VOLUME - 14, ISSUE - 12, DECEMBER - 2025 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper | Occupational Therapy

"BRIDGING PSYCHIATRIC CHALLENGES AND OCCUPATIONAL FUNCTION: OCCUPATIONAL THERAPY INTERVENTION IN SCHIZOPHRENIA WITH PERSISTENT - TACTILE HALLUCINATIONS: A CASE STUDY"

Dr. Sushant D. Sarang — Associate Professor, Guide, Ph.D. Scholar, OTSC, Seth GSMC & K.E.M. Hospital, Mumbai.

Dr. Yashaswee V. Sonawane* — Final Year-M.O.T. (Mental Health), OTSC, Seth GSMC & K.E.M. Hospital, Mumbai. *Corresponding Author

ABSTRACT Schizophrenia is a chronic disorder marked by positive, negative, and cognitive symptoms that impair daily functioning (American Psychiatric Association, 2013). While auditory hallucinations are most common, tactile hallucinations—such as crawling or pressure sensations—can be highly distressing and further disrupt occupational roles (Higashi et al., 2019). This single-case study examined an adult with schizophrenia experiencing persistent tactile hallucinations. Assessment followed OTPF-4th edition guidelines (American Occupational Therapy Association, 2020) and included the COPM (Law et al., 1990), PANSS (Kirkpatrick & Buchanan, 1990), and the Adult Sensory Profile (Brown & Dunn, 2002). A 12-week occupational therapy program incorporating restorative, compensatory, and psychoeducational strategies within MOHO (Kielhofner, 2008) and sensory integration principles (Ayres, 2005) emphasized sensory modulation, coping skills, social skills training, and community reintegration. After six weeks, the client showed reduced tactile hallucination distress, improved occupational performance, and enhanced participation. Findings support sensory integration–based OT as effective in managing tactile hallucinations and improving functional outcomes

KEYWORDS : psychiatric disorders, schizophrenia, tactile hallucinations, psychiatric occupational therapy, sensory integration approach

INTRODUCTION:

Schizophrenia is a severe mental disorder characterized by delusions, hallucinations, disorganized thinking, and functional impairment (American Psychiatric Association, 2013). While auditory hallucinations are common, tactile hallucinations—false sensations like crawling or tingling—are less frequent but more distressing, disrupting self-care, social participation, and occupational roles (Higashi et al., 2019). These symptoms affect sensory regulation and engagement in meaningful activities, making comprehensive occupational therapy (OT) interventions essential (American Occupational Therapy Association, 2020). Integrating Cognitive Behavioral Therapy, Sensory Integration, and the Model of Human Occupation can enhance functional participation and rehabilitation in schizophrenia (Kielhofner, 2008).

Case Presentation:

Mr. XYZ is a 29-year-old unemployed male admitted to the psychiatric inpatient unit following an acute exacerbation of psychotic symptoms. He was referred to occupational therapy to address functional impairments in self-care, cognition, social participation, and daily routines. The patient has a diagnosis of Schizophrenia with active tactile hallucinations. He reported persistent sensations of electric current passing in his body, which caused fear, avoidance of activities, and emotional distress. His family reported progressive withdrawal, decreased self-care, poor motivation, and inability to engage in work or household responsibilities.

Assessment showed impaired ADLs, poor attention, limited social interaction, and occupational deprivation. His illness began in 2020 after returning from the United Arab Emirates (UAE) , where he had briefly worked as an electrical engineer. Current symptoms included suspiciousness, irritability, disturbed sleep, low appetite, poor self-care, psychomotor agitation, and delusions of persecution. Examination revealed poor sustained attention, impaired planning, low self-esteem, reduced problem-solving, and inconsistent speech. Social interaction skills, routines, and role performance were significantly affected.

His **dysfunction** stemmed from reduced task initiation, impaired reality testing, low insight, and poor coping for hallucinations. **Strengths** included good family support, motivation for recovery, preserved motor skills, and positive response to routine and structure.

OT assessments included Canadian Occupational Performance Measure (COPM), Occupational Self-Assessment (OSA), Positive and Negative Syndrome Scale (PANSS), and the Adult Sensory Profile. Key Occupational Therapy problems identified were impaired self-care due to hallucinations, reduced attention and task initiation, poor coping strategies, and social isolation leading to occupational deprivation.

Short-term goals, designed using the SMART format, targeted independence in ADLs, participation in structured leisure, and engagement in group OT sessions. Long-term goals, also SMART-based, focused on consistent daily routines, pre-vocational skill development, and meaningful social interactions. Progress was monitored and scored using the Goal Attainment Scaling (GAS) method.

Occupational Therapy Treatment Program

The occupational therapy program began with rapport building, motivational interviewing, and establishing a therapeutic routine, as the client initially refused participation, expressing feelings of incapability. Using the Model of Human Occupation (MOHO)—particularly the Volition domain - the session fostered intrinsic motivation and engagement in simple, structured tasks. Behavioural strategies were applied to reshape maladaptive habits, including inappropriate self-introduction and avoidance behaviours.

A multi-framework intervention incorporating Sensory Integration, CBT-based OT, Biomechanical, Cognitive, Rehabilitation, and Occupational Adaptation FORs guided treatment.

Interventions Included:

- **Activity of Daily Living**: Task simplification, stepwise cueing, visual checklists, and routine establishment.
- **Sensory Regulation**: Vestibular and proprioceptive activities (football, ball games, running, bowling) were used to modulate arousal levels and reduce tactile hallucinations.
- **Coping Skills**: Deep breathing, grounding exercises,

journaling, and CBT-based cognitive reframing helped manage distressing sensations.

- **Social Skills**: Graded group games (carrom, chess), role-playing conversations, and reintroducing occupational roles.

Environmental Structuring:
Predictable schedules, visual sequencing cards, and minimizing low-stimulus isolation. Progress was evident by 4 weeks, with improved self-care, reduced hallucinations during activity, and greater social interaction. By 6 weeks, the client engaged in Augmented Reality /Kinect-based Virtual Reality sessions to enhance executive functioning, self-arousal, and task initiation, supporting reintegration into meaningful occupational roles.

OCCUPATIONAL THERAPY ASSESSMENTS

The client underwent a comprehensive occupational therapy assessment using standardized tools. The **Canadian Occupational Performance Measure (COPM)** revealed significant pre–post improvement, with performance scores increasing from 2.8 to 6.6 and satisfaction scores from 2.2 to 6.4, indicating clinically meaningful gains in attention, volition, routine management, and social participation. The **Occupational Self-Assessment (OSA)** showed similar progress, with marked improvement in emotional regulation, productivity, responsibility completion, and social interaction, reflecting enhanced occupational competence and awareness of valued roles.

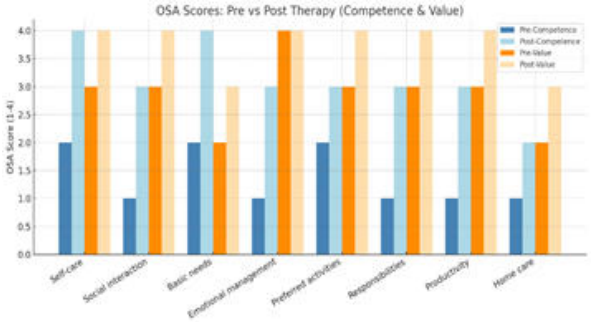

Figure 1.: Occupational Self-Assessment Visual

Figure 2 : The patient participated in Virtual Reality (VR) physical games, such as breaking blocks, to enhance physical conditioning. This technology-based OT session also targeted social and communication skills, with the patient explaining the game to a peer, supporting both inter- and intrapersonal skill development.

Visual Bar Chart (Comparative Pre-Post Scores)
Positive and Negative Syndrome Scale(PANSS) scores demonstrated clear symptomatic improvement: positive symptoms reduced from 30→20, negative from 34→25, and general psychopathology from 62→46, resulting in a 28% overall reduction. This indicates better reality testing, motivation, affective expression, and functional engagement.
The **Adult Sensory Profile** showed pre-intervention difficulties across vestibular balance, tactile hypersensitivity, auditory distractibility, and poor proprioception. Post-intervention results indicated improved postural control, reduced tactile hallucination-related distress, better noise filtering, and enhanced motor planning. Sensory quadrant scores shifted from "much more than most people" to "similar to most people," demonstrating improved sensory registration, decreased avoidance, and regulated sensory seeking.

Overall, the assessment results confirm significant functional, sensory, and psychosocial improvements following occupational therapy.

SMART goals were evaluated using the Goal Attainment Scaling (GAS) format, with outcomes scored at +2, indicating performance much better than expected.

DISCUSSION:

This case highlights the essential role of occupational therapy in managing functional impairments in schizophrenia, particularly when complicated by tactile hallucinations (APA, 2013). Over a 12-week MOHO-based and sensory-integrated program (Kielhofner, 2008), the client showed notable gains in volition, attention, self-regulation, and ADL performance. Standardized assessments—PANSS (Kay et al., 1987), COPM (Law et al., 2014), OSA (Baron et al., 2006), and the Adult Sensory Profile (Brown & Dunn, 2002) - captured significant reductions in symptoms and improvements in occupational functioning. Sensory-based interventions reduced hallucination distress (Roley et al., 2015) and enhanced participation, reinforcing the value of client-centered, occupation-focused psychiatric rehabilitation (Townsend & Polatajko, 2013)

LIMITATIONS:

Environmental and social influences-such as family support and living conditions-were not comprehensively assessed, despite their known impact on recovery in schizophrenia (WHO, 2020).

CONCLUSIONS:

This case underscores the vital role of occupational therapy in schizophrenia with tactile hallucinations, addressing both psychiatric symptoms and functional impairments (Stephane et al., 2003). Using a client-centered, occupation-based approach guided by MOHO (Kielhofner, 2008; Lee & Kielhofner, 2010), interventions incorporating sensory modulation, coping strategies, structured routines, and purposeful activities improved self-care, attention, volition, and social engagement (Law et al., 2005; Baron et al., 2006; Brown et al., 2001). Although hallucinations persisted, their intensity decreased, enhancing participation and quality of life. These findings highlight sensory-integrated OT's critical role in holistic psychiatric rehabilitation (van Os & Kapur, 2009; Brown & Dunn, 2002; Griffin Lannigan & Noyes, 2019)

PATIENT'S VERBATUM:

"I want to continue occupational therapy sessions even after I'm discharged because I feel my hallucinations reduce—or sometimes I don't feel them at all—when I do cognitively challenging activities during the sessions."

Informed Written Consent
Informed written consent was obtained from the patient's legal guardian for participation in the intervention and for the inclusion of anonymized data in this report.

Declaration by Authors Acknowledgement: We sincerely thank the patient and his family, Department of Psychiatry-KEM Hospital, for their wholehearted co-operation throughout the course of this study and intervention.

Source Of Funding: None.

Conflict Of Interest: The authors declare no conflict of interest.

REFERENCES:

1. American Occupational Therapy Association. (2020). *Occupational therapy practice framework: Domain and process* (4th ed.). *American Journal of Occupational Therapy, 74*(Suppl. 2), 1–87.
2. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.).
3. Ayres, A. J. (2005). *Sensory integration and the child*. Western Psychological Services.
4. Bar-Shalita, T., & Cermak, S. A. (2016). Atypical sensory modulation and emotional difficulties in children with developmental disorders. *Journal of Child and Adolescent Psychiatric Nursing, 29*(2), 62–71.
5. Baron, K., Kielhofner, G., & Ly, K. (2006). *Occupational Self Assessment (OSA)*. Model of Human Occupation Clearinghouse.
6. Brown, C., & Dunn, W. (2002). *Adolescent/Adult Sensory Profile: User's manual*. Psychological Corporation.
7. Brown, C., Tollefson, N., Dunn, W., Cromwell, R., & Filion, D. (2001). The Adult Sensory Profile: Measuring patterns of sensory processing. *American Journal of Occupational Therapy, 55*(1).
8. Champagne, T., & Stromberg, N. (2004). Sensory approaches in inpatient psychiatric settings: Innovative alternatives to seclusion & restraint. *Journal of Psychosocial Nursing and Mental Health Services*.
9. Griffin Lannigan, K., & Noyes, S. (2019). Occupational therapy interventions for adults living with serious mental illness. *American Journal of Occupational Therapy, 73*(3), 7303205010p1–7303205010p9. https://doi.org/10.5014/ajot.2019.032177
10. Higashi, K., Hatashita, S., & Sekiguchi, H. (2019). Tactile hallucinations in schizophrenia: Clinical characteristics and functional implications. *Psychiatry and Clinical Neurosciences, 73*(4), 234–242.
11. Kay, S. R., Fiszbein, A., & Opler, L. A. (1987). The Positive and Negative Syndrome Scale (PANSS) for schizophrenia. *Schizophrenia Bulletin, 13*(2), 261–276.
12. Kielhofner, G. (2008). *Model of Human Occupation: Theory and application* (4th ed.). Lippincott Williams & Wilkins.
13. Law, M., Baptiste, S., Carswell, A., McColl, M. A., Polatajko, H., & Pollock, N. (2005). *Canadian Occupational Performance Measure* (4th ed.). CAOT Publications.
14. Lee, S. W., & Kielhofner, G. (2010). Volition in action: The Model of Human Occupation and client-centered practice. *OT Practice, 15*(10).
15. Stephane, M., Thuras, P., Nasrallah, H., & Georgopoulos, A. P. (2003). The internal structure of the phenomenology of auditory verbal hallucinations. *Schizophrenia Research, 61*, 185–193.
16. Van Os, J., & Kapur, S. (2009). Schizophrenia. *The Lancet, 374*(9690).
17. Roley, S. S., Mailloux, Z., Miller-Kuhaneck, H., & Glennon, T. (2015). Understanding Ayres Sensory
18. Townsend, E., & Polatajko, H. (2013). *Enabling occupation II: Advancing an occupational therapy vision for health, well-being, & justice through occupation*. CAOT Publications.
19. Vancampfort, D., De Hert, M., Sweers, K., De Herdt, A., Detraux, J., & Probst, M. (2011). Occupational therapy, physical activity, and physical fitness in schizophrenia: A systematic review. *Disability and Rehabilitation*, 969–
20. World Health Organization. (2020). *Schizophrenia fact sheet*.
21. Goal attainment scaling: A general method for evaluating comprehensive community mental health programs. *Community Mental Health Journal*