Section: Psychiatry

CASE SERIES

BEYOND SYMPTOMATIC REMISSION: PERSISTENT FUNCTIONAL DISABILITY IN PATIENTS WITH SCHIZOPHRENIA—A CASE SERIES FROM A TERTIARY CARE HOSPITAL IN INDIA

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ABSTRACT

Background: Schizophrenia causes ongoing disability despite symptom improvement. Remission doesn't ensure functional recovery, as issues persist due to negative symptoms, cognitive deficits, treatment problems, and limited rehabilitation. The PSP scale assesses social, occupational, and personal functioning; Indian research links remission to outcomes. This series covers six patients who met PANSS remission criteria but had significant functional impairments, highlighting the need for thorough assessments and personalised rehabilitation.

Materials and Methods: Conducted at Government General Hospital, Vijayawada, involving six patients with schizophrenia who achieved PANSS remission but faced functional issues. Assessments included PANSS, PSP, WHOQOL-BREF, MoCA, Insight, and interviews. We reviewed retrospective data on sociodemographic details, illness, treatment, adherence, side effects, and rehabilitation. Functional evaluation covered occupational, social, personal care, and instrumental activities, noting discrepancies between patient and carer reports. Using retrospective review and cross-sectional assessment, we explored cognitive difficulties, negative symptoms, treatment, and psychosocial barriers.

Case summaries: All six met PANSS remission but showed varied functional problems. Case 1: severe multidomain disability, cognitive deficits, low motivation. Case 2: ongoing occupational and social dysfunction, cognitive difficulties, reduced autonomy. Case 3: occupational and interpersonal issues despite preserved cognition. Case 4: ongoing disability, cognitive issues, possible drug side effects. Case 5: significant cognitive deficits, poor initiation, dependence. Case 6: relatively independent but occupationally impaired, possibly due to cognitive issues, non-adherence, side effects. Overall, functional disability varies despite symptom improvement.

Discussion: All six met PANSS remission but showed persistent functional impairments. Factors such as cognitive deficits, negative symptoms, low motivation, occupational disengagement, and treatment issues led to diverse profiles, with difficulties persisting even with intact cognition. Findings stress that symptom improvement doesn't ensure functional recovery, highlighting the need for comprehensive, individualised rehabilitation.

Conclusion: Meeting PANSS remission doesn't guarantee functional recovery; all six had ongoing occupational, social, or interpersonal issues due to cognitive deficits, low motivation, treatment concerns, adherence challenges, and role loss. The individual impact is unclear. These results underscore the importance of assessing functioning separately from symptoms and providing tailored psychosocial and vocational rehabilitation. Larger, long-term studies are needed to understand persistent disability and effective interventions.

Keywords: Schizophrenia, Symptomatic remission, Persistent functional disability, Case series.

INTRODUCTION

Schizophrenia is a severe, often chronic psychiatric disorder characterised by disturbances in perception, thought, behaviour, cognition, and affect, leading to substantial impairment in social and occupational functioning. Although antipsychotics improve psychotic symptoms, this doesn't always restore daily functioning. Functional impairment can persist despite symptom improvement.[1,2] Researchers developed the concept of symptomatic remission to measure sustained improvement in symptom severity over time.[3] However, remission and functional recovery are distinct; patients can experience symptom remission yet still struggle socially and occupationally.[4,5] Thus, fewer psychotic symptoms don't necessarily indicate full recovery.

Several factors contribute to persistent disability in schizophrenia. Negative symptoms, including avolition, anhedonia, and social withdrawal, are key determinants of poor outcomes.[6] Cognitive deficits in attention, memory, executive functioning, and social cognition also impair social and occupational functioning.[7] Longer illness duration, recurrent episodes, medication effects, social isolation, role loss, and limited psychosocial rehabilitation may contribute to ongoing disability despite symptom improvement.[2,6,7] Functional assessment is crucial in evaluating schizophrenia. The Personal and Social Performance (PSP) Scale assesses functioning across four domains: social activities, relationships, self-care, and behaviour.[8] It is reliable and valid, capturing impairments often missed by psychopathology measures.[9] An Indian study found that patients in remission had better social functioning and quality of life, though difficulties persisted despite symptom relief.[10]

The distinction between symptomatic remission and functional recovery matters for patients who appear stable yet remain dependent on caregivers and can't return to work, social life, or independent living. Recognising residual symptoms, treatment challenges, and psychosocial barriers may clarify this and help develop personalised rehabilitation plans. This case series describes patients with schizophrenia in symptomatic remission but with severe functional disability, highlighting that remission doesn't always equate to full recovery.

This case series from the Department of Psychiatry at Government General Hospital, Vijayawada, examined six patients with schizophrenia who, despite meeting symptom remission criteria, still had significant functional impairments. Symptomatic remission was assessed using the Positive and Negative Syndrome Scale (PANSS) according to the Remission in Schizophrenia Working Group (RSWG) criteria, with a score of ≤3 on eight PANSS items indicating remission.[3] We evaluated functional impairment with the Personal and Social Performance (PSP) Scale, with ≤40 indicating severe impairment.[8] We assessed disability through PSP domains and detailed evaluations of occupational, social, and instrumental activities, beyond employment status. Other assessments included PANSS to assess symptom severity,[11] Montreal Cognitive Assessment (MoCA) to assess cognitive function,[12] WHOQOL-BREF to assess quality of life,[13] evaluation of insight,[14] and semi-structured interviews with patients and caregivers on independence, supervision, social relationships, occupational functioning, and persistent symptoms, with discrepancies documented. Clinical records provided data on illness course, treatment, hospitalisations, and adherence. A single cross-sectional assessment evaluated current psychopathology, remission, cognitive function, disability, quality of life, insight, and psychosocial factors.

This case series combined retrospective data with a cross-sectional assessment. Study variables included sociodemographic factors such as age, sex, education, marital status, residence, occupation, and socioeconomic status. Clinical variables covered age at onset, illness duration, duration of untreated psychosis, episodes, hospitalisations, relapse, aggression, and substance use. Treatment variables included medication types, dosages, duration, adherence, polypharmacy, side effects, electroconvulsive therapy, and psychosocial rehabilitation. The assessment evaluated current functioning across employment, household tasks, hygiene, cooking, shopping, finances, travel, social life, family, leisure, decision-making, and activity initiation. We documented each case under sociodemographic profile, illness and treatment history, clinical status with PANSS and remission data, PSP for function, cognitive and quality-of-life assessments, caregiver viewpoint, and factors behind ongoing functional impairment. Contributors to ongoing functional impairment included residual negative symptoms, cognitive deficits, medication effects, long illness duration, adherence issues, social isolation, lack of psychosocial rehab, and other clinical or psychosocial factors.

CASE SUMMARIES

Case 1. Severe Cognitive Impairment and Avolition Associated with Profound Multidomain Functional Disability

A 33-year-old married man with a 10-year history of schizophrenia and no relapses had previously worked as a cleaner but had been unemployed for approximately 10 years. The duration of untreated psychosis was negligible. He had been receiving olanzapine 10 mg/day for 5 years, with good adherence and no reported adverse effects; there was no history of electroconvulsive therapy or psychosocial rehabilitation. PANSS scores were 18 for positive symptoms, 15 for negative symptoms, and 41 for general psychopathology, with a total score of 74/210. Residual features included mild self-laughing/self-talk, social withdrawal, reduced motivation, and marked difficulty initiating activities. The caregiver reported that he could not

resume his previous occupational role and required assistance with instrumental activities, though he did not require continuous supervision.

Functional impairment was evident across multiple domains: severe in socially useful activities and marked in personal and social relationships and in self-care. His PSP score of 35/100 places him within the range of severe functional impairment. The MoCA score was 11/30, indicating markedly abnormal cognitive screening, with deficits in visuospatial/executive function, attention, language, delayed recall, and orientation. WHOQOL-BREF domain scores were 32.14 for physical health, 37.50 for psychological health, 25.00 for social relationships, and 62.50 for the environment. Overall quality of life and general health were each rated 3/5. Insight was graded 4/5. Although friendships were reportedly maintained, both the patient and the caregiver described marked restriction in broader social functioning, with caregiver-reported social withdrawal. Overall, the case demonstrates severe, persistent, multidomain functional disability despite meeting the PANSS symptom-severity threshold for remission, with cognitive impairment and reduced motivation/initiation as important potential contributors.

Case 2. Persistent Occupational and Social Disability with Negative Symptoms, Cognitive Difficulties and Reduced Functional Autonomy

A 59-year-old married man with a 10-year history of schizophrenia, including one relapse and a duration of untreated psychosis of 2 days. He had previously held a private-sector job but had been unemployed for 10 years. At assessment, he was receiving risperidone 4 mg/day in divided doses. Treatment had been interrupted for approximately 4 months after the initial episode and restarted after the second episode, with overall poor adherence reported. There was no history of electroconvulsive therapy, psychosocial rehabilitation, or adverse effects. PANSS scores were 9 for positive symptoms, 20 for negative symptoms, and 36 for general psychopathology, with a total score of 65/210. No significant psychotic symptoms were reported at the current assessment, although reduced motivation, slowed functioning, and impaired occupational and social functioning persisted. The caregiver described preserved performance in many activities but noted slowness, a need for supervision, and failure to regain previous independent work and long-distance travel.

Marked functional impairment was noted in socially useful activities, personal and social relationships, and self-care, with mild impairment in disturbing/aggressive behaviour, yielding a PSP score of 45/100 and indicating marked functional difficulties across all three core functional domains. MoCA was 17/30, an abnormal cognitive screening result suggestive of cognitive impairment. WHOQOL-BREF scores were 46.43 for physical health, 50.00 for psychological health, 41.67 for social relationships, and 46.88 for the environment; overall quality of life was rated 3/5 and general health 2/5. Insight was graded 4/5. A discrepancy was noted in financial functioning: the patient reported needing supervision, whereas the caregiver considered him capable of managing money. The overall profile therefore indicates substantial functional disability despite a minimal current psychotic symptom burden, with cognitive impairment, reduced motivation, slowed performance, and loss of previously independent occupational roles appearing to be important contributors.

Case 3. Occupational and Social Dysfunction Despite Preserved Cognitive Screening: The Role of Reduced Initiation and Residual Functional Limitations

A 26-year-old unmarried man with a five-year history of schizophrenia and no relapses had experienced untreated psychosis for approximately two months. He had previously worked in a jewellery store and was currently working intermittently as a Rapido bike driver, largely at his family's insistence. His treatment consisted of risperidone 4 mg/day in divided doses. He reportedly adhered well, although he experienced dry mouth as an adverse effect. There was no history of electroconvulsive therapy or psychosocial rehabilitation. PANSS scores were 17 for positive symptoms, 19 for negative symptoms, and 41 for general psychopathology, for a total of 77/210. Residual concerns included mild confusion, occasional irritability/aggression, reduced motivation, and difficulty initiating work. The caregiver reported that he could manage money and travel independently but required supervision and had not regained his previous occupational level due to difficulty remembering directions and confusion while travelling.

Despite relatively preserved cognition, substantial functional impairment was evident. Marked impairment was noted in personal and social relationships, manifest impairment in socially useful activities, and disturbing/aggressive behaviour, yielding a PSP score of 55/100, indicating marked/manifest functional difficulties. MoCA was 28/30, with only a minor visuospatial/executive deficit, indicating a marked dissociation between cognitive screening performance and real-world functioning. WHOQOL-BREF domain scores were 50.00 for physical health, 25.00 for psychological health, 33.33 for social relationships, and 43.75 for environment; overall quality of life was rated 1/5, and general health 3/5. Insight was graded 4/5. The combination of preserved basic self-care and cognitive screening with marked occupational and interpersonal impairment suggests that functional disability cannot be explained by global cognitive impairment alone. Reduced initiation, residual confusion, interpersonal restriction, and difficulty translating preserved abilities into sustained occupational performance were prominent features of this case.

Case 4. Persistent Functional Disability in the Context of Cognitive Difficulties and Antipsychotic-Associated Extrapyramidal Symptoms

A 37-year-old married woman with a 14-year history of schizophrenia, including hospitalisations and a relapse. The duration of untreated psychosis was prolonged, at approximately 6–7 years. She had previously worked in occupational and household roles but had not worked outside the home for the past 6-7 years. She was receiving risperidone 8 mg/day in divided doses and olanzapine 10 mg/day. She had a history of poor treatment adherence, and her current extrapyramidal symptoms were characterised by limb stiffening. She had not received electroconvulsive therapy or psychosocial rehabilitation. PANSS scores were 17 for positive symptoms, 20 for negative symptoms, and 44 for general psychopathology, for a total of 81/210. Persistent concerns included reduced motivation, intermittent social withdrawal, occasional irritability/aggression, and failure to resume previous occupational and social roles. Antipsychotic polypharmacy and extrapyramidal symptoms were considered potential contributors to functional impairment.

Functional assessment demonstrated clinically meaningful impairment despite relatively preserved basic self-care. PSP ratings were marked for socially useful activities and manifest for personal and social relationships, self-care, and disturbing/aggressive behaviour, yielding a PSP score of 55/100. MoCA was 20/30, indicating cognitive impairment on screening, predominantly affecting abstraction, delayed recall and attention, with relatively preserved naming and orientation. WHOQOL-BREF domain scores were 42.86 for physical health, 25.00 for psychological health, 41.67 for social relationships and 43.75 for environment; overall quality of life was rated 3/5 and general health 2/5. Insight was graded 3/5. The caregiver reported preserved ability to perform most household activities, but persistent limitations in independent travel, financial management and occupational functioning, together with reduced motivation and intermittent social withdrawal. Overall, this case demonstrates persistent multidomain functional disability in the setting of symptomatic remission, with residual negative features, cognitive impairment and possible treatment-related motor adverse effects as important potential contributors.

Case 5. Cognitive Impairment and Reduced Initiation Underlying Dependence in Instrumental Activities of Daily Living

A 27-year-old single woman had a two-year history of schizophrenia, with previous hospitalisations but no relapses. The duration of untreated psychosis was negligible. She had been taking olanzapine 10 mg/day and amisulpride 100 mg/day for approximately two years, with good adherence. She reported weight gain and tingling in her legs, and had a history of extrapyramidal symptoms during previous treatment with risperidone. There was no history of electroconvulsive therapy or psychosocial rehabilitation. PANSS scores were 9 for positive symptoms, 12 for negative symptoms, and 34 for general psychopathology, for a total of 55/210. Although overt psychotic symptoms were minimal, fear and suspiciousness persisted, accompanied by poor initiation, lack of motivation, marked restriction of social interaction, and dependence on the caregiver for higher-order activities. She performed basic activities of daily living independently but required supervision for instrumental and other higher-order activities and had not resumed previous household or occupational roles.

PSP ratings showed manifest impairment in socially useful activities and personal and social relationships, marked impairment in self-care, and mild impairment in disturbing/aggressive behaviour, yielding a PSP score of 55/100. This indicates marked difficulty in self-care, with additional manifest difficulties in social and occupational functioning. MoCA was 13/30, an abnormal cognitive screening result, with prominent deficits in visuospatial/executive function, attention, language and delayed recall. WHOQOL-BREF scores were 32.14 for physical health, 45.83 for psychological health, 25.00 for social relationships and 46.88 for the environment; overall quality of life was rated 1/5 and general health 3/5. Insight was graded 4/5. The marked discrepancy between relatively preserved basic self-care and substantial dependence in instrumental activities, together with cognitive impairment and poor initiation, suggests that disability extends beyond residual psychotic symptoms. Overall, the case illustrates early and substantial functional impairment despite a low total PANSS score and meeting the symptom-severity threshold for remission.

Case 6. Occupational and Social Role Impairment Despite Preserved Basic and Instrumental Independence: Potential Contributions of Cognitive Difficulties and Treatment Non-adherence

A 23-year-old unmarried man had a three-year history of schizophrenia, including one hospitalisation and one relapse. The duration of untreated psychosis was approximately one year. He had previously worked as a mechanic but was unemployed at the time of assessment. He had been taking risperidone 4 mg/day in divided doses for two years, with poor adherence and extrapyramidal symptoms, including tingling in his foot and hand tremors. He had a history of alcohol and tobacco use, as well as occasional cannabis use approximately three years earlier. There was no history of electroconvulsive therapy or psychosocial rehabilitation. PANSS scores were 11 for positive symptoms, 11 for negative symptoms, and 24 for general psychopathology, giving a total score of 46/210. He reported occasional auditory hallucinations when he missed medication, but no persistent social withdrawal, lack of motivation, or

marked inactivity. According to the caregiver, he was independent in basic and instrumental activities; however, he had not resumed his former work as a mechanic and remained unemployed.

The functional profile was milder, with predominant occupational and social impairment. PSP showed manifest impairment in socially useful activities, personal and social relationships, and self-care, and mild impairment in disturbing/aggressive behaviour, yielding a PSP score of 65/100. MoCA was 17/30, indicating abnormal cognitive screening suggestive of cognitive impairment. WHOQOL-BREF scores were 60.71 for physical health, 66.67 for psychological health, 58.33 for social relationships and 37.50 for the environment; overall quality of life was rated 4/5 and general health 3/5. Insight was graded 5/5. Despite preserved self-care, finances, travel and household functioning, the patient showed meaningful loss of occupational role and restricted friendships. Potential contributors included cognitive impairment, previous substance use, treatment non-adherence and extrapyramidal symptoms. This case highlights the heterogeneity of functional disability and demonstrates that clinically significant role impairment may persist even when symptom severity is low and basic functioning is relatively preserved.

		CASE 1	CASE 2	CASE 3	CASE 4	CASE 5	CASE 6
PANSS	Positive Symptoms	18	9	17	17	9	11
	Negative Symptoms	15	20	19	20	12	11
	General Psychopathology	41	36	41	44	34	24
	TOTAL	74/210	65/210	77/210	81/210	55/210	46/210
MoCA		11/30	17/30	28/30	20/30	13/30	17/30
PSP	Socially useful activities	4/5	3/5	2/5	3/5	2/5	2/5
	Personal and social relationships	3/5	3/5	3/5	2/5	2/5	2/5
	Self-care	3/5	3/5	0/5	2/5	3/5	2/5
	Disturbing and Aggressive behaviour	0/5	1/5	2/5	2/5	1/5	1/5
	FINAL SCORE	35/100	45/100	55/100	55/100	55/100	65/100
WHOQOL - BREF	Physical Health	32.14	46.43	50.00	42.86	32.14	60.71
	Psychological	37.50	50.00	25.00	25.00	45.83	66.67
	Social Relationships	25.00	41.67	33.33	41.67	25.00	58.33
	Environment	62.50	46.88	43.75	43.75	46.88	37.50
	Overall QOL	3/5	3/5	1/5	3/5	1/5	4/5
	General Health	3/5	2/5	3/5	2/5	3/5	3/5
INSIGHT		4/5	4/5	4/5	3/5	4/5	5/5

DISCUSSION

1. Symptomatic remission and persistent functional disability

The present case series highlights the distinction between symptomatic remission and functional recovery in schizophrenia. Although all six patients met the PANSS severity threshold for symptomatic remission, they continued to experience varying degrees of occupational, social, interpersonal and everyday functional impairment. These findings illustrate that a reduction in psychotic symptom severity does not necessarily translate into the restoration of independent functioning or of previous social and occupational roles. Andreasen et al. proposed standardised criteria for symptomatic remission, based on mild or lower severity in eight core symptom domains, sustained for at least six months.[3] Subsequent studies have examined the validity and application of these criteria, including comparisons of remission definitions and their relationship to clinical outcomes.[4,5] However, remission and recovery are related but distinct outcomes, with functional recovery requiring improvements in social participation, occupational engagement and independent living, in addition to symptom control.[1,2]

The functional profiles documented in this series varied considerably. Case 1 showed severe impairment across multiple domains, with a PSP score of 35/100. Case 2 had persistent difficulties in the occupational, interpersonal, and self-care domains, with a PSP score of 45/100. By contrast, Cases 3 and 4 achieved PSP scores of 55/100. Case 5 showed significant dependence in instrumental activities of daily living. Although Case 6 maintained greater independence in daily activities, he had not resumed his previous occupational role. These observations indicate that functional disability in schizophrenia cannot be characterised solely by symptom severity or employment status. The PSP scale enables a more comprehensive evaluation by assessing socially useful activities, personal and social relationships, self-care, and problematic or aggressive behaviours.[8,9] Including these domains alongside psychopathology provides a more holistic understanding of patients' ongoing needs.

2. Cognitive impairment and functional outcomes

Cognitive difficulties were prominent in several cases and may have limited everyday functioning. Case 1 had a MoCA score of 11/30, while Case 5 scored 13/30. Cases 2 and 6 each scored 17/30, and Case 4 scored 20/30. These abnormal screening results suggest difficulties in cognitive domains relevant to daily functioning, including attention, memory, executive functioning, and complex task management. A meta-analysis by Fett et al. demonstrated significant associations between neurocognitive and social-cognitive performance and functional outcomes in schizophrenia, underscoring

the importance of cognition in understanding disability beyond the severity of psychotic symptoms.[7]

Nevertheless, the relationship between cognition and functioning was not uniform across the present cases. Case 3 had a MoCA score of 28/30, indicating relatively preserved performance on cognitive screening, yet continued to experience occupational and interpersonal difficulties. The caregiver reported difficulty remembering directions and confusion during work-related activities. This discrepancy suggests that preserved performance on a brief cognitive screening instrument does not necessarily indicate intact real-world functioning. Occupational performance may also depend on motivation, sustained attention in complex environments, interpersonal abilities, confidence, consistency, and the ability to translate skills into goal-directed behaviour.

Conversely, in some cases, low MoCA scores should be interpreted as evidence of cognitive impairment on screening rather than as definitive diagnoses of a neurocognitive disorder. Comprehensive neuropsychological testing was not performed, and cognitive screening alone cannot determine the specific causes of functional limitations. Taken together, these observations support complementary assessment of cognitive performance and everyday functioning, rather than assuming that either measure fully explains the other.

3. Negative symptoms, reduced motivation and loss of social and occupational roles

Reduced motivation, difficulty initiating activities, social restriction, and failure to resume previous roles recurred in several cases. These difficulties were particularly evident in Cases 1, 2, 3, 4 and 5, although their manifestations and severity varied. Negative symptoms, especially avolition, can interfere with initiating and sustaining goal-directed activities and may contribute to poor functional outcomes even when positive symptoms are relatively controlled. Foussias and Remington highlighted the clinical significance of avolition in schizophrenia and the need to understand negative symptoms in relation to functioning.[6]

However, reduced activity and motivation should not be automatically attributed to primary negative symptoms. Cognitive difficulties, residual psychopathology, adverse medication effects, reduced opportunities for social participation, and prolonged disengagement from occupational roles may also contribute. In the present series, these potential influences frequently co-occurred, and the descriptive design does not permit determination of their individual effects.

Occupational impairment was particularly evident among patients who had previously worked but remained unemployed or could not return to their previous level of employment. Cases 1 and 2 had experienced prolonged occupational disengagement. Case 3 worked intermittently but had not regained his previous occupational functioning, while Case 6 remained unemployed despite retaining considerable independence in basic and instrumental activities. These observations emphasise that the ability to perform routine daily tasks does not necessarily translate into the capacity to sustain employment. Work may require planning, consistent performance, initiative, interpersonal competence and the ability to manage complex or unfamiliar situations.

Employment status should therefore be interpreted in the context of prior occupational functioning, current abilities, individual preferences and available opportunities. An unemployed patient is not necessarily functionally disabled across all domains, whereas a patient who performs household activities independently may still have substantial limitations in other areas. Supported employment and individualised vocational rehabilitation may help bridge the gap between symptom improvement and occupational recovery, although the present study did not assess their effectiveness.[15]

4. Illness course and duration of untreated psychosis

The cases also differed in illness duration, previous episodes, hospitalisations, and duration of untreated psychosis (DUP). Case 4 had a reported DUP of approximately six to seven years, whereas Case 6 had a DUP of approximately one year. The literature has examined the association between longer DUP and subsequent clinical and functional outcomes. A systematic review by Marshall et al. reported an association between longer DUP and poorer outcomes in first-episode psychosis cohorts. However, the strength and persistence of this relationship vary across outcome measures and studies.[16]

In this series, we cannot determine whether DUP or illness duration independently contributed to persistent functional disability. Patients differed in several other respects, including cognitive screening performance, treatment history, adherence, residual symptoms, and psychosocial functioning. Prolonged DUP may therefore be considered a potential prognostic factor in selected cases, rather than a confirmed explanation for current disability. Similarly, previous relapses and hospitalisations provide important clinical context but, in this small descriptive series, cannot be directly linked to the observed degree of functional impairment.

5. Treatment-related factors and medication adverse effects

Treatment-related factors were relevant in several cases. Case 4 was receiving two antipsychotics and had reported limb stiffening suggestive of extrapyramidal symptoms. Case 5 was also receiving antipsychotic polypharmacy and reported weight gain and tingling in the legs, with a history of extrapyramidal symptoms during previous treatment. Case 6 had a history of poor medication adherence and reported tremors and tingling in the foot. Case 2 experienced a treatment interruption during the illness.

These findings underscore the need to assess medication tolerability and adherence when persistent functional limitations are identified. Motor adverse effects may reduce comfort and interfere with everyday activities, while poor tolerability can complicate ongoing treatment. Treatment interruptions may also compromise clinical stability. Nevertheless, these factors do not establish that they caused the functional impairment observed in these cases. A systematic assessment is required to distinguish medication-related effects from primary negative symptoms, residual psychopathology, physical comorbidity and other potential contributors.[2,3]

Antipsychotic polypharmacy should likewise be considered in the context of the patient's treatment history, clinical response, adverse effects and the rationale for combining medications. The current case series cannot establish whether the prescribed combinations contributed to disability or were associated with other clinical considerations. These observations instead support regular review of treatment effectiveness, adverse effects, adherence and the relationship between medication burden and everyday functioning.

6. Quality of life and patient–caregiver perspectives

Quality of life added another dimension to assessing persistent disability. WHOQOL-BREF scores varied across the physical, psychological, social and environmental domains, indicating that the impact of schizophrenia was not uniform across areas of life. Case 3 had a MoCA score of 28/30 but rated overall quality of life as 1/5. Case 5 also rated overall quality of life as 1/5, with cognitive screening difficulties and dependence in instrumental activities. These observations suggest that subjective well-being may be influenced by restricted social participation, loss of valued roles, psychological distress and dissatisfaction with current circumstances, in addition to cognitive performance and practical independence.

An Indian study by Madhivanan et al. examined symptomatic remission in relation to functional outcomes and quality of life, underscoring the importance of assessing these outcomes alongside symptom severity.[10] However, group-level associations between remission and improved functioning do not imply that every patient meeting remission criteria will achieve satisfactory quality of life. The present cases illustrate the need to evaluate subjective well-being separately, rather than infer it from PANSS or PSP scores.

Patient and caregiver interviews also provided complementary information about functioning. In Case 1, the patient reported maintaining friendships, whereas the caregiver described broader social withdrawal. In Case 2, the patient reported needing supervision for financial activities, while the caregiver considered him capable of managing money. Such discrepancies may reflect differences in perceived ability, the level of support required, or the distinction between performing a task and doing so independently and consistently. Neither perspective should be assumed correct in every instance. Recording both accounts helps identify areas requiring further assessment and supports a more individualised understanding of functioning.[2,9]

7. Implications for clinical practice and rehabilitation

The findings suggest that the assessment of schizophrenia should extend beyond measuring psychotic symptoms. Routine clinical evaluation should include occupational participation, interpersonal relationships, self-care, instrumental activities of daily living, cognitive functioning, quality of life, and medication tolerability. The PSP scale can help identify domains of impairment that require intervention, while cognitive screening and patient–caregiver interviews can provide additional information on the nature of functional difficulties.[2,7,9]

Patients in this series would have different rehabilitation needs based on their individual profiles. Patients with prominent cognitive screening difficulties and dependence in instrumental activities may benefit from structured routines, caregiver-supported skill development and further cognitive assessment where indicated. Patients with relatively preserved everyday independence but persistent occupational difficulties may need graded vocational rehabilitation and support to return to work. Where reduced motivation and initiation are prominent, structured activity scheduling, family psychoeducation and interventions targeting negative symptoms may be considered. When medication adverse effects or adherence difficulties are identified, treatment review should aim to balance symptom control with tolerability and functional goals.

The absence of documented psychosocial rehabilitation across the six cases is also noteworthy. Although this series cannot determine rehabilitation's effect on outcomes, it highlights an area that warrants attention in routine care. Pharmacological treatment remains important for symptom management, but symptom improvement alone may not restore occupational skills, social relationships, or independent living. An individualised, recovery-oriented approach incorporating psychosocial and vocational interventions may therefore be particularly relevant for patients with persistent disability.[2,15] These recommendations are clinical implications drawn from the observed profiles; the present study did not evaluate any rehabilitation intervention.

8. Strengths and limitations

A key strength of this case series is the use of multiple complementary assessment methods, including PANSS, PSP, MoCA, WHOQOL-BREF, and semi-structured interviews with patients and caregivers. This approach enabled us to characterise functional difficulties beyond symptom severity and employment status. The inclusion of patients with

diverse cognitive and functional profiles also highlights the heterogeneity of disability.

Several limitations must be acknowledged. This case series included six patients from a single centre, limiting generalisability. Combining retrospective information with cross-sectional assessment does not establish causality among cognition, symptoms, medication effects, and disability. MoCA is a screening tool, not a comprehensive neuropsychological test. Not all measures of negative symptoms, social cognition, depression, or motor effects were available for every patient. The lack of follow-up prevents us from determining whether functional limitations improved, remained stable, or worsened.

Therefore, interpret the findings as descriptive clinical observations that generate hypotheses about potential contributors to persistent functional disability, rather than as evidence establishing specific predictors or causal mechanisms.

CONCLUSION

Meeting the PANSS threshold for symptomatic remission does not necessarily mean functional recovery in schizophrenia. All six patients had varying occupational, social, interpersonal, or instrumental impairments and diverse clinical profiles. Possible contributors included difficulties with cognitive screening, reduced motivation and initiation, treatment concerns, adherence challenges, and loss of occupational or social roles, though their individual effects remain uncertain. These findings highlight the need to assess functioning and quality of life separately from symptom severity and to incorporate tailored psychosocial and vocational rehabilitation. Larger longitudinal studies with comprehensive cognitive and functional assessments are needed to clarify persistent disability and identify interventions that support meaningful recovery.

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