

Predicting Formal Mental-Health Resource Utilization: A Logistic Regression Approach

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Introduction

Formal mental health service utilization remains inadequate despite the substantial burden of mental illness and continued expansion of remote and technology-enabled care options. Prior research has often examined predictors of help-seeking in isolation or emphasized single domains such as tele-mental health satisfaction, leaving fewer studies that jointly assess psychosocial, structural, socioeconomic, and digital influences within the same model (Alghafri et al., 2024; Coombs et al., 2021; Neumann et al., 2025). This gap limits understanding of how multiple barriers and supports operate simultaneously in formal mental health help-seeking. To address this need, the present study examined whether prior diagnosis, perceived stigma, transportation barriers, and digital media exposure were associated with adults' formal mental health service utilization in an urban U.S. context.

Conceptual Framework

This study was guided by an integrated framework combining Andersen's Behavioral Model, the Health Belief Model, and Social Cognitive Theory. Andersen's model suggests service utilization is shaped by predisposing factors, enabling factors, and need factors. In this study, demographic characteristics served as predisposing factors, transportation and socioeconomic access conditions served as enabling factors, and prior diagnosis history represented evaluated need (Andersen, 1968, 1995). The Health Belief Model supported the role of perceived barriers and cues to action, while Social Cognitive Theory informed the inclusion of digital media exposure as a potential mechanism for observational learning, normalization of help-seeking, and increased self-efficacy (Bandura, 1986; Jones et al., 2015).

Methods

Data were collected from on July 2024, from a purposive sample of 500 adults residing in southeast Texas. The dependent variable was formal mental health service utilization. Key independent variables included prior diagnosis history, stigma or embarrassment about seeking mental health help, transportation barriers, and digital media exposure through social media, mobile apps, and podcasts. Demographic and socioeconomic controls included age, gender, race, marital status, education, income, and number of children in the household. Logistic regression analysis was conducted in R. Model fit was evaluated using likelihood ratio tests, McFadden's pseudo R^2 , and AIC.

Results

Among respondents, 40.8% reported using at least one formal mental health resource in the past year. In the sample, 18.7% endorsed stigma, 11.4% reported transportation barriers, and 39.9% reported a prior diagnosis. In the full multivariable model, prior diagnosis was the strongest predictor of formal service utilization ($OR = 9.84$, $p < .001$). Transportation barriers were also positively associated with utilization ($OR = 3.29$, $p < .01$), followed by stigma ($OR = 1.87$, $p < .05$), marital status ($OR = 1.88$, $p < .05$), and number of children in the household ($OR = 1.34$, $p < .05$). Social media exposure approached significance in Model 1 and became significant in the preferred parsimonious model ($OR = 1.10$, $p < .05$). Age, gender, race, education, income, podcast use, and mobile app use were not significant in the final retained model. Interaction effects for stigma $\times$ social media and transportation $\times$ income did not significantly improve model fit.

Table 1. Logistic regression estimates odds ratios with confidence intervals.

Variables	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 3 OR (95% CI)
Stigma	1.869* (1.019, 3.457)	1.831* (1.023, 3.289)	1.274 (0.416, 3.894)
Social Media	1.107 (0.997, 1.232)	1.100* (1.019, 1.189)	1.083 (0.994, 1.181)
Transportation	3.290** (1.473, 7.901)	3.268** (1.498, 7.605)	9.232* (1.461, 79.313)
Prior Diagnosis	9.835*** (5.878, 16.894)	9.973*** (6.209, 16.360)	9.576*** (5.883, 15.944)
Household Child Number	1.341* (1.028, 1.751)	1.376* (1.078, 1.758)	1.376* (1.076, 1.763)
Marital Status	1.876* (1.101, 3.244)	1.919** (1.183, 3.162)	1.825* (1.085, 3.113)
Income	1.022 (0.869, 1.203)	–	1.041 (0.890, 1.218)
Gender	0.884 (0.542, 1.431)	–	–
Race	0.982 (0.577, 1.665)	–	–
Education	1.026 (0.787, 1.339)	–	–
Age	1.001 (0.981, 1.021)	–	–
Mobile Apps	1.032 (0.929, 1.146)	–	–
Podcast	0.965 (0.859, 1.082)	–	–
Stigma × Social Media	–	–	1.079 (0.889, 1.318)
Transportation × Income	–	–	0.763 (0.473, 1.194)
McFadden pseudo R-squared	0.279	0.282	0.280
Log likelihood	–214.006	–220.567	–215.953
AIC	456.00	455.00	451.91

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Conclusions

The findings suggest that formal mental health service utilization is shaped by a combination of evaluated need, structural access conditions, family context, and selected digital information pathways. Prior diagnosis appears to function as a major gateway into care, indicating that diagnosed individuals are substantially more likely to access formal services than those without a diagnosis history. Social media exposure showed a modest positive association with utilization, suggesting digital platforms may serve as cues to action or normalize treatment-seeking. The positive associations for stigma and transportation barriers were less intuitive and may reflect stage-dependent stigma processes, heightened need among those facing access barriers, or the increased availability of telehealth as a workaround to transportation obstacles.

Implications

These results support the need for coordinated mental health outreach and access strategies rather than single-factor interventions. Efforts to improve formal service utilization should emphasize early identification, screening, and low-barrier diagnostic access, particularly for individuals who may remain untreated because they have not yet entered formal care pathways. Expanded telehealth and flexible service delivery models may help reduce logistical barriers, while social and digital communication strategies may help normalize help-seeking and connect individuals to professional resources. For practitioners and researchers, the findings also suggest that stigma should not always be treated as a simple pre-treatment deterrent; it may evolve across stages of service engagement and require more nuanced intervention approaches. Future research should use longitudinal designs to clarify causal ordering and examine how barriers and supports shift over time.

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