The knowledge, attitude, and intention to use internet-based mental health services: A serial mediation model

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ABSTRACT

Objective: Internet-based mental health services (i-MHS) have been widely provided to the public during the pandemic. However, people's engagement with i-MHS remains unclear. This study aimed to examine the Chinese population's knowledge, attitudes, and use intentions regarding i-MHS and determine their relations by serial mediation models.

Methods: The public's knowledge, attitudes, intention to use i-MHS and psychological impact of the pandemic were assessed. An online survey was administered to respondents from mainland China ($N = 2543$).

Results: Of the participants, 53.9 % exhibited some familiarity with i-MHS, while 62.4 % perceived these services as somewhat or very helpful, and 53.2 % were willing or very willing to use them. Serial mediation analyses indicated that the psychological impact of the pandemic indirectly related to the intention to use i-MHS. Knowledge and attitudes toward i-MHS sequentially mediated this relation [$\chi^2(61) = 179.359$, $P < .001$; $\chi^2/df = 2.940$; CFI = 0.996; RMSEA = 0.028].

Conclusions: This study underscores the critical role of knowledge in shaping positive attitudes and intentions to use i-MHS, emphasizing the need for robust mental healthcare promotion strategies to raise knowledge and maximize the benefits of i-MHS.

1. Introduction

Although mental disorders have emerged as a prominent contributor to the global burden of disease, a substantial mental health treatment gap persists, with 32.2 % to 78.1 % of individuals in need of mental health services lacking access to care (Kohn et al., 2004; Saxena et al., 2007; Walker et al., 2015). In a prior study of 63,004 Chinese adults, 24 % with diagnosable mental illness experienced moderate to severe disability, while only 8 % sought professional help, and 5 % consulted a mental health professional (Phillips et al., 2009). In recent years, the rapid dissemination of technology and the popularization of the Internet has driven the rapid growth and widespread adoption of internet-based mental health services (i-MHS). I-MHS encompass various online platforms and resources aimed at providing mental health support, such as helplines, online counseling services, self-help interventions, psychological education, and the dissemination of relevant government or committee documents. For instance, an Australian study found that online services promoted help-seeking behavior and facilitated early mental health intervention among youth (Collin et al., 2011). This trend

has been further accentuated by a heightened focus on various forms of internet mental health support, particularly during the COVID-19 pandemic (Liu et al., 2020).

Internet-based mental health services offer distinct advantages such as improved accessibility, confidentiality, cost-effectiveness, and comparable efficacy to traditional services (Price et al., 2014; Krausz et al., 2019). Notably, the availability of i-MHS has expanded considerably during the pandemic, reflecting their transformative potential in addressing the evolving challenges of providing mental health support. Nevertheless, the extent to which the general population appropriately engages with i-MHS lacks empirical exploration. Some individuals may be unaware of the availability of i-MHS or may still hold stigmatizing beliefs about seeking help for mental health issues. This underutilization could potentially have far-reaching implications, impacting resource efficiency and potentially exacerbating the burden of mental disorders (Hendriks et al., 2015; Wells et al., 1989; Herrman, 2001).

Moreover, the mechanisms underlying the decision-making process regarding i-MHS engagement remain unclear (Chuenphitthayavut et al., 2020). The Uses and Gratifications Theory (UGT) suggests that

individuals purposefully choose information to fulfill their unique needs (Ruggiero, 2000). It has been previously applied to study users' willingness to consult chatbots for health education (Hsu et al., 2019) and students' perceived e-learning experiences (Mondi et al., 2007). In our study, we assume that within the UGT framework, individuals facing psychological challenges tend to seek specific mental health information tailored to their circumstances. Complementing UGT, the Knowledge-Attitude-Behavior (KAB) model, an influential health education theory, contends that knowledge and attitudes are pivotal in shaping behavioral change (Kemm, 1995). Hence, the intricate interplay between individuals' psychological condition, knowledge, attitudes, and utilization of i-MHS is underscored. However, a comprehensive model that takes all of these factors into account has not been examined.

In the current study, we aimed to assess the public's knowledge, attitudes, and intentions toward i-MHS use, focusing on engaging with five types of i-MHS. We conducted serial mediation analyses using a structural equation model (SEM) to examine the underlying mechanisms. Based on the UGT and the KAB model, the specific research objectives were to (a) examine the positive association between psychological impact and i-MHS use intention and (b) examine the sequential mediation of knowledge and attitudes on the relationship between psychological impact and intention to use i-MHS (see Fig. 1).

2. Material and methods

2.1. Participants

The present study was conducted from February 7, 2020, to March 12, 2020, via the Chinese online questionnaire platform, Survey Star ("Wen Juan Xing", www.wjx.cn). A snowball strategy was used in distribution of the questionnaire, and a recruitment poster was published and shared through leading Chinese social platforms. A total of 2543 adult residents in mainland China who completed the survey over 280 s and passed three attention-test items were included in the data analysis. Informed consent was given online and participants who completed the survey were paid 6 RMB (approximately US$0.85) The study was approved by the Ethics Committee of the School of Psychological and Cognitive Sciences, Peking University (#2020-11-06).

2.2. Measures

Participants' demographic information, knowledge, attitudes, and intention to use 18 types of i-MHS were assessed. The 18 i-MHS services were grouped into five categories: mental health helpline, online individual counseling service, online mental health intervention, online psychological education, and official released papers and documents (see Table A.1 for details).

2.2.1. The psychological impact of COVID-19

A self-rated single-item question measured perceived psychological impact ("How do you think COVID-19 has affected your mental health?"). A Likert scale with 11 response options was used from 0 = no impact at all to 10 = seriously affected, with higher scores indicating higher levels of psychological impact. The single-item measure of self-rated health has been widely used in public health research (Main et al., 2011).

2.2.2. Knowledge of i-MHS

A measure to assess knowledge of i-MHS was developed. Participants were asked: "How much do you know about [a specific type of assistance]?" for each method. A Likert scale with six response options was used: 1 = Never heard of it, 2 = I probably heard about it, 3 = I heard about it, but am not familiar with it, 4 = I have some understanding but have never used it, 5 = I have used it, but do not think I know it well, and 6 = I have used it, and I think I have a good understanding of it, with higher scores indicating better knowledge of specific types of i-MHS. Scores ranged from 18 to 108. Cronbach's α for the 18 questions in the current sample was 0.958.

2.2.3. Attitudes toward i-MHS

A measure to assess the attitudes toward i-MHS was developed. Participants were required to answer: "In the case of this outbreak, to what extent do you think the [a specific type of assistance] would help people with mental problems?". A Likert scale with five response options was used: 1 = useless, 2 = probably not helpful, 3 = not sure, 4 = somewhat helpful, 5 = very helpful, with higher scores indicating more positive attitudes toward i-MHS. The score ranged from 18 to 90. Cronbach's α for this measure in the current sample was 0.946.

2.2.4. Intention to use i-MHS

Since data collection was conducted at the early stage of the pandemic, we developed a measure to assess the intention to use i-MHS rather than the actual usage behavior. Participants were asked: "During this outbreak if you encountered any psychological problem, how likely would you use the following forms of mental health services …?" for the 18 services. The Likert response scale ranged from 1 = would not use it to 5 = very willing to use it, with higher scores indicating a stronger intention to use those services. The scores ranged from 18 to 90. Cronbach's α for the 18 questions with the current sample was 0.939.

2.3. Statistical analysis

Descriptive statistics were conducted using SPSS 25.0. SEM was employed to test the serial mediation model by AMOS 23.0 to reduce measurement bias. A bootstrapping method (with 5000 bootstrap samples) was used to estimate the bias-corrected 95 % confidence interval (CI) and confirm the indirect (mediating) effect. The models were
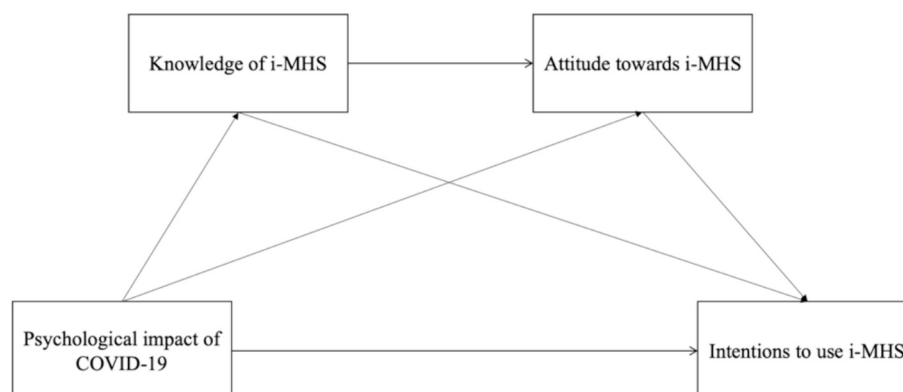

Fig. 1. Hypothesized serial mediation model.

constructed using the following indices of fit: χ2 value, root mean square error of approximation (RMSEA) < 0.05, and comparative fit index (CFI) > 0.95 (Hu and Bentler, 1999). Because the χ^2 statistic is sensitive to sample size, the ratio of chi-square to degrees of freedom (χ^2/df) with values of 3.0 or less was considered satisfactory (Hu and Bentler, 1999). Unstandardized and standardized regression coefficients were reported.

3. Results

Participants' demographic characteristics and descriptive results on study variables are presented in Table 1. The mean age of the participants was 27.48 years (SD = 8.56), with 47.1 % females and 65.6 % with a junior college education level or above. The mean and SD for the 18 i-MHS options were presented in Table A.2.

3.1. Knowledge, attitudes, and intention to use i-MHS

Participants had a low level of knowledge about i-MHS. Only 9.7 % have ever used any type of i-MHS. Overall, 53.9 % of respondents indicated some knowledge of i-MHS. Regarding attitudes toward i-MHS, 21.3 % of participants believed that i-MHS would be very helpful for people with mental health problems, and cumulatively, 62.4 % perceived i-MHS as somewhat or very helpful. More than half (53.2 %) indicated they were "willing to use it" or "very willing to use it," a type of i-MHS, and cumulatively 46.8 % indicated low levels of intention to use it. The percentage of responses regarding knowledge, attitudes, and intention to use i-MHS can be seen in Table A.3. Partial correlation controlling for age and gender showed that knowledge, attitudes, and intention to use i-MHS were positively correlated (r = 0.504–0.668, all

Table 1
Characteristics of the participants (N = 2543).

Variables	Mean/N	SD/%
Gender, No. (%)		
Male	1346	52.9
Female	1197	47.1
Age, Mean (SD)	27.48	8.56
Relationship, No. (%)		
In a relationship	1108	43.6
Not in a relationship	1435	56.4
Employment Status, No. (%)		
Student	830	32.6
Unemployed	233	9.2
Part-time Job	235	9.2
Full-time Job	1214	47.7
Retired	31	1.2
Educational Level, No. (%)		
Primary school and secondary school	237	9.3
High school and technical secondary school	637	25.0
Junior college	491	19.3
Undergraduate	989	38.9
Graduate	189	7.4
Psychological impacts of COVID-19	6.20	2.24
Knowledge of i-MHS		
Mental health helpline	3.22	1.22
Online individual counseling service	3.32	1.35
Online guided mental health intervention	3.43	1.37
Online psychological education	3.53	1.36
Official documents released	3.71	1.46
Attitudes toward i-MHS		
Mental health helpline	3.82	0.76
Online individual counseling service	3.64	0.80
Online guided mental health intervention	3.67	0.78
Online psychological education	3.72	0.79
Official documents released	3.73	0.92
Intention to use i-MHS		
Mental health helpline	3.30	0.92
Online individual counseling service	3.18	0.94
Online guided mental health intervention	3.39	0.89
Online psychological education	3.40	0.94
Official documents released	3.55	1.01

Ps < 0.001).

3.2. Measurement models

Analysis of the measurement model for knowledge of i-MHS resulted in good indices of fit, χ^2 (1) = 2.749, P = .097; χ^2/ df = 2.749; RMSEA = 0.026, CFI = 1.00. This was significantly represented by all five indicators (all at P < .001), with standardized coefficients of 0.872, 0.853, 0.835, 0.848, and 0.697 for mental health helpline, online individual counseling service, online guided mental health intervention, psychological education, and official released papers or documents, respectively.

The measurement model for the attitudes toward i-MHS also yielded good indices of fit, χ^2 (2) = 0.424, P = .809; χ^2/ df = 0.212; RMSEA ≤0.0001, CFI = 1.00. It was significantly represented by all five indicators (all at P < .001), with standardized coefficients of 0.782, 0.860, 0.846, and 0.719 for attitudes toward mental health helpline, online individual counseling service, online guided mental health intervention, psychological education, and the official released papers or documents, respectively.

The measurement model for intention to use i-MHS also showed good indices of fit, χ^2 (3) = 6.753, P = .080; χ^2/df = 2.251; RMSEA = 0.022, CFI = 1.00. It was significantly represented by all five indicators (all at P < .001), with standardized coefficients of 0.742, 0.775, 0.795, 0.883, and 0.757 for intention to use mental health helpline, online individual counseling service, online guided mental health intervention, psychological education, and the official released papers or documents, respectively.

3.3. The serial mediation models

The serial mediation model between the psychological impact of COVID-19 and the intention to use i-MHS through knowledge and attitudes showed a good index of fit, χ^2 (61) = 179.359, P < .001; χ^2/df = 2.940; CFI = 0.996; RMSEA = 0.028 (see Fig. 2). Standardized and unstandardized regression coefficients for this model are summarized in Table 2, and standardized direct and indirect effects are listed in Table 3 with 95 % CIs using the bootstrap method. After adding knowledge and attitude toward i-MHS, the psychological impact of COVID-19 was no longer significantly associated with the intention to use i-MHS (b = 0.004, P = .773), indicating that knowledge and attitudes toward i-MHS fully mediated the relationship between the psychological impact of COVID-19 and intention to use i-MHS.
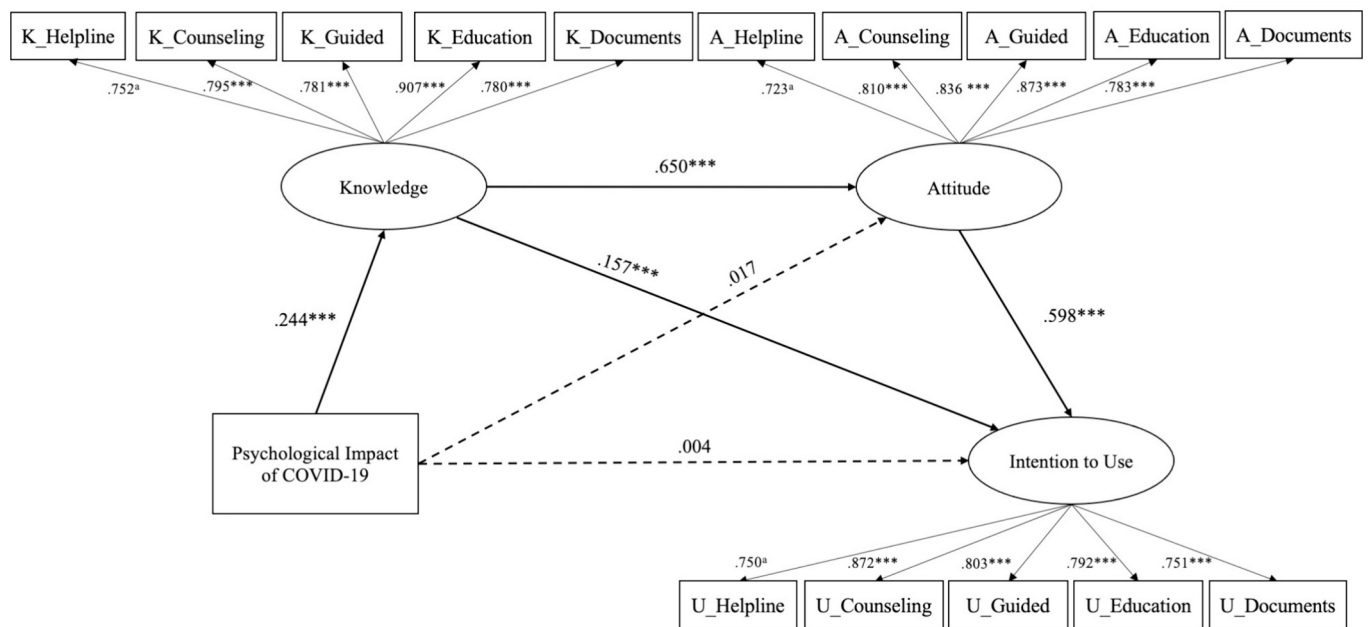
4. Discussion

To our knowledge, this is the first study determining the relationship between knowledge, attitudes, and intentions to use i-MHS among the general population in China. Our results reveal that overall knowledge of i-MHS is limited, with approximately half of the respondents (46.2 %) reporting minimal or no knowledge of the services. Nevertheless, 62.4 % of respondents expressed a favorable attitude toward the services, and 53.2 % indicated a willingness to use them in case of future mental health difficulties. An encouraging finding from the serial mediation model is that knowledge and attitudes toward i-MHS fully mediate the relationship between the psychological impact and intention to use i-MHS. This aligns with our hypotheses and highlights the potential for interventions to enhance these mediators to improve i-MHS utilization.

In terms of engagement with i-MHS, the knowledge level of the general population in China (53.9 %) is higher than that of a national self-help website in Australia (approximately 39 %) (Jorm, 2009). Knowledge about online guided mental health interventions and online individual counseling services was notable, with 53.79 % and 50.63 % of respondents indicating knowledge, respectively. However, a recent study in Germany reported lower awareness of Internet-based psychotherapy, at only 33.1 % (Apolinário-Hagen et al., 2018a). Regarding

Fig. 2. The serial mediation model ($N = 2543$), with standardized beta.

Notes. Fit statistics: χ^2 (61) = 179.359, $P < .001$; $\chi^2/df = 2.940$; CFI = 0.996; RMSEA = 0.028. [a] The path coefficients were constrained to 1. Knowledge, knowledge of i-MHS; Attitude, Attitudes toward i-MHS; Use intention, Intention to use i-MHS. *** $P < .001$.

Table 2

Unstandardized and standardized regression coefficients and standard errors for all pathways of the serial mediation model ($N = 2543$).

Variable 1 →	Variable 2	B	SE	β	P
The path between Latent Variables					
Psychological impact	Knowledge	0.398	0.034	0.244	< 0.001
Knowledge	Attitude	0.389	0.014	0.650	< 0.001
Psychological impact	Attitude	0.017	0.016	0.017	0.298
Psychological impact	Use Intention	0.004	0.016	0.004	0.786
Attitude	Use Intention	0.615	0.028	0.598	< 0.001
Knowledge	Use Intention	0.097	0.014	0.157	< 0.001
Measurement Model					
Use Intention	U_Helpline	1 [a]		0.750	
	U_Counseling	1.452	0.031	0.872	< 0.001
	U_Guided	1.278	0.029	0.803	< 0.001
	U_Education	0.989	0.024	0.792	< 0.001
	U_Documents	1.228	0.031	0.751	< 0.001
Knowledge	K_Helpline	1 [a]		0.752	
	K_Counseling	0.876	0.018	0.795	< 0.001
	K_Guided	1.172	0.027	0.781	< 0.001
	K_Education	1.345	0.03	0.907	< 0.001
	K_Documents	0.941	0.023	0.780	< 0.001
Attitude	A_Helpline	1 [a]		0.723	
	A_Counseling	0.890	0.021	0.810	< 0.001
	A_Guided	1.200	0.029	0.836	< 0.001
	A_Education	1.267	0.029	0.873	< 0.001
	A_Documents	0.977	0.025	0.783	< 0.001

Note.

[a] The fixed value. K_ = the Knowledge of mental health helpline, online individual counseling service, online guided mental health intervention, psychological education, and the released government or committee documents (paper and online documents), respectively; A_ = the attitudes toward *the five types of mental health services*; U_ = the use intention of *the five types of mental health services*.

public attitudes, our study found moderately positive perceptions, with 62.4 % of participants considering i-MHS useful or helpful, similar to findings in Germany where 65.9 % viewed internet interventions favorably (Apolinário-Hagen et al., 2018a). In Australia, an online survey revealed that 59.2 % of respondents perceived therapist-assisted i-MHS as helpful (Klein and Cook, 2010), a sentiment echoed by 58.23 % of participants in our study who found online psychotherapy helpful.

Furthermore, more than half of the respondents (53.2 %) expressed the intention to use i-MHS if they encounter mental health difficulties in the future. This percentage is higher than the 39.6 % found in an Australian community sample and college students (March et al., 2018) but lower than the 79.2 % reported in a Spanish study of university students (Marques et al., 2021). Overall, given that i-MHS is in its early stage of implementation in China, these levels of knowledge, attitudes, and intention to use i-MHS are considered acceptable and promising. Despite being a relatively new and evolving concept, i-MHS has the potential to become a crucial component of mental health care in China.

Our study also found that individuals with higher psychological distress levels were more likely to use i-MHS. This finding aligns with prior research, suggesting that COVID-related stress predicts the desire for mental health services (Richie et al., 2022). This trend can also be interpreted through the Uses and Gratifications Theory (UGT), which posits that individuals may turn to i-MHS as a means to address their mental health needs. Furthermore, the Health Belief Model (HBM) suggests that people's beliefs about the severity of a health threat and perceived susceptibility to the threat can influence their health-related behaviors (Carpenter, 2010). In this context, those with heightened distress may view the pandemic as a significant threat to their psychological well-being, motivating them to seek i-MHS to mitigate this threat.

The serial mediation analysis shows that greater knowledge of i-MHS is associated with more positive attitudes toward these services, which in turn predicts greater intention to use them. These findings support the Knowledge, Attitudes, and Behavior continuum (KAB), which suggests that knowledge acquisition is the initial step in behavior change. To promote the adoption of i-MHS, individuals need to actively obtain factual information about these services, enabling them to form beliefs and attitudes supporting their utilization. Similarly, a randomized controlled trial found that providing psychoeducational information about i-MHS improved attitudes toward these services within the general population (Apolinário-Hagen et al., 2018b). Additionally, the KAB continuum has been identified in the context of preventive behavior (Papagiannis et al., 2020) and precautionary behavior (Lee et al., 2021) to control the spread of COVID-19. In these cases, increased familiarity

Table 3
Standardized direct, indirect, and total effects of the psychological impact of COVID-19 on the intention to use i-MHS.

Variable	Direct effect			Indirect effect			Total effect		
	β	95 % CI	P	β	95 % CI	P	β	95 % CI	P
Effects on intention to use									
Psychological impact	0.004	0.028–0.038	0.773	0.143	0.107–0.176	0.001	0.148	0.103–0.192	<0.001
Knowledge	0.157	0.104–0.208	<0.001	0.389	0.350–0.427	<0.001	0.546	0.505–0.584	<0.001
Attitude	0.598	0.546–0.645	<0.001	0	–	–	0.598	0.546–0.645	<0.001
Effects on attitude									
Psychological impact	0.017	−0.020-0.051	0.386	0.158	0.129–0.188	<0.001	0.176	0.126–0.218	0.001
Knowledge	0.650	0.618–0.681	<0.001	0	–	–	0.650	0.618–0.681	<0.001
Effects on Knowledge									
Psychological impact	0.244	0.200–0.287	<0.001	0	–	–	0.244	0.200–0.287	<0.001

(e.g., perceived risk of COVID-19) is associated with more positive attitudes and preventive behaviors such as maintaining social distance.

Moreover, our study found that knowledge, in addition to its indirect influence through attitudes, also directly influences individuals' intention to use i-MHS. This direct impact may be particularly relevant during the early stages of i-MHS implementation in China, where individuals often lack pre-existing attitudes, either positive or negative, toward these services. In such cases, their intention to use these services would primarily rely on the information they acquire. Additionally, the context of the COVID-19 pandemic has underscored the importance of rational decision-making. During a crisis such as the COVID-19 pandemic, the imperative to address mental health concerns highlights the critical need for easily accessible mental health services (Xiong et al., 2020). In such times, individuals' intention to use i-MHS may be primarily driven by factual knowledge about these services, especially when individuals have limited prior exposure to i-MHS or are still developing their attitudes toward them. Recent research has emphasized the pivotal role of reliable information in shaping individuals' readiness to seek mental health support during the COVID-19 pandemic (Richie et al., 2022). Therefore, it is essential to consider these insights when developing strategies to promote i-MHS and address mental health needs across various contexts and situations.

Several limitations of the current study should be acknowledged. First, our assessment of the psychological impact of COVID-19 was based on a single-item measure of self-rated health, which could introduce bias. However, recent research has shown that the use of single-item measures of self-rated health is common in public health research (Beran and Violato, 2010) and is associated with multi-item measures of mental health (e.g., center for epidemiologic studies depression scale, geriatric depression scale-short form, and patient health questionnaire) (Jang et al., 2012; Ahmad et al., 2014). Second, the questionnaire used in this study was newly developed and has not been validated in other settings. To address potential biases, we employed SEM to mitigate

measurement bias. Third, the cross-sectional design of our study precludes the examination of potential causal relationships among variables.

5. Conclusions

In conclusion, this study illuminates the relationship between the psychological impact of the COVID-19 pandemic and individuals' inclination to utilize internet-based Mental Health Services (i-MHS), highlighting people's engagement with mental health support during crisis situations. Our findings underscore the pivotal role of knowledge in shaping favorable attitudes and directly influencing individuals' intentions to use i-MHS, emphasizing the need for robust mental health-care promotion strategies to raise knowledge and maximize the benefits of i-MHS. This research contributes to our understanding of mental healthcare in the digital age and highlights the importance of bridging the gap between knowledge, attitudes, and intentions in utilizing i-MHS to enhance mental health services.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Appendices

Table A.1
The 18 types of i-MHS.

Category	Types of Internet-based mental health services
Mental health helpline (*provided by*)	The government
	Universities
	Hospitals
	Private agencies
Online individual counseling service	Free video or audio counseling service
	Charged video or audio counseling service
	Free text counseling service
Online guided mental health intervention	Mindfulness intervention
	Writing intervention
	Arts or sports intervention

(*continued on next page*)

Table A.1 (*continued*)

Category	Types of Internet-based mental health services
Online psychological education	Free mental health manuals or books Radio or broadcast programs Webcast Online courses TV program
Official documents released (papers and online documents)	By the government By an individual company By a community

Table A.2
Mean and SD for 18 i-MHS options.

Category	Knowledge		Attitude		Use intention	
	M	SD	M	SD	M	SD
Mental health helpline (provided by)						
The government	3.25	1.43	3.87	0.95	3.30	1.20
Universities	3.37	1.39	3.77	0.91	3.27	1.18
Hospitals	3.31	1.44	4.05	0.89	3.64	1.12
Private agencies	2.97	1.47	3.59	0.97	3.00	1.18
Online individual counseling service						
Free video or audio counseling service	3.35	1.52	3.77	0.92	3.32	1.14
Charged video or audio counseling service	3.17	1.42	3.44	0.97	2.70	1.19
Free text counseling service	3.43	1.50	3.71	0.95	3.50	1.12
Online guided mental health intervention						
Mindfulness intervention	3.21	1.67	3.66	0.96	3.23	1.15
Writing intervention	3.31	1.55	3.56	0.94	3.24	1.13
Arts or sports intervention	3.51	1.58	3.70	0.94	3.48	1.12
Free mental health manuals or books	3.69	1.44	3.75	0.94	3.60	1.10
Online psychological education						
Radio or broadcast programs	3.53	1.54	3.72	0.92	3.31	1.13
Webcast	3.35	1.52	3.61	0.93	3.29	1.12
Online courses	3.58	1.46	3.75	0.90	3.48	1.05
TV program	3.67	1.43	3.83	0.90	3.53	1.09
Official documents released (papers and online documents)						
By the government	3.71	1.57	3.75	1.03	3.49	1.16
By an individual company	3.62	1.58	3.65	0.99	3.53	1.10
By a community	3.81	1.59	3.79	1.01	3.63	1.09

Table A.3
Percentage of responses regarding knowledge, attitudes, and intention to use i-MHS ($N = 2543$).

Variables	Responses	Percentage of the total sample (%)
Knowledge	Never heard of it	16.8
	I probably have heard about it	10.2
	I have ever heard about it, but I am not familiar with it	19.2
	I have some understanding, but never used it	30.2
	I have used it, but I do not think I know it well	14.0
	I have used it, and I think I have a good understanding of it	9.7
Attitudes	Useless	2.5
	Probably not helpful	6.6
	Not sure	28.5
	Somewhat helpful	41.1
	Very helpful	21.3
Use intention	Would not use it	7.0
	May not use it	18.4
	Not sure	21.4
	Willing to use it	37.5
	Very willing to use it	15.7

Note. The figures were calculated by averaging the percentages of the sum of 18 different types of services.

Table A.4
Percentage of responses regarding knowledge, attitudes, and intention to use i-MHS of five domain (*N* = 2543).

	Responses	Percentage of the total sample (%)				
		Helpline	Counseling	Intervention	Education	Documents
Knowledge	Never heard of it	18.18	17.57	18.63	14.65	14.53
	I probably have heard about it	11.80	11.10	9.65	9.65	8.33
	I have ever heard about it, but I am not familiar with it	21.80	20.67	17.95	18.73	16.47
	I have some understanding, but never used it	32.15	31.37	27.83	31.73	27.33
	I have used it, but I do not think I know it well	9.80	11.23	15.85	15.08	18.70
	I have used it, and I think I have a good understanding of it	6.30	8.03	10.10	10.10	14.67
Attitudes	Useless	1.83	2.77	2.73	2.15	3.27
	Probably not helpful	6.00	7.33	6.58	6.05	7.60
	Not sure	26.10	31.67	30.95	28.35	25.30
	Somewhat helpful	40.33	39.70	40.73	44.15	40.07
	Very helpful	25.78	18.53	19.00	19.30	23.77
Behavior	Would not use it	7.88	2.63	6.18	5.80	6.03
	May not use it	20.43	6.81	17.98	17.15	13.53
	Not sure	21.50	7.17	22.85	21.98	19.00
	Willing to use it	34.05	11.35	36.88	41.13	42.43
	Very willing to use it	16.20	5.40	16.13	13.93	19.00

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