-10% of dementias in the older population and is often excluded from studies due to the pathology's rapid motor and cognitive degeneration.[1]

*The purpose of the case report is to demonstrate how visual, verbal, and tactile cues can improve gait in a patient with DLB.*

## CASE DESCRIPTION:

**Body Structure**

Decreased:
- Static and dynamic balance
- Lower extremity strength and AROM

**Activity Limitations**

Decreased:
- Sit to stand initiation and execution
- Ambulation quality
- Safety awareness during ambulation

Increased:
- Frequency of falls
- Festinating and freezing during ambulation
- Behavioral and mood changes

**Participation**

Wants to participate in:
- Working on bikes in his son's automotive shop

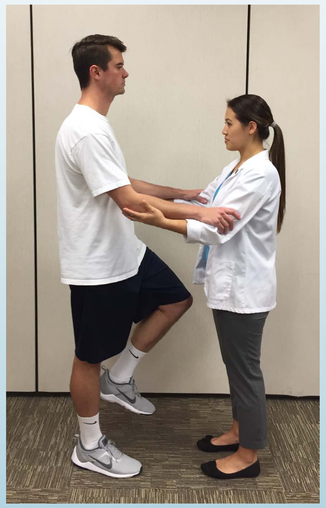
**Environmental Factors**

- Married
- Retired veteran
- Goes to son's automotive shop.

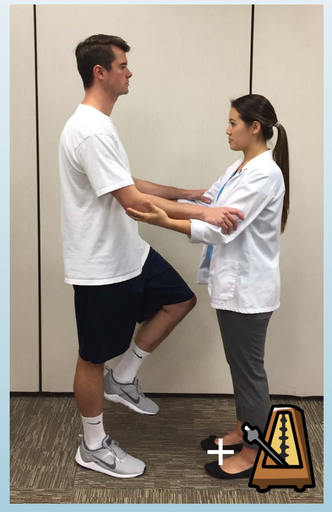
**Personal Factors**

- 71 years old
- Male
- Dementia of the Lewy Bodies

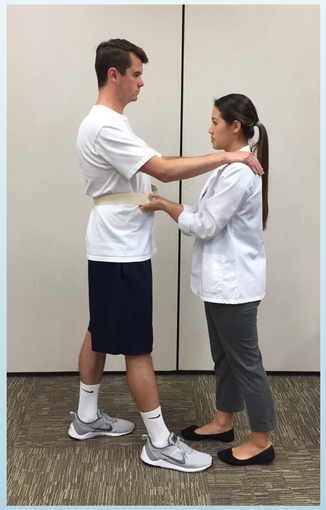
## INTERVENTIONS:



Week One: Verbal cueing for "marching steps"



Week Two: Continued cues from previous session + metronome.



Week Three: Verbal cues for "big steps"

## OUTCOMES:

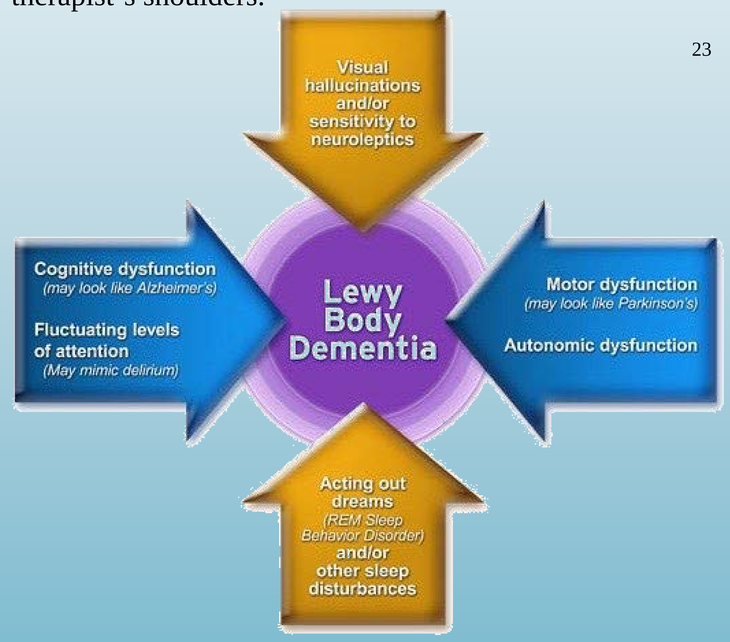
| Outcomes | Initial Evaluation | Last therapy session | Change in Measures |
|---|---|---|---|
| **Tinetti Balance*** | 0/16 | 7/16 | 7/16 = 43.7% |
| **Tinetti Gait** | 2/12 | 4/12 | 2/12 = 16.7% |
| **Tinetti Falls Efficacy (FES)** | 35/100 | 18/100 | 17/100 = 17% |
| **Lindop Parkinson's Assessment Scale** | 3/18 | 10/18 | 7/18 = 38.9% |
| **FAST Scale** | Stage 5 | Stage 6 | Not applicable |
| **Falls Per Day** | 3-4 falls per day | 2-3 falls per day | Decreased 1-2 falls per day |

*MDC of 3 achieved

## DISCUSSION:

Tinetti balance, gait, FES, Lindop Parkinson's Assessment Scale, stride length and number of freezing episodes all improved with the use the verbal cue for "big, high steps" and the tactile cue of the therapist's hands on a gait belt around the patient and the patient's hands on the therapist's shoulders.






## CLINICAL RELEVANCE:

Although there is a lack of research on how patients with DLB respond to cueing, patients with Parkinson's Disease have demonstrated improvements in gait with varying visual, verbal, and tactile cues.[21] Therefore, it may be indicated to use an array of cueing for a patient with DLB; however, due to the rapid neurodegenerative nature of the disease and high variance of motor presentation, modifications to cues may be required throughout the patient's plan of care.[3]

**For references please scan:**