Supplemental Material Regarding Data Cleaning Procedures

This section of the supplemental material provides copies of the three intention

instruments used in the present study.

Mental Help Seeking Intention Scale (MHSIS)

INSTRUCTIONS: For the purposes of this survey, "mental health professionals" include psychologists, psychiatrists, clinical social workers, and counselors. Likewise, "mental health concerns" include issues ranging from personal difficulties (e.g., loss of a loved one) to mental illness (e.g., anxiety, depression). Please mark the box that best represents your opinion.

If I had a mental health concern, I would intend to seek help from a mental health professional.

1						7
(Extremely	2	3	4	5	6	(Extremely
unlikely)						likely)

If I had a mental health concern, I would try to seek help from a mental health professional.

1						7
(Definitely	2	3	4	5	6	(Definitely
laioo)						a doj

If I had a mental health concern, I would plan to seek help from a mental health professional.

1 (Strongly disagree)	2	3	4	5	6	7 (Strongly agree)

Scoring Key

The MHSIS contains three items which produce a single mean score. To calculate the mean score, add the scores for all three items then divide by three. The resulting mean score should range from a minimum of 1 to a maximum of 7. Do not calculate a MHSIS mean for a participant who is missing any data on the MHSIS. If you are administering the MHSIS alongside other Theory of Planned Behavior (TPB) items, it is best to intersperse these three MHSIS items among the other TPB items, in a nonsystematic order (see <u>Ajzen, 2006</u>). If you do so, to ensure that all participants are interpreting the terminology in the MHSIS items consistently, we recommend including the MHSIS instructions (see above) in the survey prior to participants completing the MHSIS items, whether immediately prior, or toward the start of the entire survey.

General Help Seeking Questionnaire (GHSQ)

Note: this 10-item version of the GHSQ is sourced from the publicly available personal/emotional problem version provided in Appendix A of <u>Rickwood</u>, <u>Deane</u>, <u>Wilson</u>, <u>& Ciarrochi</u>, <u>2005</u>.

If you were having a personal or emotional problem, how likely is it that you would seek help from the following people? Please indicate your response by selecting the number that best describes your intention to seek help from each help source that is listed.

	1 (Extremely unlikely)	2	3 (Unlikely)	4	5 (Likely)	6	7 (Extremely likely)
Intimate partner (e.g., girlfriend, boyfriend, spouse, partner)	0	0	0	0	0	0	0
Friend (not related to you)	0	0	0	0	0	0	0
Parent	0	0	0	0	0	0	0
Other relative/family member	0	0	0	0	0	0	0
Mental health professional (e.g. psychologist, social worker, counselor)	0	0	0	0	0	0	0
Phone helpline (e.g. Crisis Line)	0	0	0	0	0	0	0
Doctor/GP	0	0	0	0	0	0	0
Minister or religious leader (e.g. Priest, Rabbi, Chaplain)	0	0	0	0	0	0	0
l would not seek help from anyone	0	0	0	0	0	0	0
I would seek help from another not listed above (please list in the space provided; e.g., work colleague. If no, leave blank)	0	0	0	0	0	0	0

Intentions to Seek Counseling Inventory (ISCI)

Below is a list of issues people commonly bring to counseling. How <u>likely</u> would you be to seek counseling if you were experiencing these problems? (You may skip those items that are irrelevant to you.)

	1 (Very unlikely)	2	3	4	5	6 (Very likely)
Academic work procrastination	0	0	0	0	0	0
Excessive alcohol use	0	0	0	0	0	0
Weight control	0	0	0	0	0	0
Drug problems	0	0	0	0	0	0
Difficulties with friends	0	0	0	0	0	0
Choosing a major	0	0	0	0	0	0
Difficulty in sleeping	0	0	0	0	0	0
Difficulties dating	0	0	0	0	0	0
Self-understanding	0	0	0	0	0	0
Test anxiety	0	0	0	0	0	0
Relationship difficulties	0	0	0	0	0	0
Speech anxiety	0	0	0	0	0	0
Loneliness	0	0	0	0	0	0
Inferiority feelings	0	0	0	0	0	0
Concerns about sexuality	0	0	0	0	0	0
Conflicts with parents	0	0	0	0	0	0
Depression	0	0	0	0	0	0

Supplemental Material Regarding Data Cleaning Procedures

This section of the supplemental material describes the data cleaning procedures used prior to conducting all statistical analyses.

The initial, uncleaned dataset contained 473 individuals. The study advertisement and informed consent indicated that only those who are "currently dealing with a mental health concern" should take the survey. As a failsafe, the 54 participants who answered "no" when asked if they were "currently experiencing a mental health concern (e.g., difficulties related to depression, anxiety, family or relationship issues, academic or career problems, adjustment issues, alcohol, drug, or addiction problems, eating disorder or body image, grief or loss, abuse or trauma, etc.)" were removed from the sample. After having removed eight cases with inaccurate responses on more than one of the two attention check questions (e.g., "Please select "2" for this item") and another six cases that had significant missingness on either the GHSQ or MHSIS (> 20%; Parent, 2013), the final dataset contained 405 participants. Because the ISCI uses items that are irrelevant for some community-dwelling adults but not others (e.g., choosing a major), we told respondents that they could skip items that were irrelevant to them. Thus, distinguishing missing data on the ISCI, that is "true" missing data versus missing data due to irrelevance, was not possible.

No variables exceeded the cutoffs of 3 and 10 for high skewness index and kurtosis index values, respectively (Weston & Gore, 2006). In the retained sample (n = 405), missing data ranged from a low of 0% for many items to a high of 2.2% for one of the GHSQ items, when excluding the skippable ISCI items (high of 20.2% missing for both the "choosing a major" and "drug problems" items) and the skippable "other source" item of the GHSQ (59.0% missing). Little's missing completely at random (MCAR) test was found to be non-significant (p = .55), indicating the missing cases were not significantly different from the non-missing cases. Full information maximum likelihood (FIML) was used for all analyses conducted in Mplus. In addition, we used Mplus' MLR estimator for all analyses to protect against deviations from multivariate normality. SPSS required listwise deletion when conducting logistic regression.

Supplemental Material Regarding Dimensionality of Models Using Only Female Respondents

This section of the supplemental material describes dimensionality results for all tested models when using only female respondents in the sample.

Please see Supplemental Material Table A below for goodness of fit statistics for all tested measurement models for female respondents. Comparison of Supplemental Material Table A (female respondents) with Table 1 in the manuscript (all respondents) indicates the same pattern of global fit for all models. Namely, models that demonstrated poor fit in the total sample also demonstrated poor fit in the female respondents sample, and models that demonstrated adequate fit in the total sample also demonstrated adequate fit in the female respondents sample.

Regarding the GHSQ unidimensional Model 9 for female respondents, the standardized factor loadings (and standardized residual variances) were .55 (.70), .46 (.79), and .49 (.76). Thus, as with the total sample, most of the variance (\mathbb{R}^2) for the three items (70%, 79%, and 76%) was not explained by a single factor, which suggested that a unidimensional model may not provide an adequate fit to this three-item GHSQ among female respondents.

Regarding the MHSIS unidimensional Model 11 for female respondents, the standardized factor loadings (and standardized residual variances) were .93 (.14), .90 (.19), and .92 (.15). Thus, as with the total sample, the vast majority of the variance (R^2) for each of the three items (86%, 81%, and 85%) was explained by a single factor, tentatively suggesting that a unidimensional model may have provided an adequate fit in the female respondents' dataset.

In summary, conclusions regarding model (mis)fit for the three instruments did not change when analyzing only the female respondents in the present sample.

Supplemental Material Table A

Model	Scaled	df	RMSEA [90% CI]	CFI	TLI	SRMR
	χ2					
(1) ISCI-17 Unidimensional	589.41	119	.108 [.099, .117]	.730	.690	.088
(2) ISCI-16 Unidimensional	565.11	104	.114 [.105, .124]	.724	.681	.092
(3) ISCI-17 Correlated Factors	260.79	116	.061 [.051, .070]	.917	.902	.061
(4) ISCI-16 Correlated Factors	235.51	101	.063 [.052, .073]	.919	.904	.061
(5) GHSQ-10 Unidimensional	227.19	35	.127 [.112, .143]	.479	.331	.095
(6) GHSQ-9 Unidimensional	204.76	27	.139 [.122, .157]	.503	.338	.092
(7) GHSQ-8 Correlated Factors	59.32	19	.079 [.057, .102]	.827	.746	.056
(8) GHSQ-7 Correlated Factors	51.42	13	.093 [.067, .121]	.811	.695	.057
(9) GHSQ-3 Unidimensional*			-			
(10) GHSQ-1 Unidimensional*			-			
(11) MHSIS-3 Unidimensional*			-			
(12) MHSIS-1 Unidimensional*			-			

Goodness of Fit Statistics for All Tested Measurement Models for Female Respondents

Note: *These models cannot be tested for degree of global measurement model fit, but are displayed here to aid comparison of models across the manuscript text and tables. Bolded models indicate that this version of the instrument was qualified to be used in predictive evidence of validity testing (see Table 2). The scaled chi-square for models M1 through M8 were statistically significant at the p < .001 level. ISCI = Intention to Seek Counseling Inventory. GHSQ = General Help Seeking Questionnaire. Statistics are based on MLR estimation. Scaled $\chi 2$ = scaled chi-square test statistic, RMSEA = Root Mean Square Error of Approximation, CI = Confidence Interval, CFI = Comparative Fit Index, TLI = Tucker-Lewis Index, SRMR = Standard Root Mean Square Residual.