Table 1.

Drivers of Functional Impairment in Schizophrenia

Domain	Driver of functional impairment	Definition	Mechanisms/contributing factors	Functional consequences	Evidence-based interventions	Key references
Intrinsic (symptoms and core features of illness)	**Negative symptoms**	Diminished or absent emotional expression, speech output, motivation, goal-directed behavior, pleasure, and/or social engagement. Core domains include avolition, anhedonia, asociality, alogia, and blunted affect	May reflect primary illness pathology or be secondary to depression, medication effects, or environmental deprivation. Neurobiological underpinnings involve frontostriatal and mesolimbic circuit dysfunction, dopamine hypoactivity, and impaired reward processing	Markedly reduced initiation and persistence of activity, social withdrawal, poor occupational and educational attainment, and diminished capacity to benefit from rehabilitation or psychosocial interventions	• CBT targeting motivational deficits • Behavioral activation • Social skills training • Supported employment and education • Family psychoeducation	• Barch et al[7] • Govil and Kantrowit[8]
	Cognitive impairment	Deficits in neurocognition (eg, processing speed, attention, working memory, learning, reasoning, problem-solving) and/or social cognition (eg, emotion recognition, theory of mind, attributional style)	Neurodevelopmental abnormalities; disrupted frontotemporal and frontoparietal connectivity; illness-related factors (untreated psychosis, anticholinergic burden, comorbid depression or SUD); relatively stable over illness course	Limits skill acquisition, problem-solving, and adaptive functioning; reduces success in employment, education, and independent living; hinders social integration and rehabilitation engagement	• CRT • Social cognitive training • Metacognitive approaches • Compensatory strategy training • Combined CRT with supported employment or social skills training • Digital/computerized cognitive training	• McCutcheon et al[34] • Gebreegziabhere et al[36]
	Diminished insight	Impaired awareness of having a mental illness, the need for treatment, and/or the severity of symptoms	Multifactorial: illness-related cognitive deficits (esp. executive dysfunction, self-monitoring), negative symptom burden, neurobiological alterations in self-reflective processes, co-occurring stigma and denial	Poor adherence to pharmacologic and psychosocial treatments; higher relapse and hospitalization rates; reduced engagement with rehabilitation; exacerbates other drivers (eg, uncontrolled positive symptoms, social isolation)	• Psychoeducation (patient and family) • Motivational interviewing • CBT for psychosis • Metacognitive training (select approaches) • Integrated care with family involvement and adherence supports	• Roux et al[39] • Sakai et al[40]
Behavioral	**Lack of adherence**	Partial or complete failure to follow prescribed pharmacologic or psychosocial treatment plans	Diminished insight, adverse effects, cognitive deficits, substance use, stigma, logistical barriers (transportation, cost), lack of support, limited therapeutic alliance	Increased relapse and hospitalization; worsening symptoms; reduced likelihood of recovery; progressive functional decline; higher healthcare costs	• Shared decision-making and collaborative goal-setting • Long-acting injectable antipsychotics • Psychoeducation (patient and family) • Adherence therapy and motivational interviewing • Digital adherence tools (reminders, monitoring) • Case management and peer support	• Semahegn et al[45] • Kane et al 2013[46]
	Alcohol and/or substance abuse	Co-occurring misuse of alcohol, cannabis, stimulants, opioids, or other substances that worsens illness stability, treatment adherence, symptom control, and overall functioning	Substances exacerbate positive symptoms, impair cognition, interact negatively with antipsychotic treatment, and reduce adherence, while biological vulnerability, environmental stressors, and limited coping resources increase risk for use	AUD/SUD contribute to relapse, rehospitalization, impaired social and occupational functioning, homelessness, legal involvement, and reduced capacity to engage in rehabilitation or maintain independent living	• Integrated dual-diagnosis treatment, motivational interviewing, CBT for substance use, contingency management • Use of long-acting injectables to support adherence alongside supported employment or housing when appropriate	• Nesvag et al[50] • Chesney et al[52] • Hasan et al[57]
Comorbid / consequential	**Depressive symptoms and defeatist beliefs**	Presence of low mood, hopelessness, anhedonia, guilt, or suicidal ideation, often accompanied by maladaptive self-schemas characterized by low self-worth and pessimism	May arise as part of acute psychotic episodes, post-psychotic depression, or chronic comorbid mood disorder. Contributing factors include illness-related neurobiological changes, maladaptive cognitions, stigma, repeated functional failures, and social isolation	Reduced motivation and engagement in treatment; impaired goal setting and follow-through; poorer social and occupational functioning; increased relapse risk and suicidality; perpetuation of inactivity and disengagement	• CBT targeting negative thoughts and beliefs • Behavioral activation • Social skills training to improve self-efficacy • Supported employment employment and education education to foster mastery • Pharmacologic treatment of comorbid depression	• Li et al[60] • Krynicki et al[61] • Campellone et al[65] • Grant and Beck[66]
	Loneliness/social isolation	Loneliness: subjective distress from a perceived gap between desired and actual social relationships. Social isolation: objective lack of social contact or network ties	Negative symptoms, cognitive and social cognitive deficits, stigma, functional setbacks, socioeconomic disadvantage, housing instability, limited community support	Reduced quality of life; poorer functional recovery; increased depression and relapse risk; higher mortality	• Social skills training • Supported employment and education • Peer-led programs and community engagement initiatives • Group-based CBT or social cognitive training • Digital peer support platforms	• Yu et al[21] • Hajek et al[68] • Green et al[70]
	Internalized stigma	Internalized stigma refers to the adoption of negative societal beliefs about mental illness, leading individuals with schizophrenia to experience shame, diminished self-worth, and reduced expectations for recovery	Self-stigma develops through repeated exposure to public stigma, perceived discrimination, social withdrawal, and depressive or demoralized thinking patterns, which undermine self-efficacy and motivation	Internalized stigma reduces engagement in treatment; worsens depressive symptoms; limits pursuit of social, vocational, and educational goals; and reinforces isolation, ultimately impeding functional recovery	• CBT targeting self-stigmatizing beliefs, narrative enhancement and cognitive therapy • Structured psychoeducation, peer-support models, and recovery-oriented psychosocial rehabilitation that builds mastery and self-efficacy	• Dubreucq et al[74] • Barlati et al 2022[76] • Gagiu et al[79]
Societal / Contextual	**Discrimination/ external stigma**	Negative stereotypes, prejudice, and discrimination toward individuals with schizophrenia; includes societal (*public*) stigma	Discriminatory attitudes and behaviors from others, reinforced by structural barriers	Reduced treatment engagement; avoidance of employment, education, and social opportunities; increased isolation; exacerbation of depressive symptoms and self-defeating beliefs	• Public education campaigns • Contact-based interventions • Peer-led support and empowerment programs • CBT to address internalized stigma • Workplace anti-discrimination policies and advocacy	• Parcesepe and Cabass[73] • Dubreucq et al[74]
	Social determinants of health and socioeconomic status	Non-medical factors that shape health outcomes, including socioeconomic, environmental, and community conditions	Poverty, unstable housing, limited education, unsafe neighborhoods, food insecurity, inadequate healthcare access, health literacy deficits, discrimination, and structural inequities	Reduced treatment engagement, increased symptom burden, poorer functional outcomes, higher relapse and hospitalization risk	• Supported housing • Transportation assistance • Community-based case management • Food and nutrition programs • Legal and benefits advocacy • Integration of social service referrals into clinical care	• Hatzenbuehle[84] • Jeste et al[87] • Kirkbride et al 2024[89] • Barry et al[91] • Correll et al[92]
		The economic disadvantage, poverty, unemployment, and housing instability disproportionately experienced by individuals with schizophrenia	Illness-related functional limitations, stigma, workplace discrimination, limited education, interrupted vocational/academic progress, lack of affordable housing, structural poverty	Reduced access to food, housing, transportation; increased stress and symptom exacerbation; poorer treatment adherence; higher risk of homelessness; greater healthcare utilization and disability claims	• Supported employment (IPS) • Supported education • Supported housing • Benefits counseling and vocational rehabilitation • Case management and peer support • Policy advocacy for income and housing supports	
	Lack of family or caregiver support	Absence or insufficiency of consistent emotional, practical, and advocacy support from family members or caregivers	Geographic separation, caregiver burnout, limited illness understanding, stigma, financial strain, interpersonal conflict, caregiver health problems, cultural differences in mental illness conceptualization	Reduced treatment engagement, increased relapse risk, poorer adherence, limited assistance with daily functioning, greater social isolation	• Family psychoeducation • Multifamily group therapy • Caregiver skills training • Peer-led family support groups • Respite services • Community-based case management and supported housing	• Hahlweg and Baucom[94] • Claxton et al[95]
Adverse treatment effects		Negative health outcomes resulting from pharmacologic or other therapeutic interventions for schizophrenia	Medication type/dose, polypharmacy, individual vulnerability, comorbidities, inadequate monitoring or management	Reduced adherence and engagement; direct impairment of physical health and function; exacerbation of stigma; increased morbidity and mortality	• Shared decision-making in medication selection • Regular monitoring and early intervention • Dose optimization • Long-acting injectable use when appropriate • Lifestyle interventions • Pharmacologic management of side effects • Integrated medical and psychiatric care	• Dibonaventura et al[101] • Tandon et al[102] • Huhn et al[105] • Citrome et al[107]

Abbreviations: AUD=alcohol use disorder, CBT = cognitive behavioral therapy, CRT = cognitive remediation therapy, IPS = Individual Placement and Support, SUD=substance use disorder.