IMH Research News

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From thoughts to actions: Examining the prevalence and correlates of suicide planning and attempts among individuals with suicidal ideation

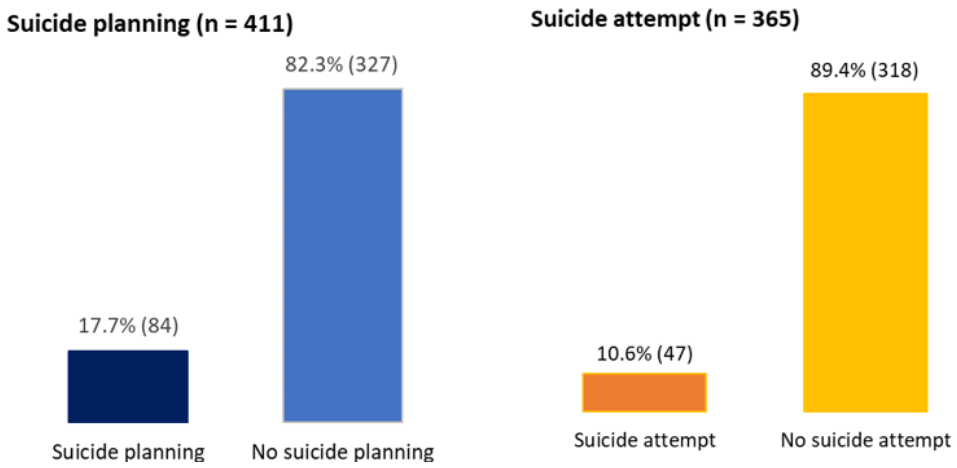

Figure: Prevalence of suicide planning and suicide attempt among individuals with suicidal ideation

Research has shown that suicides are preceded by suicidality, which consists of suicide ideation, suicide planning and suicide attempt. Previous studies have examined suicidality as an outcome, however, recent literature has shown that analyzing the three components separately may be more informative. Firstly, not all individuals with suicidal ideation will plan or attempt suicide. Secondly, the process of developing suicidal ideation is different from the transition from ideation to planning and action. Although several studies have examined the epidemiology of suicides in Singapore, limited studies have investigated the transition from suicide ideation to planning and attempt. Hence, our study examined the prevalence of suicide planning and attempt among individuals with suicidal ideation, as well as the correlates of suicide planning and attempt.

We utilized the dataset from the 2016 Singapore Mental Health Study, which was a nationwide survey conducted between 2016 to 2018. Due to missing responses, the sample sizes for analyzing suicide planning (n=411) and suicide attempt (n=365) were different. **Among individuals who endorsed suicide ideation, 17.7% planned for suicide and 10.6% attempted suicide.** Among those who planned for suicide, 80.4% did so within a year of suicidal ideation.

For suicide attempt, 10.6% of individuals who endorsed it did so within a year of suicidal ideation. Suicide planning was more likely among individuals with mood disorders. **Suicide attempt was more likely among individuals with prior suicide planning, history of anxiety disorder, history of emotional neglect and parental separation, divorce, or death of a parent.**

Our results suggest that suicide attempts can be prevented with timely and appropriate intervention, especially for those with prior suicide planning. Moreover, efforts to identify and support children with a background of emotional neglect or a dysfunctional family can help to prevent suicide later in life.

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Illuminating the Mind: Unravelling Cognitive Changes in Schizophrenia with Electroconvulsive Therapy

We carried out a comprehensive investigation into the cognitive effects of Electroconvulsive Therapy (ECT) on patients with schizophrenia. The study aimed to identify key factors influencing cognitive changes with ECT.

Electroconvulsive Therapy is a well-established treatment for schizophrenia, yet concerns about potential cognitive side effects have persisted. We conducted a retrospective study of patients with Schizophrenia who underwent ECT. Over the course of the study, we evaluated various cognitive domains using standardised cognitive assessment tools such as the Montreal Cognitive Assessment (MoCA) and Brief ECT Cognition Scale (BECS), and monitored changes in these areas before, during, and after ECT treatment.

Our findings yielded crucial insights into predictors of cognitive changes in patients with schizophrenia undergoing ECT. **Nearly half the patients (48.3%) who were initially unable to complete MoCA pre-ECT were able to complete MoCA post-ECT.**

The analysis revealed that the severity of cognitive impairments before ECT significantly influenced the extent of cognitive improvement following the therapy. Patients with more pronounced cognitive deficits at the outset experienced substantial cognitive gains post-treatment. Interestingly, patients who experienced cognitive deterioration were found to have a greater burden of negative symptoms, which warrants further study. Furthermore, we identified certain clinical characteristics associated with better cognitive recovery. Younger age, female gender and involuntary admission were correlated with improved cognitive outcomes post-ECT.

Our study's conclusions shed valuable light on the cognitive effects of ECT in patients with schizophrenia. Most importantly, we conclude that poor baseline cognition should not be a reason to exclude schizophrenia patients from ECT treatment. Furthermore, by identifying predictors of cognitive changes, we can better tailor ECT treatments to optimise cognitive benefits while mitigating potential risks. This research offers promising prospects for refining ECT's therapeutic approach, ultimately enhancing patient care and overall treatment outcomes for individuals with schizophrenia.

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Table 1 - Predictors of MOCA deterioration in ECT

Outcome	Risk predictor		Crude					Adjusted				
			B	OR	95% CI for OR		P value	B	OR	95% CI for OR		P value
					Lower Bound	Upper Bound				Lower Bound	Upper Bound	
MOCA deterioration vs MOCA no change	Age	> 55 years	0.72	2.06	0.52	8.10	0.302	2.13	8.42	1.13	62.54	**0.037***
		≤ 55 years	ref.									
	No. ECT		-0.11	0.89	0.75	1.06	0.183	-0.22	0.80	0.58	1.10	0.172
	MoCA pre-ECT		-0.05	0.96	0.88	1.03	0.265	0.02	1.02	0.91	1.13	0.769
	GAF pre-ECT		-0.07	0.93	0.86	1.02	0.111	-0.04	0.96	0.84	1.11	0.61
	BPRS pre-ECT		0.02	1.02	0.98	1.07	0.375	0.00	1.00	0.92	1.08	0.923
	Sex	Female	0.98	2.67	1.00	7.16	0.051	1.37	3.93	0.95	16.34	0.060
		Male	Ref.									
	Admission status	Involuntary	-0.99	0.37	0.13	1.05	0.061	-1.87	0.15	0.03	0.79	**0.025***
		Voluntary	Ref.									
	Consent	By others	0.85	2.33	0.61	8.89	0.214	1.24	3.46	0.36	33.48	0.285
		By self	Ref.									
	Antidepressants	YES	-0.31	0.73	0.27	2.01	0.546	-0.34	0.71	0.11	4.39	0.711
		NO	Ref.									
	Lithium	YES	-1.29	0.28	0.03	2.80	0.276	-2.83	0.06	0.00	1.61	0.093
		NO	Ref.									
	Benzodiazepines	YES	0.22	1.25	0.48	3.25	0.647	1.35	3.86	0.91	16.48	0.068
		NO	Ref.									
	Anticonvulsants	YES	-1.14	0.32	0.09	1.17	0.084	-0.36	0.70	0.09	5.76	0.740
		NO	Ref.									
	Clozapine	YES - with no/minimal response	0.34	1.40	0.39	5.03	0.606	1.12	3.05	0.40	23.14	0.280
		YES - with partial response	0.29	1.33	0.27	6.61	0.725	-0.54	0.58	0.05	6.20	0.655
		NO	Ref.									

Abbreviations: ECT – Electroconvulsive Therapy, GAF – Generalized Assessment of Function, BPRS – Brief Psychiatric Rating Scale, MoCA – Montreal Cognitive Assessment
**P<0.05*

Table 2 - Predictors of MoCA improvement in ECT

Outcome	Risk predictor		Crude					Adjusted				
			B	OR	95% CI for OR		P value	B	OR	95% CI for OR		P value
					Lower Bound	Upper Bound				Lower Bound	Upper Bound	
MOCA improvement vs MOCA no change	Age	> 55 years	1.31	3.72	0.92	15.00	0.065	0.94	2.56	0.34	19.28	0.362
		≤ 55 years	Ref.									
	No. ECT		-0.04	0.96	0.82	1.12	0.619	-0.19	0.83	0.62	1.10	0.191
	MoCA pre-ECT		-0.16	0.85	0.79	0.92	**<0.001****	-0.15	0.86	0.78	0.94	**0.002***
	GAF pre-ECT		-0.07	0.93	0.86	1.01	0.081	-0.12	0.89	0.78	1.01	0.079
	BPRS pre-ECT		0.03	1.03	0.99	1.08	0.139	0.05	1.05	0.97	1.13	0.243
	Sex	Female	1.42	4.14	1.65	10.37	**0.002***	2.75	15.67	2.61	94.10	**0.003***
		Male										
	Admission status	Involuntary	0.22	1.25	0.45	3.48	0.669	-0.26	0.77	0.12	4.90	0.784
		Voluntary	Ref.									
	Consent	By others	0.87	2.38	0.72	7.87	0.155	-0.82	0.44	0.04	5.14	0.512
		By self	Ref.									
	Antidepressants	YES	-0.81	0.44	0.17	1.16	0.097	0.14	1.15	0.20	6.74	0.875
		NO	Ref.									
	Lithium	YES	0.13	1.14	0.26	4.89	0.863	-0.64	0.53	0.05	5.09	0.581
		NO	Ref.									
	Benzodiazepines	YES	0.32	1.37	0.58	3.28	0.473	0.32	1.37	0.30	6.18	0.682
		NO	Ref.									
	Anticonvulsants	YES	-0.38	0.68	0.25	1.85	0.452	0.85	2.33	0.37	14.75	0.368
		NO	Ref.									
	Clozapine	YES - with no/minimal response	0.33	1.39	0.43	4.50	0.583	1.52	4.59	0.62	33.72	0.134
		YES - with partial response	0.52	1.68	0.41	6.98	0.472	0.58	1.79	0.23	14.03	0.578
		NO	Ref.									

Abbreviations: ECT – Electroconvulsive Therapy, GAF – Generalized Assessment of Function, BPRS – Brief Psychiatric Rating Scale, MoCA – Montreal Cognitive Assessment
**P<0.05*
*** P<0.001*

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