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## Positive and negative syndrome scale panss rating manual

### Positive and negative syndrome scale. Positive and negative syndrome scale (panss) rating criteria. Positive and negative syndrome scale (panss).

The development and standardization of a measurement tool, the Positive and Negative Syndrome Scale (PANSS), have shown variable results when applied to individuals with schizophrenia. This highlights the need for well-characterized and standardized techniques in assessing psychopathology. Researchers created the 30-item PANSS based on established rating systems, aiming to provide an operationalized instrument that balances positive and negative symptom representation and their relationship to overall psychopathology. The PANSS consists of four scales measuring positive and negative syndromes, differential severity, and general illness severity. Initial studies with 101 schizophrenies found the PANSS scales to be normally distributed, supporting their reliability and stability. Interestingly, positive and negative scores were inversely correlated once their common association with psychopathology was removed, suggesting these constructs are mutually exclusive. The PANSS has been validated through criterion-related validity tests in five studies, demonstrating its predictive value, drug sensitivity, and utility for both typological and dimensional assessment. It is widely used in clinical research to evaluate the presence, absence, and severity of positive, negative, and general psychopathology symptoms of schizophrenia. Key strengths of the PANSS include its structured interview format, robust factor dimensions, reliability, detailed anchor points, and validity. A semi-structured interview, the SCI-PANSS, is available for comprehensive content coverage during sessions. Additionally, a brief interview, the Structured Clinical Interview for Symptoms of Remission (SCI-SR), can be used to assess remission based on selected PANSS items. Data from third-party sources or clinicians conducting interviews are required to confirm functional status on specified items using well-validated criteria and anchoring points as described in the PANSS Manual. The Symptoms of Trauma Scale (SOTS) is a 9-item rating scale used to measure severity of nine symptoms associated with trauma, ranging from absent to extreme. It's designed to complement existing systems for establishing trauma history and diagnosis, but not establish a diagnosis itself. Remission in patients is defined as a score of 3 or less on each item maintained over a 6-month period. The SOTS can assess changes in trauma symptoms and may become increasingly important with new treatments emerging. The Symptom Specific Group Therapy (SSGT) is a set of six manuals designed for group cognitive behavioral therapy sessions, focusing on one symptom category at a time: Positive symptoms, Negative symptoms, Trauma symptoms, Activation symptoms, Dysphoria, and Autistic Preoccupation. Each manual guides the group leader in conducting sessions that last approximately 12 weeks. The Positive and Negative Syndrome Scale (PANSS) is widely used to measure efficacy of antipsychotics in schizophrenia treatment. However, its standard factors have moderate-to-high correlations, making it difficult to interpret changes in specific symptom domains. A new uncorrelated PANSS score matrix (UPSM) transform was identified to reduce pseudospecificity and assess symptom change more accurately, with high face validity and specificity/orthogonality. The results showed low correlations between symptom factors at baseline for both traditional and transformed PANSS factors. However, when analyzing changes in symptoms during treatment, there was a notable difference between the two methods. Traditional PANSS factors exhibited high correlations, indicating pseudospecificity, whereas transformed factors continued to show low correlations among factor change scores. At Week 6-endpoint, correlations among PANSS factor severity scores were moderate-to-high for traditional factors but remained low for transformed factors. Furthermore, analysis of data from a separate clinical trial using additional well-validated assessment scales revealed that UPSM-transformed PANSS factor severity scores correlated well with these other scales at baseline. This suggests that transformed PANSS factors can retain high concurrent and face validity while reducing pseudospecificity as a measurement confound. As such, they may facilitate the drug development process by allowing for more accurate characterization of the efficacy of new agents in targeting specific symptom domains in patients with psychotic illness. Keywords: Schizophrenia, antipsychotic agents, factor analysis, efficacy, clinical trials The traditional two-factor model of psychopathology, which includes general psychopathology, has been found to be insufficient in fully capturing key symptom dimensions of schizophrenia or treatment outcomes. Instead, factor and principal component analyses of the PANSS have consistently identified five distinct factors that align with diagnostic criteria for positive symptoms, negative symptoms, disorganized thinking, hostility/excitement, and depression/anxiety. For decades, the PANSS total score and Marder Factor scores have been used as standard metrics in schizophrenia clinical trials to assess treatment efficacy. The findings suggest a degree of separation between positive and negative symptom severity scores, indicating distinct neurobiological underpinnings for each. In contrast, factor change scores are highly correlated with one another, particularly between the PANSS positive factor and other Marder factors. Our previous pooled analysis of PANSS data from five double-blind studies found moderate-to-high correlations between improvements in standard Marder PANSS factors, ranging from  $r=0.52$  to  $r=0.74$ . This level of correlation can make it challenging to interpret treatment-related improvement in individual Marder factors, as improvement might be attributed to nonspecific effects rather than a specific symptom domain. The high degree of between-factor correlation among Marder PANSS factors is characterized as an example of pseudospecificity, where potential pharmacologic symptom targets are too highly correlated to justify separate drug treatment claims. To address this measurement issue, researchers can employ one of two possible approaches: developing and validating new instruments with minimal- to-no correlation with other outcome domains or optimizing existing measures to minimize overlap. Cognitive function can be impacted in individuals experiencing an acute exacerbation of schizophrenia. While there have been studies on instruments such as the National Institute of Mental Health's Psychiatric Assessment Scale (PANSS), little evidence exists demonstrating low levels of correlation between PANSS positive factors and instruments like the National Institutes of Schizophrenia and Related Disorders (NSA) in patients experiencing an acute exacerbation of schizophrenia. One approach would be to keep the PANSS as an efficacy measure while using analytical strategies to minimize between-factor correlations. This approach has several advantages, including being cost-effective and allowing for the acquisition of domain-specific data without requiring separate trials. Additionally, validating modified PANSS factors with low between-factor correlations can facilitate study replication and preserve decades of research on various treatment agents. Recently reported results have demonstrated the effectiveness of an uncorrelated PANSS score matrix (UPSM) transform in reducing pseudospecificity in assessing symptom change in patients with schizophrenia. The UPSM transform has also been applied to baseline PANSS severity scores. In a study involving five similarly designed, randomized, double-blind, placebo-controlled, six-week treatment trials of lurasidone or active comparator for the treatment of patients with an acute exacerbation of schizophrenia, transformed PANSS factors were found to have moderate-to-high degrees of correlation with their respective standard Marder factors. These findings suggest that the transformed PANSS factors are measuring the same symptom domains as the Marder factors. The results also showed that transformed PANSS factors exhibited markedly reduced between-factor correlations compared to the standard PANSS factors, indicating a high degree of specificity in measuring treatment effects. Effect size estimates for endpoint change were calculated using both standard Marder PANSS and transformed PANSS factors. The results showed a consistent pattern across the standard factors, ranging from 0.31 to 0.44, while greater between-factor heterogeneity was observed in effect size estimates using the transformed factors. In fact, there was more pronounced lurasidone effects on positive and hostility symptoms, but smaller drug effects on disorganized, negative apathy/avolition, deficit of expression, and anxiety/depression symptoms. A validation analysis across 12 clinical trials confirmed the generalizable utility of weighted UPSM coefficients, yielding transformed PANSS factors with high specificity while maintaining good levels of correlation with standard PANSS factors. The application of UPSM to pooled baseline data showed that transformed PANSS factor scores at baseline correlated well with their respective standard (Marder) PANSS factor scores. Interestingly, between-factor correlations for both standard and transformed PANSS factors were low at baseline, which was also observed in the concurrent validity assessment using Pearson's correlations. The correlation between MADRS total score and standard PANSS depression/anxiety factor and transformed PANSS depression factor was 0.56 and 0.53 respectively. However, when measuring change in symptom severity during treatment, a notable difference emerged between standard and transformed PANSS factors. While standard factors exhibited pseudospecificity with high correlations across factors, transformed factors continued to show low levels of between-factor correlation observed at baseline, suggesting ergodicity. Pearson's correlations among PANSS severity scores at Week 6-endpoint provide additional confirmation of differences in correlations among standard and transformed factors. Correlations among standard PANSS factors range from 0.34 to 0.68, while correlations among transformed factors are notably lower (-0.22-0.20). However, data from Study 233 showed high levels of correlation between transformed PANSS factor severity scores and standard factors, with correlations ranging from 0.73 to 0.94. The transformed PANSS factors also showed moderate levels of correlation with other subscales, such as the Negative Syndrome Assessment scale (NSA) total score and the Montgomery-Åsberg Depression Rating Scale (MADRS) total score. The study demonstrates that transformed PANSS factors and total scores have generalizable utility across various clinical trials, enabling the generation of equivalent clinimetric properties as the original PANSS factors. When calculating effect sizes using standard (Marder) and transformed PANSS factors, significant differences emerged between treatments. The uniformity of Marder factor correlations contributes to overestimating treatment effects on many PANSS factors, whereas transformed factors provide a more valid measure of efficacy in treating key clinical symptoms. Replicating these findings for other antipsychotic agents is crucial. The study confirms and extends previous research by examining UPSM analysis at baseline and Week 6. At baseline, standard and transformed PANSS factor severity scores exhibited low correlations between factors, indicating separate clinical symptom domains. However, when measuring treatment effects, standard Marder factor change scores displayed moderate correlations, whereas transformed scores maintained their domain-independent structure. The UPSM transform supports the existence of a consistent schizophrenia symptom structure across exacerbated and stable states. The current method for evaluating treatment effectiveness in schizophrenia patients doesn't always accurately determine whether an improvement in specific symptoms is due to the treatment or other factors. To address this issue, a new approach called UPSM has been developed to transform PANSS factors into more reliable indicators of treatment effect. This new method can help clinicians better understand how different treatments impact various symptom domains and provide more accurate information for drug development and labeling purposes. The transformed PANSS factors have high specificity and orthogonality, which means they're less likely to be influenced by other factors, providing a clearer picture of the effectiveness of antipsychotic agents. This can facilitate the drug development process by allowing researchers to accurately characterize the efficacy of new treatments in targeting specific symptom domains. The Positive and Negative Syndrome Scale (PANSS) is a widely used assessment tool for schizophrenia. However, research suggests that the five-factor model of PANSS may not fully capture the complexities of the disorder. Studies have attempted to replicate and refine this model, but results are inconsistent. Researchers have proposed alternative factor structures for PANSS, including a five-factor model that is more nuanced and better captures symptom domains. These studies suggest that negative symptoms, such as apathy and lack of motivation, may be distinct from other aspects of schizophrenia. Research has also explored the neural substrates underlying different symptoms of schizophrenia, including delusions and hallucinations. Studies using neuroimaging techniques have identified specific brain regions associated with these symptoms. Additionally, there is interest in targeting negative symptoms in treatment approaches for schizophrenia. Some researchers argue that negative symptoms should be considered a separate therapeutic target from positive symptoms, such as delusions and hallucinations. Overall, the understanding of schizophrenia remains complex and multifaceted. Research continues to refine our knowledge of this disorder, with ongoing efforts to develop more effective treatments and improve symptom assessment tools like PANSS. Studies on schizophrenia have been conducted by various researchers, including Woodard and Alphas (1994), Garcia-Portilla et al. (2015), Nuechterlein et al. (2008), Keefe et al. (2016), and Loebel et al. (2013). These studies focus on the assessment and treatment of negative symptoms, cognitive impairment, and response to medication in patients with schizophrenia.