

## **Title:** Reliability Findings from the Unified Global Training Program for the Brief Negative Symptoms Scale (BNSS)

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### **ABSTRACT:**

*Methodological question.* Is the BNSS reliable in raters conducting multi-site clinical drug trials?

*Overview/Aims.* The BNSS was designed to measure negative symptoms reliably and efficiently, and to be practical for use in clinical treatment trials. It includes subscales focused on anhedonia, asociality), avolition, blunted affect, and alogia and is rated based on a semi-structured interview with prompts and clarifying questions. In 2016, a global, unified rater training program for the BNSS was established across academic and industry users.

*Methods.* Using pooled data, an analysis on the BNSS reliability was conducted on raters participating in multi-site trials (n=253). Raters came from the United States, Canada, the Russian Federation, Ukraine, Serbia, Hungary, and Romania.

*Results.* With these raters, the BNSS demonstrated high reliability overall, with an intraclass correlation coefficient (ICC) of .97. The ICC values for the subscales were Anhedonia 0.951, (p<0.001), Alogia 0.877, (p=0.010), Blunted Affect 0.843 (p=0.004), Avolition .816 (p=0.031), and Asociality 0.658, (p=0.104).

*Conclusion/Summary.* Overall the reliability of the BNSS was excellent, with the exception of the Asociality subscale. Although Asociality has shown strong inter-rater reliability in multiple studies of raters from a single country, the findings in this study suggest there may be a need for additional training on this subscale in future international studies. Despite this limitation, these findings demonstrate the effectiveness of a unified global rater training program for the BNSS to establish reliability appropriate to multi-site clinical trials. Future studies will examine the role of assessment technique, agreement and correlation with other measures of functioning and cognition, and the role of patient self-evaluation in the assessment of negative symptoms.

### Conflicts of interest/Disclosures:

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