

Social Media Use and Perceived versus Objective Social Functioning in Schizophrenia: A Cross-Sectional Study

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Submitted to: JMIR Mental Health
on: September 22, 2025

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Table of Contents

Original Manuscript.....	5
Supplementary Files.....	16
Multimedia Appendixes	17
Multimedia Appendix 1.....	17



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Abstract

Background: Social isolation is a core challenge for individuals with schizophrenia. While the rise of social media offers new avenues for connection, its relationship with clinical symptoms and real-world social functioning in this population is complex and not fully understood.

Objective: This study aimed to capture a baseline snapshot of social media adoption among patients with schizophrenia and to investigate how online engagement relates to both subjective self-perceived social adaptation and objective measures of functional recovery.

Methods: We conducted a cross-sectional study with 55 clinically stable outpatients diagnosed with schizophrenia between December 2017 and April 2018. Participants completed a custom questionnaire on technology use and subjective experiences. Clinical and social functioning were assessed using the Scale for the Assessment of Positive and Negative Symptoms (SAPS/SANS), the Social Adaptation Self-evaluation Scale (SASS), and the Functional Remission of General Schizophrenia Scale (FROGS).

Results: Daily social media use was reported by 27.3% (15/55) of participants. Social media users had significantly higher self-perceived social adaptation scores on the SASS compared to non-users (mean 34.9, SD 10.7 vs mean 27.7, SD 10.5; $P=.017$). Broader internet use was associated with significantly lower negative symptom scores on the SANS ($P=.01$) and higher functional remission scores on the FROGS ($P=.001$). However, there was no significant difference in FROGS scores between social media users and non-users ($P=.159$). Among the 21 social media users, 47.6% (10/21) reported that it helped them communicate with family and friends, while psychosis-specific risks were rare (4.8%, 1/21).

Conclusions: In this pre-pandemic cohort, social media use was associated with improved subjective social adaptation but not with objective functional recovery. The benefits appear linked to the maintenance of existing social ties (a form of active use), with minimal perceived clinical risk. These findings highlight a disconnect between online social confidence and real-world functioning, suggesting that future digital interventions should focus on bridging this gap.

(JMIR Preprints 22/09/2025:84552)

DOI: <https://doi.org/10.2196/preprints.84552>

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Social Media Use and Perceived versus Objective Social Functioning in Schizophrenia: A Cross-Sectional Study

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Keywords: schizophrenia; social media; social functioning; mHealth; digital health; internet use; negative symptoms; digital phenotyping; social networking sites; subjective experience; psychosis

Abstract

Background: Social isolation is a core challenge for individuals with schizophrenia. While the rise of social media offers new avenues for connection, its relationship with clinical symptoms and real-world social functioning in this population is complex and not fully understood.

Objective: This study aimed to capture a baseline snapshot of social media adoption among patients with schizophrenia and to investigate how online engagement relates to both subjective self-perceived social adaptation and objective measures of functional recovery.

Methods: We conducted a cross-sectional study with 55 clinically stable outpatients diagnosed with schizophrenia between December 2017 and April 2018. Participants completed a custom questionnaire on technology use and subjective experiences. Clinical and social functioning were assessed using the Scale for the Assessment of Positive and Negative Symptoms (SAPS/SANS), the Social Adaptation Self-evaluation Scale (SASS), and the Functional Remission of General Schizophrenia Scale (FROGS).

Results: Daily social media use was reported by 27.3% (15/55) of participants. Social media users had significantly higher self-perceived social adaptation scores on the SASS compared to non-users (mean 34.9, SD 10.7 vs mean 27.7, SD 10.5; $P=.017$). Broader internet use was associated with significantly lower negative symptom scores on the SANS ($P=.01$) and higher functional remission scores on the FROGS ($P=.001$). However, there was no significant difference in FROGS scores between social media users and non-users ($P=.159$). Among the 21 social media users, 47.6% (10/21) reported that it helped them communicate with family and friends, while psychosis-specific risks were rare (4.8%, 1/21).

Conclusions: In this pre-pandemic cohort, social media use was associated with improved subjective social adaptation but not with objective functional recovery. The benefits appear linked to the maintenance of existing social ties (a form of active use), with minimal perceived clinical risk. These findings highlight a disconnect between online social confidence and real-world functioning, suggesting that future digital interventions should focus on bridging this gap

Introduction

Social isolation is a core challenge in schizophrenia, driven by a confluence of negative symptoms (e.g., anhedonia, avolition), cognitive impairments, and societal stigma [1,2]. While effective social engagement is known to confer significant therapeutic benefits, individuals with schizophrenia often face barriers to traditional face-to-face interaction [3]. In the last decade, social networking sites (SNSs) and other digital communication platforms have fundamentally reshaped social interaction, presenting both novel opportunities and potential risks for this vulnerable population.

These platforms can mitigate the impact of stigma and provide access to peer support networks, allowing patients to connect based on shared interests rather than being defined by their diagnosis [4]. However, the relationship between internet use and well-being is not straightforward, with recent reviews highlighting both the risks of social comparison and the benefits of social support, particularly for vulnerable populations [5,6]. Concerns exist that excessive or maladaptive online engagement could supplant offline relationships, while cognitive vulnerabilities in schizophrenia may increase susceptibility to online misinformation or negative social comparisons [7,8]. Understanding how patients with schizophrenia naturally use these tools is a critical first step toward designing effective digital interventions and clinical guidance. This study, conducted in 2017-2018, aimed to capture a baseline snapshot of social media adoption among patients with schizophrenia and

investigate the relationship between their online engagement, clinical symptoms, and self-perceived social functioning.

Materials and Methods

Participants and Procedure

Patients were recruited from Süleyman Demirel University Psychiatry Outpatient Clinic between December 2017 and April 2018. Inclusion criteria were: age ≥ 18 years, DSM-5 diagnosis of schizophrenia, and clinical stability. Exclusion criteria included: history of manic episodes, intellectual disability, comorbid substance use disorders, neurological disease affecting cognition, pregnancy or breastfeeding, and inability to complete assessments. Fifty-five patients (37 male, 18 female) participated after providing written and verbal informed consent. The study was approved by the Süleyman Demirel University Clinical Research Ethics Committee (Decision no. 98, May 3, 2017).

Measures

Digital Technology and Attitudes Questionnaire

A custom questionnaire was developed to gather data across four key domains. The questionnaire was administered by a trained researcher.

Part 1: Sociodemographic and Clinical Information: This section collected participant data on age, gender, education level, marital status, occupation, monthly income, date of diagnosis, current medications, history of hospitalizations, and any suicide attempts.

Part 2: Technology Access: Participants were asked a series of binary (Yes/No) questions to determine their access to technology, including: ownership of a mobile phone, ownership of a smartphone, and access to a computer and the internet.

Part 3: Usage Patterns: For participants who used these technologies, this section quantified their engagement. It included:

- **Frequency of use** for messaging, internet, email, and social media, captured on a 5-point scale (from "Less than once a month" to "Every day").
- **Duration of use** for internet and social media, captured as self-reported average hours spent per week.
- **Platform membership**, where participants could select their social media accounts from a list including Facebook, Twitter, Instagram, and Google Plus, which were prominent platforms at the time of data collection (2018).

Part 4: Perceived Impact of Social Media: To understand the subjective experience of social media use, participants were asked to respond "Yes" or "No" to a series of six statements about whether these platforms: (1) made them feel tense or depressed; (2) made them feel suspicious; (3) increased auditory hallucinations; (4) helped them communicate with family and friends; (5) helped them socialize more comfortably outside the home; and (6) made them fear that people would find out about their illness.

Social Functioning

The Social Adaptation Self-evaluation Scale (SASS), a 21-item self-report measure, was used to

assess subjective social adaptation. Scores range from 0 to 63, with higher scores indicating better social integration and satisfaction [9]. The validated Turkish version was used [10].

Clinical Symptoms and Functional Remission

Clinical symptoms were assessed by a trained researcher using the Scale for the Assessment of Positive Symptoms (SAPS) and the Scale for the Assessment of Negative Symptoms (SANS) [11]. Functional recovery was measured with the Functional Remission of General Schizophrenia Scale (FROGS), a 19-item scale evaluating domains such as social functioning, daily life activities, and treatment adherence [12]. Validated Turkish versions of the SAPS, SANS, and FROGS scales were employed to ensure cultural and linguistic appropriateness. [13,14]

Statistical Analysis

Data were analyzed using SPSS Version 20 (IBM Corp). Descriptive statistics were used to summarize participant characteristics and technology use. Independent samples t-tests or Mann-Whitney U tests were used to compare continuous variables between groups, while Chi-square or Fisher's exact tests were used for categorical variables, depending on data normality. Correlations were assessed using Pearson or Spearman coefficients. A *P*-value of $<.05$ was considered statistically significant.

Results

Participant Characteristics

A total of 55 patients with schizophrenia ($n=37$, 67.3% male) completed the study. The mean age was 41.4 (SD 13.3) years, and the mean duration of illness was 15.5 (SD 10.9) years. Further demographic and clinical characteristics are detailed in Table 1.

Table 1. Participant Demographics and Clinical Characteristics by Social Media Use (N=55).

Characteristic	All Patients (N=55)	Social Media Users (n=22)	Non-Users (n=33)	<i>P</i> -value
Sociodemographics				
Age, years, mean (SD)	41.4 (13.3)	34.8 (10.7)	45.7 (13.1)	.002
Sex, n (%) Male	37 (67.3)	19 (86.4)	18 (54.5)	.014
Marital Status, n (%)				.051
Single	26 (47.3)	15 (68.2)	11 (33.3)	
Married	21 (38.2)	5 (22.7)	16 (48.5)	
Divorced	8 (14.5)	2 (9.1)	6 (18.2)	
Education Level (University), n (%)	9 (16.4)	7 (31.8)	2 (6.1)	.001
Employment Status (Employed), n (%)	14 (25.5)	12 (54.5)	2 (6.1)	<.001
Monthly Income (TL), mean (SD)	1792 (875)	2252 (1101)	1500 (502)	.007
Clinical History & Scales				
Illness Duration, years, mean (SD)	15.5 (10.9)	10.3 (7.1)	18.9 (11.7)	.008

Age at Diagnosis, years, mean (SD)	25.9 (9.1)	24.5 (8.6)	26.9 (9.5)	.345
SASS Score, mean (SD)	30.6 (11.0)	34.9 (10.7)	27.7 (10.5)	.017
SAPS Total Score, mean (SD)	6.6 (7.7)	9.0 (8.9)	5.2 (6.6)	.051
SANS Total Score, mean (SD)	32.3 (16.3)	29.4 (16.5)	34.4 (16.2)	.385
FROGS Score, mean (SD)	51.9 (11.0)	54.5 (12.4)	50.2 (9.9)	.159

Technology Adoption and Usage Patterns

The majority of participants (45/55, 81.8%) owned a mobile phone, with approximately half (28/55, 50.9%) owning a smartphone. Internet access was reported by 56.4% (31/55) of the sample, while social media use was reported by 40% (22/55). Among users, the average self-reported time spent on the internet was 7.38 hours per week, while time on social media was 3.72 hours per week. As detailed in Table 1, social media users were significantly younger, had a shorter duration of illness, and reported higher levels of education and income compared to non-users ($P < .01$).

Associations with Clinical and Social Outcomes

A central finding was the relationship between technology use and social functioning. The 22 social media users reported significantly higher SASS scores compared to the 33 non-users (mean 34.9, SD 10.7 vs mean 27.7, SD 10.5; $P = .017$), indicating better self-perceived social adaptation. Furthermore, within the user group, the weekly time spent on social media was positively correlated with SASS scores. ($r = .579$, $P = .006$). However, there was no significant difference in objective functional remission (FROGS scores) between social media users and non-users ($P = .159$).

In a broader analysis of the 31 internet users versus 24 non-users, two key differences emerged. Internet users had modestly but significantly lower negative symptom scores on the SANS (mean 27.2, SD 14.5 vs mean 39.2, SD 15.8; $P = .01$) and also showed significantly better functional remission, with higher FROGS scores ($P = .001$).

Subjective Experiences of Social Media Use

To understand the perceived impact of social media, the 21 users who completed the custom questionnaire were asked about their subjective experiences (see Table 2). The most commonly endorsed benefit was social connection, with nearly half of users (10/21, 47.6%) agreeing that social media "helped them communicate with family and friends." A smaller portion (6/21, 28.6%) felt it "helped them socialize more comfortably outside the home." In contrast, negative psychological effects were less common, with 19.0% (4/21) reporting feeling "tense or depressed" and 14.3% (3/21) feeling "suspicious." Notably, risks often associated with psychosis were rare: only one participant (4.8%) reported an increase in auditory hallucinations, and only one (4.8%) feared their illness would be discovered through their use of these sites.

Table 2. Subjective Experiences of Social Media Use Among Patients Who Completed the Custom Questionnaire (n=21).

Statement about Social Media Use	Yes, n (%)	No, n (%)
Helps me communicate with family and friends	10 (47.6)	11 (52.4)
Helps me socialize more comfortably outside my home	6 (28.6)	15 (71.4)
Makes me feel tense or depressed	4 (19.0)	17 (81.0)
Makes me feel suspicious	3 (14.3)	18 (85.7)
I fear people will learn about my illness	1 (4.8)	20 (95.2)
Increases the voices I hear	1 (4.8)	20 (95.2)

Discussion

Principal Findings

Our study, providing a valuable snapshot from the pre-pandemic era of 2017-2018, found that social media use among patients with schizophrenia was significantly associated with higher self-perceived social adaptation (SASS scores). This finding is consistent with recent research characterizing online platforms as a 'double-edged sword'—facilitating social connection while simultaneously introducing distinct social challenges [15,16]. It suggests that even during a period dominated by text- and image-based platforms, online interactions offered a low-stakes social environment where patients felt more connected and capable. An important finding emerged regarding negative symptoms: while general internet use was associated with lower SANS scores, social media engagement remained consistent across levels of symptom severity, possibly due to the minimal effort required to maintain social interaction despite avolition or anhedonia.

The Perceived Benefits and Risks of Online Engagement

Our analysis of subjective experiences provides a plausible mechanism for the improvement in SASS scores. With nearly half of users (47.6%) reporting that social media "helped them communicate with family and friends," it is likely that these platforms act as a vital tool for maintaining existing social ties, thereby boosting self-perceived social adaptation. Furthermore, our findings offer a nuanced perspective on the clinical risks of social media use. While a minority of users reported feeling tense or suspicious, the most severe risks—such as an exacerbation of psychotic symptoms (4.8%) or fear of stigma-related disclosure (4.8%)—were remarkably rare. This suggests that for many patients in this cohort, the perceived social benefits of online engagement may substantially outweigh the perceived clinical risks.

Our findings on subjective experiences align with the distinction between active and passive social media use highlighted in recent meta-analyses and long-term longitudinal studies [17,18]. The most commonly reported benefit—communicating with family and friends (47.6%)—is a form of active use, which is consistently linked to improved social support. Conversely, the minority of users who reported feeling tense or suspicious may be experiencing effects related to passive use, such as upward social comparison. This framework helps clarify how social media can be simultaneously beneficial for social connection while posing risks to mental well-being for the same individual.

The Disconnect Between Subjective and Objective Functioning

Perhaps the most compelling finding of this study is the divergence between subjective social gains linked specifically to social media use and objective functional outcomes associated with general

internet use. The absence of a corresponding improvement in FROGS scores among social media users highlights an important distinction: while social media may enhance a patient's *digital social confidence*, this benefit does not automatically translate into measurable improvements in real-world functional recovery. This focus on maintaining existing online ties may explain the SASS vs. FROGS disconnect; while feeling connected to family improves one's subjective sense of adaptation, it may not be sufficient to drive changes in broader, real-world functional skills. This finding is consistent with literature that identifies a common disconnect between subjective reports and objective measures of social functioning in schizophrenia [19]. This literature underscores the challenge of transferring skills from the digital to the physical world—a difficulty noted in systematic reviews of online social interventions [20] and a key focus for the development of modern digital therapies [21].

Limitations

This study has several limitations that warrant consideration. First, its cross-sectional design prevents us from making causal inferences. Second, the data on technology use were based on self-report, which can be subject to recall bias. Third, our sample was recruited from a single clinical center, which may limit generalizability. Finally, and most importantly, the data were collected in 2018. The social media landscape and user behaviors have evolved dramatically, particularly following the COVID-19 pandemic [22]. Therefore, these findings should be interpreted as a historical baseline rather than a reflection of current engagement patterns.

Clinical Implications and Future Directions

From a clinical standpoint, these findings suggest that social media should not be viewed solely as a risk factor, but rather as an integral aspect of patients' social functioning. Exploring online activity may offer a valuable entry point for assessing social motivation, serving as a low-burden form of digital phenotyping. Future research should build upon this foundation through longitudinal investigations employing passive smartphone sensing, which can provide objective assessments of online behavior, thereby mitigating the limitations of self-report and aligning with the evolving trajectory of psychiatric research [23]. The ultimate goal should be to design and test interventions that bridge the gap between online social confidence and offline functional skills, helping patients translate subjective digital gains into meaningful, real-world recovery, similar to integrated digital therapies that have recently shown efficacy in this population [24,25].

Acknowledgments

The authors acknowledge the use of Gemini (Google) to support language refinement in select portions of the manuscript. The authors take full responsibility for the intellectual content, accuracy, and final version of this paper. This manuscript is based on research originally conducted for the first author's medical specialty thesis, completed at Süleyman Demirel University.

Funding Statement

None declared.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Data Availability

The dataset generated and analyzed during the current study has been provided as a supplementary file with this submission. The original anonymized questionnaires from which the data were transcribed are securely archived and can be made available to the editorial office upon reasonable request.

Author Contributions

Conceptualization: SK (lead), FK (equal)

Data curation: SK

Formal analysis: SK (lead), FK (supporting)

Investigation: SK

Methodology: SK (lead), FK (supporting)

Project administration: FK (lead), SK (supporting)

Supervision: FK

Validation: FK

Writing – original draft: SK (lead), FK (supporting)

Writing – review & editing: SK (lead), FK (supporting)

Abbreviations

FROGS: Functional Remission of General Schizophrenia Scale

SANS: Scale for the Assessment of Negative Symptoms

SAPS: Scale for the Assessment of Positive Symptoms

SASS: Social Adaptation Self-evaluation Scale

SNSs: Social Networking Sites

References

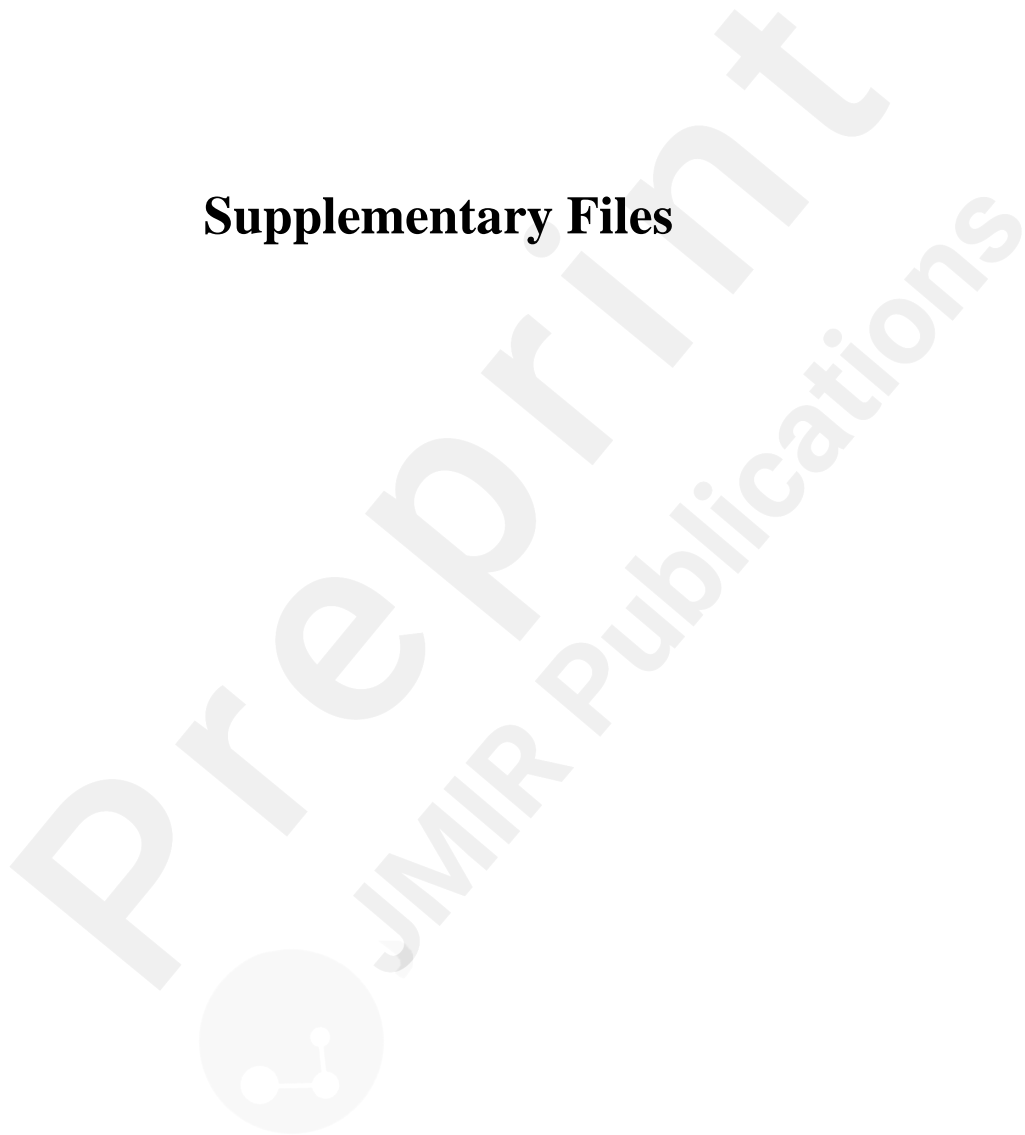
1. Millan MJ, Fone K, Steckler T, Horan WP. Negative symptoms of schizophrenia: Clinical characteristics, pathophysiological substrates, experimental models and prospects for improved treatment. *Eur Neuropsychopharmacol.* 2014 May;24(5):645–92. doi:10.1016/j.euroneuro.2014.03.008
2. Fulford D, Holt DJ. Social withdrawal, loneliness, and health in schizophrenia: Psychological and neural mechanisms. *Schizophr Bull.* 2023 Jul 7;49(5):1138–49. doi:10.1093/schbul/sbad099
3. Tew J, Ramon S, Slade M, Bird V, Melton J, Le Boutillier C. Social factors and recovery from mental health difficulties: A review of the evidence. *Br J Soc Work.* 2011 Jun 15;42(3):443–60. doi:10.1093/bjsw/bcr076
4. Highton-Williamson E, Priebe S, Giacco D. Online social networking in people with psychosis: A systematic review. *Int J Soc Psychiatry.* 2014 Nov 6;61(1):92–101. doi:10.1177/0020764014556392
5. Sulaiman WA, Malek MD, Yunus AR, Ishak NH, Safir DM, Fahrudin A. The impact of social media on Mental Health: A Comprehensive Review. *South East Eur J Public Health.* 2024 Dec 1;1468–82. doi:10.70135/seejph.vi.2564
6. Zsila Á, Reyes ME. Pros & Cons: Impacts of social media on Mental Health. *BMC Psychol.* 2023 Jul 6;11(1). doi:10.1186/s40359-023-01243-x
7. Lee J-Y, Chung Y-C, Song J-H, Lee Y-H, Kim J-M, Shin I-S, et al. Contribution of stress and coping strategies to problematic internet use in patients with schizophrenia spectrum disorders. *Compr Psychiatry.* 2018 Nov;87:89–94. doi:10.1016/j.comppsy.2018.09.007
8. Baup H, Verdoux H. Frequency and pattern of internet use in patients with schizophrenia or bipolar disorders seeking medical information. *Psychiatry Res.* 2017 Jan;247:152–4. doi:10.1016/j.psychres.2016.11.028

9. Bosc M, Dubini A, Polin V. Development and validation of a social functioning scale, the social adaptation self-evaluation scale. *Eur Neuropsychopharmacol.* 1997 Apr;7(1):57–70. doi:10.1016/s0924-977x(97)00420-3
10. Akkaya C, Sarandöl A, Danacı AE, Sivrioğlu E, Kaya E, Kırılı S. Sosyal uyum kendini değerlendirme ölçeği (SUKDÖ) Türkçe formunun geçerlik ve güvenilirliği [The validity and reliability of the Turkish version of the Social Adaptation Self-evaluation Scale (SASS)]. *Türk Psikiyatri Dergisi.* 2008;19(3):292-298.
11. Andreasen NC, Arndt S, Del Miller D, Flaum M, Nopoulos P. Correlational studies of the scale for the assessment of negative symptoms and the scale for the assessment of positive symptoms: An overview and update. *Psychopathology.* 1995;28(1):7–17. doi:10.1159/000284894
12. Llorca P-M, Lançon C, Lancrenon S, Bayle F-J, Caci H, Rouillon F, et al. The “Functional Remission of General Schizophrenia” (FROGS) scale: Development and validation of a new questionnaire. *Schizophr Res.* 2009 Sept;113(2–3):218–25. doi:10.1016/j.schres.2009.04.029
13. Erkoç Ş, Arkonaç O, Ataklı C, Özmen E. The Reliability and Validity of Scale for the Assessment of The Negative Symptoms. *Dusunen Adam J Psychiatry Neurol Sci.* 1991;4(2):14–5.
14. Emiroğlu B, Karadayı G, Aydemir Ö, Üçok A. Validation of the Turkish Version of the “Functional Remission of General Schizophrenia” (FROGS) Scale. *Arch Neuropsychiatry.* 2009;46:15–24.
15. Fisher CB, Tao X, Ford M. Social Media: A double-edged sword for LGBTQ+ youth. *Comput. Hum. Behav.* 2024 Jul;156:108194. doi:10.1016/j.chb.2024.108194
16. Naslund JA, Bondre A, Torous J, Aschbrenner KA. Social Media and Mental Health: Benefits, risks, and opportunities for research and Practice. *J Technol Behav Sci.* 2020 Apr 20;5(3):245–57. doi:10.1007/s41347-020-00134-x
17. Godard R, Holtzman S. Are active and passive social media use related to mental health, wellbeing, and social support outcomes? A meta-analysis of 141 studies. *J Comput Mediat Commun.* 2023 Nov 8;29(1). doi:10.1093/jcmc/zmad055
18. Roberts JA, Young PD, David ME. The epidemic of loneliness: A 9-year longitudinal study of the impact of passive and active social media use on loneliness. *Pers Soc Psychol Bull.* 2024 Dec 30; doi:10.1177/01461672241295870
19. Durand D, Strassnig MT, Moore RC, Depp CA, Ackerman RA, Pinkham AE, et al. Self-reported social functioning and social cognition in schizophrenia and bipolar disorder: Using ecological momentary assessment to identify the origin of bias. *Schizophr Res.* 2021 Apr;230:17–23. doi:10.1016/j.schres.2021.02.011
20. Thelwell ELR, Dunkerley L, Goodwin R, Giacco D. Effectiveness of online social networking interventions on social isolation and quality of life of people with psychosis: A systematic review. *Psychiatry Res.* 2024 Sept;339:116088. doi:10.1016/j.psychres.2024.116088
21. Granholm E, Holden J, Dwyer K, Mikhael T, Link P, Depp C. Mobile-assisted cognitive behavioral therapy for negative symptoms: Open single-arm trial with schizophrenia patients. *JMIR Ment Health.* 2020 Dec 1;7(12). doi:10.2196/24406
22. Hamilton JL, Dreier MJ, Boyd SI. Social media as a bridge and a window: The changing relationship of adolescents with social media and digital platforms. *Curr Opin Psychol.* 2023 Aug;52:101633. doi:10.1016/j.copsyc.2023.101633
23. Jilka S, Giacco D. Digital phenotyping: How it could change mental health care and why we should all keep up. *J Ment Health.* 2024 Jul 3;33(4):439–42. doi:10.1080/09638237.2024.2395537
24. Ludwig KA, Browne JW, Nagendra A, Gleeson JF, D’Alfonso S, Penn DL, et al. Horyzons USA: A moderated online social intervention for first episode psychosis. *Early Interv Psychiatry.* 2020 Feb 17;15(2):335–43. doi:10.1111/eip.12947
25. Alvarez-Jimenez M, Koval P, Schmaal L, Bendall S, O’Sullivan S, Cagliarini D, et al. The Horyzons Project: A randomized controlled trial of a novel online social therapy to maintain treatment effects from specialist first-episode psychosis services. *World Psychiatry.* 2021 May

18;20(2):233–43. doi:10.1002/wps.20858

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Supplementary Files



Multimedia Appendixes

The datasets analyzed during this study.

URL: <http://asset.jmir.pub/assets/70188416dd49cb99b0558b3ce57ae771.xlsx>