

Self-Stigma of Seeking Treatment and Being Male Predict an Increased Likelihood of Having an Undiagnosed Eating Disorder

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ABSTRACT

Objective: To examine whether self-stigma of seeking psychological help and being male would be associated with an increased likelihood of having an undiagnosed eating disorder.

Method: A multi-national sample of 360 individuals with diagnosed eating disorders and 125 individuals with undiagnosed eating disorders were recruited. Logistic regression was used to identify variables affecting the likelihood of having an undiagnosed eating disorder, including sex, self-stigma of seeking psychological help, and perceived stigma of having a mental illness, controlling for a broad range of covariates.

Results: Being male and reporting greater self-stigma of seeking psychologi-

cal help was independently associated with an increased likelihood of being undiagnosed. Further, the association between self-stigma of seeking psychological help and increased likelihood of being undiagnosed was significantly stronger for males than for females.

Discussion: Perceived stigma associated with help-seeking may be a salient barrier to treatment for eating disorders—particularly among male sufferers. ©2015 Wiley Periodicals, Inc

Keywords: eating disorders; self-stigma of seeking help; males; undiagnosed

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Introduction

Males are less likely than females to receive treatment for mental health problems, including eating disorders.¹ One possible reason for low uptake of mental health care among males with eating disorders is that males may be particularly susceptible to perceived stigma associated with mental health treatment. Self-stigma of seeking psychological help reflects the degree to which stigma surrounding the use of mental health services is internalised by individuals with mental health problems.² It is seen to be related to, but distinct from, the stigma

associated with having a mental health problem per se.²

Males may be more susceptible than females to self-stigma of seeking psychological help because traditional male gender roles, including independence, resilience, and self-reliance, eschew the types of beliefs, attitudes and behaviors entailed in the act of seeking treatment for mental health problems.³ Further, the stigma attached to eating disorders may exacerbate the problem insofar as eating disorders are perceived as female conditions that sufferers should be able to overcome with relative ease.^{4–6}

In view of the low base rates of eating disorders among males in general population samples,⁷ novel approaches are needed to elucidate barriers to help-seeking in this population. With this in mind, the goal of the current study was to examine sex differences in the association between self-stigma of seeking psychological help and the likelihood of having an undiagnosed eating disorder. It was hypothesised, first, that males would be over-represented among individuals with undiagnosed eating disorders; second, that increased self-stigma of seeking psychological help would predict an increased probability of being undiagnosed; and third, that the association between self-stigma and

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the likelihood of being undiagnosed would be stronger for males than for females.

Method

Recruitment of Participants and Allocation to Diagnosed/Undiagnosed Groups

Participants were recruited through a hyperlink that led them to an (anonymous) Internet survey. Advertisements containing the hyperlink were disseminated by eating disorder organisations predominantly located in Australia, the USA, and UK. The advertisement solicited individuals who were currently diagnosed with an eating disorder, recovered from an eating disorder, or who believed that they might currently have an eating disorder.

The survey was accessed by 1,169 individuals. Of these, 314 declined to participate or did not complete any questions. Data were excluded from Respondents who indicated that they had recovered from an eating disorder ($n = 180$), who did not think that they currently had an eating disorder ($n = 30$), who did not complete one or more key study measures ($n = 16$), who indicated their sex as transgender ($n = 11$), or who failed data validity checks ($n = 12$).

Initially, participants were asked to answer “yes” or “no” as to whether they had ever been diagnosed with an eating disorder by a health professional, such as a general practitioner or psychologist. Participants who answered “yes” to this question were allocated to the diagnosed group. Participants who answered “no” were given a second “yes/no” question, namely, “Do you think you might have an eating disorder?” Participants who answered “yes” to this second question were allocated to the undiagnosed group. The survey was terminated for participants who answered “no” to both questions.

Measures

Self-Stigma of Seeking Psychological Help. The 10-item Self-Stigma of Seeking Help scale (SSOSH)⁸ measured participants’ beliefs about potential adverse effects of psychological help-seeking. Example items include: “It would make me feel inferior to ask a therapist for help” and “I would feel worse about myself if I could not solve my own problems.” The scale has been found to predict help-seeking for mental health problems and to have acceptable test-retest reliability (.82) in an undergraduate population.⁸ Cronbach’s alpha in the present study was .88.

Perceived Stigma of Mental Illness. Participants’ beliefs about the stigma of mental illness were measured using the Perceived Discrimination and Devaluation Scale

(PDD).⁹ Psychometric properties of the PDD are well-established.¹⁰ Cronbach’s α in the present study was .89.

Eating Disorder Psychopathology. Eating disorder psychopathology was assessed using the Eating Disorder Examination (EDE-Q).¹¹ Scores on four subscales—Restraint, Eating Concern, Weight Concern and Shape Concern—as well as a global score may be derived from the 22 items assessing attitudinal features. Eating disorder behaviors assessed (no occurrence/occurrence) include self-induced vomiting, misuse of laxatives or diuretics, binge eating and excessive exercise. Cronbach’s α for the EDE-Q global score in the current study was .91.

Statistical Analysis

Differences between diagnosed and undiagnosed participants were examined using univariate ANOVAs (for continuous data) or χ^2 tests (for nominal data). Hierarchical binary logistic regression analysis was used to identify variables affecting the likelihood of having an eating disorder diagnosis. Variables entered at Step 1 were sex, self-stigma of seeking psychological help, perceived stigma of mental illness, the EDE-Q global score, variables indicating the occurrence (none, any) of eating disorder behaviors, duration (in years) of eating disorder symptoms, number of currently diagnosed co-morbid conditions, and demographic variables (country of residence, employment status, relationship status, educational attainment) (age was not included due to multicollinearity with duration of symptoms). Quadratic terms for duration of symptoms and number of co-morbid conditions were entered at step 2 because preliminary analysis indicated quadratic relationships between these variables and outcome variables. Terms indicating interactions between sex and self-stigma of seeking psychological help, sex and perceived stigma of mental illness, and self-stigma of seeking psychological help and perceived stigma of mental illness, were entered at the third and final step. Participants with missing data for key variables were excluded. The final sample comprised 360 individuals with diagnosed eating disorders and 125 individuals with undiagnosed eating disorders. All analyses were conducted using SPSS version 21.

Results

Levels of eating disorder psychopathology were very high for both diagnosed and undiagnosed participants. Further, for most of the eating disorder symptom variables, there were no significant differences between the two groups (see Table A of the Supporting Information). Approximately half (53.3%) of participants in the diagnosed group reported current treatment for an eating disorder and 42.5% reported receiving treatment in the past

TABLE 1. Descriptive statistics and statistical comparisons between diagnosed and undiagnosed participants for categorical variables

Variable	Level	Diagnosed		Undiagnosed		Statistical Comparison	
		<i>n</i>	%	<i>n</i>	%	$\chi^2(df)=$	<i>p</i>
Sex	Male	16	4.4	20	16.0	$\chi^2(1) 5 18.03$	<.001
	Female	344	95.6	105	84.0		
Residence	Australia	104	28.9	8	7.1	$\chi^2(3) 5 42.64$	<.001
	United States of America	118	32.8	50	40.0		
	United Kingdom	75	20.8	18	14.4		
	Other (23 countries in total)	63	17.5	50	40.0		
Employment	Paid employment	134	37.2	23	18.4	$\chi^2(2) 5 22.11$	<.001
	Student	164	45.6	87	69.6		
	Other	62	17.2	15	12.0		
Highest level of education	High school/secondary school	88	24.4	44	33.3	$\chi^2(2) 5 5.58$	.061
	University/college	237	65.8	72	57.6		
	Other	35	9.7	9	9.1		
Relationship status	Single	230	63.9	84	67.2	$\chi^2(2) 5 1.19$	.550
	In a relationship	118	32.8	39	31.2		
	Other	12	3.3	2	1.6		
Self-reported diagnosis	Anorexia nervosa	163	45.3	22	17.6	$\chi^2(4) 5 45.11$	<.001
	Bulimia nervosa	70	19.4	20	16.0		
	EDNOS	92	25.6	49	39.2		
	Binge eating disorder	17	4.7	16	12.8		
	Other/unsure	18	5.0	18	14.4		
Treatment status	Currently in treatment for eating disorder	199	55.3	0	0.0	$\chi^2(2) 5 118.11$	<.001
	Not currently in treatment for eating disorder	150	41.7	113	90.4		
	Other	11	3.1	12	9.6		

but not currently (Table 1). No participants in the undiagnosed group reported current treatment for an eating disorder.

The logistic regression model at Step 1 was significant (Nagelkerke $R^2 5 .45$, $\chi^2 5 176.41$, $p < .001$). The addition of the quadratic terms at Step 2 resulted in a significant increase in the explanatory power of the model ($\Delta R^2 5 .02$, $\chi^2 5 9.85$, $p 5 .007$), as did the addition of the interaction terms at Step 3 ($\Delta R^2 5 .02$, $\chi^2 5 8.20$, $p 5 .042$) (final model: $R^2 5 .49$, $\chi^2 5 194.46$, $p < .001$). The final model correctly classified 82.9% of cases. Sensitivity was 55.2% and specificity was 92.5%. Positive predictive value was 71.9% and negative predictive value was 85.6%.

Variables associated with an increased probability of having an undiagnosed eating disorder included being male, greater self-stigma of seeking psychological help, and binge eating, whereas variables associated with a decreased probability of being undiagnosed (i.e., increased probability of being diagnosed) included longer duration of symptoms, a larger number of currently diagnosed co-morbid conditions, and self-induced vomiting (Table 2). There was a significant interaction between sex and self-stigma of seeking psychological help, i.e., the association between greater self-stigma of seeking psychological help and increased probability of being undiagnosed was stronger for males than females.

Discussion

We explored the association between self-stigma of seeking psychological help and the likelihood of being undiagnosed, and moderation of this association by sex, among individuals with clinically significant eating disorders. The main findings were twofold. First, being male and reporting greater self-stigma of seeking psychological help were independently associated with an increased probability of having an undiagnosed eating disorder. Second, the association between self-stigma of seeking psychological help and increased likelihood of having an undiagnosed eating disorder was stronger for males than for females.

These findings are consistent with the view that males with eating disorders are more reluctant to seek treatment than females, hence more likely to be undiagnosed, and that perceived stigma associated with help-seeking may be a factor in this. Perceived stigma associated with help-seeking may be particularly problematic among males with eating disorders due to the public perception that eating disorders are “female” problems and/or problems that sufferers can and should manage on their own.^{5,12} Given the very high levels of eating disorder pathology observed among undiagnosed participants in the current study (see Table A of the Supporting Information), addressing negative beliefs about receiving mental health treatment among males with eating disorders may be

TABLE 2. Summary statistics from the final step of the hierarchical binary logistic regression predicting the probability of participants having an undiagnosed eating disorder relative to a diagnosed eating disorder

Predictor ^a	<i>b</i>	SE <i>b</i>	OR	95% CI	Wald Test	<i>p</i>
Stigma						
Self-stigma of seeking psychological help	0.45	0.20	1.57	1.07, 2.30	5.24	.022
Perceived stigma of mental illness	0.34	0.21	1.40	0.93, 2.11	2.63	.105
Demographics						
Sex (female ^{REF} vs. male)	1.40	0.53	4.04	1.43, 11.43	6.90	.009
Residence (Australia ^{REF} vs. UK)	1.15	0.56	3.16	1.06, 9.45	4.22	.040
Residence (Australia ^{REF} vs. USA)	1.83	0.50	6.27	2.34, 16.79	13.34	<.001
Residence (Australia ^{REF} vs. Other [23 countries])	2.23	0.52	9.94	3.62, 27.29	19.88	<.001
Interactions between sex and stigma						
Sex by self-stigma of seeking psychological help	1.92	0.91	6.81	1.39, 33.25	5.62	.018
Sex by self-stigma of mental illness	0.29	0.66	1.33	0.37, 4.85	0.19	.662
Self-stigma of seeking psychological help by self-stigma of mental illness	20.05	0.24	0.95	0.59, 1.54	0.04	.845
Eating disorder symptomatology						
EDE-Q global score	20.02	0.15	0.98	0.72, 1.33	0.01	.906
Laxatives (no occurrence ^{REF} /occurrence)	20.54	0.40	0.58	0.26, 1.28	1.83	.176
Diuretics (no occurrence ^{REF} /occurrence)	1.02	0.55	2.77	0.94, 8.18	3.42	.065
Objective binge (no occurrence ^{REF} /occurrence)	1.29	0.31	3.61	1.96, 6.67	16.86	<.001
Subjective binge (no occurrence ^{REF} /occurrence)	0.16	0.34	1.17	0.60, 2.30	0.22	.642
Hard exercise (no occurrence ^{REF} /occurrence)	20.28	0.29	0.76	0.43, 1.34	0.90	.343
Self-induced vomiting (no occurrence ^{REF} /occurrence)	20.78	0.31	0.46	0.25, 0.83	6.55	.010
Duration of eating disorder symptoms (years)	20.10	0.03	0.90	0.85, 0.96	10.26	.001
Duration of eating disorder symptoms ^a	<0.01	<0.01	1.00	1.00, 1.01	4.81	.028
Co-morbid conditions						
Number of currently diagnosed co-morbid conditions	20.62	0.12	0.54	0.43, 0.68	27.58	<.001
Number of currently diagnosed co-morbid conditions ^a	0.09	0.03	1.09	1.03, 1.16	7.51	.006

Note: The full model incorporated statistically non-significant demographic variables not shown here, including employment status, relationship status and highest level of education. ^{REF} Denotes the reference group.

^aDenotes a quadratic term.

Bold denotes statistical significance.

particularly important in early intervention initiatives.

Limitations of the current study are noted. First, the cross-sectional study design limits any inferences concerning the direction of the observed associations. Second, the experience of treatment may reduce self-stigma about seeking treatment. Third, the number of male participants was relatively small. Fourth, certain subgroups of sufferers, such as those unaffiliated with eating disorder services, may have been under-represented. Fifth, other factors likely to influence the likelihood of diagnosis, such as access to and availability of services, were not considered. Sixth, in the absence of interview assessment, potential effects of eating disorder diagnosis could not be considered. Given these limitations, the present study should be viewed as hypothesis-generating rather than hypothesis-testing.

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