

## **Bridging Neuroscience, Function and Intervention: A Scoping Review of Sensory Processing and Mental Illness**

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**Rationale:** Occupational therapists regularly employ sensory-based interventions in psychiatric settings without sufficient empirical evidence to support their approaches. There is a need to conduct and identify research that supports the design and implementation of evidence-based sensory interventions in psychiatry.

**Objective:** To survey the literature across disciplines regarding the relationship between sensory processing and mental illness. The purpose of the survey was to map the existing knowledge base and identify gaps for future research. Our aim was to identify evidence that supports occupational therapy (OT) sensory-based interventions in psychiatry and areas where more OT research is needed.

**Methods:** We performed a scoping review using Arksey and O'Malley's framework by searching for the terms *sensory* and *mental health* in the following databases: PubMed, CINAHL Plus, PsycINFO, OTseeker, and the Cochrane Library.

**Results:** Neuroscience studying the relationship between atypical neural sensory activity and mental illness is rapidly expanding. These studies typically research unimodal sensory processing and do not link findings to functional participation. Research in occupational therapy has predominantly focused on the efficacy of sensory rooms in inpatient psychiatric settings.

**Conclusion:** There is a significant gap in research exploring how atypical sensory processing in adults with mental illness affects occupational performance. Further research is needed to inform the development of person-centered evidence-based sensory interventions that are attuned to different diagnoses and intervention settings. Implications for practice and research will be discussed.