Burden of cognitive impairments in schizophrenia

Cognitive impairments are a core feature of schizophrenia and affect an individual's functioning. To date, efficacious pharmacological treatments for these impairments remain lacking and they remain an unmet clinical need. In recent years, discussions around treatment outcomes in schizophrenia has widened beyond symptom amelioration to include personal recovery and focused on improving Quality of Life (QoL) of individuals with schizophrenia. Improvement in a person's QoL is a vital factor when assessing the effectiveness of any treatment intervention. Health-Related QoL (HRQoL) was proposed to encompass the effects of illness (e.g., schizophrenia) on QoL. However, the impact of cognitive impairments on health-related quality of life (HRQoL) in individuals with schizophrenia remains unclear. This study aimed to examine the association between cognitive impairments and HRQoL in individuals with schizophrenia.

This was a cross-sectional study which included 609 individuals with schizophrenia. EuroQol five-dimensional (EQ-5D-5L) utility scores were used as a measure of HRQoL. A neurocognitive test battery was administered to all participants to assess Speed/vigilance, Executive function, and Fluency/Memory. A factor-analytic derived *g* score for each participant was obtained as an overall measure of cognition.

We found that a lower *g* was significantly associated with a lower EQ-5D-5L score, i.e., **a higher severity of cognitive impairments was associated with lower HRQoL in schizophrenia**. Additionally, being employed was significantly associated with a higher HRQoL (Table 1).

Our results add to the extant literature on the burden cognitive impairments exact in individuals with schizophrenia. We hope this study spurs further research for effective interventions to improve cognitive function in schizophrenia.

Study Reference: *Rekhi G, Saw YE, Lim K, Keefe RSE, Lee J. Impact of Cognitive Impairments on Health-Related Quality of Life in Schizophrenia. Brain Sci. 2023 Jan 28;13(2):215. doi: 10.3390/brainsci13020215. PMID: 36831758; PMCID: PMC9954179.*

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Table 1. Association of Cognitive factor g with EQ-5D-5L

Dependent variable	Independent Variables	*B*	*SE*	β	*t*	*p*	95.0% CI of B		Adjusted *R²*
							Lower	Upper	
	Step 1								
EQ-5D-5L	Age	−0.003	0.000	−0.271	−7.012	<0.001	−0.004	−0.003	10.2
	Sex	0.018	0.009	0.078	1.998	0.046	0.000	0.018	
	Employment status								
	Homemaker/Student	0.043	0.020	0.089	2.203	0.028	0.005	0.081	
	Employed	0.027	0.009	0.117	2.937	0.003	0.009	0.045	
	Step 2								
EQ-5D-5L	Age	−0.003	0.000	−0.258	−6.776	<0.001	−0.004	−0.002	13.5
	Sex	0.019	0.009	0.081	2.117	0.035	0.001	0.036	
	Employment status								
	Homemaker/Student	0.037	0.019	0.077	1.926	0.055	−0.001	0.075	
	Employed	0.021	0.009	0.091	2.317	0.021	0.003	0.039	
	Cognitive Factor *g*	0.017	0.004	0.189	4.956	<0.001	0.011	0.024	

Step 2: F Change$(1,603)$ = 24.565, $p < 0.001$.

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Unlocking Social Media's Power: CHAT's Campaign Breaks Barriers in Youth Mental Health Engagement

Table 1. Time series analysis of daily reach before, during and after campaign.

	Facebook			Instagram		
	Coefficient (SE)	95% CI	P value	Coefficient (SE)	95% CI	P value
a. Full segmented regression model						
Intercept β_0	21.93 (17.58)	(−2.34, 42.69)	.21	10.35 (20.28)	(−14.18, 30.77)	.61
Baseline trend β_1	.045 (.16)	(−0.14, .28)	.16	.13 (0.19)	(−0.05, .37)	.49
Level change immediately after campaign β_2	128.59 (23.71)	(89.91, 152.8)	<.001	24.14 (26.75)	(−10.39, 52.5)	.37
Trend change before and after campaign β_3	−0.25 (.23)	(−0.52, .07)	0.48	0.12 (0.26)	(−0.23, 0.36)	.64
Level change immediately after end of campaign β_4	−18.0 (29.11)	(−69.4, 9.04)	.12	−39.49 (32.49)	(−60.05, 18.38)	.22
Trend change during and after campaign β_5	−.44 (.50)	(−1.02, .31)	.58	−0.57 (0.57)	(−1.42, −0.09)	.32

Table 2. Predictors of daily reach during campaign.

Facebook			
	Coefficient (SE)	t	P value
Facebook advertisement boost	120.1 (46.57)	2.58	< .05
Instagram advertisement boost	91.87 (27.71)	3.31	< .001
Weekend	−27.98 (16.6)	1.69	.09
Instagram			
Facebook advertisement boost	13.61 (41.33)	0.33	.74
Instagram advertisement boost	185.61 (24.59)	7.55	< .001
Weekend	−21.95 (14.69)	−1.88	.06

Figure 1. Interrupted time series of Facebook daily reach.

*Facebook advertisement boost was carried out on 15-June-2022 and Instagram advertisement boosts were carried out on 25-May-2022, 3-August-2022 and 30-September-2022
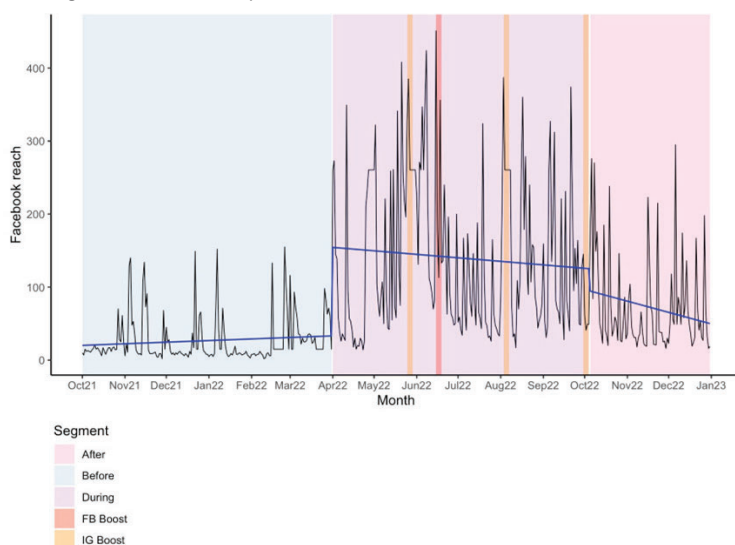
In a world where social media plays an increasingly vital role in mental health campaigns, our study delves into the effectiveness of the Community Health Assessment Team's (CHAT) social media campaign. Lasting from April 1, 2022, to September 30, 2022, on Facebook and Instagram, the campaign aimed to engage young people aged 16 to 30. This article presents the results and explores the factors influencing audience engagement with the social media campaign.

Utilizing an interrupted time-series design, our investigation spanned from October 1, 2021, to December 31, 2022 - six months before, during, and three months after the campaign. Post-level and page-level data from Meta Insights were analyzed using statistical tests, including the Wilcoxon rank sum test for engagement metrics and segmented linear regression for daily reach.

The study revealed a significant five-fold increase in daily reach on Facebook, surging from 21.93 to 128.59 immediately after campaign implementation (Figure 1, Table 1). Notably, paid advertisements emerged as a significant factor predicting increased daily reach across both platforms (Table 2).

The CHAT social media campaign successfully increased audience engagement among young people, primarily driven by a high volume of posts and advertisements. Our findings also suggest potential considerations for future studies, such as message fatigue and lag effects, highlighting avenues for further exploration in mental health campaign strategies.

Study Reference: *Sim A, Wong ML. Evaluating youth engagement on the CHAT social media mental health campaign. Health Literacy and Communication Open. DOI: 10.1080/28355245.2023.2274598 (Nov) 2023*

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