

Effect of concurrent walking and interlocutor distance on conversational speech intensity and rate in Parkinson's disease

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Abstract

This study examined the effects of concurrent walking tasks and interlocutor distance on conversational speech intensity and speech rate in fifteen individuals with idiopathic Parkinson's disease (PD) and fourteen age-equivalent controls. The introduction of a concurrent walking task significantly increased the conversational speech intensity of PD and control participants. In addition, walking faster was associated with a significant increase in conversational speech intensity relative to normal and slow walking speeds. The concurrent walking tasks had no significant effect on speech rate. Walking speed and stride length were significantly reduced by concurrent talking. These results provide important new information about the effect of concurrent walking on speech motor performance and speech symptom severity in PD. The potential energizing effect of concurrent walking conditions on conversational speech intensity may be an important consideration in the assessment and treatment of individuals with low speech intensity in PD.