Development and Validation of the Mental Health Seeking Apprehension Scale (MHSAS)

Simon Robert Knowles[1,2,3,*] and Pragalathan Apputhurai[1]

[1]*Faculty of Health, Arts and Design, Swinburne University of Technology, Melbourne, Australia*

[2]*Faculty of Medicine, Dentistry and Health Sciences, The University of Melbourne, Melbourne, Australia*

[3]*Colorectal Medicine and Genetics, The Royal Melbourne Hospital, Melbourne, Australia*

Abstract: As many as 1 in 5 individuals currently experience mental health issues, and that only a minority seek help from mental health professionals. This paper outlines the development and validation of the Mental Health Seeking Apprehension Scale (MHSAS). MHSAS was validated across three studies using both university and community samples. In the first study, exploratory factor analysis revealed a nine-item two-factor scale (*N*=231), which was confirmed in the second study (*N*=208). The first factor related to mental health stigma (e.g., embarrassed about help-seeking, not wanting others to know) while the second was related to ambivalence toward seeking help (e.g., nothing changes problems, professional may not be helpful). Based on a combination of Study 1 and 2 datasets, the third study (*N*=439) analysed MHSAS and help-seeking behaviour. Results suggest that greater perceived stigma and ambivalence were associated with not seeking mental health support and also greater psychological distress. The research provides good preliminary evidence that the MHSAS is a brief psychometrically valid measure of mental health help seeking apprehension. MHSAS can be utilised by health professionals and researchers to screen for apprehension relating to seeking mental health support and identify potential barriers preventing utilisation of mental health services when needed.

Keywords: Help seeking, mental health, stigma, barriers, scale development.

1. INTRODUCTION

It has been found that around 1 in 5 adults currently experience mental health issues, with anxiety and depressive conditions being the most predominant [1, 2]. The economic impact of mental disorders is significant. Unipolar depressive disorders is the leading cause of disability, with 16.4% of years of life lived with a disability for individuals aged 15-44 [1]. In the United States, it has been estimated that on a societal level, $317billion was potentially lost in 2002 alone when considering both healthcare costs and loss of income [3]. Individuals with severe mental disorders report significantly lower quality of life in all domains (e.g., life satisfaction, social relationships, leisure time activities) [4]. Given the impact mental disorders have on both the individual and society, it is important to be able to assess mental health seeking attitudes and whether individuals feel they can approach services to help alleviate their symptoms.

While there is evidence from multiple systematic reviews and meta-analyses that working with mental health experts and engaging in evidence-based practices, improves psychological well-being [5], not all individuals with mental disorders seek help. In the Australian National Mental Health Survey, 65% of individuals with any mental disorder did not consult with a general practitioner (GP) regarding their mental health [2]. The percentage of individuals seeking help from mental health professionals specifically could be as low as 8% [6].

Several factors have been identified as barriers to mental health seeking behaviours. These include perceived stigma [7, 8]. Mental health stigma can be thought of as negative stereotypes and prejudices toward mental health (e.g., seeing the mentally ill as weak or incompetent), which can be public (i.e., generalised) or private (i.e., applied to oneself) [8, 9]. Although stigma is a commonly cited barrier, it is not always frequently endorsed [10], there are also instances of ambivalence where individuals recognise the need for mental health help but are also sceptical and doubtful of the process. Alternate views categorise barriers into negative attitudes toward mental health or help-seeking and structural or practical barriers [10, 11]. For example, wanting help but perceiving it as not needed [12, 13], or wanting to solve problems on one's own/thinking the problem will go away by itself [7, 10, 11, 13].

To date, several scales have been developed to explore and measure barriers to mental health help seeking, these include the Attitudes toward seeking professional psychological help (ATSPPH) [14] and its short-form [15, 16], Self-Stigma of Seeking Help Scale (SSOHS) [17], Internalized Stigma of Mental Illness

*Address correspondence to this author at the Swinburne University of Technology, PO Box 218, Hawthorn 3122 Melbourne, Australia;
Tel: +61 3 9214 8206 E-mail: sknowles@swin.edu.au

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(ISMI) [18], Beliefs toward Mental Illness scale (BMI) [19], Stigma Scale for Receiving Psychological Help (SSRPH) [20], Willingness to Seek Help Questionnaire (WSHQ) [21] and Barriers to Adolescents Seeking Help survey [BASH; 22] and its brief version [BASH-B; 23]. The identified scales have demonstrated the importance of assessing individual stigmatising attitudes towards help seeking (e.g., 'I wouldn't want my family to know I was seeking or seeing a mental health expert') while also accounting for ambivalence (e.g., 'nothing will change the problems I have'). Currently, limitations of the cited scales include the length of scales. For example, the ATSPPH [14], ISMI [18] and WSHQ [21] have over 20 items. While other scales (e.g., SSOHS [17], ISMI [18], BMI [19], SSRPH [20], ATSPPH [14]) are primarily focused on either stigma or ambivalence, but not both.

Given the identified limitations, the present study aimed to develop a brief Mental Health Seeking Apprehension Scale (MHSAS). Two independent studies were conducted to explore and confirm the factor structure of the MHSAS. The third study combined Study 1 and 2 datasets to explore construct (convergent and discriminant) and criterion validity of the MHSAS.

2. STUDY 1: DEVELOPMENT OF THE SEEKING HELP APPREHENSIONS IN PSYCHOLOGICAL SERVICES MEASURE

The aim of Study 1 was to explore the factor structure of MHSAS. It was hypothesised that a stable two-factor scale would be derived from the MHSAS items.

3. METHOD

3.1. Participants

Two-hundred and forty-five undergraduate university students enrolled in a psychology course at a medium-sized Australian university participated in an online survey, with 231 students providing complete and usable responses. The mean age of the 231 participants was 27.67 years (*SD* = 11.36) and most participants were women (85.3%), single (33.3%), worked either casually (11.7%), part-time (15.2%) or work full-time (32.9%), and were Australian (72.2%).

3.2. Measures

3.2.1. Mental Health Seeking Apprehension Scale (MHSAS) – preliminary

An initial set of items were taken based upon the Barriers to Adolescents Seeking Help survey brief version [BASH-B; 23]. This scale was chosen as it included questions relating to negative attitudes or ambivalence and could be easily revised so that it was potentially suitable for both adolescent and adult cohorts. The senior author and clinician (SK) also reviewed the literature and identified several more items which best represented items not already included in the scale (e.g., 'I've found that mental health experts have not been helpful', 'I might get worse if I see a mental health expert' I don't have any concerns that require the help of a mental health expert', 'I worry about taking up time with a mental health expert that others with bigger problems could use', 'I wouldn't want my work/school to know I was seeking or seeing a mental health expert'). The initial pool of items was screened by the authors and where appropriate language modified to provide consistency across the scale. In total 15 distinct items were selected for inclusion in initial testing. At the start of the scale, participants were advised "Please tick the box that best identifies how strongly you agree or disagree to the following statements in relation to seeing a mental health expert such as a psychiatrist, psychologist or counsellor." Each item was assessed on a 6-point rating scale (with anchors being "Strongly agree" to "Strongly disagree"; scored 0-5 respectively).

3.2.2. Procedure

Participants were able to access the survey *via* a university website where they were informed that their participation in this study was voluntary, and that they were free to withdraw at any time. Completion of the survey was taken as informed consent. Ethical approval for the study was obtained by the University Human Ethics Committee. Inclusion criteria were males or females aged over 18 years. Data collection occurred over a period of 3 months.

3.2.3. Data analyses strategy

Data were analysed using SPSS Version 24 and AMOS Version 24. Data were screened for univariate outliers prior to analysis. An exploratory factor analysis (EFA) was conducted on the Study 1 data using principle-axis factor extraction with an oblimin rotation to determine the factor structure of the 15 MHSAS items. Items with primary factor loadings less than 0.40, second cross-loadings, and communalities less than 0.2 on the factor were removed. Items not meeting these criteria were removed one at a time. Factor analysis was repeated until a solution in which all the items included in the analysis met all criteria was attained.

4. RESULTS AND DISCUSSION

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO=0.82) and Bartlett's test of sphericity (χ^2 (105) = 890.00, p<0.001) indicated that the sample score was suitable for factor analysis. The initial eigenvalues showed that the first factor explained 31% of the variance, the second factor 10% of the variance, and the third factor 8% of the variance. However, the pattern matrix and the Scree plot for the initial eigenvalues suggested that only two factors were appropriate. Horn's Monte Carlo simulation method with 1000 iterations [24] confirmed this decision. Six items ("MHSAS1: I don't have any concerns that require the help of a mental health expert", "MHSAS2: I think I should work out my own problems", "MHSAS5: A mental health expert might make me do what I don't want to", "MHSAS7: I can't afford to see a mental health expert", "MHSAS9: If I go to counselling, I might find out I'm crazy" and "MHSAS12: I worry about taking up time with a mental health expert that others with bigger problems could use" were removed due to less than .40 factor loadings, communalities below. 2 or cross-loading and EFA was re-run, explaining 53% of the initial variation in the responses to the remaining nine items, producing a correlation of 0.57 between the two factors and the pattern matrix shown in Table **1**. On the basis of the item content, the first factor was taken to represent stigma toward seeking mental health while the second factor represents ambivalence toward mental health help seeking. These results support the hypothesised two-factor model of help seeking apprehension.

Following the EFAs, Cronbach's alphas for the factors were calculated to assess internal consistency and were revealed to be α = .70 and α = .75, indicating that both of these factors demonstrated acceptable internal consistency.

5. STUDY 2: CONFIRMATION OF THE MHSAS

The aim of Study 2 was to confirm the factor structure of MHSAS in an independent community sample. It was hypothesised that the nine-item two-factor structure would be confirmed in an independent sample.

5.1. Participants

Two-hundred and forty-one adults from the public community participated in an online survey, with 208 adults providing complete and usable responses. The mean age of the 208 participants was 33.91 years (*SD* = 11.06) and most participants were women (79.8%), single (33.3%), worked either casually (14.9%), part-time (17.3%) or work full-time (26.9%), and were Australian (85.5%).

5.2. Measures

Consistent with Study 1, the 9-item MHSAS was measured on a 6-point rating scale (0="Strongly agree" to 5="Strongly disagree"). Higher scores indicated greater ambivalence (subscale 1) and ambivalence (subscale 2) toward seeking psychological services.

5.3. Procedure

Invitations to participate in an online survey investigating mental health were posted on a university

Table 1: Factor Loadings Based on a Principal Axis Factor with Oblimin Rotation for 9 MHSAS Items (N = 231)

Item Description	Stigma Regarding Seeking Mental Health	Ambivalence Toward Mental Health Help Seeking
MHSAS3: I am too embarrassed to talk to a mental health expert	0.46	
MHSAS4: I don't have time to see a mental health expert	0.42	
MHSAS6: I wouldn't want my family to know I was seeking or seeing a mental health expert	0.92	
MHSAS15: I wouldn't want my work/school to know I was seeking or seeing a mental health expert	0.55	
MHSAS8: Nothing will change the problems I have		0.45
MHSAS10: If I went for counselling, the mental health expert would not keep my secret		0.66
MHSAS11: I don't know where to find a mental health expert		0.61
MHSAS13: I've found that mental health experts have not been helpful		0.49
MHSAS14: I might get worse if I see a mental health expert		0.84

participant website and the first author's (SK) own websites. Ethical approval for the study was obtained by the University Human Ethics Committee. Inclusion criteria were males or females aged over 18 years.

5.4. Data Analysis

Study 2 data were screened for univariate outliers prior to analysis. A confirmatory factor analysis was conducted to validate the factor structure of MHSAS derived from Study 1 and the model fit was evaluated using criteria recommended by Byrne [25]; Root Mean Square Error of Approximation (RMSEA) <0.08, Tucker Lewis Index (TLI) >0.90, and Comparative Fit Index (CFI) >0.90. The criterion for Standardized Root Mean Square Residual (SRMSR) was <0.08, as recommended by Hu and Bentler [26].

6. RESULTS AND DISCUSSION

As hypothesised, the MHSAS model derived from Study 1 with 9-items and two-factors was confirmed and validated with the Study 2 sample of 208 showing a reasonable fit (χ^2 (26) = 2.08, p = 0.001, TLI = 0.94, CFI = 0.96, SRMSR=0.05, and RMSEA = 0.07), see Figure **1**. The final loadings for the two factors model are shown in Table **2**, with the first factor measuring ambivalence barriers and the second factor measuring stigma barriers.

Cronbach's alphas for the factors were calculated to assess internal consistency and were revealed to be α = 0.76 (stigma) and α = 0.79 (ambivalence), indicating acceptable internal consistency. The strong correlation of .83 between these two factors suggests

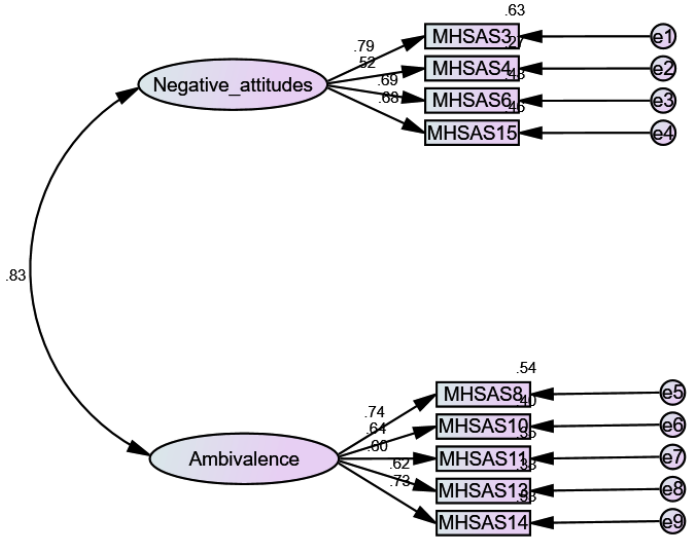

Figure 1: Two-factor model of MHSAS with correlations and beta weights.

Table 2: Factor Loadings Based on a Principal Axis Factor with Oblimin Rotation for 9 MHSAS Items (N = 208)

Item Description	Stigma Regarding Seeking Mental Health	Ambivalence Toward Mental Health Help Seeking
MHSAS3: I am too embarrassed to talk to a mental health expert	0.79	
MHSAS4: I don't have time to see a mental health expert	0.69	
MHSAS6: I wouldn't want my family to know I was seeking or seeing a mental health expert	0.68	
MHSAS15: I wouldn't want my work/school to know I was seeking or seeing a mental health expert	0.52	
MHSAS8: Nothing will change the problems I have		0.74
MHSAS10: If I went for counselling, the mental health expert would not keep my secret		0.64
MHSAS11: I don't know where to find a mental health expert		0.60
MHSAS13: I've found that mental health experts have not been helpful		0.62
MHSAS14: I might get worse if I see a mental health expert		0.73

that a single MHSAS scale is also appropriate. The total scale Cronbach alpha was 0.85, indicating good internal consistency.

7. STUDY 3: CONSTRUCT AND CRITERION VALIDITY OF THE MHSAS

The aim of Study 3 was to demonstrate the construct validity (convergent and divergent) and criterion validity of the MHSAS using the combined Study 1 and 2 datasets. It was hypothesised that MHSAS total and MHSAS subscales would demonstrate convergent validity with the Self-Stigma of Seeking Help Scale [SSOSH; 17] and the Attitudes Toward Seeking Professional Psychological Help scale [ATSPPH; 27], while also divergent validity with age and gender. It was also hypothesised that MHSAS would demonstrate criterion validity with higher MHSAS scores (total and subscales) being associated with (1) not currently seeking mental health support versus currently seeking mental health support, and (2) experiencing greater anxiety and depression symptoms for those not seeking mental health support versus those that were currently attaining mental health support.

7.1. Participants

The combined dataset, Study 1 and Study 2, consists of four hundred and thirty-nine participants. The mean age of the sample was 33.29 years (SD = 10.79 years) with more than half of the sample being women (82.7%). Participants in the public sample tended to be married (37.4%), employed full-time (29.8%), and Australian (72.4%).

7.2. Materials

7.2.1. MHSAS

Consistent with Study 1 and 2, the 9-item MHSAS was measured on a 6-point rating scale (0 = "Strongly agree" to 5 = "Strongly disagree"). Higher scores indicated greater apprehension toward seeking psychological services.

7.2.2. Depression Anxiety Stress Scale

The Depression Anxiety Stress Scale Short-Form 21 [DASS-21; 28] contains 21-items that measure three subscales (each 7-items) of depression (e.g., "I couldn't seem to experience any positive feeling at all"), anxiety (e.g., "I felt scared without any good reason"), and stress (e.g., "I tended to over-react to situations"). Items were scored using a 4-point rating scale, ranging from 0 ("Did not apply to me at all") to 3 ("Applied to me very much, or most of the time"). To measure psychological distress each DASS21 scores were multiplied by 2 and then summed up the 7 items for each subscale (depression, anxiety and stress). For each subscale respective normative mean was subtracted and then divided by respective normative standard deviation. The average of the 3 subscales was computed and then categorised in three groups (normal: -1-0.5, mild-moderate: 0.51-1.9 and severe: 2+) as described in the DASS manual [29].

7.2.3. Self-Stigma of Seeking Help Scale

The Self-Stigma of Seeking Help Scale [SSOSH; 17] is a 10-item measure of self-directed stigma regarding seeking help (e.g., "It would make me feel inferior to ask a therapist for help"). Each item was scored using a 5-point rating scale, ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). Items 2, 4, 5, 7, and 9 were reverse scored and then all items were summed to give a measure of self-stigma (range 1–50; higher scores indicating greater self-stigma).

7.2.4. Attitudes Toward Seeking Professional Psychological Help

The Attitudes Toward Seeking Professional Psychological Help scale [ATSPPH; 27] is a 10-item measure of attitudes related to seeking psychological help (e.g., "I might want to get psychological help if I were worries of upset for a long period of time"). Items were scored using a 4-point rating scale, ranging from 0 ("Disagree") to 3 ("Agree"). Items 2, 4, 8, 9, and 10 were reverse scored and then all items were summed to give a measure of attitude (range 0–30; higher scores indicating a more positive attitude).

7.2.5. Mental Health Help Seeking Status

Participants were asked "Are you currently seeking help for a mental health issue?" Yes or No.

7.3. Data Analyses

For hypothesis 1, Spearman's correlation was conducted to examine the construct validity of derived MHSAS total and subscales with scores from the Self-Stigma of Seeking Help Scale (SSOSH), and Attitudes toward Seeking Professional Psychological Help (ATSPPH). To test hypothesis 2, a univariate Analyses of Variance (ANOVA) was conducted to explore if MHSAS total scores were significantly higher for participants (1) not currently seeking mental health

Table 3: Correlations between the MHSAS (Subscales and Total), ATSPPH, SSOSH, Age and Gender

Item	1	2	3	4	5	6	M(SD)
1.Stigma regarding seeking mental health	-						10.05(4.87)
2. Ambivalence toward mental health help seeking	0.61*	-					9.66(4.92)
3. MHSAS total	0.88*	0.79*	-				37.94(12.98)
4. Attitudes Toward Seeking Professional Psychological Help	0.45*	0.44*	0.52*	-			8.28(5.22)
5. Self-Stigma of Seeking Help Scale	0.58*	0.48*	0.42*	-0.07	-		29.74(10.32)
6. Age	-0.20	-0.17	-0.21	0.04	0.04	-	33.29(10.80)
7. Gender	-0.06	-0.04	-0.06	-0.10	-.10	0.07	-

Note N = 439, * = p <0.05.

support versus currently seeking mental health support, and (2) experiencing greater anxiety and depression symptoms for those not seeking mental health support versus those that were currently attaining mental health support. A Multivariate Analyses of Variance (MANOVA) was also conducted to explore hypothesis two in relation to the MHSAS subscales.

7.4. Results

As shown in Table **3** MHSAS subscales and total scores were found to be positively associated with the total of ATSPPH and the total of SSOSH which both indicate convergent validity whereas MHSAS had no association with age and gender, indicating divergent validity.

An ANOVA based on total MHSAS total score was found to show significant main effect differences: participants who sought mental health help (F (1, 433) = 18.68, p<0.001, η2 = 0.04) and distress level (F (2, 433) = 21.65, p<0.001, η2 = 0.09). As shown in Table **4**, people who had higher level of distress and were not seeking mental support scored higher on MHSAS total score compared to those participants who had similar levels of distress but were currently seeking mental health support. Similarly, a MANOVA of the MHSAS subscales indicated that there were significant

Table 4: Mean and Standard Deviation of the MHSAS Scale Across People who Seek a Mental Health Help and their Distress Level

Are you Currently Seeking Mental Health Support?		Yes			No		
	Distress Level	*n*	*M*	*SD*	*n*	*M*	*SD*
Stigma regarding seeking mental health	Normal	89	8.16	3.78	168	9.71	4.82
	Mild-Moderate	52	10.35	5.32	68	10.94	4.91
	Severe	33	10.42	4.47	29	14.76	4.27
	Total	174	9.24	4.53	265	10.58	5.02
Ambivalence toward mental health help seeking	Normal	89	7.88	3.05	168	8.94	4.79
	Mild-Moderate	52	10.10	5.05	68	10.25	4.72
	Severe	33	11.85	5.10	29	14.59	6.17
	Total	174	9.29	4.42	265	9.89	5.23
MHSAS total score	Normal	265	32.63	9.92	168	36.74	12.88
	Mild-Moderate	52	38.13	14.23	68	40.93	11.15
	Severe	33	40.18	12.49	29	51.31	13.53
	Total	174	35.71	12.21	265	39.41	13.27

main effects for people who seek mental health support (F (2, 866) = 8.43, p<0.001, η2 = 0.04) and distress level (F (4,866) = 13.91, p<0.001, η2 = 0.06). No significant interaction effects were found for the MHSAS total or subscales.

8. RESULTS AND DISCUSSION

The first hypothesis was supported as convergent and divergent validity was found by a positive correlation between MHSAS and both SSOSH and ATSPPH, and a non-significant correlation with age and gender, respectively. The second hypothesis, relating to criterion validity, was also supported as higher MHSAS scores (total and subscales) were associated with (1) not currently seeking mental health support versus currently seeking mental health support, and (2) experiencing greater anxiety and depression symptoms for those not seeking mental health support versus those that were currently attaining mental health support.

9. GENERAL DISCUSSION

This research aimed to develop and psychometrically validate MHSAS, a brief measure of apprehensions in seeking psychological services. The first study drew from a combination of BASH-B [23] items and several more items identified in the literature by the primary author. An EFA revealed a nine-item two-factor solution. Study 2 further validated MHSAS by confirming the factor structure and psychometric properties using an independent public sample. MHSAS was then further tested using the combined sample in the third study to assess the relationship with help-seeking and psychological distress.

Study 3 results demonstrated that MHSAS total and subscale scores were found to have significant positive associations with ATSPPH and SSOSH indicating convergent validity, whereas MHSAS (subscales and total scores) had no association with age and gender, indicating divergent validity. Subsequent ANOVA and MANOVA of the total and subscale MHSAS scales respectively identified strong criterion validity in that higher MHSAS scores were reported by participants not currently seeking mental health support. Collectively, the three studies in this research indicate that MHSAS is a psychometrically solid and valid measure to explore both sigma and ambivalence associated with seeking mental health support.

MHSAS is consistent with the BASH-B [23] from which it was adapted in terms of being a brief scale that measures a reluctance to seek mental health support. However, the newer and revised items allow for a more nuanced analysis and use with an adult population. Wilson *et al*. [23] describe a reluctance to seek help as potentially stemming from shame and embarrassment, and also ambivalence and doubts stemming from previous negative experiences with health professionals. The brief two-factor solution of MHSAS captures this distinction and enables a better understanding of the reluctance to seek mental health support compared with the BASH-B single factor. Clinicians and researchers can gauge whether apprehension is more associated with negative attitudes and embarrassment based upon stigma or an ambivalence to engage based upon doubts and previous negative experiences. These two factors are also reflected as themes in the published literature. Sareen *et al*. [10] and Vanheusden *et al*. [11] identify two themes within help-seeking barriers of negative attitudes (including stigma) and practical/structural barriers. The first MHSAS factor is consistent with the idea of negative attitudes resulting from stigmatisation of mental health as a barrier to seeking help. For instance, individuals may be concerned that having a mental illness makes them weak or incompetent, and as a result feel embarrassed and avoid attending a psychological service. The MHSAS second factor is consistent with ambivalence and previous research identifying wanting help but perceiving it as not needed [12, 13], or wanting to solve problems on one's own/thinking the problem will go away by itself [7, 10, 11, 13].

The newer items in MHSAS allows for a more motivational approach to the second factor. This factor has more of a focus on ambivalence and feelings of doubt toward seeking mental health support. Individuals may not be thinking about stigma, but instead be concerned that psychological services may not work out well for them. Consequently, there is a lapse in motivation and goal-directed behaviour toward seeking help. Combined, these factors give greater insight into help-seeking attitudes than stigma alone while also remaining economic as a brief scale to integrate into larger questionnaires.

The present research acknowledges several limitations. Both samples used in this validation were non-clinical, and test-retest reliability was also not undertaken. Future studies should seek to address these limitations. During the time of write-up for the general discussion, and re-review of the literature

identified the perceived stigma and barriers to care for psychological problems (PSBCPP) developed by Britt *et al*. [30]. This 11-item scale is very similar to our scale which also identified two factors (stigma and barriers). Given this, future research should conduct a head-to-head comparison while also exploring the potential benefit of combining these two scales. Future research should also explore the potential utility of the MHSAS being utilised in both adolescent and adult cohorts and in turn potential differences and similarities in perceived barriers across these two groups.

CONCLUSION

In conclusion, MHSAS is a psychometrically valid brief scale to measure apprehension toward seeking psychological services. Clinicians and researchers who wish to measure apprehension toward seeking psychological services will find value in this new scale in attempts to explore and improve psychological service utilisation in clients who need support.

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DISCLOSURE STATEMENT

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KEY POINTS:

(1) Despite strong evidence for the benefits of mental health support, many individuals still avoid seeking mental health services.

(2) This paper outlines a series of studies directed at developing and validating the Mental Health Seeking Apprehension Scale (MHSAS).

(3) The MHSAS is a brief and easy to complete psychometrically valid measure that can be utilised to help identify stigma and ambivalence towards seeking mental health support.

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