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#### ACCEPTED MANUSCRIPT

# Vestibular stimulation improves insight into illness in schizophrenia spectrum disorders

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#### Abstract

Impaired insight into illness (IMP-INS) is common among individuals with schizophrenia spectrum disorders (SSD), contributing to medication nonadherence and poor clinical outcomes. Caloric vestibular simulation (CVS) is typically used to assess peripheral vestibular system function. Left cold CVS is also a transiently effective treatment for IMP-INS and hemineglect secondary to right brain hemisphere stroke, and possibly for IMP-INS and mood stabilization in patients with SSD. Participants with SSD and moderate-to-severe IMP-INS participated in an exploratory double blind, crossover, randomized controlled study of the effects of CVS on IMP-INS. Participants sequentially received all experimental conditions—left cold (4°C), right cold, and body temperature/sham CVS—in a random order. Repeated measures ANOVA were performed to compare changes in IMP-INS, mood and positive symptom severity pre and 30 min post CVS. A significant interaction was found between CVS condition, time, and

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