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Gender Differences in Sociodemographic and Clinical Characteristics Among Patients with Illness Anxiety Disorder: A Cross-Sectional Study

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Abstract

Background: Illness Anxiety Disorder (IAD) is characterized by an excessive fear of having a serious illness, even in the presence of minimal somatic symptoms. The exploration of gender-specific patterns related to IAD has been insufficiently addressed within Indian populations.

Objectives: To determine the differences in sociodemographic factors and clinical parameters between male and female patients dealing with Illness Anxiety Disorder.

Methods: At a tertiary care hospital in South India, in the Department of Psychiatry carried out a cross-sectional study with 46 patients, comprising 29 males and 17 females with a duration of one year. We assessed their sociodemographic and clinical profiles via semi structured questionnaire, For assessing health anxiety, we utilized the Short Health Anxiety Inventory (SHAI). Then we applied the appropriate statistical tests, setting the significance level value at $p < 0.05$.

Results: The sociodemographic aspects, such as age, education, occupation, socioeconomic status, family type, marital status, religion, and caregiver roles, were compared. Notably, females were more likely to be unemployed ($p=0.040$), married ($p=0.028$), and have their spouses as caregivers ($p<0.001$). Also compared clinical characteristics, including age at illness onset, total illness duration, height, weight, BMI, and both past and family illness histories. Among these, females showed a significantly higher BMI ($p=0.028$). However, no differences were noted between gender regarding age, age of onset, duration of illness, or SHAI scores.

Conclusion: There are noticeable differences in sociodemographic and body measurement factors between male and female patients with IAD. However, when it comes to clinical features and the severity of health anxiety, they seem similar. These findings highlight the importance of gender based social and cultural factors in IAD.

Keywords: Health anxiety, Hypochondriasis, Anxiety disorders

Introduction

Illness Anxiety Disorder (IAD) involves a persistent worry about having or developing a serious illness, paired with significant anxiety regarding health, even when provided with suitable medical reassurance (1). Although it used to fall under the category of hypochondriasis, the DSM-5 now defines it in a way that highlights its cognitive-behavioral aspects (2).

There are many reports highlighting the differences in anxiety disorders between genders (3,4,5). Women often show higher levels of anxiety sensitivity, experience more somatic concerns, and have unique behavior when it comes to seeking help (6). In India, factors like societal roles in marriage, economic reliance, and caregiving expectations can play a

significant role in how individuals express and manage anxiety disorders (7,8).

There is not a lot of global research and the data from India is pretty sparse, which shows we really need to dig into how IAD affects men and women differently. This study looks at the sociodemographic and clinical parameters of male and female patients with IAD who are seeking help at a tertiary care psychiatric centre.

Materials and Methods

This study was a single-center, hospital-based observational analysis conducted in the outpatient department of the Psychiatry Department at a tertiary care hospital. It took place over 12 months, from July 2024 to June 2025. Got approval from the Institutional Human Ethics Committee (IHEC). Each participant received a Participant Information Sheet (PIS). Also explained everything verbally to make sure they understood and agreed to take part voluntarily. Before enrolling anyone, obtained written informed consent. To be eligible for the study, patients had to meet the DSM-5 criteria for illness anxiety disorder and be between 18 and 59 years old. Participants were excluded if they had any lifetime comorbid psychiatric conditions or were dealing with severe chronic medical issues.

Participants: Forty-six adults aged 18–60 years diagnosed with IAD (29 males, 17 females) 46 of total was the calculated sample size

Enrolled patients using a convenience sampling method. We gathered sociodemographic information like age, education level, occupation, socioeconomic background, marital status, caregiver and family type via a semi-structured questionnaire. For the clinical data, we looked into details like when their illness started, how long they have been dealing with it, any history of psychiatric conditions, previous episodes, and their medication use through interviews and existing records.

Short Health Anxiety Inventory (SHAI) used to assess and verify how severe health anxiety symptoms are in patients. This 18-item questionnaire helps to differentiate between those with high and low levels of health anxiety with scores ranging from 0 to 54. This scale consists of two subscales health anxiety and negative consequences of being ill. Basically, higher scores mean more serious illness anxiety. The SHAI consistently shows high internal consistency with Cronbach's alpha of 0.97.

Statistical analysis: we gathered all the data and entered it into Microsoft Excel, then analysed it using SPSS version 26.0 from IBM. To give a clear overview, descriptive statistics were used for the sociodemographic and clinical details. Categorical data were shown as frequencies and percentages, while continuous data with means and standard deviations. Compared categorical variables using the Chi-square test or Fisher's exact test when necessary. For comparing continuous variables, independent samples t-tests were used. Significance level was set when $p < 0.05$

Results

The study included 46 patients diagnosed with Illness Anxiety Disorder (IAD), which consisted of 29 males (63%) and 17 females (37%).

Sociodemographic Characteristics with respect to Age - The average age for males was 35.45 years (± 7.8) and for females, it was 39.29 years (± 9.3), showing no significant difference ($p = 0.720$). When comparing age groups (20–40 vs. 40–60 years), there was also no significant association with gender ($p = 0.322$)

With respect to education, there were no statistical significant differences in educational attainment between genders ($p = 0.170$).

With Occupation, significant difference is seen in employment status ($p = 0.040$). Suggesting unemployment rates were significantly higher for females (29.4%) compared to males (6.9%), which reflects the broader gender disparities in labor force participation

Next with Marital Status, A significantly greater percentage of females were married (94.1%) compared to males (65.5%) ($p = 0.028$). This could be influenced by cultural norms around marriage and women's reliance on their spouses, which may affect their help-seeking behavior.

In Caregiver Profile, there was a greater significant difference in caregiver types ($p < 0.001$). Of which (88.2%) of females received support from their spouses.(31%) of males relied on parental caregivers.

In Socioeconomic Class, Religion, and Family Type, there were no significant gender differences in these areas.

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Clinical Characteristics (Table 2)

Past and Family Psychiatric History - There were no significant gender differences in past psychiatric issues or family psychiatric history.

Age of Onset and Illness Duration

Females had a slightly higher mean age of onset (37.5 years ± 9.7) than males (33.6 years ± 7.1), but it was not significant (p = 0.350). The illness duration was same for both gender (p = 0.914).

Body measure differences

Females exhibited a higher Body Mass Index (BMI) at 28.4 compared to 26.4 kg/m² for males (p = 0.028), with Lower body weight (p = 0.033) showing significance.

Regarding previous use of medication, there was not a significant difference in the use of anxiety-related medications (p = 0.956)

Health Anxiety Severity (SHAI Scores) (Table 3)

No significant differences were found between males and females relating to SHAI Total Score (p = 0.612), Health Anxiety subscale (p = 0.732), Negative Consequences subscale (p = 0.646)

Discussion

This study looked at how men and women differ in their sociodemographic and clinical parameters when it comes to Illness Anxiety Disorder (IAD). While the overall severity of health anxiety did not show a significant difference between genders, a few key sociodemographic and body measurement differences were noted. These results shed light on how sociocultural factors might influence how illness is experienced in India.

Sociodemographic Differences :

Employment and Gender Role Expectations - In this study, women had significantly higher unemployment rates than men (p = 0.040). This trend reflects the economic situation in India, where women's participation in the workforce is much lower than that of men, largely due to cultural norms, family responsibilities, and traditional gender roles (7,15). Being unemployed might lead to more time spent at home, which could increase awareness of their bodies and make them more susceptible to health-related anxiety—something that has been pointed out in anxiety studies (3,6). Plus, if they are financially dependent, the worry about being sick or a burden might feel even more intense.

Marital Status and Its Implications - A significantly higher percentage of the female patients were married—about 94.1%. This aligns with the typical marital patterns in India, where women tend to marry earlier and more often than men (7). Marriage can impact how women deal with illness because of the pressure from family expectations, their roles in caregiving, and the stress that comes from relationships. All of these factors can heighten worries about health or bodily issues (8). Studies suggest that women's mental well-being is significantly influenced by their relationships and home life, which backs up what we have observed (6).

There is a significant difference in how caregivers are involved—spouses provide care for about 88.2% of female patients, while male patients are more often cared for by their parents (8). This ties back to the traditional patriarchal caregiving roles in India.

Education and socioeconomic status did not differ significantly by gender, aligning with earlier findings that these variables are not strongly associated with gender differences in hypochondriasis (9). Indian mental health surveys also report comparable educational patterns among males and females seeking care (10,11).

Clinical Characteristics:

There were no significant differences between the gender when it came to the age, how they first experienced illness or how long the illness lasted(1,2,9). This matches up with what we have seen before, which is that IAD usually starts in early to mid-adulthood for both men and women. However health anxiety points out that factors like the extreme misinterpretation of bodily sensations seem to be equal across genders(12,13).

Past Psychiatric History - both men and women had similar backgrounds in terms of past psychiatric issues and family history of mental illness. This is in line with larger studies that have found comparable with anxiety-related disorders between the gender, especially when we factor in cultural influences(3,10). So, it seems that biological and family-related risks are about the same for both genders.

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One of the key findings was that females had significantly higher BMI (p = 0.028). This aligns with national statistics, showing that women in India tend to have greater rates of overweight and obesity (NFHS-5) (7). A higher BMI is linked to several issues, including: More physical complaints, increased doctor visits, greater anxiety about chronic diseases, frequent worries about health. These factors might heighten anxiety related to illness (6). Still, in this study, the differences in BMI did not lead to variations in SHAI scores. This implies that, while women and men may experience varying levels of physical discomfort, their responses to those sensations remain comparable between gender (12, 13).

Despite substantial sociocultural differences, SHAI total and subscale scores were similar across gender. This aligns with several international studies reporting: Women may have more somatic awareness, Men may suppress or underreport their symptoms. Therefore, gender influences the context, not the core pathology.

Health anxiety is maintained by cognitive behavioural reinforcement, which are not gender-dependent but person-dependent (12,13). This explains why sociodemographic context differed but clinical severity did not.

The results fit with the Cognitive-Behavioral Model of Health Anxiety (12), which highlights a few key points: Fundamental beliefs about health and sickness, How people interpret regular bodily sensations, Patterns of seeking reassurance, Behaviors related to avoiding or checking. These factors seem to be pretty consistent across different genders, which explain why SHAI scores are similar, even when individual situations differ.

Interestingly, having family around—especially when a spouse offers reassurance—can actually fuel health anxiety due to negative reinforcement (1). Since women in this study tended to receive more caregiving from their partners, it's important for clinical strategies to involve changing reassurance patterns within the family.

Strength of this study are only few studies have explored gender differences in IAD, inclusion of caregiving variable. Where as limitations are small sample size limits generalisability, single centre design, potential cultural and gender norm biases.

Conclusion

This study shows that while the clinical severity of Illness Anxiety Disorder are similar in males and females, important sociodemographic like occupation, marital status and caregiving had significant differences. Females also had higher BMI, Females were more often unemployed, married, and dependent on spousal caregivers, while males relied more on parents. Whereas education, socio economic status, family history, height of the study population showed differences, but those values were not statistically significant. Although health-anxiety scores did not differ. These findings indicate that the core psychopathology of IAD is comparable across gender, but its expression and support systems are shaped by gender roles and cultural context. Clinical care should therefore combine standard IAD management with gender-sensitive and family-focused interventions, especially addressing caregiver involvement and lifestyle factors. Larger, multi-centre studies are needed to confirm these patterns and guide culturally appropriate treatment strategies**.**

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Comparison of sociodemographic characteristics between male and female patients of illness anxiety disorder

		Male N = 29	**Female N – 17**	**P value**
		n (%)	**n (%)**	
Age (in years), Mean (SD)		35.45 (7.8)	39.29 (9.3)	0.720
Age (in years)	20 to 40	18 (62.1)	8 (47.1)	0.322
	40 to 60	11 (37.9)	9 (52.9)	
Education	Illiterate	3 (10.3)	0 (0)	0.170
	Primary and above	26 (89.7)	17 (100)	
Occupation	Unemployed	2 (6.9)	5 (29.4)	0.040*
	Employed	27 (93.1)	12 (70.6)	
Socioeconomic status	Upper Lower	7 (24.1)	8 (30.3)	0.074
	Lower Middle	9(31.0)	2 (11.8)	
	Upper Middle	8 (27.6)	7 (41.2)	
	Upper	5 (17.2)	0 (0.0)	
Type of family	Nuclear	21 (72.4)	14 (82.4)	0.446
	Joint	8 (27.6)	3 (17.6)	
Marital status	Married	19 (65.5)	16 (94.1)	0.028*
	Unmarried	10 (34.5)	1 (5.9)	
Religion	Hindu	26 (89.7)	15 (88.2)	0.921
	Muslim	2 (6.9)	1 (5.9)	
	Christian	1 (3.4)	1 (5.9)	
Caregiver	Parents	11 (38.0)	2 (11.8)	<0.001*
	Spouse	17 (58.6)	15 (88.2)	
	Sibling	1 (3.4)	0 (0.0)	
*Statistically significant at p<0.05 SD, Standard deviation				

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Comparison of clinical characteristics between of male and female patients with illness anxiety disorder

		Male N = 29	**Female N - 17**	**P value**
		n (%)	**n (%)**	
Past history of similar episode	Yes	9 (31.0)	5 (29.4)	0.908
	No	20 (69.0)	12(70.6)	
Family history of Psychiatric illness	Yes	1 (3.4)	3(17.6)	0.099
	No	28 (96.6)	14(82.4)	
Age of illness onset (in years), Mean (SD)		33.6 (7.1)	37.5 (9.7	0.350
Total duration of illness (in months), Mean (SD)		1.6(0.4)	1.6(0.4)	0.914
History of medication use for illness anxiety	Yes	10 (34.5)	6 (35.3)	0.956
	No	19 (65.5)	11 (64.7)	
Height (in cm), Mean (SD)		166.8 (5.9)	157.9 (4.3)	0.076
Weight (in kg), Mean (SD)		73.4 (9.0)	70.8 (17.2)	0.033*
Body mass index (in kg/m2), Mean (SD)		26.4 (3.3)	28.4 (6.7)	0.028*
Body mass index (in kg/m2)	Normal	8 (27.6)	5 (29.4)	0.224
	Overweight	19(65.5)	7 (41.2)	
	Obese Class I	2 (6.9)	3 (17.6)	
	Obese Class II	0 (0.0)	1 (5.9)	
	Obese Class III	0 (0.0)	1 (5.9)	

*Statistically significant at $p<0.05$

SD, Standard deviation

Comparison of Illness anxiety severity between male and female

Short Health Anxiety Inventory	**Male N = 33**	**Female N - 33**	**P value**
	Mean (SD)	**Mean (SD)**	
Short Health Anxiety Inventory – Total	42.2(8.6)	39.5 (8.1)	0.612
Health Anxiety	33.9(6.8)	31.7 (6.8)	0.732
Negative Consequences' of becoming ill	8.31 (2.3)	8.0 (1.9)	0.646

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