

## Clear Speech Variants: An Investigation of Intelligibility in Parkinson's Disease

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**Purpose:** This study investigated the effects of three clear speech variants on sentence intelligibility for speakers with Parkinson's Disease (PD) and a group of age and sex-matched healthy controls.

**Methods:** 14 PD and 14 Control speakers participated. Each speaker was recording reading 18 sentences from the Sentence Intelligibility Test in Habitual, Clear, Overenunciate (OVER) and Hearing Impaired (HI) conditions. Sentences were mixed with multi-talker babble to prevent ceiling effects and orthographically transcribed by 50 listeners.

**Results:** Intelligibility was reduced for the PD versus Control group only in the Habitual condition. All clear speech variants significantly improved intelligibility above Habitual levels for the PD group, with OVER maximizing intelligibility followed by Clear and HI. For Controls, only OVER significantly increased intelligibility above Habitual.

**Discussion:** A clear speech style increased intelligibility for speakers with PD to a level similar to healthy controls. Clinically, findings suggest that clear speech training programs consider using the instruction "Overenunciate." Prior work demonstrated that OVER was associated with the greatest change in segmental acoustic measures and articulation rate. Results therefore suggest the hypothesis that change in articulation and duration are key explanatory factors underlying increased intelligibility for speakers with PD with mild speech impairment.