

**sTable 1. Longitudinal studies of neuropsychological functioning in first episode psychosis.** Included are studies with or without a comparison groups with a follow-up durations of at least one year.

Study	N (Subjects)	Length of follow-up	Summary of findings
<b>Scottish Schizophrenia Research Group (1988)(1)</b>	28 FE patients	1 year	<b>Improvement</b> on Raven's Progressive Matrices, Block Design and Digit copying; <b>No change</b> on Vocabulary and Similarities
<b>Hoff et al. (1991)(2)</b>	15 FE patients	2 years	<b>Improvement</b> on Executive, Concentration/Speed and Global scales
<b>Bilder et al. (1991)(3)</b>	28 FE patients	1 year	High <b>stability</b> of test scores overall; <b>Improvement</b> on tests of attentional, motor, and memory functions; <b>Decline</b> on Digit Span
<b>Sweeney et al. (1991)(4)</b>	15 FE patients	1 year	<b>Improvement</b> on psychomotor (Trails A and B, Digit Symbol and Finger Tapping), Judgment of Line Orientation and Rey AVLT tests. <b>No change</b> on Digit Span, Block Design, verbal fluency, verbal learning/recall and immediate/delayed visual memory.
<b>Nopoulos et al. (1994)(5)</b>	35 FE patients	1 (n=17)/2 (n=18) years	<b>No change</b> on most neuropsychological scores; <b>Improvement</b> on Trails B, Stroop Colored Dots and Stroop Interference.
<b>Censits et al. (1997)(6)</b>	30 FE patients	19 months	<b>Stable</b> performance on all neuropsychological tests.
<b>Hoff et al. (1999)(7)</b>	42 FE patients 16 healthy controls	3.6 years (FE), 3.8 (HC)	Patients showed <b>no improvement</b> on verbal memory and sensory-perceptual domains compared to controls and showed <b>deterioration</b> in verbal memory.
<b>Gold et al. (1999)(8)</b>	21 FE patients 33 recent onset patients	5 years	<b>Improvement</b> on performance IQ, full-scale IQ, letter-cancellation, logical memory free recall, WCST categories; <b>Decline</b> in finger tapping.
<b>Hofer et al. (2000)(9)</b>	16 FE patients	1 year	<b>Normalization</b> of neuropsychological performance over time.
<b>Purdon et al. (2000)(10)</b>	55 FE patients	1 year	<b>Improvement</b> or <b>stability</b> on all neuropsychological tests.
<b>Albus et al. (2002)(11)</b>	50 FE patients 50 healthy controls	2 years	<b>Improvement</b> in verbal learning; <b>No change</b> in semantic memory, visual-motor processing and attention, and abstraction/flexibility; <b>Deterioration</b> in visual memory.
<b>Townsend et al. (2002)(12)</b>	83 FE patients	1 year	<b>Improvement</b> on verbal and performance IQ, measures of verbal comprehension, perceptual organization, working memory, visual memory, auditory memory, WCST, Trails-A, CPT, word fluency; <b>No change</b> on Stroop and Trails-B.
<b>Stirling et al. (2003)(13)</b>	24 FE patients	10.6 years	<b>Decline</b> in performance on three out of nine tests: object assembly, picture completion, and memory for design. <b>Stable</b> performance on measures of executive/frontal function.
<b>Hill et al. (2004)(14)</b>	45 FE patients 33 healthy controls	1-2 years	<b>No change</b> in executive functions, motor skills; <b>Less improvement</b> than controls in attention and verbal memory; <b>Improvement</b> in visual memory and visual perception compared to controls.
<b>Hoff et al. (2005)(15)</b>	21 FE patients 8 healthy controls	10 years	<b>High stability</b> on most neuropsychological tests; <b>Improvement</b> in Verbal IQ, Stroop Color Word and Finger Tapping in both patients and controls; <b>Greater improvement</b> in patients compared to controls in Visual Reproduction-Immediate.

sTable 1. Cont.

Study	N (Subjects)	Length of follow-up	Summary of findings
<b>Addington et al. (2005)(16)</b>	105 FE patients 66 healthy controls	Patients: 1,2 and 3 years HC: 1 year	<b>Improvement</b> in patients over three years in several tests, but <b>failure to improve</b> during the first year on verbal fluency, visual memory, trails A and the Stroop, compared to controls who did improve. Controls failed to improve on the RAVLT, letter-number, WCST and Pegboard-dominant.
<b>Albus et al. (2006)(17)</b>	71 FE patients 71 healthy controls	5 years	Both groups showed <b>stability</b> or <b>improvement</b> in the majority of cognitive domains. Patients showed <b>deterioration</b> in verbal fluency while controls improved, as well as a trend towards <b>less improvement</b> in semantic memory and retention rate compared to controls.
<b>Keefe et al. (2006)(18)</b>	58 and 26 FE patients	1 and 2 years	<b>Improvement</b> in attention, processing speed, verbal memory and working memory.
<b>Kopala et al. (2006)(19)</b>	20 FE patients	2 years	<b>Improvement</b> on measures of verbal learning, verbal fluency, attention, and executive function.
<b>Keefe et al. (2007)(20)</b>	81 FE patients	1 year	<b>Improvement</b> across neuropsychological tests.
<b>Rund et al. (2007)(21)</b>	138 FE patients (1 year) 111 FE patients (2 years)	1 and 2 years	<b>Improvement</b> in working memory and verbal learning dimensions.
<b>Rodriguez-Sanchez et al. (2008)(22)</b>	112 FE patients 22 healthy controls	1 year	Equivalent <b>improvement</b> in patients and controls in all cognitive domains, except verbal memory where controls showed greater improvement than controls.
<b>Mayoral et al. (2008)(23)</b>	22 FE patients 29 healthy controls	2 years	Patients and controls showed <b>improvement</b> in global cognitive performance and attention, and <b>no change</b> in working memory. Patients, but not controls showed <b>improvement</b> in learning and memory, and <b>no change</b> in executive function. Controls, but not patients, showed <b>improvement</b> in executive function, and <b>no change</b> in learning and memory.
<b>Zipparo et al. (2008)(24)</b>	32 FE patients	2-3 years	<b>Stability</b> on the majority of cognitive tests; <b>Improvement</b> in full-scale and performance IQ, and visual memory; A trend towards <b>decline</b> in verbal knowledge, attention and visuospatial ability.
<b>Crespo-Facorro et al. (2009)(25)</b>	104 FE patients 37 healthy controls	1 year	Patients, but not controls, showed <b>improvement</b> on measures of motor speed, executive function and long-term recall; Similar <b>improvement</b> in patients and controls on all other cognitive measures.
<b>Leeson et al. (2009)(26)</b>	104 FE patients 25 healthy controls 31 FE patients	1 and 3 years 6 years	Patients showed <b>deterioration</b> in attentional set shifting task performance from baseline to 1 year, but no difference between baseline and 3 or 6 years; Controls showed <b>no change</b> over time.
<b>de Mello Ayres et al. (2010)(27)</b>	56 FE patients 70 healthy controls	1.6 years (patients), 1.9 years (controls)	Similar <b>improvement</b> on digit span forward, digit span backward, and verbal fluency in patients and controls.

sTable 1. Cont.

Study	N (Subjects)	Length of follow-up	Summary of findings
Popolo et al. (2010)(28)	15 FE patients	1 year	<b>No significant change</b> over time.
Leeson et al. (2011)(29)	78 FE patients 27 healthy controls	1 year	Patients with normal IQ at baseline showed similar IQ <b>improvement</b> as controls; patients with low IQ at baseline showed <b>less improvement</b> than other patients and controls; All patients showed similar <b>improvement</b> in memory and executive function as controls.
	60 FE patients 27 healthy controls	3 years	
Liu et al. (2011)(30)	31 FE patients	1 and 3 years	<b>Stability</b> and <b>improvement</b> on measures of executive function.
Barder et al. (2012)(31)	62 FE patients	1, 2 and 5 years	<b>Improvement</b> in working memory and impulsivity in the first two years, followed by <b>no change</b> over the next three years; <b>Decrease</b> in motor speed from 2 to 5 years; <b>No change</b> in verbal learning and executive function.
Ayesa-Arriola et al. (2013)(32)	79 FE patients 41 healthy controls	3 years	Patients and controls showed <b>improvement</b> in most cognitive scores; Less improvement in patients compared to controls on measures of verbal memory and processing speed.
Rodríguez-Sánchez et al. (2013)(33)	155 FE patients 43 healthy controls	3 years	<b>Increasing deviation</b> of patients from controls in measures of verbal and visual memory; <b>Similar improvement</b> in patients and controls on measures of motor dexterity and attention.
Chang et al. (2014)(34)	93 FE patients	1, 2 and 3 years	<b>Improvement</b> in measures of working memory, logical memory, visual reproduction and WCST; <b>No change</b> in category fluency.
Rund et al. (2015)(35)	167 FE patients (1 year) 159 FE patients (2 years) 101 FE patients (5 years) 114 FE patients (10 years)	1, 2, 5 and 10 years	<b>Stability</b> in composite score of neurocognitive function over time.
Amoretti et al. (2016)(36)	45 FE patients 41 healthy controls	2 years	<b>Improvement</b> in verbal memory and attention; measures of working memory and executive function remained <b>stable</b> .
Bergh et al. (2016)(37)	171 FE patients	5 and 10 years	Performance on cognitive tests (of executive function) <b>did not change</b> significantly over time.
Kenney et al. (2016)(38)	23 FE patients 21 healthy controls	4 years	Patients showed <b>less improvement</b> than controls on measures of processing speed and verbal learning; there were <b>no group difference in change</b> on the remaining cognitive metrics.
Labad et al. (2016)(39)	36 FE patients	1 year	Performance on cognitive tests (of processing speed, attention, working memory, verbal/visual learning and reasoning) <b>did not change</b> significantly over time.

## References for sTable 1

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