Explaining depression symptoms in patients with Social anxiety disorder: Do maladaptive metacognitive beliefs play a role?

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Abstract

Social anxiety disorder (SAD) is a major risk factor for developing symptoms of depression. Severity of social anxiety has previously been identified as a risk factor, and cognitive models emphasise dysfunctional schemas and self-processing as the key vulnerability factors underlying general distress in SAD. However, in the metacognitive model, depressive and other symptoms are related to metacognitive beliefs. The aim of the current study was therefore to test the relative contribution of metacognitions when controlling for SAD severity and factors postulated in cognitive models. In a cross-sectional design, one-hundred and two patients diagnosed with primary SAD were included. We found that negative metacognitive beliefs concerning uncontrollability and danger and low confidence in memory emerged as the only factors explaining depressive symptoms in the regression model, suggesting that metacognitive beliefs are associated with increased depressive symptoms in SAD patients.

Keywords: Social anxiety disorder; depression; metacognitive beliefs; metacognition; comorbidity; vulnerability

Introduction

Social anxiety disorder (SAD) is one of the most common mental disorders with a lifetime prevalence of 13 % (Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012) and is associated with substantial functional disability, less life satisfaction and lower quality of life (Stein & Kean, 2000). If left untreated, SAD has a chronic course and low rates of recovery (Bruce et al., 2005). In addition, about two-thirds of individuals with lifetime SAD meet criteria for at least one other lifetime DSM-IV disorder (Ruscio, Brown, Chiu, Sareen, Stein, & Kessler, 2008), and due to its early onset, SAD usually precedes the development of other disorders (Fehm, Beesdo, Jacobi, & Fiedler, 2008).

In particular, SAD is a major risk factor for depression (Belzer & Schneier, 2004; Dalrymple & Zimmerman, 2007). Ohayon and Schatzberg (2010) showed that the odds of developing major depressive disorder (MDD) was more than 5 times higher in SAD patients than in controls. Compared to patients with MDD only, patients with SAD and MDD are more likely to have lower functioning overall and lower social functioning, worse quality of life, earlier age of MDD-onset, greater depressive symptom severity, longer duration of depressive episodes, greater suicidal ideation, greater likelihood of comorbid alcohol use disorders, and worse treatment outcomes (Stein et al., 2001; Aderka et al., 2012; Barrera & Norton, 2009; Blanco, Xu, Schneier, Okuda, Liu, & Heimberg, 2011; Dalrymple & Zimmerman, 2007; Ohayon & Schatzberg, 2010). In children, social anxiety predicts depressive symptoms one year later even when initial levels of depression are controlled, while depressive symptoms do not predict social anxiety one year later (Aune & Stiles, 2009). The identification of mechanisms underlying depressive symptoms and vulnerability for developing MDD in patients with SAD is therefore of significant conceptual and therapeutic importance.

Previous research has indicated that vulnerability for developing depression in patients with SAD might be explained by greater severity of social fears (Stein & Kean, 2000). As the number of social fears increases, the quality of life decreases and the chance of depressive symptoms increases (Acarturk, de Graaf, van Straten, ten Have, & Cuijpers, 2008; Ruscio et al., 2008). Moreover, about half of SAD patients also have a comorbid diagnosis of Avoidant personality disorder (AvPD) (Friborg, Martinussen, Kaiser, Overgard, & Rosenvinge, 2013) which has been viewed as a more severe form of SAD (Bögels et al., 2010), and patients with SAD and comorbid AvPD report more depressive symptoms compared to patients with SAD alone (van Velzen, Emmelkamp, & Scholing, 2000). Thus, depressive symptoms might result from severity of social anxiety as indicated by the presence of comorbid AvPD, greater severity of social fears or higher anxiety levels (e.g., Beesdo et al., 2007).

It has been argued that common (transdiagnostic) underlying predictors of distress in disorders rather than topographical differences (e.g. symptom severity) should become a greater focus in psychopathology research (e.g., Wells & Matthews, 1994). Furthermore, different models offer disparate views of which underlying factors are central to distress. In cognitive approaches (e.g., Clark & Wells, 1995; Rapee & Heimberg, 1997), distress in SAD results from the effect of social phobic beliefs (schemas) on processing. These beliefs, such as "I'm a failure" give rise to biased processing of the self and maladaptive coping strategies. It has been documented that individuals with social anxiety and depression share similar negative self-schematic structures (Dozois & Frewen, 2006), and cognitive biases like self-focused attention (Aldao, Nolen-Hoeksema, & Schweizer, 2010). Moreover, schemas and processing of the self could reinforce social fears and predispose socially anxious individuals to avoidant coping. Avoidance has been shown to mediate the relationship between anxiety and later depression (Jacobson & Newman, 2014) and behavioural avoidance has been shown to mediate the relationship between anxiety and depressive symptoms in patients with SAD

(Moitra, Herbert, & Forman, 2008) and is also a key characteristic of AvPD (American Psychiatric Association, 2013). Thus, from a cognitive approach, self-beliefs and the strategies and symptoms that lead from them could account for the vulnerability to depressive symptomatology in patients with SAD.

In contrast to the cognitive approach, metacognitive theory (Wells & Matthews, 1994; 1996), proposes that a particular pattern of responding to inner experiences called the *cognitive attentional syndrome* (CAS; Wells, 2009) is universally involved in psychological disorders. The CAS consists of worry/rumination, threat monitoring and maladaptive coping strategies, and is directly linked to underlying metacognitive beliefs (i.e. beliefs about thinking). Maladaptive metacognitive beliefs are thought to compromise mental self-regulation because they facilitate the activation of the CAS in response to cognitive appraisals. For example, the belief that thinking is uncontrollable predisposes an individual to perseverate and brood over negative self-beliefs (e.g. "I'm inadequate") when they occur. Thus, in the metacognitive approach, patients with SAD are vulnerable to depressive symptomatology due to their thinking style, which is guided by their underlying metacognitive beliefs, rather than due to social fears and self-beliefs (schemas).

In line with the metacognitive model (Wells & Matthews, 1994), maladaptive metacognitive beliefs have been associated with social anxiety (see Gkika, Wittkowski, & Wells, 2017 for a review) and with depression (see Sun, Zhu, & Ho-wai, 2017 for a review). Moreover, two studies have investigated the association between change in metacognitive beliefs and depressive symptoms in SAD patients undergoing cognitive-behavioural therapy. McEvoy, Mahony, Perini and Kingsep (2009) reported positive bivariate correlations between reductions in depressive symptoms and reductions in negative metacognitive beliefs, cognitive confidence and beliefs about the need to control thoughts. McEvoy and Perini (2009) found a positive correlation between reductions in depressive symptoms and

reductions in cognitive confidence and beliefs about the need to control thoughts. While these studies indicate that metacognitive beliefs are associated with depressive symptoms in SAD patients, they did not test the relative predictive value of metacognitive beliefs while controlling for the other indicated risk factors in this context. The primary aim of the present study was therefore to explore predictors of depressive symptoms in patients with primary SAD by testing the capacity of metacognitive beliefs to explain additional and unique variance in them. In order to test the utility of the metacognitive model we selected patients with a principal diagnosis of SAD with or without avoidant personality disorder. To provide a stringent test of the contribution of metacognitions, several variables were controlled before exploring the relative contribution of metacognitive beliefs. Gender was controlled as the risk of developing depression is considerably higher among women than men (Kuehner, 2003), and female gender has been reported as a significant predictor of the progression from SAD to subsequent depression (Beesdo et al., 2007). Moreover, as social fear or disorder severity may explain the vulnerability for depression in patients with SAD, we controlled for the presence of AvPD, fear of negative evaluation and general anxiety severity. Furthermore, components that are given prominence in cognitive models (social phobic beliefs, self-consciousness, avoidance) were controlled before adding metacognitive beliefs to the model. Our hypotheses were as follows; 1) depressive symptoms will be positively correlated with social fears, anxiety levels, social phobic beliefs, self-consciousness, avoidance and metacognitive beliefs; 2) disorder severity indicated by the presence of AvPD, social fears and anxiety levels will predict depressive symptoms; 3) metacognitive beliefs will positively predict depressive symptoms even when SAD-severity (AvPD, social fears, anxiety levels) and factors central in cognitive models are controlled. Among the metacognitive belief domains, we expected negative metacognitive beliefs (beliefs about the uncontrollability and corresponding danger of thoughts) to be the strongest predictor of depressive symptoms as

these beliefs are the strongest metacognitive associates of the CAS across psychological disorders (Wells, 2009; Sun et al., 2017). However, we were also interested to explore if other domains of metacognitive beliefs could make an additional contribution when negative metacognitive beliefs and the other predictors were accounted for and so we explored any additional contributions on subsequent steps.

Methods

Participants and procedure

One hundred and two patients (n=102) diagnosed with generalized social anxiety disorder (DSM-IV-TR; APA, 2000) with or without avoidant personality disorder were included in the present study. The patients screened were from assessments prior to inclusion in controlled trials (Nordahl et al., 2016; Vogel et al., 2016) and had been assessed at the university outpatient clinic at the department of psychology, Norwegian University of Science and Technology. None of the included patients in this study were taking anxiolytic/antidepressant medications. All of the patients were assessed on the Anxiety Disorders Interview Schedule for DSM-IV (ADIS: Brown, DiNardo, & Barlow, 1994) and on the Structured Clinical Interview for DSM-IV Axis II Disorders (SCID-II: First, Gibbon, Spitzer, & Benjamin, 1997) by trained assessors, and met the criteria for social anxiety disorder as their principal diagnosis, meaning that social anxiety was the most debilitating problem for these patients at the time of assessment. Among the available patients, we excluded 35 patients who had other comorbid disorders than AVPD since we did not know if these disorders preceded social anxiety or shared separate links with metacognitions. Metacognitions have been linked to depressive disorder in other research (e.g., Papageorgiou & Wells, 2003; Halvorsen et al., 2015) and as our research question was about the severity of depressive symptoms in those with principal social anxiety disorder, patients with a comorbid

diagnosis of major depressive disorder (MDD) had to be excluded as a means to explore the hypothesised relationships and not just an association between metacognitions and current or previous MDD. Moreover, metacognitive beliefs (e.g. beliefs about the uncontrollability of worry) could pick up symptoms of generalized anxiety disorder (GAD), so all individuals with comorbid GAD had to be excluded from the present study to make sure that our exploration of the association between these metacognitions and depressive symptoms were not contaminated by GAD symptoms. The inter-rater reliability of independent raters was determined based on 20 randomly selected video-taped assessments out of the first 80 included participants. For the diagnosis of SAD the kappa was: $\kappa = 0.84$, and for AvPD it was: $\kappa = 0.80$. All participants were Caucasian and had Norwegian as their native language. Of the included participants, 59 (58 %) were diagnosed with comorbid AvPD. Forty-seven (46 %) of the participants were female, and the mean age was 29.8 years (SD =10.6). As their marital status, 61 (60 %) reported they were single, 35 (34 %) married/cohabitant, 2 (2 %) were divorced and 4 (4 %) were in a relationship. Of the total sample, 40 (39 %) reported that they had received higher education, and 27 (27 %) were still students.

Measures

Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a 21-item self-report scale assessing current level of depression symptoms. BDI has a range from 0 to 63, high scores indicating higher levels of depression. The BDI has high internal consistency ($\alpha = .86$) and the test-retest reliability has been reported as more than .60 (Beck, Steer & Garbin, 1988). In the current study, the scale had good internal consistency ($\alpha = .80$).

Beck Anxiety Inventory (BAI: Beck, Epstein, Brown, & Steer, 1988) is a 21-item self-report scale designed to assess the severity of somatic and cognitive anxiety symptoms over the previous week. Scores range from 0 to 63, high scores indicating higher levels of anxiety.

BAI has high internal consistency (α = .92) and good test-retest reliability (.75) (Beck, Epstein, Brown & Steer, 1988). In the current study, the scale had excellent internal consistency (α = .90).

The Fear of Negative Evaluation scale (Watson & Friend, 1969) is a 30-item measure of apprehension and anxiety over anticipated social evaluations. The measure uses a true-false scale with good internal consistency (α = .94) and test-retest reliability (r = .78) (Watson & Friend, 1969). FNE has a range from 0 to 30, high scores indicating higher levels of social fears and anxiety. In the current study sample, the scale had good internal consistency (α = .88).

The Social Phobia Rating Scale (SPRS; Wells, 1997) has five rating-scales assessing key components of the cognitive model and therapy of social anxiety (Clark & Wells, 1995); distress, avoidance, self-consciousness, use of safety behaviours, and social phobic beliefs. In the current study, we used the following subscales; Avoidance: participants are asked to rate the extent they have avoided social situations the previous week on a scale ranging from 0 (not at all) to 8 (all the time). Self-consciousness: participants are asked to rate how self-conscious they have felt in social situations the last week on a scale ranging from 0 (not at all) to 8 (extremely). Social phobic beliefs: participants are asked to rate how much they believe 14 different negative beliefs characterizing social phobia on a scale from 0 (not at all) to 100 (totally convinced that the belief is true) when they are socially anxious, for example “I look bad” and “They will notice I’m anxious”. A total score can be derived by summating the belief ratings for each item, so the total scale ranges from 0 to 1400. In the current study, the scale had excellent internal consistency (α = .90). The psychometric properties of the SPRS have been reported as good as indicated by excellent internal consistency (α = .96) and test-retest reliability over 8 weeks (r = .89) for the total score (Nordahl, Nordahl, & Wells, submitted manuscript).

The Metacognitions questionnaire 30 (MCQ-30; Wells & Cartwright-Hatton, 2004) is a widely used 30-item self-report scale measuring beliefs about thinking. Responses are required on a four-point scale ranging from 1 (do not agree) to 4 (agree very much). MCQ-30 has a replicable five-factor structure concerning: 1) positive beliefs about worry; 2) negative beliefs about the uncontrollability and danger of worry; 3) cognitive confidence; 4) need to control thoughts; and 5) cognitive self-consciousness. Higher scores reflect stronger endorsements of the beliefs in question. The measure has shown good internal consistency with α ranging from .72 to .93 and a re-test correlation for the total scale was .75 (Wells & Cartwright-Hatton, 2004). In the current study, the internal consistency ranged from .77 to .91.

Overview of statistical analyses

Pearson bivariate correlations were used to explore the correlational relationship between the variables. A hierarchical multiple regression analysis was run to test the additional contribution of metacognitive factors in explaining variance in symptoms of depression. BDI was treated as the dependent variable. Gender was controlled in the first step, the presence of AvPD, social fears (FNE) and anxiety severity (BAI) in the second step, social phobic beliefs in the third step, and self-consciousness and avoidance in the fourth step. In the fifth step, negative metacognitive beliefs were entered as we predicted they would be the strongest metacognitive correlate of depressive symptoms. In the final step, we included all the remaining subscales of the MCQ-30 using stepwise entry to explore if any of the remaining metacognitive belief domains could explain additional variance over and above the pre-specified predictors.

Results

Correlational analyses

Symptoms of depression were positively and significantly associated with symptoms of anxiety, fear of negative evaluation, social phobic beliefs, self-consciousness, and all of the MCQ-30 subscales. However, depressive symptoms were not significantly associated with avoidance. The bivariate correlations between all variables are presented in table 1.

Insert table 1 about here

Linear regression analyses

On the first step of the regression, gender was not a significant predictor of depressive symptoms. On the second step, anxiety (BAI) was significant, and when entered together with AvPD and FNE explained an additional 14.6 % of the variance. On the third step, social phobic beliefs were not a significant predictor of depressive symptoms, but entering social phobic beliefs led all other predictors to be non-significant. On the fourth step, neither self-consciousness nor avoidance were significant predictors of depressive symptoms, and none of the control variables from the previous steps were significant. On the fifth step, negative metacognitive beliefs were entered and were significant predictors of depressive symptoms, explaining an additional 17.3 % of the variance. In the sixth step, when stepwise entry was used to explore any potential contribution from the remaining MCQ-30 subscales, cognitive confidence entered the model explained an additional of 3.5 % of the variance. In this final step, negative metacognitive beliefs and cognitive confidence were significant predictors of depressive symptoms, while gender, avoidant personality disorder, social fears (FNE), anxiety symptoms (BAI), social phobic beliefs, self-consciousness and avoidance were non-significant. Negative metacognitive belief was the strongest predictor of depressive symptoms, and in sum, metacognitive beliefs explained 20.8 % of the variance in depressive

symptoms in SAD patients over and above the other predictors. The regression summary statistics are presented in table 2.

Insert table 2 about here

Discussion

To the authors' knowledge, this is the first study to investigate metacognitive beliefs as predictors of depressive symptoms in patients diagnosed with principal SAD. Our findings suggest that metacognitive beliefs, in particular higher beliefs about the uncontrollability and danger of worry and judgements of lower confidence in memory, are associated with increased depressive symptoms in these patients. SAD-severity as indicated by social fears, AvPD, BAI, and endorsement of cognitive-behavioural factors (severity of social phobic beliefs, self-consciousness, and avoidance) did not contribute to depressive symptoms when metacognitive beliefs were entered.

This is an interesting finding because it suggests that metacognitive beliefs contribute to depressive symptoms in SAD patients (at least cross-sectional; i.e. at a maintenance level) even when several other relevant factors such as social fears and factors emphasised in psychological treatment of SAD (Clark & Wells, 1995; Wells, 1997) that contribute to social anxiety severity are controlled. This finding is consistent with the metacognitive model which states that metacognitions are generic risk factors for comorbidity. Metacognitive beliefs correlate with both social anxiety and depressive symptoms suggesting that these are more likely to be associated with depression symptoms reports in patients with social anxiety disorder and might explain aspects of comorbidity. Furthermore, the metacognitive model predicts that metacognitive beliefs are not limited to depression comorbidity in social anxiety

but increase the risk of a range of pathologies. Their correlation with depression in SAD can be seen as one expression of this transdiagnostic effect.

Recent studies have shown that metacognitive- rather than social phobic beliefs are the more reliable predictors of social anxiety, and that beliefs about the uncontrollability and danger of thinking and low confidence in memory are particularly relevant (Nordahl, Nordahl, Hjemdal, & Wells, 2017; Nordahl & Wells, 2017a). Negative metacognitive beliefs have also been associated with lack of work status in high socially anxious individuals when symptom severity and factors emphasised in CBT are controlled (Nordahl & Wells, 2017b). These are the same metacognitive belief domains we found to be associated with depressive symptoms in SAD, suggesting that the same metacognitive beliefs might underlie different types of distress and impairments in SAD patients. The existence of a common set of metacognitions in social anxiety and mood symptoms is consistent with the idea that metacognitive beliefs are common factors across types of psychological distress. In line with our findings, two previous studies have reported a positive association between change in metacognitive beliefs (negative metacognitive beliefs, cognitive confidence and beliefs about the need for control) and change in depressive symptoms following cognitive-behavioural therapy for SAD (McEvoy et al., 2009; McEvoy & Perini, 2009). As these studies also report correlational data, metacognitive beliefs could be seen as a symptom of anxiety and depression which might account for the relationship observed. However, this is not consistent with the results of longitudinal studies that have shown that metacognitive beliefs are prospective predictors of depressive symptoms, consistent with their causal role (Cook, Salmon, Dunn, Holcombe, Cornford, & Fisher, 2015; Hjemdal, Stiles, & Wells, 2013; Papageorgiou & Wells, 2009; Yilmaz, Gençöz, & Wells, 2011).

We may speculate that dealing with metacognitive beliefs may have a broader impact on symptoms as they are transdiagnostic factors. For example, if metacognitions are a risk

factor for social anxiety and depression, treating social anxiety without properly modifying them may not remove the more generic risk for developing pathology associated with maladaptive metacognitions. Moreover, our results indicate that reducing social anxiety severity may not be sufficient to reduce vulnerability to depression if metacognitive beliefs are left unmodified. Metacognitive therapy (MCT; Wells, 2009) which directly aims to modify metacognitive beliefs has proven to be an effective treatment for depression and anxiety, and is also associated with high effect sizes on secondary symptom measures of for example depression in patients undergoing treatment for anxiety disorders (Normann, Emmerik & Morina, 2014). Moreover, MCT has previously been shown to be associated with positive outcomes in complex cases. For example, Hjemdal et al. (2016) showed that MCT was associated with substantial improvements in comorbid disorders in patients undergoing MCT for MDD, even though the primary focus in this treatment was depression. In a randomized controlled trial, Johnson, Hoffart, Nordahl and Wampold (2017) treated individuals with complex anxiety disorders with either generic MCT or disorder-specific CBT, and found that MCT was superior to CBT pre- to post treatment in reducing anxiety (primary outcome) and depressive symptoms (secondary outcome), which might be explained by MCT being more effective in modifying common underlying determinants of distress (e.g. metacognition) in these patients.

The present study has several important limitations that should be acknowledged. First, due to the study's cross-sectional design, causal inferences cannot be tested. Moreover, degree of self-consciousness and avoidance were measured using only one item for each variable, which may compromise sensitivity. Our inability to replicate findings from other studies, for example the importance of avoidance for developing comorbid depressive symptoms (Jacobson & Newman, 2014; Moitra et al., 2008), may be due to measurement factors as using single items to assess avoidance and self-consciousness may have limited our

ability to detect effects linked to these variables. We suggest further research to address these measurement issues and to explore causal predictors of change in depressive symptoms in SAD patients. Subsequent research might further investigate whether modifying maladaptive metacognitive beliefs is associated with improvements across diagnostic categories and reductions in the risk of patients going on to develop future mental health difficulties. The metacognitive model predicts that metacognitive beliefs are not limited to depression comorbidity in social anxiety but increase the risk of a range of pathologies, and the transdiagnostic effect of metacognitions is therefore an important area for further research.

In conclusion, the present study provides empirical support for an association between metacognitive beliefs and depressive symptoms in patients with SAD, even when controlling for other relevant factors such as social anxiety severity and severity of social phobic cognitions and behaviours. This finding indicates that a treatment approach which aims to directly modify maladaptive metacognitive beliefs could be potentially beneficial as metacognitions are associated with multiple types of distress.

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Table 1: Mean value and standard deviations for all variables, and the bivariate correlations between them (N = 102).

	2	3	4	5	6	7	8	9	10	11	Mean (SD)
1. BDI	.291**	.281**	.309**	.209*	.194	.210*	.506**	.345**	.395**	.409**	12.31 (6.43)
2. BAI		.312**	.254*	.382**	.293**	.242*	.366**	.003	.216*	.173	18.62 (8.94)
3. FNE			.436**	.326**	.254*	.253*	.247*	.168	.218*	.231*	24.42 (4.82)
4. SP-beliefs				.304**	.206*	.019	.157	.174	.150	.109	719.43 (286.40)
5. Self-consc.					.461**	.144	.345**	.038	.234*	.210*	4.50 (1.66)
6. Avoidance						.278**	-.010	.034	.046	.016	3.32 (2.05)
7. MCQpos							.373**	.140	.386**	.445**	8.70 (3.19)
8. MCQneg								.288**	.656**	.543**	14.08 (4.11)
9. MCQcc									.392**	.441**	11.43 (5.05)
10. MCQnc										.683**	10.37 (3.51)
11. MCQcsc											12.76 (3.74)

Note: SD = standard deviation, BDI = Beck depression inventory, BAI = Beck anxiety inventory, FNE = Fear of Negative Evaluation, SP-beliefs = social phobic beliefs, self-consc. = self-consciousness, MCQpos = positive metacognitive beliefs, MCQneg = negative metacognitive beliefs, MCQcc = cognitive confidence, MCQnc = need for control, MCQcsc = cognitive self-consciousness.
*p<.05, **p<.01.

Table 2: Statistics for each step of the regressions and betas on the final step with BDI as the dependent variable and gender, Avoidant personality disorder, social fears, anxiety, social phobic beliefs, self-consciousness, avoidance and the MCQ-30 subscales (stepwise entry) as predictors (N = 102).

Step		F change	R^2 change	β	t
1		.041	.000		
	Gender			.02	.202
2		4.666	.146**		
	Gender			-.04	-.366
	Avoidant personality disorder			.16	1.475
	FNE			.15	1.322
	BAI			.22	2.059*
3		1.859	.019		
	Gender			-.05	-.505
	Avoidant personality disorder			.13	1.124
	FNE			.11	.928
	BAI			.20	1.814
	Social phobic beliefs			.16	1.363
4		.180	.004		
	Gender			-.06	-.547
	Avoidant personality disorder			.14	1.214
	FNE			.11	.879
	BAI			.20	1.701
	Social phobic beliefs			.16	1.332
	Self-consciousness			.05	.393
	Avoidance			-.07	-.561
5		20.577	.173**		
	Gender			.01	.096
	Avoidant personality disorder			.10	.968
	FNE			.07	.623
	BAI			.06	.517
	Social phobic beliefs			.16	1.498
	Self-consciousness			-.11	-.918
	Avoidance			.07	.573
	MCQ-30: Negative beliefs			.48	4.536**
6		4.269	.035*		
	Gender			.01	.057
	Avoidant personality disorder			.09	.889
	FNE			.06	.512
	BAI			.09	.827
	Social phobic beliefs			.14	1.291
	Self-consciousness			-.08	-.720
	Avoidance			.05	.436
	MCQ-30: Negative beliefs			.42	3.800**
	MCQ-30: Cognitive confidence			.20	2.066*

Note. FNE = Fear of Negative Evaluation, BAI = Beck anxiety inventory, *p< 0.05, **p< 0.01.