

**Abstract**

Previous studies largely found that patients with schizophrenia and auditory verbal hallucination (AVH) generally had negative emotional states like depression or anxiety, so it is suspected that negative affect may have contributing role on AVH and the appearance of AVH may then feedback, leading to more negative affect. However, much studies used correlations analyses or measured on a longer time-frame. For the sake of supporting the bidirectional contributing relationships between AVH and negative affect in a shorter time-frame and assessing the moderating role of controllability over voices, experience sampling method (ESM), which is a momentary self-assessment questionnaire, were used to measure immediate occurrence of AVH and affective states. Each participant was requested to complete the questionnaire ten times a day for 6 consecutive days. Through multilevel linear regression models and time-lag framework for analyzing both negative and positive affect and AVH, negative affect had been shown to have stronger strengths both contributing to and resulting from AVH. Separate multilevel linear regression models involving controllability were also assessed and the result showed that low perceived controllability resulted in strengthening the directional relationship from negative affect to AVH, but not from AVH to negative affect. To conclude, this study not only additionally supports the bidirectional vicious cycle, but also provides a way to examine the severity of hallucinatory experience or predict the upcoming AVH and lead a treatment direction to weaken this cycle by lowering negative affect or increasing the perceived sense of control over voices in schizophrenia.

*Keywords:* auditory verbal hallucination, schizophrenia, negative affect, controllability over voices, experience sampling method