

Study	N. (SZA)/N. (HC)	Age (SZA/HC)	Males % (SZA/HC)	Diagnosis (SZA/HC)	Treatment
Benson et al., 1980	9/19	??	??	Schizoaffective disorder/Healthy	Drug-free (≥2 weeks)
Benson et al., 1985	8/13	33/29.7	100/100	Schizoaffective disorder/Healthy	Drug-free (≥2 weeks)
Benson et al., 1985	9/19	33.4/30.2	100/100	Schizoaffective disorder/Healthy	Drug-free (≥2 weeks)
Zarcone et al., 1987	8/18	33.8/30.3	100/100	Schizoaffective disorder/Healthy	Drug-free (≥2 weeks)
Zarcone et al., 1995	8/10	34.5/32.3	100/100	Schizoaffective disorder/Healthy	Drug-free (2 days)

Study	N. (SZA)/N. (MDD)	Age (SZA/MDD)	Males % (SZA/MDD)	Diagnosis (SZA/MDD)	Treatment
Kupfer & Foster, 1975	6/9	38.8/58.2	50/?	Schizoaffective disorder/Psychotic depression	Drug-free (≥2 weeks)
Kupfer & Foster, 1975	6/25	38.8/41.1	50/?	Schizoaffective disorder/MDD	Drug-free (≥2 weeks)
Kupfer et al., 1979	12/29	44.4/48.1	42/31	Schizoaffective disorder/Psychotic depression	Drug-free (≥2 weeks)
Benson et al., 1980	9/6	??	??	Schizoaffective disorder/MDD	Drug-free (≥2 weeks)
Coble et al., 1981	5/17	34.8/40.1	60/35	Schizoaffective disorder/ Psychotic and nonpsychotic depression	Drug-free (2 weeks)
Benson et al., 1983	2/5	??	100/100	Schizoaffective disorder/MDD	Drug-free (≥2 weeks)
Benson et al., 1985	8/10	33/40.3	100/100	Schizoaffective disorder/MDD	Drug-free (≥2 weeks)
Benson et al., 1985	9/7	33.4/37.7	100/100	Schizoaffective disorder/MDD	Drug-free (≥2 weeks)
Zarcone et al., 1987	8/12	33.8/41.33	100/100	Schizoaffective disorder/MDD	Drug-free (≥2 weeks)
Zarcone et al., 1995	8/11	34.5/37.2	100/100	Schizoaffective disorder/MDD	Drug-free (2 days)

Study	N. (SZA)/N. (SCZ)	Age (SZA/SCZ)	Males % (SZA/SCZ)	Diagnosis (SZA/SCZ)	Treatment
Reich et al., 1975	3/14	38.8/20.8	50/57	Schizoaffective disorder/Schizophrenia (acute)	Drug-free (≥2 weeks)
Reich et al., 1975	3/9	38.8/19	50/11	Schizoaffective disorder/Schizophrenia (latent)	Drug-free (≥2 weeks)
Benson et al., 1980	9/9	??	??	Schizoaffective disorder/Schizophrenia	Drug-free (≥2 weeks)
Benson et al., 1983	2/7	??	100/100	Schizoaffective disorder/Schizophrenia	Drug-free (≥2 weeks)
Benson et al., 1985	8/11	33/27	100/100	Schizoaffective disorder/Schizophrenia	Drug-free (≥2 weeks)
Benson et al., 1985	9/8	33.4/26.6	100/100	Schizoaffective disorder/Schizophrenia	Drug-free (≥2 weeks)
Zarcone et al., 1987	8/12	33.8/26.2	100/100	Schizoaffective disorder/Schizophrenia	Drug-free (≥2 weeks)
Zarcone et al., 1995	8/18	34.5/33.1	100/100	Schizoaffective disorder/Schizophrenia	Drug-free (2 days)

Study	N. SZA	N. HC	REMT (SZA)	SD	REMT (HC)	SD	%REM (SZA)	SD	%REM (HC)	SD	REML (SZA)	SD	REML (HC)	SD	REMD (SZA)	SD	REMD (HC)	SD
Benson et al., 1980	9	19					23.66		22.38		75.98		96.66					
Benson et al., 1985	8	13	68.65	27.48	95.30	28.20	18.35	7.65	22.40	7.45	74.20	41.45	89.90	40.50				
Benson et al., 1985	9	19	92.30	38.80	98.90	21.00	22.70	7.85	22.70	5.40	73.80	24.65	82.20	32.90				
Zarcone et al., 1987	8	18	91.16	20.19	101.62	13.17	22.98	4.20	22.57	3.16	53.46	14.90	88.60	42.79				
Zarcone et al., 1995	8	10	65.10		86.40		20.20	4.00	20.80	4.50	52.20	32.80	65.30	16.40				

Study	N. SZA	N. MDD	REMT (SZA)	SD	REMT (MDD)	SD	%REM (SZA)	SD	%REM (MDD)	SD	REML (SZA)	SD	REML (MDD)	SD	REMD (SZA)	SD	REMD (MDD)	SD
Kupfer & Foster, 1975	6	9	81.00	10.50	51.30	7.00	23.20	1.90	19.60	2.40	31.70	5.70	36.00	7.20	2.33		2.35	
Kupfer & Foster, 1975	6	25									31.70	5.70	40.91	6.05				
Kupfer et al., 1979	12	29	47.22		57.24		17.70	6.60	21.10	5.30	23.41	27.90	41.20	33.40	1.34	0.71	1.55	0.95
Benson et al., 1980	9	6					23.66		30.23		75.98		49.33					
Coble et al., 1981	5	17									49.87		46.04					
Benson et al., 1983	2	5	90.20		106.66		22.96		24.97		68.25		62.28		2.62		2.61	
Benson et al., 1985	8	10	68.65	27.48	89.40	53.70	18.35	7.65	19.90	11.95	74.20	41.45	63.60	17.80				
Benson et al., 1985	9	7	92.30	38.80	109.60	52.70	22.70	7.85	26.30	14.30	73.80	24.65	44.30	65.70				
Zarcone et al., 1987	8	12	91.16	20.19	105.12	32.78	22.98	4.20	25.28	7.10	53.46	14.90	48.77	24.46				
Zarcone et al., 1995	8	11	65.10		83.25		20.20	4.00	21.80	3.90	52.20	32.80	45.50	22.10				

Study	N. SZA	N. SCZ	REMT (SZA)	SD	REMT (SCZ)	SD	%REM (SZA)	SD	%REM (SCZ)	SD	REML (SZA)	SD	REML (SCZ)	SD	REMD (SZA)	SD	REMD (SCZ)	SD
Reich et al., 1975	3	14	81	10.5	54	5.6	23.20	1.90	17.40	1.60	31.70	5.70	97.90	11.00	2.20	0.20	1.60	0.10
Reich et al., 1975	3	9	81	10.5	74.8	5.6	23.20	1.90	20.00	1.40	31.70	5.70	81.00	12.00	2.20	0.20	1.50	0.10
Benson et al., 1980	9	9					23.66		25.44		75.98		66.20					
Benson et al., 1983	2	7	90.20		100.37		22.96		26.01		68.25		50.89		2.62		2.66	
Benson et al., 1985	8	11	68.65	27.48	98.00	40.30	18.35	7.65	25.85	5.70	74.20	41.45	62.90	41.00				
Benson et al., 1985	9	8	92.30	38.80	101.70	19.45	22.70	7.85	24.45	4.78	73.80	24.65	75.60	32.83				
Zarcone et al., 1987	8	12	91.16	20.19	99.62	22.73	22.99	4.20	4.04	0.26	53.46	14.90	49.68	15.57				
Zarcone et al., 1995	8	18	65.10		75.07		20.20	4.00	20.80	3.70	52.20	32.80	53.60	14.00				

Study	N. SZA	REMT (SZA)	SD	N. HC	REMT (HC)	SD
Benson et al., 1985	8	68.65	27.48	13	95.30	28.20
Benson et al., 1985	9	92.30	38.80	19	98.90	21.00
Zarcone et al., 1987	8	91.16	20.19	18	101.62	13.17
Zarcone et al., 1995	8	65.10	29.22	10	86.40	20.05
	33	79.70	29.22	60	96.85	20.05
Study	N. SZA	%REM (SZA)	SD	N. HC	%REM (HC)	SD
Benson et al., 1980	9	23.66	5.98	19	22.38	5.02
Benson et al., 1985	8	18.35	7.65	13	22.40	7.45
Benson et al., 1985	9	22.70	7.85	19	22.70	5.40
Zarcone et al., 1987	8	22.98	4.20	18	22.57	3.16
Zarcone et al., 1995	8	20.20	4.00	10	20.80	4.50
	42	21.65	5.98	79	22.30	5.02
Study	N. SZA	REML (SZA)	SD	N. HC	REML (HC)	SD
Benson et al., 1980	9	75.98	28.33	19	96.66	34.76
Benson et al., 1985	8	74.20	41.45	13	89.90	40.50
Benson et al., 1985	9	73.80	24.65	19	82.20	32.90
Zarcone et al., 1987	8	53.46	14.90	18	88.60	42.79
Zarcone et al., 1995	8	52.20	32.80	10	65.30	16.40
	42	66.35	28.33	60	86.26	34.76
Study	N. SZA	REMT (SZA)	SD	N. MDD	REMT (MDD)	SD
Kupfer & Foster, 1975	6	81.00	10.50	9	51.30	7.00
Kupfer et al., 1979	12	47.22	25.60	29	57.24	35.85
Benson et al., 1983	2	90.20	25.60	5	106.66	35.85
Benson et al., 1985	8	68.65	27.48	10	89.40	53.70
Benson et al., 1985	9	92.30	38.80	7	109.60	52.70
Zarcone et al., 1987	8	91.16	20.19	12	105.12	32.78
Zarcone et al., 1995	8	65.10	25.60	11	83.25	35.85
	53	72.89	25.60	83	78.23	35.85
Study	N. SZA	%REM (SZA)	SD	N. MDD	%REM (MDD)	SD
Kupfer & Foster, 1975	6	23.20	1.90	9	19.60	2.40
Kupfer et al., 1979	12	17.70	6.60	29	21.10	5.30
Benson et al., 1980	9	23.66	5.65	6	30.23	6.71
Benson et al., 1983	2	22.96	5.65	5	24.97	6.71
Benson et al., 1985	8	18.35	7.65	10	19.90	11.95
Benson et al., 1985	9	22.70	7.85	7	26.30	14.30
Zarcone et al., 1987	8	22.98	4.20	12	25.28	7.10
Zarcone et al., 1995	8	20.20	4.00	11	21.80	3.90
	62	21.08	5.65	89	22.71	6.71
Study	N. SZA	REML (SZA)	SD	N. MDD	REML (MDD)	SD

Study	N. SZA	REMT (SZA)	SD	N. SCZ	REMT (SCZ)	SD
Benson et al., 1983	2	90.20	25.60	7	100.37	18.53
Benson et al., 1985	8	68.65	27.48	11	98.00	40.30
Benson et al., 1985	9	92.30	38.80	8	101.70	19.45
Zarcone et al., 1987	8	91.16	20.19	12	99.62	22.73
Zarcone et al., 1995	8	65.10	25.60	18	75.07	18.53
Reich et al., 1975	3	81.00	10.50	14	54.00	5.60
Reich et al., 1975	3	81.00	10.50	9	74.80	5.60
	41	80.40	25.60	79	83.17	18.53
Study	N. SZA	%REM (SZA)	SD	N. SCZ	%REM (SCZ)	SD
Benson et al., 1980	9	23.66	5.36	9	25.44	2.86
Benson et al., 1983	2	22.96	5.36	7	26.01	2.86
Benson et al., 1985	8	18.35	7.65	11	25.85	5.70
Benson et al., 1985	9	22.70	7.85	8	24.45	4.78
Zarcone et al., 1987	8	22.99	4.20	12	4.04	0.26
Zarcone et al., 1995	8	20.20	4.00	18	20.80	3.70
Reich et al., 1975	3	23.20	1.90	14	17.40	1.60
Reich et al., 1975	3	23.20	1.90	9	20.00	1.40
	50	21.89	5.36	88	19.74	2.86
Study	N. SZA	REML (SZA)	SD	N. SCZ	REML (SCZ)	SD
Benson et al., 1980	9	75.98	24.85	9	66.20	19.65
Benson et al., 1983	2	68.25	24.85	7	50.89	19.65
Benson et al., 1985	8	74.20	41.45	11	62.90	41.00
Benson et al., 1985	9	73.80	24.65	8	75.60	32.83
Zarcone et al., 1987	8	53.46	14.90	12	49.68	15.57
Zarcone et al., 1995	8	52.20	32.80	18	53.60	14.00
Reich et al., 1975	3	31.70	5.70	14	97.90	11.00
Reich et al., 1975	3	31.70	5.70	9	81.00	12.00
	50	62.27	24.85	88	67.15	19.65
Study	N. SZA	REMD (SZA)	SD	N. SCZ	REMD (SCZ)	SD
Benson et al., 1983	2	2.62	0.20	7	2.66	0.10
Reich et al., 1975	3	2.20	0.20	14	1.60	0.10
Reich et al., 1975	3	2.20	0.20	9	1.50	0.10
	8	2.31	0.20	30	1.82	0.10
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Kupfer & Foster, 1975	3	31.70	5.70	9	36.00	7.20
Kupfer & Foster, 1975	3	31.70	5.70	25	40.91	6.05
Kupfer et al., 1979	12	23.41	27.90	29	41.20	33.40
Benson et al., 1980	9	75.98	25.57	6	49.33	22.90
Coble et al., 1981	5	49.87	25.57	17	46.04	22.90
Benson et al., 1983	2	68.25	25.57	5	62.28	22.90
Benson et al., 1985	8	74.20	41.45	10	63.60	17.80
Benson et al., 1985	9	73.80	24.65	7	44.30	65.70
Zarcone et al., 1987	8	53.46	14.90	12	48.77	24.46
Zarcone et al., 1995	8	52.20	32.80	11	45.50	22.10
	67	54.39	25.57	131	45.52	22.90
Study	N. SZA	REMD (SZA)	SD	N. MDD	REMD (MDD)	SD
Kupfer & Foster, 1975	6	2.33	0.71	9	2.35	0.95
Kupfer et al., 1979	12	1.34	0.71	29	1.55	0.95
Benson et al., 1983	2	2.62	0.71	5	2.61	0.95
	20	1.77	0.71	43	1.84	0.95

								Study	N. SZA	%DELTA (SZA)	SD	N. SCZ	%DELTA (SCZ)	SD	
								Reich et al., 1975	3	5.26	8.10	14	9.47	7.20	
								Reich et al., 1975	3	5.26	8.10	9	11.56	7.20	
								Zarcone et al., 1995	8	13.40	8.10	18	10.20	7.20	
									14	9.91	8.10	41	10.25	7.20	

Study	N. (SZA)/N. (HC)	Age (SZA/HC)	Males % (SZA/HC)	Diagnosis (SZA/HC)	Treatment
Benson et al., 1980	9/19	??	??	Schizoaffective disorder/Healthy	Drug-free (≥2 weeks)
Benson et al., 1985	8/13	33.29.7	100/100	Schizoaffective disorder/Healthy	Drug-free (≥2 weeks)
Benson et al., 1985	9/19	33.4/30.2	100/100	Schizoaffective disorder/Healthy	Drug-free (≥2 weeks)
Zarcone et al., 1987	8/18	33.8/30.3	100/100	Schizoaffective disorder/Healthy	Drug-free (≥2 weeks)
Zarcone et al., 1995	8/10	34.5/32.3	100/100	Schizoaffective disorder/Healthy	Drug-free (2 days)

Study	N. (SZA)/N. (MDD)	Age (SZA/MDD)	Males % (SZA/MDD)	Diagnosis (SZA/MDD)	Treatment
Kupfer & Foster, 1975	6/9	38.8/58.2	50/?	Schizoaffective disorder/Psychotic depression	Drug-free (≥2 weeks)
Kupfer et al., 1979	12/29	44.4/48.1	42/31	Schizoaffective disorder/Psychotic depression	Drug-free (≥2 weeks)
Benson et al., 1980	9/6	??	??	Schizoaffective disorder/	Drug-free (≥2 weeks)
Benson et al., 1983	2/5	??	100/100	Schizoaffective disorder/MDD	Drug-free (≥2 weeks)
Benson et al., 1985	8/10	33/40.3	100/100	Schizoaffective disorder/MDD	Drug-free (≥2 weeks)
Benson et al., 1985	9/7	33.4/37.7	100/100	Schizoaffective disorder/MDD	Drug-free (≥2 weeks)
Zarcone et al., 1987	8/12	33.8/41.33	100/100	Schizoaffective disorder/MDD	Drug-free (≥2 weeks)
Zarcone et al., 1995	8/11	34.5/37.2	100/100	Schizoaffective disorder/MDD	Drug-free (2 days)

Study	N. (SZA)/N. (SCZ)	Age (SZA/SCZ)	Males % (SZA/SCZ)	Diagnosis (SZA/SCZ)	Treatment
Reich et al., 1975	3/14	38.8/20.8	50/57	Schizoaffective disorder/Schizophrenia (acute)	Drug-free (≥2 weeks)
Reich et al., 1975	3/9	38.8/19	50/11	Schizoaffective disorder/Schizophrenia (latent)	Drug-free (≥2 weeks)
Benson et al., 1980	9/9	??	??	Schizoaffective disorder/Schizophrenia	Drug-free (≥2 weeks)
Benson et al., 1983	2/7	??	100/100	Schizoaffective disorder/Schizophrenia	Drug-free (≥2 weeks)
Benson et al., 1985	8/11	33/27	100/100	Schizoaffective disorder/Schizophrenia	Drug-free (≥2 weeks)
Benson et al., 1985	9/8	33.4/26.6	100/100	Schizoaffective disorder/Schizophrenia	Drug-free (≥2 weeks)
Zarcone et al., 1987	8/12	33.8/26.2	100/100	Schizoaffective disorder/Schizophrenia	Drug-free (≥2 weeks)
Zarcone et al., 1995	8/18	34.5/33.1	100/100	Schizoaffective disorder/Schizophrenia	Drug-free (2 days)

Study	N. SZA	N. HC	TST (SZA)	SD	TST (HC)	SD	SOL (SZA)	SD	SOL (HC)	SD	SE (SZA)	SD	SE (HC)	SD	WASO (SZA)	SD	WASO (HC)	SD
Benson et al., 1980	9	19					36.77		9.88						41.62		8.43	10.94
Benson et al., 1985	8	13	354.25	111.20	441.40	44.05	47.5	27.88	6.2	5.40								
Benson et al., 1985	9	19	409.10	44.70	451.80	23.50	42.70	30.00	8.50	6.60								
Zarcone et al., 1987	8	18	394.89	36.98	451.15	17.78	60.12	32.07	16.08	10.59					44.45	38.67	7.72	6.08
Zarcone et al., 1995	8	10	322.20	101.40	415.40	38.40	74.80	69.10	15.00	9.90	70.90	22.20	90.70	5.40	53.00	46.00	30.40	19.70

Study	N. SZA	N. MDD	TST (SZA)	SD	TST (MDD)	SD	SOL (SZA)	SD	SOL (MDD)	SD	SE (SZA)	SD	SE (MDD)	SD	WASO (SZA)	SD	WASO (MDD)	SD
Kupfer & Foster, 1975	6	9	345.80	28.40	262.90	23.70					73.00	4.00	61.00	5.00	14.70	5.70	54.50	13.40
Kupfer et al., 1979	12	29	266.80	73.40	271.30	79.00	79.00	54.50	63.30	41.90	64.70	16.60	62.40	22.80	40.10	47.50	47.80	41.90
Benson et al., 1980	9	6					36.77		32.78						41.62		19.33	
Benson et al., 1983	2	5	392.90		427.22		57.70		24.36									
Benson et al., 1985	8	10	354.25	111.20	426.10	43.40	47.5	27.88	12.00	19.40								
Benson et al., 1985	9	7	409.10	44.70	403.80	40.40	42.70	30.00	8.90	52.60								
Benson et al., 1987	8	12	394.89	36.98	410.74	36.99	60.12	32.07	34.69	31.41					44.45	38.67	32.26	36.98
Zarcone et al., 1995	8	11	322.20	101.40	381.90	81.50	74.80	69.10	23.80	16.20	70.90	22.20	84.90	14.40	53.00	46.00	42.00	43.30

Study	N. SZA	N. SCZ	TST (SZA)	SD	TST (SCZ)	SD	SOL (SZA)	SD	SOL (SCZ)	SD	SE (SZA)	SD	SE (SCZ)	SD	WASO (SZA)	SD	WASO (SCZ)	SD
Reich et al., 1975	3	14	345.80	28.40	305.10	16.40	102.20	17.70	79.60	18.40	73.00	4.00	72.00	4.00	14.70	5.70	30.10	10.00
Reich et al., 1975	3	9	345.80	28.40	374.70	11.40	102.20	17.70	43.40	5.70	73.00	4.00	87.00	2.00	14.70	5.70	6.20	3.40
Benson et al., 1980	9	9					36.77		38.22						41.62		12.64	20.77
Benson et al., 1983	2	7	392.90		385.87		57.70		67.10									
Benson et al., 1985	8	11	354.25	111.20	413.30	87.60	47.5	27.88	33.20	63.00								
Benson et al., 1985	9	8	409.10	44.70	399.95	61.37	42.70	30.00	47.15	23.83								
Zarcone et al., 1987	8	12	394.89	36.98	385.77	50.50	60.12	32.07	63.99	30.58					44.45	38.67	16.26	9.77
Zarcone et al., 1995	8	18	322.20	101.40	360.90	58.10	74.80	69.10	67.40	60.50	70.90	22.20	79.60	12.90	53.00	46.00	29.20	28.10

Study	N. SZA	TST (SZA)	SD	N. HC	TST (HC)	SD	Study	N. SZA	TST (SZA)	SD	N. SCZ	TST (SCZ)	SD	Drug-free SZA vs HC
Benson et al., 1985	8	354.25	111.20	13	441.40	44.05	Benson et al., 1983	2	392.90	65.88	7	385.87	48.07	Drug-free SZA vs MDD
Benson et al., 1985	9	409.10	44.70	19	451.80	23.50	Benson et al., 1985	8	354.25	111.20	11	413.30	87.60	Drug-free SZA vs SCZ
Zarccone et al., 1987	8	394.89	36.98	18	451.15	17.78	Benson et al., 1985	9	409.10	44.70	8	399.95	61.37	Calculated from original data
Zarccone et al., 1995	8	322.20	101.40	10	415.40	38.40	Zarccone et al., 1987	8	394.89	36.98	12	385.77	50.50	
	33	371.29	72.70	60	443.29	28.72	Zarccone et al., 1995	8	322.20	101.40	18	360.90	58.10	SD not available in original data (averaged from similar available data)
							Reich et al., 1975	3	345.80	28.40	14	305.10	16.40	
Study	N. SZA	SOL (SZA)	SD	N. HC	SOL (HC)	SD	Reich et al., 1975	3	345.80	28.40	9	374.70	11.40	
Benson et al., 1980	9	36.77	39.47	19	9.88	5.40		41	368.62	65.88	79	369.82	48.07	
Benson et al., 1985	8	47.50	27.88	13	6.2	5.40								
Benson et al., 1985	9	42.70	30.00	19	8.50	6.60	Study	N. SZA	SOL (SZA)	SD	N. SCZ	SOL (SCZ)	SD	
Zarccone et al., 1987	8	60.12	32.07	18	16.08	10.59	Reich et al., 1975	3	102.20	17.70	14	79.60	18.40	
Zarccone et al., 1995	8	74.80	69.10	10	15.00	9.90	Reich et al., 1975	3	102.20	17.70	9	43.40	5.70	
	42	51.78	39.47	79	11.00	8.09	Benson et al., 1980	9	36.77	36.12	9	38.22	36.78	
							Benson et al., 1983	2	57.70	36.12	7	67.10	36.78	
Study	N. SZA	WASO (SZA)	SD	N. HC	WASO (HC)	SD	Benson et al., 1985	8	47.50	27.88	11	33.20	63.00	
Benson et al., 1980	9	41.62	42.34	19	8.43	10.94	Benson et al., 1985	9	42.70	30.00	8	47.15	23.83	
Zarccone et al., 1987	8	44.45	38.67	18	7.72	6.08	Zarccone et al., 1987	8	60.12	32.07	12	63.99	30.58	
Zarccone et al., 1995	8	53.00	46.00	10	30.40	19.70	Zarccone et al., 1995	8	74.80	69.10	18	67.40	60.50	
	25	46.17	42.34	47	12.83	10.94		44	58.06	36.12	65	57.30	36.78	
Study	N. SZA	TST (SZA)	SD	N. MDD	TST (MDD)	SD	Study	N. SZA	WASO (SZA)	SD	N. SCZ	WASO (SCZ)	SD	
Kupfer & Foster, 1975	6	345.80	28.40	9	262.90	23.70	Benson et al., 1980	9	41.62	32.34	9	12.64	14.97	
Kupfer et al., 1979	12	266.80	73.40	29	271.30	79.00	Zarccone et al., 1987	8	44.45	38.67	12	16.26	9.77	
Benson et al., 1983	2	392.90	67.65	5	427.22	58.48	Zarccone et al., 1995	8	53.00	46.00	18	29.20	28.10	
Benson et al., 1985	8	354.25	111.20	10	426.10	43.40	Reich et al., 1975	3	14.70	5.70	14	30.10	10.00	
Benson et al., 1985	9	409.10	44.70	7	403.80	40.40	Reich et al., 1975	3	14.70	5.70	9	6.20	3.40	
Zarccone et al., 1987	8	394.89	36.98	12	410.74	36.99		31	40.08	32.34	62	21.16	14.97	
Zarccone et al., 1995	8	322.20	101.40	11	381.90	81.50								
	53	345.56	67.65	83	344.43	58.48	Study	N. SZA	SE (SZA)	SD	N. SCZ	SE (SCZ)	SD	
							Reich et al., 1975	3	73.00	4.00	14	72.00	4.00	
Study	N. SZA	SOL (SZA)	SD	N. MDD	SOL (MDD)	SD	Reich et al., 1975	3	73.00	4.00	9	87.00	2.00	
Kupfer et al., 1979	12	79.00	54.50	29	63.30	41.90	Zarccone et al., 1995	8	70.90	22.20	18	79.60	12.90	
Benson et al., 1980	9	36.77	43.48	6	32.78	33.80		14	71.80	14.40	41	78.63	7.47	
Benson et al., 1983	2	57.70	43.48	5	24.36	33.80								
Benson et al., 1985	8	47.50	27.88	10	12.00	19.40								
Benson et al., 1985	9	42.70	30.00	7	8.90	52.60								
Zarccone et al., 1987	8	60.12	32.07	12	34.69	31.41								
Zarccone et al., 1995	8	74.80	69.10	11	23.80	16.20								
	56	57.82	43.48	80	37.68	33.80								
Study	N. SZA	WASO (SZA)	SD	N. MDD	WASO (MDD)	SD								
Kupfer & Foster, 1975	6	14.70	5.70	9	54.50	13.40								
Kupfer et al., 1979	12	40.10	47.50	29	47.80	41.90								
Benson et al., 1980	9	41.62	37.69	6	19.33	36.98								
Zarccone et al., 1987	8	44.45	38.67	12	32.26	36.98								

Zarcone et al., 1995	8	53.00	46.00	11	42.00	43.30								
	43	40.08	37.69	67	42.41	36.98								
Study	N. SZA	SE (SZA)	SD	N. MDD	SE (MDD)	SD								
Kupfer & Foster, 1975	6	73.00	4.00	9	61.00	5.00								
Kupfer et al., 1979	12	64.70	16.60	29	62.40	22.80								
Zarcone et al., 1995	8	70.90	22.20	11	84.90	14.40								
	26	68.52	15.42	49	67.19	17.64								

[illegible]

Study	N, SZA/SeV(Age)	Diagnosis	Medication status	TST	SD	LAT	SD	SE	SD	WASO	SD	REMT	SD	%REM	SD	REML	SD	REMD	SD	ST1	SD	%ST1	SD	ST2	SD	%ST2	SD	ST3	SD	%ST3	SD	ST4	SD	%ST4	SD	DELTA	SD	%DELTA	SD
Hauri et al, 1973	2F (28.5)	Schizoaffective disorder	Drug-free (≥1 week)	411.50		8.00						113.57		27.60						24.69		6.00		231.47		56.25		14.20		3.45		0.00		0.00					
Gillin et al, 1981	3M, 3F (31)	4 Chronic schizophrenia 2 Schizoaffective disorder	Drug-free (≥1 week)	357.80	78.90	62.00	43.30	80.00	11.80			112.30	20.60	32.30	5.10	76.90	32.30	2.50	0.50	18.00	11.30	5.30	3.20	178.80	70.60	48.00	12.50									48.00	25.30	14.50	8.80
Glassman et al, 1986	1M (39)	Schizoaffective disorder	Lithium carbonate, chlorpromazine, triazolam, benzotropine (medication-induced somnambulism with REM suppression)	508.00								24.00		4.72		480.00				4.00		0.79		390.00		76.80		10.00		1.97		80.00		15.75		90.00		17.72	
Lahmeyer et al, 1988	2F (29)	Schizoaffective disorder	Drug-free (2 weeks)													80.13		1.32																					
Keshavan et al, 1991	7M, 5F (31.2)	8 Schizophrenia 3 Schizoaffective disorder 1 Schizotypal disorder	Drug-free (≥2 weeks) 2 drug-naïve													65.10	46.50																			16.00	8.70		
Keshavan et al, 1992	14M, 5F (30.5)	17 Schizophrenia 2 Schizoaffective disorder	Drug-free (≥2 weeks) 6 drug-naïve													65.00	32.40																						
Douglass et al, 1993	6? (?)	Schizoaffective disorder Schizophrenia	Drug-free (≥2 weeks)	230.00	78.00	92.70	58.00	64.40	22.00	30.50	52.00	58.60	20.00	22.60	6.50	41.60	102.00	1.40	0.75	87.63		38.10	25.00	108.10		47.00	12.00												
Douglass et al, 1993	3? (?)	Schizophrenia Schizoaffective disorder + narcolepsy	Drug-free (≥2 weeks)	274.00		27.30		71.70		81.30		36.30		13.00		124.70		1.50		140.56		51.30		97.27		35.50													
Keshavan et al, 1994	8M, 11F (30.6)	13 Schizophrenia 6 Schizoaffective disorder (suicidal behavior)	Drug-free (≥2 weeks)									96.00	24.55			54.82	27.54	1.69	0.70																				
Keshavan et al, 1994	12M, 8F (32.3)	16 Schizophrenia 4 Schizoaffective disorder (no suicidal behavior)	Drug-free (≥2 weeks)									75.05	26.70			58.10	28.32	1.50	0.47																				
Keshaven et al, 1995	10M, 10F (30)	8 Schizoaffective disorder 12 Schizophrenia	Drug-free (≥4 weeks) 12 drug-naïve	315.00	97.00			70.29																												46.90	41.70	16.70	16.20
Baandrup et al, 2016	5M, 5F (49)	6 Schizophrenia 2 Schizoaffective disorder 2 Bipolar disorder	Antipsychotics + BZD + Antidepressants + Mood stabilizers + Anticholinergics	469.30	124.60			84.90				74.15		15.80	5.00	163.80	65.50			55.38		11.80	7.50	313.96		66.90	8.30	25.81		5.50	5.90								
Weinhold et al, 2022	9M, 9F (40.7)	11 Schizophrenia 7 Schizoaffective disorder	Atypical antipsychotics + Antidepressants + Mood stabilizers	442.00	13.00	32.00	5.00	86.30	1.80	67.00	36.00	68.00	5.00	15.38		130.00	15.00			49.00	5.00	11.09		176.00	11.00	39.82		149.00	11.00	33.71									
			Study summary (no clear sleep data)																																				
Giedke et al, 1992	12M, 18F (48)	4 Schizoaffective disorder 26 MDD	All patients on neuroleptics, antidepressants and BZD Sleep deprivation significantly improved depressed mood																																				
Keshavan et al, 1992	11M, 5F (31.65)	10 Schizophrenia 4 Schizoaffective disorder 1 Atypical psychosis 1 Psychotic affective disorder	Reduced NREM sleep REM activity increased, REML reduced (drug-free ≥2 days) Neuroleptic treatment did not improve sleep																																				

	Meta-analysis					Heterogeneity			Publication Bias			Funnel plot asymmetry		
SAZ vs HC	N. of studies	N. of subjects	Mean ± SD	RE Model	p-value	Q	I ²	p-value	Fail-Safe N (p-value)	Outlier	Overly influential	Rank correlation (p-value)	Regression test (p-value)	Power analysis
TST	4	33 vs 60	371.29 ± 72.7 vs 443.29 ± 28.72	-1.43 (-1.903 to -0.949)	0.001	2.797	0%	p=0.424	48 (p<0.001)	-	-	p=0.7500	p=0.4260	0.99
SOL	5	42 vs 79	51.78 ± 39.47 vs 11 ± 8.09	1.70 (1.236 to 2.159)	0.001	4.379	10.43%	p=0.357	105 (p<0.001)	-	Benson et al., 1980	p=0.0833	p=0.1477	1.00
WASO	3	25 vs 47	46.17 ± 42.34 vs 12.83 ± 10.94	1.20 (0.649 to 1.746)	0.001	2.262	6.62%	p=0.323	19 (p<0.001)	-	-	p=1.0000	p=0.8293	0.98
REMT	4	33 vs 60	79.7 ± 29.22 vs 96.85 ± 20.05	-0.620 (-1.058 to -0.181)	0.006	1.495	0%	p=0.683	8 (p=0.002)	-	-	p=0.3333	p=0.2678	0.90
%REM	5	42 vs 79	21.65 ± 5.98 vs 22.3 ± 5.02	-0.038 (-0.416 to 0.339)	0.843	1.722	0%	p=0.787	0 (p=0.399)	-	-	p=0.4833	p=0.3592	0.04
REML	5	42 vs 60	66.35 ± 28.33 vs 86.26 ± 34.76	-0.528 (-0.911 to -0.145)	0.007	1.369	0%	p=0.849	9 (p=0.003)	-	-	p=0.8167	p=0.8123	0.93
ST4	3	26 vs 51	7.65 ± 16.17 vs 47.41 ± 37.00	-1.20 (-1.713 to -0.693)	0.001	0.166	0%	p=0.920	21 (p<0.001)	-	-	p=1.0000	p=0.9619	0.99
%ST4	3	26 vs 51	1.88 ± 4.63 vs 10.53 ± 8.30	-1.14 (-1.649 to -0.636)	0.001	0.429	0%	p=0.807	19 (p<0.001)	-	-	p=1.0000	p=0.9100	0.98
DELTA	3	25 vs 47	43.16 ± 32.25 vs 74.56 ± 30.90	-0.814 (-1.725 to 0.097)	0.080	6.107	67.66%	p=0.047	8 (p<0.001)	Zarcone et al., 1995	-	p=0.3333	p=0.0874	0.57
	Meta-analysis					Heterogeneity			Publication Bias			Funnel plot asymmetry		
SAZ vs MDD	N. of studies	N. of subjects	Mean ± SD	RE Model	p-value	Q	I ²	p-value	Fail-Safe N (p-value)	Outlier	Overly influential	Rank correlation (p-value)	Regression test (p-value)	Power analysis
TST	7	53 vs 83	345.56 ± 67.65 vs 344.43 ± 58.48	0.028 (-0.827 to 0.884)	0.948	21.237	80.04%	p=0.002	0 (p=0.431)	Kupfer & Foster, 1975	Kupfer & Foster, 1975	p=0.7726	p=0.1983	0.10
SOL	7	56 vs 80	57.82 ± 43.48 vs 37.68 ± 33.80	0.684 (0.321 to 1.047)	0.001	4.931	0%	p=0.553	31 (p<0.001)	-	-	p=1.0000	p=0.4002	1.00
SE	3	26 vs 49	68.52 ± 15.42 vs 67.19 ± 17.64	0.535 (-1.247 to 2.316)	0.556	14.418	90.44%	p<0.001	0 (p=0.093)	Kupfer & Foster, 1975	-	p=1.0000	p=0.2274	0.25
WASO	5	43 vs 67	40.08 ± 37.69 vs 42.41 ± 36.98	-0.385 (-1.649 to 0.879)	0.550	19.199	88.48%	p<0.001	0 (p=0.137)	Kupfer & Foster, 1975	Kupfer & Foster, 1975	p=1.0000	p=0.0239*	0.23
REMT	7	53 vs 83	72.89 ± 25.6 vs 78.23 ± 35.85	0.009 (-0.861 to 0.879)	0.984	20.393	80.67%	p=0.002	0 (p=0.349)	Kupfer & Foster, 1975	Kupfer & Foster, 1975	p=0.2389	p=0.0652	0.10
%REM	8	62 vs 89	21.08 ± 5.65 vs 22.71 ± 6.71	-0.246 (-0.689 to 0.198)	0.277	11.842	37.83%	p=0.106	0 (p=0.092)	Kupfer & Foster, 1975	-	p=0.2751	p=0.3701	0.58
REML	10	67 vs 131	54.39 ± 25.57 vs 45.52 ± 22.90	0.033 (-0.367 to 0.434)	0.870	14.28	35.00%	p=0.113	0 (p=0.439)	-	-	p=1.000	p=0.8657	0.08
REMD	3	20 vs 43	1.77 ± 0.71 vs 1.84 ± 0.95	-0.150 (-0.684 to 0.384)	0.582	0.152	0%	p=0.927	0 (p=0.342)	-	-	p=1.000	p=0.7320	0.07
ST4	3	26 vs 23	7.65 ± 16.17 vs 14.78 ± 25.23	-0.348 (-0.922 to 0.225)	0.234	1.051	0%	p=0.591	0 (p=0.110)	-	-	p=1.000	p=0.4381	0.27
%ST4	3	26 vs 23	1.88 ± 4.63 vs 3.60 ± 5.59	-0.357 (-0.932 to 0.217)	0.223	1.281	0%	p=0.527	0 (p=0.104)	-	-	p=1.000	p=0.4131	0.28
DELTA	6	49 vs 92	26.74 ± 15.60 vs 21.26 ± 12.90	0.351 (-0.991 to 1.693)	0.609	30.314	91.28%	p<0.001	0 (p=0.184)	Kupfer & Foster, 1975	-	p=0.7194	p=0.0379*	0.22
%DELTA	3	26 vs 49	5.42 ± 3.28 vs 2.22 ± 2.67	1.16 (-0.501 to 2.821)	0.171	12.554	88.30%	p=0.002	9 (p<0.001)	Kupfer & Foster, 1975	-	p=0.3333	p=0.0005*	0.45
	Meta-analysis					Heterogeneity			Publication Bias			Funnel plot asymmetry		
SAZ vs SCZ	N. of studies	N. of subjects	Mean ± SD	RE Model	p-value	Q	I ²	p-value	Fail-Safe N (p-value)	Outlier	Overly influential	Rank correlation (p-value)	Regression test (p-value)	Power analysis
TST	7	41 vs 79	368.62 ± 65.88 vs 369.82 ± 48.07	-0.052 (-0.770 to 0.666)	0.887	15.949	66.73%	p=0.014	0 (p=0.378)	Reich et al., 1975.1	-	p=1.0000	p=0.6722	0.10
SOL	6	44 vs 65	58.06 ± 36.12 vs 57.30 ± 36.78	0.210 (-0.160 to 0.581)	0.266	20.661	0%	p=0.004	5 (p=0.018)	Reich et al., 1975.2	-	p=0.3988	p=0.0003*	0.34
SE	3	14 vs 41	71.80 ± 14.40 vs 78.63 ± 7.47	-1.63 (-4.714 to 1.458)	0.301	14.999	93.61%	p<0.001	7 (p=0.002)	Reich et al., 1975.2	-	p=1.0000	p=0.0343*	0.32
WASO	5	31 vs 62	40.08 ± 32.34 vs 21.16 ± 14.97	0.664 (-0.375 to 1.703)	0.210	14.377	77.93%	p=0.006	10 (p=0.003)	Reich et al., 1975.1	-	p=0.4833	p=0.8658	0.56
REMT	7	41 vs 79	80.4 ± 25.6 vs 83.17 ± 18.53	0.218 (-0.845 to 1.281)	0.688	24.28	84.39%	p<0.001	0 (p=0.382)	Reich et al., 1975.1	Reich et al., 1975.1	p=0.0690	p=0.0005*	0.18
%REM	8	50 vs 88	21.89 ± 5.36 vs 19.74 ± 2.86	1.06 (-0.724 to 2.850)	0.244	61.892	94.47%	p<0.001	13 (p=0.005)	Zarcone et al., 1987	Zarcone et al., 1987	p=0.1789	p<0.0001*	0.62
REML	8	50 vs 88	62.27 ± 24.85 vs 67.15 ± 19.65	-0.894 (2.461 to 0.672)	0.263	41.256	93.60%	p<0.001	7 (p=0.014)	Reich et al., 1975.1	Reich et al., 1975.1	p=0.3988	p<0.0001*	0.51
REMD	3	8 vs 30	2.31 ± 0.20 vs 1.82 ± 0.10	3.12 (-0.388 to 6.635)	0.081	21.365	89.27%	p<0.001	23 (p<0.001)	Benson et al., 1983	-	p=1.0000	p=0.0185	0.48
ST1	3	14 vs 41	43.48 ± 8.9 ± 37.74 ± 4.69	0.558 (-0.326 to 1.441)	0.216	3.517	44.12%	p=0.172	1 (p=0.043)	-	-	p=0.3333	p=0.0898	0.31
%ST1	3	14 vs 41	12.63 ± 5.6 vs 10.76 ± 4.70	0.203 (-0.411 to 0.817)	0.516	0.161	0%	p=0.923	0 (p=0.289)	-	-	p=0.3333	p=0.7012	0.08
ST2	4	23 vs 50	194.74 ± 18.30 vs 201.45 ± 11.41	-0.137 (-1.836 to 1.561)	0.874	26.218	88.52%	p<0.001	0 (p=0.250)	Zarcone et al., 1995	-	p=0.7500	p=0.5116	0.15
%ST2	3	14 vs 41	56.02 ± 6.20 vs 58.83 ± 6.30	-0.198 (-0.907 to 0.510)	0.583	2.372	19.39%	p=0.305	0 (p=0.327)	-	-	p=0.3333	p=0.1563	0.09
ST4	3	26 vs 28	7.65 ± 16.17 vs 17.38 ± 26.08	-0.461 (-1.007 to 0.084)	0.097	0.862	0%	p=0.650	1 (p=0.049)	-	-	p=1.0000	p=0.9210	0.43
%ST4	3	26 vs 28	1.88 ± 4.63 vs 4.68 ± 6.55	-0.507 (-1.054 to 0.040)	0.069	1.101	0%	p=0.577	1 (p=0.034)	-	-	p=1.0000	p=0.7572	0.50
DELTA	5	31 vs 62	38.33 ± 20.36 vs 42.39 ± 15.50	-0.984 (-2.093 to 0.126)	0.082	16.348	80.35%	p=0.003	16 (p<0.001)	-	-	p=0.0167*	p=0.0001*	0.73
%DELTA	3	14 vs 41	9.91 ± 8.19 ± 10.25 ± 7.20	-0.167 (-0.972 to 0.638)	0.685	2.916	35.41%	p=0.233	0 (p=0.276)	-	-	p=0.3333	p=0.0878	0.10
												*Asymmetry found		

Meta-analysis studies	Case Definition Adequacy	Representativeness of the Cases	Selection of Controls	Definition of Controls	Comparability	Ascertainment of Exposure	Same method of Ascertainment	Non-Response Rate	Total NOS Score
Benson et al., 1980	1	1	1	1	0	1	1	1	7
Benson et al., 1985	1	1	1	1	1	1	1	1	8
Zarcone et al., 1987	1	0	1	1	1	1	1	0	6
Zarcone et al., 1995	1	0	1	1	1	1	1	0	6
Kupfer & Foster, 1975	1	1	1	1	0	1	1	1	7
Kupfer et al., 1979	1	1	1	1	2	1	1	1	9
Coble et al., 1981	1	1	1	1	1	1	1	1	8
Benson et al., 1983	1	1	1	1	1	1	1	0	7
Reich et al., 1975	1	1	1	1	1	1	1	1	8
Case-control studies, excluded									
Benson et al., 1996	1	0	0	0	1	1	1	0	4
Nishino et al., 1998	1	0	1	1	2	1	1	1	8
Keshavan et al., 1998	1	0	1	1	1	1	1	0	6
Rotenberg et al., 2000	1	0	1	1	1	1	1	0	6
Göder et al., 2015	1	1	1	1	1	1	1	1	8
Kaskie et al., 2019	1	1	1	1	2	1	1	1	9
Gerstenberg et al., 2020	1	0	1	1	1	1	1	0	6
Petit et al., 2022	1	1	1	1	2	1	1	1	9
Denis et al., 2024	1	1	1	1	2	1	1	0	8