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Stigma, Theory of Planned Behavior Constructs and Professional Help-Seeking among Chinese University Students with Depressive Symptoms: The Mediating Role of Help-Seeking Intention

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Abstract

Chinese university students with depressive symptoms seldom use professional psychological services. Grounded in an extended Theory of Planned Behavior (TPB), this study examined how attitude, subjective norm, perceived behavioral control (PBC), self-stigma and public stigma relate to help-seeking intention and actual professional help-seeking, and whether intention mediates these associations. In a two-phase cross-sectional survey, 2,000 undergraduates at four comprehensive universities in Hefei, China, completed the Beck Depression Inventory-II, and 363 students scoring 14 to 28 completed the Theory of Planned Behavior Psychological Help-Seeking Questionnaire, the Stigma for Seeking Professional Psychological Help scale and an adapted Actual Help-Seeking Questionnaire covering seven formal help sources in the past month. Data were analyzed with independent-samples t-tests, multiple linear regression and bootstrap mediation (PROCESS Model 4, 5,000 resamples) in IBM SPSS Statistics 27. Eighty-five students (23.4%) reported past-month formal help-seeking. Help-seekers reported stronger intention, more favorable attitudes, stronger subjective norms, greater PBC and lower self-stigma and public stigma than non-help-seekers (all $p < .001$; $|d| = 1.07$ to 1.43). Attitude ($\beta = .358$), subjective norm ($\beta = .262$) and PBC ($\beta = .250$) predicted intention ($R^2 = .662$), whereas neither stigma dimension did. Actual help-seeking was predicted by subjective norm ($\beta = .134$) and self-stigma ($\beta = -.283$) ($R^2 = .341$). In five separate simple mediation models, intention had significant indirect effects, and all direct effects remained significant, indicating partial statistical mediation. Latent correlations among the TPB constructs and between the two stigma dimensions were high, so construct-specific estimates should be interpreted cautiously. The findings support an extended TPB in which stigma, particularly self-stigma, relates to help-seeking behavior beyond intention. Because all variables were measured at one time point, the mediation results describe statistical associations rather than causal pathways.

Keywords: Help-Seeking Behavior, Theory of Planned Behavior, Help-Seeking Intention, Self-Stigma

Introduction

Depressive symptoms are common among Chinese university students, with a pooled prevalence of 34.7% across 32 studies (Lin et al., 2025), yet few affected students use professional mental health services. In a cohort of 8,079 Chinese freshmen, only 8.93% of those with major depressive disorder sought professional help (Liu et al., 2022), and in a Wuhan community sample with depressive symptoms, 7.9% had used mental health professionals whereas 72.9% had sought informal help (Fang et al., 2019). National survey data reported by Chen and Dang (2026) are consistent, showing that only 2.8% of Chinese college students had used on-campus counseling services.

This gap persists despite substantial policy investment. The 2023–2025 national action plan for student mental health, issued by the Ministry of Education and 16 other departments, made a mental health course compulsory in general universities and required full-time mental health education teachers at a ratio of at least 1:4,000 students, with no fewer than two per institution (Ministry of Education of the People's Republic of China et al., 2023). Expanding supply, however, does not alter the psychological and social conditions on which service use depends (Lui et al., 2024; Zhao et al., 2025).

Qualitative studies show that Chinese students often rely on themselves first, turn next to peers and family, and treat professional counseling as a last resort (Ning et al., 2022, 2024), with distrust of campus counseling, stigma, low mental health literacy and access barriers recurring as obstacles (Ning et al., 2022). Distressed students at one key university described campus counseling as surveillant and lacking empathy, and declined it without having tried it (Jin & Lian, 2026). These accounts point to two sets of factors: the beliefs and social expectations that shape willingness, and the stigma attached to help-seeking.

The Theory of Planned Behavior (TPB) is the most widely applied framework for the first set (Adams et al., 2022; Ajzen, 1991). It proposes that attitude, subjective norm and perceived behavioral control (PBC) shape intention, and that intention and PBC shape behavior (Ajzen, 1991). Across 49 studies of mental health help-seeking, attitude and PBC predicted intention more consistently than subjective norm did (Adams et al., 2022), and among U.S. college students considering services for depression, attitude and PBC, but not subjective norm, predicted intention (Bohon et al., 2016). In Chinese samples, however, findings on subjective norm are mixed. Subjective norm predicted intention to seek professional help among Hong Kong Chinese adults, both directly and through attitude and PBC (Mo & Mak, 2009), and was the strongest predictor among mainland college students exposed to a natural disaster (Shi & Hall, 2021), yet a three-month follow-up of mainland students found no direct association with intention (Wang et al., 2024).

Help-seeking stigma comprises public stigma, the negative views that students believe others hold toward those who seek psychological help, and self-stigma, the internalized belief that seeking help would diminish one's own worth (Corrigan, 2004; Vogel et al., 2006). Public stigma appears to act largely through self-stigma: self-stigma fully mediated the association between public stigma and willingness to seek counseling (Vogel et al., 2007), and public stigma predicted later self-stigma but not the reverse (Vogel et al., 2013). The same sequence, from public stigma to self-stigma to attitudes and intentions, has been observed among college student-athletes (Hilliard et al., 2022). For actual behavior, the evidence points mainly

to self-stigma. Across 144 studies, stigma had a small-to-moderate negative association with help-seeking, and internalized stigma was the form most often linked to reduced help-seeking (Clement et al., 2015). In a random sample of 5,555 college students, personal stigma was negatively associated with service use, whereas perceived public stigma was not (Eisenberg et al., 2009), and self-stigma lowered undergraduates' observed decisions to seek mental health information (Lannin et al., 2016). A meta-analysis restricted to active help-seeking, however, found no significant association for either form (Schnyder et al., 2017).

Most of this research has examined intention; only eight of the 49 TPB studies reviewed by Adams et al. (2022) predicted behavior. Intention is also an imperfect guide to action. Among college students with mental health problems, pooled estimates were 41% for help-seeking intention but 28% for active help-seeking (Zhao et al., 2025), and a meta-analysis of 15 longitudinal studies estimated the intention-behavior association at about r = .27, with very high heterogeneity (Weng, Hammer, Sadek et al., 2026). The two mainland Chinese studies that examined both outcomes diverge. In 1,128 students, an integrated TPB and health services use model showed that intention, PBC, exposure to service information, self-rated mental health and perceived need predicted 12-month service use (Li et al., 2017), whereas in a three-month follow-up of 597 students, intention did not predict later help-seeking and only PBC did (Wang et al., 2024). Among German adults with untreated depressive symptoms, intention predicted professional help-seeking at three and six months (McLaren et al., 2023; Tomczyk et al., 2020), but whether intention carries the associations of attitudes, norms, perceived control and stigma with professional help-seeking has not been tested among symptomatic Chinese students.

Three gaps follow. First, the mainland evidence on whether intention translates into professional help-seeking is contradictory, and neither study focused on students with current depressive symptoms, in whom low energy, hopelessness and avoidance may weaken the link between willingness and action. Distress also appears to change which beliefs matter. Psychological distress weakened the association of injunctive and descriptive norms with intention in 2,203 Chinese students (Weng, Hammer, Kim et al., 2026), and higher depression weakened the association between mental health malleability beliefs and help-seeking self-stigma in 2,258 Chinese undergraduates (Chen & Dang, 2026). Second, few studies have modelled self-stigma and public stigma separately alongside the TPB constructs for both intention and behavior. Third, the mediating role of intention, and whether these beliefs also relate to behavior directly, has rarely been examined in this population.

The present study addressed these gaps among Chinese undergraduates with mild-to-moderate depressive symptoms, using an extended TPB that adds self-stigma and public stigma to attitude, subjective norm and PBC. It had four objectives: (a) to compare students who did and did not report past-month professional help-seeking on these constructs and on help-seeking intention; (b) to identify which constructs predicted help-seeking intention; (c) to identify which constructs predicted actual help-seeking behavior; and (d) to test whether help-seeking intention statistically mediated the association between each construct and actual help-seeking behavior. Because all measures were collected at one time point, the analyses are associational rather than temporal or causal.

Theoretical Framework and Hypotheses

The Theory of Planned Behavior

The TPB proposes that attitude, subjective norm and PBC shape intention, that intention is the most proximal determinant of behavior, and that PBC can also relate to behavior directly when perceived control reflects actual control (Ajzen, 1991). Its help-seeking adaptation, the integrated behavioral model of mental health help-seeking (IBM-HS), retains this structure: attitude, perceived norms and personal agency shape intention, and intention drives prospective behavior (Hammer et al., 2024). The IBM-HS also expects past help-seeking to feed back into later beliefs, so in cross-sectional data, past-month help-seeking may have shaped the attitudes, norms and stigma that students report, not only the reverse (Hammer et al., 2024).

The subjective norm measure used here asks what important others think the student should do, so it captures an injunctive norm. Across 99 studies, injunctive norms related more strongly to attitudes and intentions, whereas descriptive norms related more strongly to behavior (Kalny et al., 2026). Perceiving that others had positive help-seeking experiences, which is closer to a descriptive norm, was associated with stronger intention among 2,447 Chinese students (Yun et al., 2026). The present measure does not capture that pathway.

Stigma as an extension of the model

Stigma is added to the TPB because it represents social and personal costs of help-seeking that the core constructs do not capture directly (Corrigan, 2004). Public stigma reflects the perceived devaluation of help-seekers by others, and self-stigma reflects the internalization of that devaluation as a threat to one's own worth (Vogel et al., 2006). Under the internalization model, public stigma relates to help-seeking mainly through self-stigma (Vogel et al., 2007, 2013). In an extended TPB applied to Chinese students after a natural disaster, self-stigma was negatively associated with intention beyond the TPB constructs, whereas public stigma was not (Shi & Hall, 2021). Stigma may also relate to behavior directly, through avoidance and concern about being seen to use services, rather than only through reduced intention (Corrigan, 2004).

Help-seeking intention as a mediator

Because intention is the proximal antecedent of behavior in the TPB, attitude, subjective norm, PBC and stigma are expected to relate to behavior at least partly through intention (Ajzen, 1991). Mainland evidence on this pathway is mixed. Intention predicted 12-month service use in a model that integrated the TPB with the behavioral model of health services use (Li et al., 2017), but did not predict three-month help-seeking in another sample (Wang et al., 2024). Direct associations between the predictors and behavior that remain once intention is accounted for would indicate that intention carries only part of these associations.

Hypotheses

The following hypotheses were tested.

H1. Compared with non-help-seekers, students who report past-month professional help-seeking report stronger help-seeking intention, more favorable attitudes, stronger subjective norms, greater PBC, and lower self-stigma and public stigma.

H2. Attitude, subjective norm and PBC are positively associated, and self-stigma and public stigma negatively associated, with help-seeking intention.

H3. Attitude, subjective norm and PBC are positively associated, and self-stigma and public stigma negatively associated, with actual help-seeking behavior.
H4. Help-seeking intention mediates the associations of attitude, subjective norm, PBC, self-stigma and public stigma with actual help-seeking behavior.

Because all variables were measured at one time point, H4 was tested as statistical mediation consistent with the ordering specified by the TPB, not as evidence of temporal or causal sequence.

Methodology

Design and setting

This was a two-phase cross-sectional correlational survey of full-time undergraduates at four comprehensive universities in Hefei, Anhui Province, China. Phase One screened students for depressive symptoms, and Phase Two administered the main questionnaire to students who scored in the prespecified range. All Phase Two measures, including past-month help-seeking, were completed in the same session, so no temporal order among study variables was assumed. The study is reported in accordance with the STROBE guideline for cross-sectional studies (von Elm et al., 2007).

Participants and sampling

The four universities were located in different administrative districts of Hefei. Eligible institutions offered full-time undergraduate education across a broad range of disciplines and provided routine student counseling and referral services; where a district contained more than one eligible university, one was selected by computer-generated random numbers. The sampling frame comprised the enrollment records of 88,903 full-time undergraduates at the four universities. Phase One invitations (n = 2,000) were allocated in proportion to each university's enrollment (349, 729, 569 and 353 students), with secondary stratification by sex and year of study where roster data allowed. Students were selected by computer-generated random sampling within strata, and nonrespondents were replaced from a pre-randomized reserve list within the same stratum. Invitations were distributed through official university channels and contained study information, electronic consent and a single-use anonymous link.

Students completed the BDI-II at Phase One. Those scoring 14 to 28, which indicates mild to moderate symptoms, were routed to Phase Two (Beck et al., 1996). Those scoring below 14 answered brief demographic items and exited, and students who indicated acute risk were shown crisis and referral information, including campus counseling contacts. Inclusion criteria were full-time undergraduate enrollment, age 18 years or older, the ability to complete a Chinese-language questionnaire, informed consent and a BDI-II score of 14 to 28. The Phase Two dataset contained 388 rows; 25 blank non-record rows were removed, leaving 363 complete responses for analysis.

The planned analytic sample was 350 to 400 Phase Two completers. This target was based on the reference sample of 382 for estimating proportions in large populations (Krejcie & Morgan, 1970) and on adequate power for multiple regression with six to eight predictors at $f^2 = 0.05$ to 0.08 and $\alpha = .05$ (Cohen, 1988). The Phase One size of 2,000 was obtained by

dividing this target by the expected screening-positive, response and Phase Two completion rates.

Measures

Depressive symptoms (screening)

The Chinese version of the 21-item BDI-II was used to identify eligible students (Beck et al., 1996; Wang et al., 2011). Items are scored from 0 to 3 for the past two weeks, giving totals of 0 to 63; scores of 14 to 19 indicate mild and 20 to 28 moderate symptoms. Internal consistency was α = .94 in Chinese patients with depression and α = .89 in a large adolescent sample (Wang et al., 2011; Yang et al., 2014). A cut-off of 14 or above showed high sensitivity for any depressive disorder in Chinese adolescents (Yang & Xiong, 2016), and the BDI-II has shown strong measurement invariance across Chinese-heritage and European-heritage undergraduates (Dere et al., 2015). The BDI-II served only to define the analytic sample.

Actual help-seeking behavior (outcome)

Past-month help-seeking was measured with a Chinese adaptation of the Actual Help-Seeking Questionnaire (AHSQ; Rickwood & Braithwaite, 1994; Wilson et al., 2005). Students rated how often in the past month they had sought advice or help because of depressive symptoms from each of 11 sources, from 1 (never) to 5 (always), and items were recoded to 0 (never) to 4 (always). In line with the study's definition of professional help-seeking, the outcome summed seven formal or professional sources: psychologists, psychiatrists, other mental health professionals such as counselors or social workers, general practitioners, teachers, telephone helplines and the internet (range 0 to 28). The informal sources (partner, parents or family, and friends) and the residual "other" category were retained to preserve the AHSQ structure but were not scored. A score of 0 classified a student as a non-help-seeker, and a score above 0 as a help-seeker, for the group comparisons. Because the items represent distinct sources, the score was treated as a behavioral index rather than a reflective scale.

TPB constructs and intention

The simplified Chinese Theory of Planned Behavior Psychological Help-Seeking Questionnaire (TPB-PHSQ) has 14 items rated on six-point scales (Mo & Mak, 2009; Pan & Hao, 2022). Attitude has five semantic-differential items (range 5 to 30). Subjective norm, PBC and intention each have three items rated from 1 (strongly disagree) to 6 (strongly agree) (range 3 to 18). Higher scores indicate a more favorable attitude, stronger perceived approval from important others, greater perceived control and stronger intention. A four-factor structure with acceptable fit has been reported in a Chinese sample (CFI = .958, RMSEA = .063) (Pan & Hao, 2022).

Help-seeking stigma

The Stigma for Seeking Professional Psychological Help questionnaire (SSPPH) was developed for Chinese university students from the Stigma Scale for Receiving Psychological Help and the Self-Stigma of Seeking Help scale, with supplementary items (Hao & Liang, 2011). It has five self-stigma and five public-stigma items rated from 1 (strongly disagree) to 5 (strongly agree). Each subscale ranges from 5 to 25, and higher scores indicate greater stigma.

Pilot study

A pilot study assessed wording, cultural suitability, online administration and preliminary reliability. Of 180 invited undergraduates, 112 completed the BDI-II screener (62.2%), 35 screened positive (31.3%) and 32 completed the full battery; after two records were removed for speeding and patterned responding, 30 screen-positive completers were analyzed. Cronbach's α was .89 for attitude, .87 for subjective norm, .90 for PBC, .88 for intention, .90 for self-stigma, .88 for public stigma and .86 for the seven AHSQ items. Minor wording and formatting changes followed, and pilot participants were excluded from the main sample.

Procedure and data quality

The questionnaire was administered on the QuestionnaireStar (Wenjuanxing) platform, and the link was distributed through official university channels and campus WeChat groups. Participants were informed of the study purpose, voluntary participation, anonymity and their right to withdraw before responding, and reminders were sent during data collection. Each token permitted one submission, and the platform recorded completion time. Responses were screened for implausibly fast completion and invariant responding before analysis (Ward & Meade, 2023). All Phase Two fields were required, so retained records had no missing data.

Statistical analysis

Data screening, descriptive statistics, correlation, t-test and regression analyses were conducted in IBM SPSS Statistics, version 27 (IBM Corp., 2020), and mediation was tested with the PROCESS macro (Hayes, 2022). Univariate outliers were screened with standardized scores ($|z| > 3$) and influential cases with Cook's distance, and distributions were examined through skewness and kurtosis. Common method variance was assessed with Harman's single-factor test (Podsakoff et al., 2003).

A seven-factor confirmatory factor analysis (CFA) tested the measurement model for actual help-seeking, intention, attitude, subjective norm, PBC, self-stigma and public stigma. Fit was evaluated with χ^2/df, the comparative fit index (CFI), the Tucker–Lewis index (TLI), the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI) and the root mean square error of approximation (RMSEA). Convergent validity was assessed with standardized loadings, composite reliability (CR) and average variance extracted (AVE), and discriminant validity with the Fornell–Larcker criterion (Fornell & Larcker, 1981).

Pearson correlations described bivariate associations. Help-seekers and non-help-seekers were compared with independent-samples t-tests; Levene's test determined whether the pooled or the Welch statistic was reported, and Cohen's d was computed from the group means and pooled standard deviations (Cohen, 1988).

Two multiple linear regressions, with all five predictors entered simultaneously, examined help-seeking intention and actual help-seeking behavior as outcomes. Residual normality, linearity and homoscedasticity were checked with residual plots, and multicollinearity with tolerance (> .20) and variance inflation factors (VIF < 5).

Mediation was tested with PROCESS Model 4 in five separate simple mediation models, each with one predictor, help-seeking intention as the mediator and actual help-seeking behavior

as the outcome. Indirect effects were estimated with 5,000 bootstrap resamples and were considered significant when the 95% bootstrap confidence interval excluded zero. Mediation was classified as partial when the direct effect remained significant and as full when it did not. Because each model contained a single predictor, the indirect effects are not adjusted for the other predictors. All tests were two-sided, with $\alpha = .05$.

Ethics

The study was approved by the Medical Research Ethics Committee of the First Affiliated Hospital of the University of Science and Technology of China (Anhui Provincial Hospital). Participants gave electronic informed consent before starting the questionnaire. Participation was voluntary and anonymous, and students could stop at any point before submission. The study followed the Declaration of Helsinki.

Results

Sample characteristics and help-seeking

Table 1

Sample characteristics (N = 363).

Characteristic	Category	n (%) or M (SD)
Gender	Male	202 (55.6)
	Female	161 (44.4)
Age (years)	18–20	152 (41.9)
	21–23	145 (39.9)
	24–28	66 (18.2)
	M (SD)	21.47 (2.68)
Year of study	Year 1	86 (23.7)
	Year 2	80 (22.0)
	Year 3	114 (31.4)
	Year 4	83 (22.9)
Past-month formal help-seeking	Yes	85 (23.4)
	No	278 (76.6)

Note. Formal help-seeking = any reported help-seeking (score > 0) from at least one of seven formal or professional sources on the adapted Actual Help-Seeking Questionnaire.

Table 1 summarizes the characteristics of the analytic sample, which comprised 363 Phase Two respondents with BDI-II scores between 14 and 28. Of these, 202 (55.6%) were male and 161 (44.4%) female; ages ranged from 18 to 28 years (M = 21.47, SD = 2.68), and all four years of study were represented.

In total, 85 students (23.4%) reported seeking help from at least one of the seven formal sources in the past month, and 278 (76.6%) reported none. Actual help-seeking scores were therefore concentrated at zero (M = 3.01, SD = 5.99; skewness = 1.79, kurtosis = 1.80).

Preliminary analyses

No item-level data were missing. No case exceeded $|z| = 3$ on any study variable, and all Cook's distances were well below 1.00, so no case was removed. Residual plots supported normality, linearity and homoscedasticity for the intention model; the residuals of the behavior model were somewhat positively skewed but showed no marked curvilinearity. Tolerance values ranged from .341 to .445 and VIFs from 2.245 to 2.933. In Harman's test, the first unrotated factor explained 36.03% of the variance, below the 50% criterion. Intention,

attitude, subjective norm, PBC and both stigma scores were approximately normally distributed, whereas actual help-seeking was positively skewed.

Measurement model

Table 2

Descriptive statistics and measurement properties of the study variables (N = 363).

Variable	Items	Range	M (SD)	Loadings	CR	AVE
Actual help-seeking	7	0–28	3.01 (5.99)	.803–.832	.934	.668
Help-seeking intention	3	3–18	10.66 (3.34)	.687–.690	.731	.477
Attitude	5	5–30	17.67 (4.66)	.608–.682	.777	.411
Subjective norm	3	3–18	10.62 (2.95)	.617–.635	.664	.398
Perceived behavioral control	3	3–18	10.73 (3.12)	.655–.664	.696	.433
Self-stigma	5	5–25	14.69 (4.88)	.651–.733	.818	.474
Public stigma	5	5–25	12.30 (3.96)	.594–.673	.777	.411

Note. Loadings = range of standardized loadings in the seven-factor confirmatory factor analysis; CR = composite reliability; AVE = average variance extracted. Actual help-seeking = sum of seven recoded formal-source items of the adapted Actual Help-Seeking Questionnaire.

Table 2 presents the descriptive statistics and measurement properties of the study variables. The seven-factor model fitted the data well, $\chi^2(413) = 509.65$, $p = .001$, $\chi^2/df = 1.23$, CFI = .982, TLI = .980, GFI = .913, AGFI = .902, RMSEA = .025. All standardized loadings were significant and exceeded .50 (range .594 to .832), so no item was removed. CR ranged from .664 to .934, with subjective norm (.664) and PBC (.696) slightly below .70. AVE ranged from .398 to .668, and only actual help-seeking reached .50, so convergent validity was partly supported.

Discriminant validity was supported for actual help-seeking but not among intention, attitude, subjective norm and PBC, whose latent correlations (.932 to .989) exceeded the square roots of their AVEs, or between self-stigma and public stigma (latent r = .996). The constructs were retained because they are theoretically distinct and composite-score collinearity was acceptable, but construct-specific estimates are interpreted with caution.

Bivariate associations

Table 3

Pearson correlations among the study variables.

Variable	1	2	3	4	5	6	7
1. Actual help-seeking	—						
2. Help-seeking intention	.415**	—					
3. Attitude	.428**	.753**	—				
4. Subjective norm	.439**	.707**	.712**	—			
5. PBC	.433**	.702**	.711**	.634**	—		
6. Self-stigma	−.519**	−.463**	−.446**	−.456**	−.459**	—	
7. Public stigma	−.478**	−.434**	−.428**	−.435**	−.443**	.800**	—

Note. N = 363. PBC = perceived behavioral control. Coefficients are based on observed scale scores. **p < .01.

Table 3 presents the correlations among the study variables. Actual help-seeking correlated positively with intention (r = .415), attitude (r = .428), subjective norm (r = .439) and PBC (r = .433), and negatively with self-stigma (r = −.519) and public stigma (r = −.478), all p < .01. Intention correlated strongly with attitude (r = .753), subjective norm (r = .707) and PBC (r = .702), and negatively with self-stigma (r = −.463) and public stigma (r = −.434). The two stigma dimensions were strongly correlated (r = .800).

Differences between help-seekers and non-help-seekers

Table 4

Help-seeking intention, TPB constructs and stigma by past-month formal help-seeking.

Variable	Help-seekers (n = 85) M (SD)	Non-help-seekers (n = 278) M (SD)	t	df	p	d
Help-seeking intention	13.16 (2.82)	9.89 (3.11)	8.68	361	< .001	1.07
Attitude	21.33 (3.87)	16.55 (4.30)	9.18	361	< .001	1.14
Subjective norm	12.96 (2.18)	9.91 (2.78)	10.53	174.83	< .001	1.15
PBC	13.08 (2.44)	10.01 (2.95)	9.66	165.74	< .001	1.08
Self-stigma	10.12 (3.59)	16.09 (4.34)	−12.75	165.95	< .001	−1.43
Public stigma	8.91 (2.76)	13.34 (3.68)	−11.92	184.02	< .001	−1.27

Note. Help-seekers reported help-seeking from at least one of seven formal sources in the past month. Pooled-variance t-tests are reported for intention and attitude, and Welch t-tests where Levene's test indicated unequal variances. d = Cohen's d based on the pooled standard deviation; positive values indicate higher scores among help-seekers. PBC = perceived behavioral control.

As shown in Table 4, help-seekers (n = 85) differed from non-help-seekers (n = 278) on all six variables. They reported stronger intention, t(361) = 8.68, more favorable attitudes, t(361) = 9.18, stronger subjective norms, t(174.83) = 10.53, and greater PBC, t(165.74) = 9.66, as well as lower self-stigma, t(165.95) = −12.75, and lower public stigma, t(184.02) = −11.92, all p < .001. The differences were large (|d| = 1.07 to 1.43), with the largest for self-stigma. H1 was supported.

Predictors of help-seeking intention

Table 5

Multiple linear regression of help-seeking intention on the TPB constructs and stigma.

Predictor	B	SE	β	t	p
Constant	0.802	0.778	—	1.030	.304
Attitude	0.256	0.036	.358	7.151	< .001
Subjective norm	0.297	0.052	.262	5.689	< .001
PBC	0.267	0.049	.250	5.408	< .001
Self-stigma	−0.046	0.036	−.067	−1.278	.201
Public stigma	−0.001	0.044	−.002	−0.031	.976

Note. N = 363. All predictors were entered simultaneously. B = unstandardized coefficient; β = standardized coefficient; PBC = perceived behavioral control. R^2 = .662, adjusted R^2 = .657, F(5, 357) = 139.81, p < .001.

Table 5 presents the regression of help-seeking intention on the five predictors. The model was significant, F(5, 357) = 139.81, p < .001, and explained 66.2% of the variance (R^2 = .662; adjusted R^2 = .657). Attitude (β = .358, p < .001), subjective norm (β = .262, p < .001) and PBC (β = .250, p < .001) were positive predictors, whereas self-stigma (β = −.067, p = .201) and public stigma (β = −.002, p = .976) were not. H2 was therefore partly supported.

Predictors of actual help-seeking behavior

Table 6

Multiple linear regression of actual help-seeking behavior on the TPB constructs and stigma

Predictor	B	SE	β	t	p
Constant	3.127	1.949	—	1.604	.110
Attitude	0.102	0.090	.080	1.139	.256
Subjective norm	0.272	0.131	.134	2.081	.038
PBC	0.217	0.124	.113	1.755	.080
Self-stigma	−0.347	0.090	−.283	−3.844	< .001
Public stigma	−0.166	0.110	−.110	−1.512	.131

Note. N = 363. All predictors were entered simultaneously. Actual help-seeking = sum of seven recoded formal-source items (range 0 to 28). B = unstandardized coefficient; β = standardized coefficient; PBC = perceived behavioral control. R^2 = .341, adjusted R^2 = .332, F(5, 357) = 36.96, p < .001.

Table 6 presents the corresponding model for actual help-seeking behavior. The model was significant, F(5, 357) = 36.96, p < .001, and explained 34.1% of the variance (R^2 = .341; adjusted R^2 = .332). Subjective norm was a positive predictor (β = .134, p = .038) and self-stigma a negative predictor (β = −.283, p < .001), whereas attitude (β = .080, p = .256), PBC (β = .113, p = .080) and public stigma (β = −.110, p = .131) were not. H3 was therefore partly supported.

Mediation by help-seeking intention

Table 7

Total, direct and indirect effects on actual help-seeking behavior through help-seeking intention

Predictor	Total	95% CI	Direct	95% CI	Indirect	Boot SE	95% boot CI	PM
Attitude	0.55	[0.43, 0.67]	0.34	[0.16, 0.52]	0.21	0.07	[0.08, 0.34]	.38
Subjective norm	0.89	[0.70, 1.08]	0.59	[0.33, 0.86]	0.30	0.09	[0.12, 0.49]	.34
PBC	0.83	[0.65, 1.01]	0.54	[0.29, 0.78]	0.30	0.09	[0.11, 0.48]	.35
Self-stigma	−0.64	[−0.75, −0.53]	−0.51	[−0.63, −0.39]	−0.13	0.03	[−0.19, −0.07]	.20
Public stigma	−0.72	[−0.86, −0.59]	−0.56	[−0.70, −0.41]	−0.17	0.04	[−0.25, −0.10]	.23

Note. N = 363. Five separate simple mediation models (PROCESS Model 4), each with one predictor, help-seeking intention as the mediator and actual help-seeking behavior as the outcome. Effects are unstandardized. Indirect effects were estimated with 5,000 bootstrap resamples. Total = total effect; Direct = direct effect; Indirect = indirect effect through help-seeking intention; PM = proportion mediated (indirect effect divided by total effect). PBC = perceived behavioral control.

Table 7 summarizes the total, direct and indirect effects from the five separate mediation models. In the attitude model, attitude predicted intention (B = 0.54, SE = 0.02, 95% CI [0.49, 0.59], R^2 = .57), and intention predicted actual help-seeking with attitude controlled (B = 0.38, SE = 0.13, 95% CI [0.13, 0.64]; R^2 = .20 for the outcome model). Across the five separate models, the indirect effect through intention was significant for every predictor, because no bootstrap interval included zero. The indirect effects were positive for attitude (0.21), subjective norm (0.30) and PBC (0.30), and negative for self-stigma (−0.13) and public stigma (−0.17). All direct effects remained significant after intention was included, so mediation was partial in every model. Intention accounted for about a third of the total effect for the TPB constructs (34% to 38%) and about a fifth for the stigma dimensions (20% to 23%). H4 was supported in the form of partial statistical mediation, with the caveat that each indirect effect is unadjusted for the other predictors.

Discussion

Among Chinese undergraduates with mild to moderate depressive symptoms, students who reported past-month professional help-seeking had a more favorable profile than those who did not on every construct examined. Attitude, subjective norm and PBC predicted help-seeking intention, whereas actual help-seeking was predicted by subjective norm and, negatively, by self-stigma. In separate models, intention carried part, but not all, of the association between each construct and actual help-seeking. H1 was supported, H2 and H3 were partly supported, and H4 was supported in the form of partial statistical mediation. Because past-month help-seeking was reported at the same time as current beliefs, each association discussed below may run in either direction.

Differences between help-seekers and non-help-seekers

The group differences were large, and the largest were for self-stigma (|d| = 1.43) and public stigma (|d| = 1.27). This pattern fits the view that professional help-seeking is linked to attitudes, perceived social approval, perceived capacity and stigma together rather than to any single factor (Ajzen, 1991; Corrigan, 2004). It also matches qualitative accounts in which distrust of campus counseling, stigma and low mental health literacy recur as obstacles for Chinese students (Jin & Lian, 2026; Ning et al., 2022).

The size of these differences should not be read as the effect of beliefs on behavior. The IBM-HS expects past help-seeking to feed back into later beliefs (Hammer et al., 2024), and earlier help-seeking was among the strongest predictors of later help-seeking in a three-year prospective community study (Doll et al., 2021). Students who had already contacted a professional may have revised their attitudes and stigma as a result, which would enlarge the group differences without any change in the beliefs that preceded contact.

Predictors of help-seeking intention

The TPB constructs explained 66.2% of the variance in intention, more than the 49.9% reported for psychological help-seeking among Chinese college students in a comparable TPB model (Wang et al., 2024). Part of this difference probably reflects overlap among the measures. Latent correlations of .932 to .989 between intention and the three TPB constructs indicate that these scales shared most of their variance in this sample, which inflates explained variance and makes the separate coefficients unstable. The ranking of predictors, with attitude ahead of subjective norm and PBC, should therefore be treated as tentative.

With that caveat, the pattern agrees with evidence that attitude and PBC predict help-seeking intention more consistently than subjective norm (Adams et al., 2022; Bohon et al., 2016), and attitude was also the strongest predictor in a modified TPB model among Chinese college students (Pan & Hao, 2023). Subjective norm nonetheless contributed independently, as it did among Hong Kong Chinese adults and among mainland students exposed to a natural disaster (Mo & Mak, 2009; Shi & Hall, 2021), but not in a three-month follow-up of mainland students (Wang et al., 2024). Distress may also change which beliefs matter: in Chinese students, distress weakened the association between norms and intention (Weng, Hammer, Kim et al., 2026), so estimates from a sample restricted to BDI-II scores of 14 to 28 may not generalize to students without symptoms.

Neither stigma dimension predicted intention once the TPB constructs were controlled, although both correlated negatively with it. In the extended TPB tested by Shi and Hall (2021), by contrast, self-stigma retained an independent association with intention. One explanation is shared variance: students with high stigma also held less favorable attitudes and perceived less approval, so stigma may relate to intention through these more proximal beliefs rather than adding unique variance (Vogel et al., 2007). The near-unity latent correlation between self-stigma and public stigma (.996) also means that the two subscales could not be separated empirically in this sample.

Predictors of actual help-seeking behavior

Actual help-seeking was predicted by a narrower set of constructs than intention. Subjective norm was positively associated with help-seeking after adjustment. The items measure an injunctive norm, which is more closely tied to intention than to behavior (Kalny et al., 2026), so a unique association with behavior is not what theory predicts. Social influence may nonetheless operate at the point of action. Among mainland Chinese students, social-cognitive variables were associated with actual service use as well as with intention (Li et al., 2017), and perceived social support was associated with a stronger propensity to seek professional help and with lower help-seeking stigma (Yang et al., 2024). Concern about how help-seeking reflects on one's family may add weight to others' views: across college student samples that included Hong Kong, family face concern was associated with lower intention to seek therapist-guided help through greater perceived stigma toward the family and less favorable attitudes (Yu et al., 2026). Qualitative evidence suggests a further route: Chinese students commonly move from self-reliance to informal support before they consider professional help (Ning et al., 2022, 2024), and approval from the people consulted along the way may reduce the social uncertainty surrounding a first contact. Perceiving that others had positive help-seeking experiences was also associated with stronger intention among Chinese students, which points to a descriptive route that the present measure did not capture (Yun et al., 2026).

Self-stigma was the strongest unique predictor of actual help-seeking and was negatively associated with it, whereas public stigma was not. This pattern mirrors findings among 5,555 college students, in whom personal stigma was associated with lower service use but perceived public stigma was not (Eisenberg et al., 2009), and fits review evidence that internalized stigma is the form most often linked to reduced help-seeking (Clement et al., 2015). Self-stigma has also reduced undergraduates' observed decisions to seek mental

health information (Lannin et al., 2016), consistent with accounts in which internalized stigma leads people to avoid services in order to protect their self-regard (Corrigan, 2004; Vogel et al., 2006). The finding departs from a meta-analysis that found no significant association between self-stigma and active help-seeking (Schnyder et al., 2017). Two features of the present design may contribute: the outcome summed frequencies across seven sources, including teachers, helplines and the internet, rather than recording attended appointments, and students who had already sought help may have reported lower stigma as a consequence. The absence of a unique public-stigma effect is consistent with the internalization model (Vogel et al., 2007, 2013), although the overlap between the two subscales limits this interpretation.

Attitude and PBC predicted intention but not behavior. A favorable view of counseling, or a sense that it is accessible, may not be enough to prompt use when self-stigma or concern about others' reactions remains (Ajzen, 1991). Among mainland students followed for three months, by contrast, only PBC predicted later help-seeking (Wang et al., 2024), so the null association for PBC here may reflect its overlap with subjective norm and intention rather than its irrelevance.

The mediating role of help-seeking intention

Intention carried part of the association between every construct and actual help-seeking, in line with its role as the proximal antecedent of behavior in the TPB (Ajzen, 1991). Lannin et al. (2016) reported a comparable pattern, in which attitudes toward counseling carried part of the effect of self-stigma on behavioral decisions. The direct effects, however, remained significant in all five models, and intention accounted for only about a fifth of the total effect for self-stigma and public stigma. The constructs, and stigma in particular, were therefore associated with behavior beyond what intention conveyed, which supports an extended TPB in which stigma operates both through and alongside intention.

Three features of the analysis qualify this conclusion. First, each mediation model contained one predictor. The stigma dimensions showed significant indirect effects through intention in the simple models, yet neither predicted intention uniquely in the multiple regression, so these indirect effects largely reflect variance that stigma shares with the TPB constructs. Second, intention was measured as a current plan, whereas help-seeking was reported for the previous month, so the models do not test the prospective claim of the TPB. Even when measured prospectively, intentions are translated into action imperfectly (Sheeran & Webb, 2016). Across longitudinal studies, the intention-behavior correlation averages about .27 (Weng, Hammer, Sadek et al., 2026), and mainland findings diverge: intention predicted 12-month service use in one sample but not three-month help-seeking in another (Li et al., 2017; Wang et al., 2024). In adults with untreated depressive symptoms who were followed prospectively, intention did predict professional help-seeking (McLaren et al., 2023; Tomczyk et al., 2020). Third, past behavior was not measured. In a three-year prospective community study, earlier help-seeking was the second-strongest predictor of later help-seeking (Doll et al., 2021), and including past behavior attenuates intention effects in reasoned-action models (Hagger et al., 2018). A prospective design that measures beliefs before help-seeking and records prior contact is needed to test whether intention transmits these associations over time.

Implications

Cross-sectional associations cannot show that changing a belief will change behavior, but they suggest hypotheses for intervention studies. The consistent role of subjective norm suggests testing programs that involve peers, family or teachers in encouraging professional help-seeking, with actual uptake rather than stated willingness as the outcome. The association of self-stigma with behavior beyond intention suggests that stigma reduction should target internalized stigma directly. Anti-stigma interventions improve stigma-related outcomes in young people, but their short-term effects on help-seeking intention are small and their effects on service use are less certain (Crockett et al., 2025; Gaiha et al., 2021), so trials should measure uptake. University counseling services could also make first contact easier to arrange and explain confidentiality before booking, which addresses the perceived surveillance that students describe (Jin & Lian, 2026). The question is timely because campus counseling capacity has expanded under the 2023 to 2025 action plan (Ministry of Education of the People's Republic of China et al., 2023).

Limitations

Several limitations concern the design and measures. Beliefs, stigma and intention were measured at the same time as past-month help-seeking was recalled, so the design cannot establish temporal order, and the mediation results describe statistical associations rather than causal pathways. Lifetime or earlier help-seeking was not recorded, although it predicts both later help-seeking and current beliefs (Doll et al., 2021), and help-seeking was self-reported rather than verified against service records. Construct validity is a further concern. Discriminant validity was not supported among intention, attitude, subjective norm and PBC, or between self-stigma and public stigma, and AVE fell below .50 for six of the seven constructs. Although composite-score collinearity diagnostics were acceptable, the high latent correlations indicate substantial shared variance, so construct-specific coefficients should be interpreted cautiously. Only injunctive norms were measured, so descriptive norms, which relate more closely to behavior, could not be examined (Kalny et al., 2026), and the behavioral index combined mental health professionals with teachers, helplines and the internet, which broadens the outcome beyond professional contact.

Other limitations concern the analysis and generalizability. The mediation models were estimated separately, so the indirect effects are not unique to each predictor. The outcome was bounded at 0 to 28, and 76.6% of students scored zero, so the linear regression coefficients are approximations; two-part or hurdle models designed for zero-inflated outcomes would provide a stronger test. University was not modelled, so clustering within universities was not accounted for. Finally, the sample came from four comprehensive universities in one city and was restricted to students with mild-to-moderate symptoms, so the findings may not apply to other regions, other institution types or students with severe symptoms, and students who did not respond to the screening invitation may differ in help-seeking from those who did.

Conclusion

Among Chinese undergraduates with mild to moderate depressive symptoms, attitude, subjective norm and perceived behavioral control were associated with help-seeking intention, whereas actual professional help-seeking was associated with subjective norm and, negatively, with self-stigma. Help-seeking intention carried part of the association between

each construct and behavior, but direct associations remained in every model, indicating that intention is an important but not exclusive link between beliefs and help-seeking. These findings support extending the TPB with stigma, particularly self-stigma, when explaining professional help-seeking in this population. For university counseling services, the practical implication is to pair efforts to build supportive norms and reduce self-stigma with evaluation based on measured uptake rather than stated willingness. Prospective studies that measure beliefs before help-seeking, record prior contact and verify service use are needed to establish whether these associations reflect causal pathways.

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Conflict of interest
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Ethics statement
The study was approved by the Medical Research Ethics Committee of the First Affiliated Hospital of the University of Science and Technology of China (Anhui Provincial Hospital). All participants provided electronic informed consent, and the study followed the Declaration of Helsinki. Students who screened above the enrollment range were shown crisis and referral information.

Data availability
De-identified data are available from the corresponding author on reasonable request, subject to ethics committee approval, because the dataset contains sensitive mental health screening information.

Author contributions
Liu Long: Conceptualization, Methodology, Investigation, Data curation, Formal analysis, Writing (original draft). Nor Shafrin Ahmad: Supervision, Methodology, Writing (review and editing).

AI-assisted editing
Generative AI tools (Claude by Anthropic, model Opus 5.5) were used for literature searching, reference verification, language refinement and structural editing under the authors' supervision. The authors reviewed every source and revision, conducted the data collection and analysis, and accept responsibility for the final manuscript.

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