

## SUPPLEMENTARY TABLES

**Supplementary Table 1:** Characteristics of studies on psychiatric disorders with predominant memory impairment ( $n=59$ ).

Study	Country	Study type	Psychiatric disorder	Specification/instruments used
Aas <i>et al.</i> , 2019 <sup>[10]</sup>	USA	CS	Schizophrenia and bipolar disorder	1. A neuropsychological test battery (MATRICS) – Working memory 2. TMT-A and TMT-B 3. BACS 4. HVLt-R at immediate and delayed recall.
Almulla <i>et al.</i> , 2021 <sup>[11]</sup>	Iraq	CS	Schizophrenia	1. BACS 2. Symbol coding, 3. Controlled word association, 4. Category instances, 5. Digit sequencing task, and 6. List learning tests.
Almulla <i>et al.</i> , 2021 <sup>[11]</sup>	USA	NA	Major depression	1. Treatment recall task and the generalization task 2. Classical tests of memory – declarative memory 3. Episodic face-name learning task 4. NBT
Asfaw <i>et al.</i> , 2022 <sup>[12]</sup>	USA	Retrospective CS study	HPI among young athletes	1. Post-concussion symptom scale – verbal memory and visual memory 2. Self-reported assessment
Baller <i>et al.</i> , 2021 <sup>[13]</sup>	Philadelphia	Cohort	Depression	1. Pennsylvania CNB- episodic memory, working memory, verbal memory, face memory, spatial memory 2. N-back working memory fMRI task.
Barry <i>et al.</i> , 2019 <sup>[14]</sup>	UK	Meta-analysis	Emotional disorders such as MDD	1. AMT
Bruijnen <i>et al.</i> , 2019 <sup>[15]</sup>	Netherlands	CS	Substance use disorder	1. MoCA – working memory
Caneva <i>et al.</i> , 2020 <sup>[16]</sup>	Italy	CS	Alcohol use disorders	1. ENB-2
Cheng <i>et al.</i> , 2020 <sup>[17]</sup>	USA	CS study	Mental illness	1. Self-administered smart-device version of a STM task 2. d-MMSE
Chuang <i>et al.</i> , 2019 <sup>[18]</sup>	Taiwan	NA	Schizophrenia	1. Scale to investigate cognition in schizophrenia (SSTICS) 2. LNNB Form-I LNNB- C10 (Memory)
Chumakov <i>et al.</i> , 2022 <sup>[19]</sup>	Russia	CS	Schizophrenia	1. BACS
Crouse <i>et al.</i> , 2020 <sup>[20]</sup>	Australia	Longitudinal cohort study	Youth with mental illness	1. RAVLT 2. TMT-A and TMT-B
Davidson <i>et al.</i> , 2020 <sup>[21]</sup>	Canada	Open trial	5-Depression and 5-OCD	1. CVLT 2. BVMT-R
De la Torre <i>et al.</i> , 2021 <sup>[22]</sup>	Spain	CS and comparative study	Severe mental illness	1. RBANS
Dondé <i>et al.</i> , 2019 <sup>[23]</sup>	France	CS	Schizophrenia	1. Tone-matching task – auditory working memory 2. CTOPP-2-non-word phonological awareness 3. WJ III Tests of achievement (WJ)-reading fluency

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**Supplementary Table 1: (Continued).**

Study	Country	Study type	Psychiatric disorder	Specification/instruments used
Drews <i>et al.</i> , 2018 <sup>[24]</sup>	WHO European Region	Prospective- observational study	Severe mental illness	1. TMT-B 2. ROCF 3. VLMT
Flores-Medina <i>et al.</i> , 2022 <sup>[25]</sup>	Mexico	CS	Alcohol use and depression	1. WMS 2. Learning: CVLT 3. WAIS-Working memory 4. Corsi block-tapping test
Ghosh <i>et al.</i> , 2022 <sup>[26]</sup>	India	Longitudinal study	Opioid dependence	1. TMT-A and B 2. Verbal and visual NBT
Gupta <i>et al.</i> , 2021 <sup>[27]</sup>	India	CS	Schizophrenia	1. PGIMS
Hakamata <i>et al.</i> , 2022 <sup>[28]</sup>	Japan	Cohort study and observational study	Anxiety and depression	1. WCT task to assess Implicit memory 2. Free recall task- for Explicit memory
Hamilton <i>et al.</i> , 2018 <sup>[29]</sup>	USA	Case-control study	Schizophrenia	1. MCCB
Harris <i>et al.</i> , 2021 <sup>[30]</sup>	Missouri	CS observational	Schizophrenia	1. CVLT- II 2. RAVLT 3. LNS- task 4. DSB- task Auditory working memory
Holmlund <i>et al.</i> , 2020 <sup>[31]</sup>	USA and Norway	CS observational	Schizophrenia and serious mental illness	1. WMS subset for logical memory
Kebets <i>et al.</i> , 2019 <sup>[32]</sup>	NA	Transdiagnostic study	Schizophrenia, schizoaffective disorder, bipolar I disorder, or ADHD.	Semi-structured assessment with the Structured Clinical Interview for the DSM-IV-Text Revision – memory mechanisms
Knowles <i>et al.</i> , 2021 <sup>[33]</sup>	Costa Rican, Mexican American, Pennsylvanian, and Western Australian	Extended pedigrees/ meta-analysis	Bipolar disorder, MDD, psychotic disorder	1. CVLT 2. RAVLT-Verbal memory 3. Digit span forward, digit span backward, and letter number sequencing-working memory 4. Facial memory tasks – facial memory ability and spatial memory
Lejeune <i>et al.</i> , 2021 <sup>[34]</sup>	USA	Meta-analysis	Schizophrenia	1. MCCB
Lima <i>et al.</i> , 2018 <sup>[35]</sup>	NA	Review	Bipolar disorder	1. RAVLT and CVLT 2. ROCF
Lipnicki <i>et al.</i> , 2019 <sup>[36]</sup>	Multicentric	population-based cohorts	Mental illness	1. TMT-A and TMT-B 2. Delayed word list recall for memory, semantic fluency for language
Lisanby <i>et al.</i> , 2022 <sup>[37]</sup>	USA	Longitudinal Observational	Depression	1. AMI-SF 2. CVLT-II 3. Dementia Rating Scale-2 <sup>nd</sup> Edition Initiation Perseveration Index (DRS2 IP) 4. TMT-A and TMT-B 5. MMSE
Loessner <i>et al.</i> , 2022 <sup>[38]</sup>	Multinational	Multicenter cohort	Bipolar patient	1. Free and cued selective reminding test (FCSRT)-verbal episodic memory
Mahmood <i>et al.</i> , 2018 <sup>[39]</sup>	USA	Longitudinal intervention	SMI (schizophrenia, bipolar disorder, or major depression)	1. MCCB
Mallawaarachchi <i>et al.</i> , 2020 <sup>[40]</sup>	Australia	Secondary analysis of RCT	Ultra-high-risk psychosis individuals with and without depression	1. BACS 2. Verbal Memory and working memory,

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**Supplementary Table 1: (Continued).**

Study	Country	Study type	Psychiatric disorder	Specification/instruments used
Martens <i>et al.</i> , 2019 <sup>[41]</sup>	Multicentric Study in Europe	Case Report	Bipolar disorder depression	1. AMT
Mazumder <i>et al.</i> , 2021 <sup>[42]</sup>	Finland	CS	Alcohol use in bipolar disorder	1. CANTAB
McIntyre <i>et al.</i> , 2020 <sup>[43]</sup>	Canada	CS	Depression	2. Paired Associative Learning (PAL) test 1. THINC-it (digitalized) 2. TMT-B 3. Codebreaker (digit symbol substitution test) 4. Self-reported cognitive function questionnaire
Mollon <i>et al.</i> , 2018 <sup>[44]</sup>	UK	Cohort study	Psychotics disorder	1. WISC-III- digit span subtest to measure working memory
Padula and Durazzo, 2022 <sup>[45]</sup>	USA	Cohort study	Cigarette smoking veterans with AUD	1. CVLT 2. BVMT-R and <i>for working memory</i> WAIS-IV Digit Span
Palomares <i>et al.</i> , 2019 <sup>[46]</sup>	Spain	Comparison study	Schizophrenia and bipolar disorder	1. TMT-A and symbol digit modality test-working memory 2. Buschke selective reminding 3. Test – Memory 3. COWAT 4. FAST-Verbal fluency 5. WMS-Working Memory
Parrish <i>et al.</i> , 2021 <sup>[47]</sup>	USA	Mobile-based observational study	Serious mental illness	1. EMCTS 2. The Mobile VLMT 3. HVL 4. WRAT 5. Trails, symbol coding 6. LNS 7. Animal fluency
Petersen <i>et al.</i> , 2018 <sup>[48]</sup>	Denmark	RCT	Bipolar/unipolar or schizophrenia	1. RVP, CANTAB 2. FAST 3. RAVLT 4. RBANS 5. WAIS-III LNS 6. OTS of Cambridge 7. SWM 8. TMT-A 9. TMT-B
Petkus <i>et al.</i> , 2021 <sup>[49]</sup>	USA	Community epidemiological study	Older women with mental illness	1. MMSE
Raghavendra <i>et al.</i> , 2022 <sup>[50]</sup>	India	Cohort study interventional study	Depression	1. NIMHANS Neuropsychological test battery
Rebouças <i>et al.</i> , 2018 <sup>[51]</sup> Roux <i>et al.</i> , 2017 <sup>[52]</sup>	NA France	Correlational Cohort FACE-BD	Schizophrenia Bipolar	1. HVL R- verbal memory 1. WAIS version III 2. CTP-II 3. TMT 4. CVLT 5. WMS
Russell <i>et al.</i> , 2022 <sup>[53]</sup>	USA	CS observational	Severe mental illness	1. MCCB 2. For working memory (letter-number span) 3. HVL R – for verbal learning memory

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**Supplementary Table 1: (Continued).**

Study	Country	Study type	Psychiatric disorder	Specification/instruments used
Sanchez-Moreno <i>et al.</i> , 2018 <sup>[54]</sup>	Spain	CS	Bipolar disorder	1. Comprehensive neuropsychological battery verbal memory, working memory, verbal fluency, and processing speed
Stergiopoulos <i>et al.</i> , 2019 <sup>[55]</sup>	Canada	CS study	Homeless adults with mental illness	1. HVLTL 2. TMT-A/B 3. DSC subtest of WAIS-R
Tanaka-Koshiyama <i>et al.</i> , 2020 <sup>[56]</sup>	USA	Cohort study	Schizophrenia	1. CVLT-II 2. WMS-IV logical memory test 3. Penn face memory test
Treichler <i>et al.</i> , 2019 <sup>[57]</sup>	USA	Longitudinal study	Schizophrenia and schizoaffective disorder	1. MIC-SR 2. MCCB
Twamley <i>et al.</i> , 2019 <sup>[58]</sup>	USA	RCT	Schizophrenia/schizoaffective disorder, bipolar disorder and MDD	1. CPT working memory 2. MIST – prospective memory
Waclawik <i>et al.</i> , 2019 <sup>[59]</sup>	Columbia Vancouver, Canada	Longitudinal study	Major mental illness and substance dependence.	1. HVLTL-R – verbal memory
Wang <i>et al.</i> , 2020 <sup>[60]</sup>	China	Case-control study	MDD	1. RBANS
Yin <i>et al.</i> , 2019 <sup>[61]</sup>	China	Correlation	schizophrenia	1. RBANS – immediate memory, attention, language, and delayed memory 2. HVLTL-R – verbal memory
Zhou <i>et al.</i> , 2021 <sup>[62]</sup>	China	Longitudinal observational	Depression <i>n</i> =149	1. CPT 2. BACS 3. CTT-I
Zhu <i>et al.</i> , 2019 <sup>[64]</sup>	China	Correlational	Schizophrenia	1. BACS – verbal memory, working memory
Zhu <i>et al.</i> , 2020 <sup>[63]</sup>	China	CS, observational	Depression	1. RBANS – Immediate and delayed memory

AMI: Autobiographical memory inventory, BACS: Brief assessment of cognition in schizophrenia, BVMT-R: Brief visuospatial memory test-revised, CTP: Conners' continuous performance test, COWAT: Controlled oral word association test, CS: Cross-sectional, CANTAB: Cambridge neuropsychological test automated battery, CVLT: California verbal learning test, HVLTL-R: Hopkins verbal learning test-revised, MATRICS: Measurement and treatment research to improve cognition in Schizophrenia, MCCB: MATRICS consensus cognitive battery, MIST: Memory for intentions screening test, MMSE: Mini-mental state examination, MoCA: Montreal cognitive assessment, NIMHANS: National Institute of Mental Health and Neurosciences, ROCF: Rey-Osterrieth complex figure, TMT-A: Trail making test part A, TMT-B: Trail making test part B, RAVLT: Rey auditory verbal learning test, RBANS: Repeatable battery for the assessment of neuropsychological status, WMS: Wechsler memory scale, WAIS: Wechsler adults intelligence scale, WAIS-R: Wechsler adults intelligence scale-revised, NA: Not available, NBT: N-back test, CNB: Computerized neurocognitive battery, fMRI: Functional magnetic resonance imaging, MDD: Major depressive disorder, AMT: Autobiographical memory test, LNNB: Luria-Nebraska neuropsychological battery, WJ: Woodcock-Johnson, CTT-I: Color trial test-I, RCT: Randomized controlled trial, SWM: Spatial working memory, MIC-SR: Measure of insight into cognition-self report, HPI: History of psychiatric illness, LNS: Letter-number sequencing, DSB: Digit span-backward, PGIMS: Postgraduate institute memory scale, CTOPP: Comprehensive test of phonological processing, AUD: Alcohol use disorder, EMCTs: Ecological momentary cognitive tests, WRAT: Wide range achievement test, FAST: Functional assessment short test, OTS: One touch stockings, OCD: Obsessive compulsive disorder, THINC-it: THINC-integrated tool, ENB-2: Brief Neuropsychological Examination 2, STM: Short-term memory, VLMT: Variable difficulty list memory test, RVP: Rapid visual information processing, dMMSE: delta-MMSE, WCT: Word choice test, CPT: Continuous performance test

**Supplementary Table 2:** Studies on psychiatric disorders with minor impairment in memory ( $n=17$ ).

Study	Country	Study type	Psychiatric disorder	Specification/instruments used
Ben-Zion <i>et al.</i> , 2019 <sup>[65]</sup>	Israel	Prospective MRI study	PTSD	1. TMT 2. Digit span test – working memory 3. Verbal memory test – recall memory
Block <i>et al.</i> , 2021 <sup>[66]</sup>	USA	Observational study	ASD	1. Face memory using Warrington Recognition Memory Test (RMT)
Cenkner <i>et al.</i> , 2021 <sup>[67]</sup>	Iraq and Afghanistan	Prospective-observational study n=105	PTSD	1. CVLT 2. AMT 3. WMS-IV logical memory test 4. Penn face memory test
Diaz-Marsa <i>et al.</i> , 2023 <sup>[68]</sup>	Spain	CS	Eating disorders	1. TMT – working memory
Fernández-Sevillano <i>et al.</i> , 2021 <sup>[69]</sup>	Spain	CS	Suicide attempters	1. WAIS-IV – working memory
Hamo <i>et al.</i> , 2018 <sup>[70]</sup>	Israel	CS study	Sub-Clinical OCD	1. RAVLT 2. CVLT
Hantke <i>et al.</i> , 2021 <sup>[71]</sup>	USA	CS and <i>Observational Study</i>	PTSD	1. Working memory ability by Digit Span subtest; WAIS-IV
Jones <i>et al.</i> , 2019 <sup>[72]</sup>	UK	Cohort study	ADHD	1. WIS-Childrens – included total IQ, performance IQ, verbal IQ, working memory, verbal learning, processing speed, and problem-solving.
Murillo-Garcia <i>et al.</i> , 2021 <sup>[73]</sup>	Spain	CS	Fibromyalgia	1. MMSE and 2. MoCA
Nyberg <i>et al.</i> , 2021 <sup>[74]</sup>	Sweden	CS	anxiety disorders	1. WAIS-IV
Park <i>et al.</i> , 2018 <sup>[75]</sup>	Korea	CS	Acute stress disorder	1. (CANTAB) 2. IED set shift 3. SOC
Protopopescu <i>et al.</i> , 2022 <sup>[76]</sup>	Canada	RCT (WL)	PTSD	1. COWAT- verbal fluency 2. WAIS-IV 3. TMT-A and TMT-B – working memory 4. CPT-Declarative memory 5. CVLT-II-delayed memory performance
Suhas and Rao, 2019 <sup>[77]</sup>	India	A Selective Study	OCD	1. RAVLT, ROCFT
Takeda <i>et al.</i> , 2020 <sup>[78]</sup>	Japan	Case–Control Comparative Study	ADHD	1. WAIS-III – WMI
Thaman and Sharma, 2020 <sup>[79]</sup>	India	CS	PNES	1. NIMHANS neuropsychological test battery
Věchetová <i>et al.</i> , 2022 <sup>[80]</sup>	Czech republic	CS	Functional motor disorder	1. The auditory verbal learning test 2. MMSE 3. ROCF 4. TMT
Weiss <i>et al.</i> , 2021 <sup>[81]</sup>	Leipzig	Case report	BPD	1. MoCA – delayed recall, and visuospatial

CVLT: California verbal learning test, WMS: Wechsler memory scale, RAVLT: Rey auditory verbal learning test, PTSD: Post-traumatic stress disorder, MoCA: Montreal cognitive assessment, WAIS: Wechsler adults intelligence scale, MMSE: Mini-mental state examination, COWAT: Controlled oral word association test, ROCF: Rey–Osterrieth complex figure, ROCFT: Rey–Osterrieth complex figure test, AMT: Autobiographical memory test, MRI: Magnetic resonance imaging, ASD: Autism spectrum disorder, BPD: Borderline personality disorder, PNES: Psychogenic non-epileptic seizures, ADHD: Attention deficit hyperactivity disorder, SOC: Stockings of Cambridge, IED: Intra-extra dimensional, WMI: Working memory index, RCT: Randomized controlled trial, CS: Cross-sectional, NIMHANS: National Institute of Mental Health and Neurosciences, CPT: Continuous performance test, TMT: Trail making test

**Supplementary Table 3: Studies on organic neuropsychiatric disorders (n=29).**

Study	Country	Study type	Psychiatric disorder	Specification/instruments used
Ahn <i>et al.</i> , 2017 <sup>[82]</sup>	S. Korea	CS	Delirium	1. SCIRS 2. MMSE
Arce Rentería <i>et al.</i> , 2022 <sup>[83]</sup>	Mexico	CS, observational	MCI	1. MMSE 2. CERAD list learning and delayed Recall 3. The East Boston Memory Test 4. Logical memory I and II from the 5. WMS
Bhome <i>et al.</i> , 2019 <sup>[84]</sup>	UK	NA	Functional cognitive disorder	1. A neuropsychological battery for verbal, non-verbal, visual, and visuospatial memory – (Test name not specified).
Cheng <i>et al.</i> , 2019 <sup>[85]</sup>	USA	A 27-month pilot study	AD	1. MAC-Q- Subjective memory testing
Choe <i>et al.</i> , 2018 <sup>[86]</sup>	Republic of Korea.	CS study	ADs	1. SMCs and MMSE
Farina <i>et al.</i> , 2022 <sup>[87]</sup>	Italian	Translate, adapt, and validate	AD, t (MCI), and FMDs	1. FWT in an Italian sample (Test delle 5 Parole, T5P) – hippocampal memory deficit
Fowler <i>et al.</i> , 2020 <sup>[88]</sup>	USA	RCT	Dementia	1. Mini-Cog™ Screen memory impairment
Grober <i>et al.</i> , 2021 <sup>[89]</sup>	USA	CS, observational study	AD	1. FCSRT (Group test) retrieval impairment, defined by free recall (FR) 2. SOMI system
Kim <i>et al.</i> , 2019 <sup>[91]</sup>	S. Korea	Qualitative and comparison	Amnesic MCI and Alzheimer's dementia	1. SVLT – verbal memory 2. K-BNT 3. COWAT
Kim <i>et al.</i> , 2021 <sup>[90]</sup>	S. Korea	CS, comparative study	Vascular cause MCI, Vasculardementia, and AD	1. Memory SNSB-M: SVLT 2. ROCF 3. MoCA index number of words recalled in free recall, delayed recall, category-cued recall, and multiple choice-cued recall 4. SVLT 5. RCFT immediate recall, delayed recall, and recognition
Kujawski <i>et al.</i> , 2021 <sup>[92]</sup>	Bydgoszcz-Poland	Follow-up	SMCs in MCI in the geriatric population	1. MMSE – immediate recall, and short-term verbal memory 2. In the MoCA test – Verbal Fluency and Delayed Recall 3. TMT-B – visuospatial skills, task switching, and working memory
Lanza <i>et al.</i> , 2020 <sup>[93]</sup>	Germany	Retrospective CS	Depression and Alzheimer's dementia	1. MMS
Liguori <i>et al.</i> , 2020 <sup>[94]</sup>	Italy	Longitudinal comparative study	MCI and AD	1. MMSE 2. RAVLT-Immediate Recall 3. RAVLT-D Delayed Recall
Loessner <i>et al.</i> , 2022 <sup>[38]</sup>	Helsinki	Longitudinal	MCI	1. CERAD-NP test battery. 2. WMS-R 3. TMT-A
Loreto <i>et al.</i> , 2021 <sup>[95]</sup>	Imperial-USA	Follow-up	AD	1. WMS – verbal and working memory

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Supplementary Table 3: (Continued).

Study	Country	Study type	Psychiatric disorder	Specification/instruments used
McDougall et al., 2019 <sup>[96]</sup>	USA	Cohort study	MCI	1. A battery consists of Immediate recall, delayed recall, SMCs, and memory self-efficacy and MMSE
Mendes et al., 2019 <sup>[97]</sup>	Portugal	CS	MCI	1. SMCs and MMSE
Oba et al., 2019 <sup>[98]</sup>	Japan	Comparative	AD, with (MCI)	1. RBMT 2. Self-rated memory impairment
Puzo et al., 2019 <sup>[99]</sup>	USA	Pooled analysis	Alzheimer's dementia	1. MMSE 2. BNT – semantic fluency 3. TMT-A and TMT-B 4. WMS 5. WAIS-R and DSC 6. Logical memory immediate (LM-IA) and 7. Delayed recall (LM-IIA).
Quail et al., 2020 <sup>[100]</sup>	China	Case report	AD	1. MMSE
Rahman-Filipiak et al., 2018 <sup>[101]</sup>	USA	CS	MCI	1. Self-reported MAC-Q: Self-report version
Samy et al., 2020 <sup>[102]</sup>	Malaysia	CS	MCI	1. MoCA
Schneider et al., 2019 <sup>[103]</sup>	Austria, Germany, and Israel	RCT	MCI	1. MMSE 2. WMS
Sheppard et al., 2022 <sup>[104]</sup>	USA	CS observational n=50	Mild traumatic brain injury history and PTSD	1. MIST-Prospective memory 2. Self-reported memory assessed with the PRMQ
Sukontapol et al., 2018 <sup>[105]</sup>	Thailand	Cognitive	MCI	1. The abbreviated mental test – screen subjective memory impairment 2. MoCA
Ulugut Erkoyun et al., 2020 <sup>[106]</sup>	Amsterdam	Post hoc comparisons	Frontotemporal dementia	1. VAT – episodic memory 2. RAVLT 3. TMT-A and TMT-B 4. VOSP – visuospatial functions 5. Digit span backward and digit span forward 6. VAT naming – semantic memory
Verma et al., 2021 <sup>[107]</sup>	India	Open label-controlled trail	Dementia and the general population	1. ICMR-NCTB
Weinstein et al., 2022 <sup>[108]</sup>	Canada	CS	Alzheimer n=431	1. MoCA
Zhang et al., 2021 <sup>[109]</sup>	Detail NA	Diagnostic	Alzheimer and MCI	1. MMSE-recall 2. ADAS-Cog-recall, 3. CDR-memory 4. FDG-PET-18F

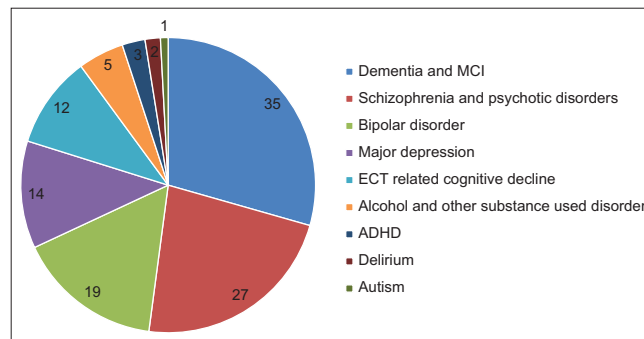
TMT: Trail making test, WMS: Wechsler memory scale, RAVLT: Rey auditory verbal learning test, PTSD: Post-traumatic stress disorder, MoCA: Montreal cognitive assessment, WAIS: Wechsler adults intelligence scale, MMSE: Mini-mental state examination, SMC: Subjective memory complaint, MCI: Mild cognitive impairment, COWAT: Controlled oral word association test, MIST: Memory for intentions screening test, ROCF: Rey-Osterrieth complex figure, MAC-Q: Memory assessment clinic questionnaire, SCIRS: Severe cognitive impairment rating scale, AD: Alzheimer's disease, K-BNT: Korean version of the Boston naming test, BNT: Boston naming test, SNSB: Seoul neuropsychological screening battery, SVLT: Seoul verbal learning test, DSC: Digit symbol coding, PRMQ: Prospective and retrospective memory questionnaire, VAT: Visual association test, VOSP: Visual objective and space perception, FDG-PET-18F: Fluorodeoxyglucose positron emission tomography, ICMR: Indian council of medical research, NCTB: Neurocognitive toolbox, FWT: Five-word test, FMD: Functional memory disorders, RCT: Randomized controlled trial, WAIS-R: Wechsler adults intelligence scale-revised, CS: Cross-sectional, CERAD: Consortium to establish a register for Alzheimer's disease, SOMI: Stages of objective memory impairment, WMS-R: Wechsler memory scale-revises, FCSRT: Free and cued selective reminding test, RBMT: Rivermead behavioral memory test, CDR: Clinical dementia rating scale, ADAS-Cog: Alzheimer's disease assessment cognitive subscale, RCFT: Rey complex figure test.

**Supplementary Table 4:** Studies related to memory deficits due to ECT (*n* = 9).

Study	Country	Study type	Psychiatric disorders where ECT was used	Specification/instruments used
Blomberg <i>et al.</i> , 2020 <sup>[110]</sup>	Norway	Longitudinal Study	Depression	1. CVLT-2 2. ROCF 3. AMT
Hermida <i>et al.</i> , 2020 <sup>[111]</sup>	USA	Longitudinal study	Depression	1. ECCA 2. MoCA 3. CUAMI 4. AMI 5. PMQ 6. SSMQ 7. CFQ
Jones <i>et al.</i> , 2019 <sup>[72]</sup>	UK	Systematic review	Details not available	1. SSMQ
Miller <i>et al.</i> , 2019 <sup>[112]</sup>	USA	CS	Treatment-resistant mood disorder	1. RBANS 2. Wide range achievement test 3. Word reading, 4. TMT 5. WAIS-IV
Palanca <i>et al.</i> , 2018 <sup>[113]</sup>	USA	RCT protocol	Depression	1. Fractal-2-back 2. Visual object learning test working memory
Steinholtz <i>et al.</i> , 2021 <sup>[114]</sup>	Sweden	CS	Unipolar and bipolar depression	1. Memory item from CPRS was used for subjective memory impairment rating
Stengård <i>et al.</i> , 2020 <sup>[115]</sup>	Sweden	CS	Depression	1. Self-rated versus physician rated memory item in the CPRS
Tornhamre <i>et al.</i> , 2020 <sup>[116]</sup>	Sweden and Orebro	Chart review	Unipolar and bipolar depression	1. CPRS-M- short-term memory
Zhang <i>et al.</i> , 2022 <sup>[117]</sup>	China	Double-blind RCT	Depression	1. RBANS 2. ORTs

TMT: Trail making test, CVLT: California verbal learning test, CFQ: Cognitive failures questionnaire, MoCA: Montreal cognitive assessment, WAIS-IV: Wechsler adults intelligence scale-IV, ECT: Electroconvulsive therapy, ROCF: Rey–Osterrieth complex figure, SSMQ-Squire subjective memory questionnaire, AMI: Autobiographical memory inventory, CUAMI: Columbia university autobiographical memory interview, AMT: Autobiographical memory test, PMQ: Personal memory questionnaire, ORTs: Orientation recovery tests, RCT: Randomized controlled trial, ECCA: Electroconvulsive therapy cognitive assessment, CS: Cross-sectional, RBANS: Repeatable battery for the assessment of neuropsychological status, CPRS: Comprehensive psychopathology rating scale

**SUPPLEMENTARY FIGURE**



**Supplementary Figure 1:** Total number of studies assessing memory deficits in different psychiatric disorders. MCI: Mild cognitive impairment, ECT: Electro-convulsive therapy, ADHD: Attention deficit hyperactivity disorder.