Section: Psychiatry

Original Research Article

"STIGMA, MENTAL HEALTH LITERACY AND PSYCHIATRIC HELP-SEEKING AMONG PARENTS OF ADOLESCENTS WITH PROBLEMATIC SMARTPHONE USE: AN ANALYTICAL CROSS-SECTIONAL STUDY"

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ABSTRACT

Background: Problematic smartphone use among adolescents is associated with psychological and behavioural difficulties. Parental mental health literacy and stigma may influence psychiatric help-seeking. This study assessed these factors among parents of adolescents with problematic smartphone use.

Materials and Methods: This analytical cross-sectional study included 120 parents of adolescents aged 10–19 years with problematic smartphone use. Mental health literacy, stigma, and psychiatric help-seeking were assessed using structured questionnaires. Data were analysed using SPSS.26 statistical tests, correlation analysis, and logistic regression.

Results: Among 120 parents, 56.7% had lower mental health literacy, 61.7% demonstrated higher stigma, and 35.0% had sought psychiatric consultation. Mental health literacy scores were significantly higher among help-seeking parents (121.4 ± 13.2 vs 107.9 ± 15.3; $p < 0.001$). Mental health literacy was negatively correlated with stigma ($r = -0.42$) and positively correlated with help-seeking intention ($r = 0.38$). Higher mental health literacy was associated with increased psychiatric help-seeking (adjusted OR 2.85), whereas higher stigma was associated with reduced help-seeking (adjusted OR 0.34).

Conclusion: Higher parental mental health literacy and lower stigma were associated with greater psychiatric help-seeking. Parental psychoeducation and stigma-reduction strategies may improve access to timely mental healthcare.

Keywords: Problematic smartphone use, Mental health literacy, Stigma, Psychiatric help-seeking, Adolescents.

INTRODUCTION

The widespread use of smartphones has transformed adolescents' communication, education, and social interactions. However, excessive and poorly regulated smartphone use has emerged as an important public health concern.[1] Problematic smartphone use (PSU) is characterized by impaired control over smartphone engagement, excessive preoccupation, and continued use despite adverse consequences on daily functioning. Adolescents are particularly vulnerable because of ongoing emotional, cognitive, and behavioural development. A systematic review and meta-analysis by Sohn et al. demonstrated significant associations between problematic smartphone use and depression, anxiety, perceived stress, and poor sleep quality among children and young people.[1] Adolescence is a critical developmental period during which many psychiatric disorders first emerge. However, adolescents may have difficulty recognizing psychological symptoms and may hesitate to seek professional assistance because of limited awareness, stigma, or fear of judgment. Parents frequently serve as primary sources of emotional support and play an essential role in recognizing behavioural changes and facilitating access to mental healthcare. Their understanding of problematic smartphone use may influence whether associated difficulties are perceived as disciplinary

concerns or potential manifestations of psychological distress.[2,3] Mental health literacy (MHL) is an important determinant of recognizing and managing psychological difficulties. Jorm et al. defined mental health literacy as knowledge and beliefs concerning mental disorders that facilitate their recognition, management, and prevention.[4] Adequate parental mental health literacy may promote early identification of emotional and behavioural problems and encourage appropriate psychiatric consultation. Conversely, inadequate knowledge and misconceptions regarding psychiatric treatment may delay intervention. Hurley et al. highlighted limitations in parental mental health literacy,[5] while Kusaka et al. reported that educational interventions improved mental health knowledge in some studies, although improvements in stigma and help-seeking behaviours were inconsistent.[6] Mental health-related stigma represents another important barrier to psychiatric help-seeking. Negative stereotypes, anticipated discrimination, and concerns regarding social judgment or family reputation may discourage parents from seeking professional assistance. Corrigan et al. demonstrated that stigma negatively influences psychiatric treatment initiation and engagement.[7] Similarly, Yoshii et al. documented stigmatizing attitudes towards schizophrenia among parents of school-going adolescents, emphasizing the importance of parental beliefs in mental healthcare decisions.[8] Psychiatric help-seeking is influenced by mental health literacy, perceived symptom severity, stigma, accessibility of services, and sociocultural beliefs. Parents may initially manage excessive smartphone use through restrictions or informal support rather than professional consultation. Gulliver et al. identified stigma, poor symptom recognition, and preference for self-reliance as important help-seeking barriers.[9] Reardon et al. highlighted parental difficulties in recognizing mental health problems and accessing psychological treatment.[10] Furthermore, Ryan et al. emphasized the influence of parent- and family-related factors on mental health service utilization among young people.[11] Despite increasing research on problematic smartphone use and its psychological consequences, limited evidence addresses parental mental health literacy, stigma, and psychiatric help-seeking collectively in this population. Therefore, the present analytical cross-sectional study aimed to assess stigma, mental health literacy, and psychiatric help-seeking among parents of adolescents with problematic smartphone use and examine their associations with relevant sociodemographic characteristics.

MATERIALS AND METHODS

This analytical cross-sectional study was conducted in the Department of Psychiatry. The study aimed to assess mental health literacy, stigma, and psychiatric help-seeking among parents of adolescents with problematic smartphone use.A total of 120 parents or primary caregivers of adolescents aged 10–19 years with problematic smartphone use were included. Only one parent or primary caregiver per adolescent was enrolled.

Inclusion Criteria

1. Parents or primary caregivers of adolescents aged 10–19 years identified with problematic smartphone use.
2. Parents aged 18 years or above.
3. Parents willing to provide written informed consent.
4. Parents able to understand and complete the study questionnaire.

Exclusion Criteria

1. Parents unwilling to participate.
2. Parents with significant cognitive or communication difficulties affecting questionnaire completion.
3. Participants with substantially incomplete questionnaire responses.
4. Parents of adolescents not meeting the predefined criteria for problematic smartphone use.

Study Procedure and Data Collection

Following ethical approval and informed consent, eligible participants were enrolled. Problematic smartphone use among adolescents was assessed using a standardized screening instrument, such as the Smartphone Addiction Scale–Short Version (SAS-SV). Data were collected using a structured questionnaire covering parental age, sex, education, occupation, socioeconomic status, family characteristics, and previous exposure to mental health services. Information regarding adolescents' age, sex, and smartphone-use characteristics was also recorded.

Assessment of Mental Health Literacy

Parental mental health literacy was assessed using a validated instrument, such as the Mental Health Literacy Scale (MHLS), covering recognition of mental disorders, knowledge of treatment options, and awareness of professional help-seeking. Higher scores indicated greater mental health literacy.

Assessment of Mental Health-Related Stigma

Mental health-related stigma was evaluated using an appropriate validated instrument, such as the Reported and Intended Behaviour Scale (RIBS). The assessment included attitudes towards mental illness, perceived discrimination, social acceptance, and willingness to interact with individuals experiencing psychiatric disorders. Scores were interpreted according to the selected instrument's guidelines.

Assessment of Psychiatric Help-Seeking

Psychiatric help-seeking was assessed through a structured questionnaire evaluating willingness to seek psychiatric consultation, previous mental health service utilization, preferred sources of assistance, and perceived barriers to professional care.

Participants were categorized according to previous psychiatric help-seeking status (Yes/No) for comparative analysis, where applicable.

Outcome Measures

Primary outcomes included mental health literacy scores, stigma scores, and psychiatric help-seeking attitudes or behaviours. Secondary outcomes included associations between these variables and relevant parental sociodemographic characteristics.

Statistical Analysis

Data were analysed using IBM SPSS.26. Categorical variables were presented as frequencies and percentages, while continuous variables were expressed as mean ± standard deviation or median (interquartile range). The Chi-square or Fisher's exact test was used for categorical comparisons, while the independent-samples t-test or Mann–Whitney U test was applied to continuous variables, as appropriate. Pearson's or Spearman's correlation analysis was used to assess relationships between mental health literacy, stigma, and help-seeking scores. Multivariable logistic regression was considered to identify factors independently associated with psychiatric help-seeking, subject to adequate outcome events. A p-value below 0.05 was considered statistically significant.

RESULTS

A total of 120 parents of adolescents were included in the study to assess parental mental health literacy, mental health-related stigma, and their association with psychiatric help-seeking behaviour and intention. The majority of parents belonged to the 36–45-year age group (54.2%), followed by 46–55 years (22.5%) and 25–35 years (18.3%). Females constituted 60.0% of the participants, while males accounted for 40.0%. Regarding educational qualifications, 33.3% were graduates or above, followed by secondary education (29.2%), higher secondary education (24.2%), and primary education or below (13.3%). Most participants belonged to nuclear families (63.3%). Among adolescents, 48.3% were aged 14–16 years, followed by 17–19 years (28.3%) and 10–13 years (23.3%). Male adolescents constituted 56.7% of the study population. Daily smartphone usage exceeding 6 hours was reported in 46.7% of adolescents, while 38.3% reported usage of 4–6 hours. [Table 1] Lower mental health literacy was observed among 68 (56.7%) parents, whereas 52 (43.3%) demonstrated higher mental health literacy. Higher mental health-related stigma was reported by 74 (61.7%) parents, while 46 (38.3%) had lower stigma. Previous psychiatric help-seeking for adolescents was reported by 42 (35.0%) parents, whereas 78 (65.0%) had not sought psychiatric assistance. However, 76 (63.3%) parents expressed willingness to seek psychiatric assistance, while 44 (36.7%) were unwilling or uncertain. [Table 2] Parents who had previously sought psychiatric assistance demonstrated significantly higher mean mental health literacy scores compared with those who had not sought assistance (121.4 ± 13.2 vs. 107.9 ± 15.3; p<0.001). Similarly, the mean stigma score was significantly higher among parents who had sought psychiatric assistance compared with those who had not (11.8 ± 3.5 vs. 8.9 ± 3.8; p<0.001). [Table 3, Figure 1] Among parents who had sought psychiatric assistance, 66.7% were female compared with 56.4% in the non-help-seeking group; however, the difference was not statistically significant (p=0.274). Graduate-level education or above was significantly more common among parents who had sought psychiatric assistance compared with those who had not (47.6% vs. 25.6%; p=0.015). Similarly, previous family exposure to mental health services was significantly higher among parents who had sought psychiatric assistance (38.1% vs. 17.9%; p=0.015). [Table 4] Mental health literacy demonstrated a significant moderate negative correlation with mental health-related stigma (r=−0.42, p<0.001) and a significant positive correlation with psychiatric help-seeking intention (r=0.38, p<0.001). Conversely, stigma demonstrated a significant moderate negative correlation with psychiatric help-seeking intention (r=−0.46, p<0.001), indicating that higher stigma was associated with lower help-seeking intention. [Table 5, Figure 2] Multivariable logistic regression analysis demonstrated that higher mental health literacy was independently associated with increased odds of psychiatric help-seeking (adjusted OR=2.85, 95% CI: 1.25–6.49; p=0.013). Higher mental health-related stigma was significantly associated with reduced odds of psychiatric help-seeking (adjusted OR=0.34, 95% CI: 0.15–0.78; p=0.011). Previous family exposure to mental health services was also independently associated with increased odds of psychiatric help-seeking (adjusted OR=2.21, 95% CI: 1.01–4.85; p=0.047). Although graduate-level education or above showed increased odds of psychiatric help-seeking, the association was not statistically significant after adjustment (adjusted OR=1.48, 95% CI: 0.65–3.37; p=0.351). [Table 6, Figure 3]

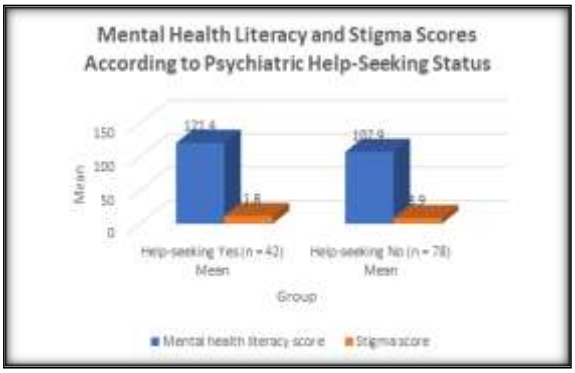


Figure 1: Comparison of Mental Health Literacy and Stigma Scores According to Psychiatric Help-Seeking Status (N = 120)

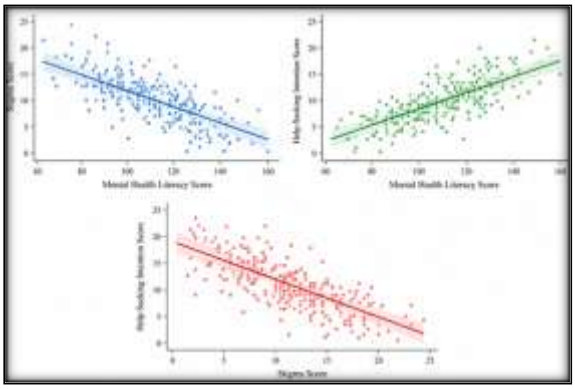


Figure 2. Correlation between Mental Health Literacy, Stigma, and Psychiatric Help-Seeking Intention (N = 120)

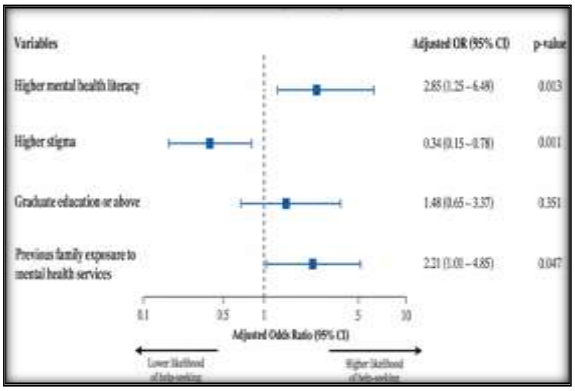


Figure 3: Multivariable Logistic Regression Analysis of Factors Associated With Psychiatric Help-Seeking (N = 120)

Table 1: Sociodemographic Characteristics of Parents and Adolescents (N = 120)

Characteristics	Number (%)
Parental age (years)	
25–35	22 (18.3)
36–45	65 (54.2)
46–55	27 (22.5)
>55	6 (5.0)
Parental sex	
Male	48 (40.0)
Female	72 (60.0)
Educational qualification	
Primary or below	16 (13.3)
Secondary	35 (29.2)
Higher secondary	29 (24.2)
Graduate or above	40 (33.3)
Family type	
Nuclear	76 (63.3)
Joint	44 (36.7)
Adolescent age (years)	
10–13	28 (23.3)
14–16	58 (48.3)
17–19	34 (28.3)
Adolescent sex	
Male	68 (56.7)
Female	52 (43.3)
Daily smartphone use	
<4 hours	18 (15.0)
4–6 hours	46 (38.3)
>6 hours	56 (46.7)

Table 2: Distribution of Mental Health Literacy, Stigma, and Psychiatric Help-Seeking Among Parents (N = 120)

Parameters	Number (%)
Mental health literacy	
Lower mental health literacy	68 (56.7)
Higher mental health literacy	52 (43.3)
Mental health-related stigma	
Higher stigma	74 (61.7)
Lower stigma	46 (38.3)
Previous psychiatric help-seeking for adolescent	
Yes	42 (35.0)
No	78 (65.0)
Willingness to seek psychiatric assistance	
Yes	76 (63.3)
No/uncertain	44 (36.7)

Table 3: Comparison of Mental Health Literacy and Stigma Scores According to Psychiatric Help-Seeking Status (N = 120)

Parameters	Help-seeking Yes (n = 42) Mean ± SD	Help-seeking No (n = 78) Mean ± SD	p-value
Mental health literacy score	121.4 ± 13.2	107.9 ± 15.3	<0.001
Stigma score	11.8 ± 3.5	8.9 ± 3.8	<0.001

Table 4: Association of Parental Characteristics with Psychiatric Help-Seeking (N = 120)

Characteristics	Help-seeking Yes (n = 42)	Help-seeking No (n = 78)	p-value
Parental sex			
Male	14 (33.3%)	34 (43.6%)	0.274
Female	28 (66.7%)	44 (56.4%)	
Education			
Graduate or above	20 (47.6%)	20 (25.6%)	0.015
Below graduation	22 (52.4%)	58 (74.4%)	
Previous family exposure to mental health services			
Yes	16 (38.1%)	14 (17.9%)	0.015
No	26 (61.9%)	64 (82.1%)	

Table 5: Correlation between Mental Health Literacy, Stigma, and Psychiatric Help-Seeking Intention (N = 120)

Variables	Correlation coefficient (r)	p-value
Mental health literacy vs stigma	−0.42	<0.001
Mental health literacy vs help-seeking intention	0.38	<0.001
Stigma vs help-seeking intention	−0.46	<0.001

Table 6: Multivariable Logistic Regression Analysis of Factors Associated With Psychiatric Help-Seeking (N = 120)

Variables	Adjusted OR (95% CI)	p-value
Higher mental health literacy	2.85 (1.25–6.49)	0.013
Higher stigma	0.34 (0.15–0.78)	0.011
Graduate education or above	1.48 (0.65–3.37)	0.351
Previous family exposure to mental health services	2.21 (1.01–4.85)	0.047

DISCUSSION

In the present study of 120 parents, the majority were aged 36–45 years (54.2%), females constituted 60.0%, and 33.3% were graduates or above. Among adolescents, 48.3% belonged to the 14–16-year age group, and 56.7% were males. Hurley et al,[12] studied 540 parents, comprising 59.4% females and 40.6% males, showing a similar female predominance. Yoshii et al,[13] studied 2,690 parents with a mean age of 45.9 ± 4.7 years; 48.7% were females, and 43.1% had university or graduate education.In our study, 56.7% of parents had lower mental health literacy, while 61.7% demonstrated higher stigma. Previous psychiatric consultation was reported by 35.0%, although 63.3% expressed willingness to seek psychiatric assistance. Hurley et al,[12] reported that their parental mental health literacy intervention improved selected outcomes, including confidence in assisting individuals with mental health difficulties and formal help-seeking for parents themselves, although primary literacy outcomes did not improve significantly. Yoshii et al,[13] reported improvement in recognition of schizophrenia symptoms from 47% to 61% and prodromal symptoms from 30% to 61% following an educational intervention.In our study, parents who sought psychiatric consultation had significantly higher mental health literacy scores (121.4 ± 13.2) than those who did not (107.9 ± 15.3; $p < 0.001$). The mean RIBS-type intended-behaviour score was also higher among help-seeking parents (11.8 ± 3.5 vs 8.9 ± 3.8; $p < 0.001$), indicating less stigmatizing attitudes. Hurley et al.,[12] similarly observed improvements in selected parental knowledge, confidence, and help-seeking outcomes following mental health education. Yoshii et al,[13] demonstrated improved recognition of schizophrenia symptoms (47% to 61%), supporting the potential importance of parental mental health knowledge. In our study, psychiatric help-seeking was reported by 66.7% female and 33.3% male parents among those who sought consultation, without a significant sex-based association ($p = 0.274$). Graduate education was more frequent among help-seeking parents (47.6% vs 25.6%; $p = 0.015$), as was previous family exposure to mental health services (38.1% vs 17.9%; $p = 0.015$). Yoshii et al,[13] identified significant differences in parental mental health knowledge according to age, sex, and educational characteristics. These findings suggest that sociodemographic factors may influence mental health awareness and related behaviours. In our study, mental health literacy showed a negative correlation with stigma ($r = −0.42$, $p < 0.001$) and a positive correlation with help-seeking intention ($r = 0.38$, $p < 0.001$). Stigma was negatively correlated with help-seeking intention ($r = −0.46$, $p < 0.001$). Yoshii et al,[13] reported improvements in basic schizophrenia knowledge from 77% to approximately 80% and symptom recognition from 47% to 61% following education. Hurley et al,[12] also demonstrated improvements in selected parental mental health-related outcomes. However, neither study reported directly comparable correlation coefficients. In our study, higher mental health literacy was associated with greater

psychiatric help-seeking (adjusted OR 2.85, 95% CI 1.25–6.49; p = 0.013), whereas higher stigma was associated with reduced help-seeking (adjusted OR 0.34, 95% CI 0.15–0.78; p = 0.011). Previous family exposure to mental health services was also associated with increased help-seeking (adjusted OR 2.21, 95% CI 1.01–4.85; p = 0.047). Deitz et al,[14] demonstrated improvements in selected parental help-seeking outcomes following education . Harris et al,[15] in an eight-year prospective study of 318 patients with first-episode psychosis, reported that shorter duration of untreated psychosis was associated with better symptomatic and functional outcomes, emphasizing the importance of timely psychiatric intervention.

CONCLUSION

The present study suggests that higher parental mental health literacy and lower mental health-related stigma are associated with greater psychiatric help-seeking among parents of adolescents with problematic smartphone use. Inadequate mental health awareness and stigmatizing attitudes may act as barriers to timely psychiatric consultation. Parental psychoeducation, stigma reduction, and improved access to mental health services may promote early recognition and appropriate professional help-seeking.

Limitations

The cross-sectional design and relatively small sample size of 120 participants limit causal interpretation and generalizability of the findings. Self-reported information may be affected by recall and social desirability biases, while the single-centre setting may introduce selection bias.

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