

Gender Differences in Self Reported Worrying and Emotional Regulation Deficits in Generalized Anxiety Disorder (GAD) Patients

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ABSTRACT

Background: Studies of gender differences in GAD have revealed female preponderance in the epidemiology, co morbidity, and symptom severity in GAD. Relatively less explored are gender differences in the cardinal feature of GAD, i.e. excessive worrying and in the underlying emotional regulation deficits, the presence of which is evidenced in GAD sufferers. **Objective:** To assess gender differences in the self reported worrying and emotional regulation difficulties in Generalized Anxiety Disorder (GAD) patients. **Method:** Data were derived from a 150 patients (75 male and 75 female patients) with a primary psychiatric diagnosis of GAD (DSM-V, 2013); who were under treatment from various psychiatric centers based in Haryana. The tools used were Penn State Worry Questionnaire (PSWQ) and Difficulties in Emotion Regulation Scale (DERS). **Results:** Women with GAD had significantly higher self reported worrying levels and greater emotional regulation deficits than men with GAD. **Conclusion:** The current study provides evidence for gender differences in worrying and emotional regulation deficits in GAD patients. Women GAD patients worry more and have more emotional regulation deficits as compared to male GAD patients.

Keywords: Generalized Anxiety disorder, GAD, Gender Differences, Worry, Emotional Regulation Deficits

Generalized anxiety disorder (GAD) is one of the most common, chronic and debilitating anxiety disorders, which has excessive disproportionate worrying as its hallmark characteristic. Akin to other anxiety disorders, the prevalence rates of GAD have been found to be almost double in women as compared to men. This is evidenced in both clinical (Woodman et al., 1999; Yonkers, Warshaw et al., 1996) as well as community samples (Wittchen et al., 1994) of GAD. Female preponderance is evidenced in the co morbidity,

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somatic symptom presentation in GAD. Emotional dysregulation is one vulnerability factor that has shown involvement in the development and maintenance of GAD. Mennin et al (2002, 2005) suggested that the presence of emotional regulation deficits may account for the tendency of GAD sufferers to use excessive worry as a cognitive avoidance strategy.

The study of gender related differences in GAD need to entail the core symptom of GAD, i.e. excessive worrying and also the emotional regulation deficits that evidently underlie GAD. In India, GAD related research is lacking and through this study, we intend to significantly contribute to the existing repertoire of knowledge regarding GAD in the Indian population.

Objectives

1. To investigate gender differences in the self reported worry levels of patients with a primary diagnosis of GAD
2. To investigate gender differences in the emotional regulation deficits of patients with GAD.

Hypotheses

1. There will be significant difference in the self reported worry levels of male and female GAD patients.
2. There will be significant difference in the emotional regulation deficits of male and female GAD patients.

METHOD

Sample

The sample for the current study consisted of 150 patients (75 male and 75 female GAD patients), Indian citizens, aged between 30-50 year old (mean age= 41.5); with a primary diagnosis of Generalized Anxiety disorder (GAD), (according to DSM V, 2013 diagnostic criteria), diagnosed by and receiving treatment from various psychiatric centers in Haryana.

Inclusion criteria

Patients with a primary psychiatric diagnosis of GAD, according to DSM V (2013) diagnostic criteria for GAD, who gave consent for their participation in the study.

Exclusion criteria

(1) GAD patients who were not willing to participate in the study. (2) GAD patients who were suffering from severe medical illness or other psychiatric illness.

Measures

1. Penn State Worry Questionnaire (PSWQ)

The PSWQ (Meyer, Miller, Metzger, & Borkovec, 1990) is a self report questionnaire which is used to measure pathological worry. It constitutes 16-items and uses a Likert scale rating system. The ratings for each item are done from 1 (“Not at all typical”) to 5 (“Very typical”).

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This questionnaire also has 5 reverse scored items. The total scores lie in the range of 16 to 80. Higher scores denote greater self reported worrying.

2. Difficulties in Emotion Regulation Scale (DERS)

The DERS (Gratz & Roemer, 2004) is a self-report measure of emotional dysregulation or the difficulties in regulating emotions. It consists of 36 items and has 6 subscales which include 1. Nonacceptance (nonacceptance of emotional responses); Goals (difficulties engaging in goal-directed behavior); Impulse (impulse control difficulties); Awareness (lack of emotional awareness); Strategies (limited access to emotion regulation strategies); Clarity (lack of emotional clarity). DERS uses a Likert scale rating system and the items are rated by the participants on a scale of 1 to 5. The participants undertaking assessment using the DERS rate as to how much on a scale of 1 to 5, does each statement or item apply to them with 1 denoting (“almost never – 0- 10%”) to 5 denoting (“almost always – 91-100%”). Higher scores denote greater difficulties in emotion regulation.

Procedure

Male and female patients with a primary diagnosis of GAD, in accordance with the DSM V (2013) criteria for GAD, who were in the age range of 30- 50 year old, with a primary psychiatric diagnosis of GAD and under treatment from psychiatrists working in the state of Haryana, India, were taken for the current study. After receiving informed consent from the interested participants and the relevant instructions were clearly explained to them. They were asked to complete the related questionnaires for this study and were assured that the results would be used for this study and related scientific purposes only.

Statistical analyses

Statistical analyses were done using IBM SPSS version 19. The variables under investigation were - self-reported worrying, emotional regulation deficits. Comparison between the two groups in terms of the stated variables was done using Independent *t*-test.

RESULTS

Results of the current study have been tabulated in the following tables:

TABLE 1 - Summarized independent *t* test findings on comparing female and male GAD patients' self reported worry levels as measured by the Penn State Worry Questionnaire (PSWQ).

Gender	N	M (Mean) PSWQ scores	SD	t value	p value
Female	75	65.63	2.08	14.55	<.001
Male	75	59.71	2.85		

NOTES: N= 150 Generalized Anxiety disorder (GAD) patients, females=75, males= 75; PSWQ Mean(M) scores= Self reported worrying scores on the Penn State Worry Questionnaire

In order to test the hypothesis that there will be significant differences between male and female GAD patients on measures of self reported worry, the independent student *t* test was administered, the results of which are presented in Table 1.

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This analysis revealed a significant difference in the scores for female ($M=65.63$, $SD=2.08$) and male subjects ($M=59.71$, $SD=2.85$); ($t= 14.55$ with a p value $<.0001$), on self reported worrying as measured by the PSWQ. This implies that, the female GAD patients of this study had significantly higher self reported worrying levels than male GAD subjects.

TABLE 2 Summarized independent t test findings, after comparing female and male GAD patients on the various dimensions of emotional regulation difficulties, (i.e. NA, GD, CL, AW, ST, IM dimensions of emotional regulation difficulties and on Difficulties in Emotion Regulation in totality (DER-total).

Variable	Females		Males		df	t value	p value
	Mean	SD	Mean	SD			
NA	19.21	2.23	15.12	1.36	149	13.58	$<.001$
GD	17.59	1.49	14.080	1.08	149	16.53	$<.001$
CL	17.28	1.98	14.187	1.05	149	11.97	$<.001$
AW	15.72	2.23	14.91	1.18	149	2.79	$>.001$ (exact p value=.006)
ST	23.53	1.39	21.40	1.09	149	10.46	$<.001$
IM	18.52	2.19	14.93	1.41	149	11.93	$<.001$
DER-total	111.85	8.29	94.95	5.52	149	14.70	$<.001$

NOTES: $N= 150$ Generalized Anxiety disorder (GAD) patients, females= 75 , males= 75
 NA = Non-acceptance of emotional responses, GD = Difficulties engaging in goal directed behavior, CL = Lack of emotional clarity, AW = Lack of emotional awareness, ST = Limited access to emotion regulation strategies, IM = Impulse control difficulties, (which represent the various dimensions of emotional regulation difficulties; as measured by the difficulties in emotion regulation scale (DERS) and DER-total = difficulties in emotional regulation in totality (i.e. the sum of scores of the NA, GD, CL, AW, ST, IM dimensions of emotional regulation difficulties, as measured by the DERS).

As depicted in the table above, there is a significant difference in the scores for female subjects ($M=19.21$, $SD=2.2$) and male subjects ($M=15.12$, $SD=1.36$), $t = 13.58$, $p <.0001$; on the NA (Non acceptance) dimension of emotion regulation difficulties. This implies that there is greater non acceptance of emotions in female GAD subjects than the male subjects of the current study. Also as seen in the table above, there is a significant difference in the scores between female subjects ($M=17.587$, $SD=1.49$) and male subjects ($M=14.08$ $SD=1.07$), $t = 16.53$, $p <.0001$; on the GD (Difficulties in engaging in goal directed behavior) dimension of emotion regulation difficulties. This implies, that female GAD subjects have greater difficulties in engaging in goal directed behavior than the male subjects of the current study. Next, in the table, it is evident that, there is a significant difference in the scores between female subjects ($M=17.28$, $SD=1.97$) and male subjects ($M=14.18$, $SD=1.04$), $t = 16.53$, $p <.0001$; on the CL (Lack of emotional clarity) dimension of emotion regulation difficulties.

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This means that there is greater lack of emotional clarity in female GAD subjects than the male subjects of the current study. It is also seen that there is a non significant difference in the scores for female subjects ($M=15.72$, $SD=2.23$) and male subjects ($M=14.90$, $SD=1.17$), $t = 2.79$, $p > .0001$; on the AW (Lack of emotional awareness) dimension of emotion regulation difficulties. Female subjects of the current study have slightly greater lack of emotional awareness than the male subjects of this study, but the difference in the scores of female and male GAD subjects, on this dimension of emotion regulation difficulties is non significant. Next, it can be derived from the result table that, there is a significant difference in the scores between female subjects ($M=23.53$, $SD=1.38$) and male subjects ($M=21.4$ $SD=1.09$), $t = 10.46$, $p < .0001$; on the ST(Limited access to emotional regulation strategies) dimension of emotion regulation difficulties. Female subjects have scored more on this dimension than the male subjects. This implies that female GAD subjects have relatively more limited access to emotional regulation strategies, than the male subjects of the current study. Again, as depicted in the table above, there is a significant difference in the scores between female subjects ($M=18.52$, $SD=2.18$) and male subjects ($M=14.93$, $SD=1.40$), $t = 11.93$, $p < .0001$; on the IM (Impulse control difficulties) dimension of emotion regulation difficulties. This implies that female GAD subjects have significantly greater impulse control difficulties than the male subjects of the current study. Lastly, as shown in the table, there is a significant difference in the DER- total scores of female subjects ($M=111.85$, $SD=8.29$) as compared to male subjects ($M=94.94$, $SD=5.51$), $t = 14.70$, $p < .0001$). This implies, that female GAD subjects have significantly more difficulties in emotional regulation in totality, as compared to the male GAD subjects of the current study.

These findings support the hypothesis no.2, since there are significant differences between male and female GAD patients on the various dimensions of emotion regulation difficulties.

DISCUSSION

GAD like many other anxiety disorders is significantly more prevalent in females than males. Many research studies have been devoted to understand the epidemiology, etiology, treatment of GAD. However, there has been scarcity of research done specifically exploring the nature of sex differences in GAD, sex differences in GAD symptoms, and the underlying causal mechanisms as well as the treatment implications for such sex differences in GAD.

In Indian mental health scenario, there is scarcity of research regarding the study of the epidemiology, phenomenology, and evidenced based therapeutic management of anxiety disorders in general (Trivedi and Gupta 2010). GAD specific research is also lacking. To the best of authors' knowledge, there is no study in India, exploring gender differences on the stated variables in clinical population with GAD. Due to the scarcity of such research in India, the current study was planned and carried out. According to the objectives of this study, statistical analysis of the data attempted to probe whether there exist any significant difference between male and female GAD patients in their self reported worry levels, as well as to explore whether there exist any gender-related differences in the male and female GAD patients in their emotion regulation deficits.

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Gender differences in Worrying in GAD patients

Generalized Anxiety disorder (GAD), is an anxiety disorder that has chronic, uncontrollable disproportionate ‘worrying’ as its distinguishing characteristic. The current study explored gender related differences in this hallmark feature of GAD, i.e. self reported worrying in GAD patients. The findings revealed significant differences in the self reported worrying in the male and female GAD patients, comprising the sample of this study. Past research generally supports gender differences in self reported worrying in non clinical population as well as non clinical population with GAD. Regarding GAD prevalence, findings reveal that the prevalence of GAD is almost double in females as compared to males and gender related differences are reported in excessive worry between men and women. Studies comparing worrying in non-clinical general population have found gender related differences in self reported worrying levels. Women report experiencing anxiety and worry to a greater extent and frequency than men (Dohrenwend & Dohrenwend, 1976; Gove, 1980). The society ascribes feminine and masculine gender-roles to women and men respectively and worry has been conventionally labeled as a feminine trait (Stavosky & Borkovec, 1988). According to McCann et al. (1991), men may report less worrying as they perceive worry to be a feminine characteristic, and wish to portray themselves in a socially desirable manner. Results revealed relatively more worrying in women as comparison with men, and this worrying had negative correlation with two factors including social desirability and masculinity. Lewinsohn et al. (1998) postulated that psychosocial variables such as self-esteem, social competence, social support, and self-rated health might account for the gender difference. In both studies, the hypothesized variables contributed to the gender difference in worry report, however, when the variables were controlled, women still reported greater worry and anxiety. Male and female children undergo such socialization that is aimed at the development of such traits as are in congruence with the respective gender (Bem, 1981). Worrying is perceived to be a feminine characteristic and is not associated with males. Women are reportedly more prone to internalize their problems. On the other hand, men may externalize to a greater extent (i.e., substance abuse and antisocial behaviour) (Dohrenwend & Dohrenwend, 1976). Robichaud et al. (2003) through their study discovered that in women reportedly had, in comparison to men, relatively greater negative perception of their individual problems and indulged in suppression of their thoughts and these things are implicated in the difference in worry levels between women and men participants in this study. Zalta & Chambless (2008), through their study discovered the greater susceptibility of women to worry, is attributable to greater stress that women are exposed to and also because of low mastery and instrumentality levels as reported by women participants in their study. Hormone levels fluctuate during the course of menstrual cycle in women which render susceptibility in women to rumination and worry and proneness to anxiety as well as depression as these fluctuations in female hormones affect the balance of neurotransmitters that are involved in the pathogenesis of anxiety worry etc. (Nolen-Hoeksema, 1987).

Gender differences in emotional regulation difficulties in GAD patients

The current study explored gender related differences in emotional regulation deficits in GAD patients. The findings revealed significant differences in the emotional regulation

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deficits in the male and female GAD patients, as comprising the sample of this study. Past research is supportive of the gender related differences in emotional regulation. Women are generally perceived to be the “more emotional sex” and are known to have a greater tendency to express and experience their emotions. Gender related differences in emotional regulation strategies may shed light upon gender differences in the prevalence of anxiety disorders in general. Some of these emotional regulation strategies are considered to be adaptive in nature (for example- problem solving, positive attributions) whereas, others are considered to be maladaptive (example- rumination, avoidance). It has been found that rumination and suppression or avoidance of emotion are related to anxiety and this applied to both males and females. In comparison to men, there are more reports of women to be engaging more often in rumination and suppression compared to men. Gender related variances in emotional regulation strategies are evidenced across a number of studies. It has been found that women in comparison with men, reportedly have greater utilization of emotion regulation strategies which are either passive (suppressing feelings, avoidance) or proactive, such as venting. Women report experiencing more sadness (Blanchard-Fields & Coats, 2008) and more intense emotions (Birditt & Fingerman, 2003) in response to interpersonal problems compared to men. Women are also reported to employ more internalizing strategies such as blaming themselves, and ruminating (Nolen-Hoeksema & Jackson, 2001). Men use more behavioral and externalizing emotional regulation strategies than do women, including blaming others, taking active steps, using humor, disengagement in the face of conflict; as well as impulsive, reward-seeking behaviors such as substance abuse (Davis et al., 2012; Nolen-Hoeksema, 2011; Zlomke and Hahn, 2010).

CONCLUSION

GAD is a chronic, pervasive and debilitating disorder. Research studies report that the prevalence of GAD is two times more in females in comparison with males. In India, GAD specific research is lacking. The current study was explored gender differences in the cardinal feature of GAD, i.e. self reported worrying and the underlying emotion regulation deficits, which are evidenced to be present in GAD. The current study provides evidence for gender differences in worrying and emotion regulation deficits in GAD patients. Women GAD patients worry more and have more emotion regulation deficits as compared to male GAD patients.

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Conflict of Interest

The authors colorfully declare this paper to bear not conflict of interests

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