



## Prevalence of Illness Anxiety Disorder (IAD) and Somatic Symptom Disorder (SSD) among Medical and non Medical Students

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### Abstract

*The concept hypochondriasis is now replaced with two new entities Illness Anxiety Disorder (IAD) and Somatic Symptom Disorder (SSD) by American Psychiatric Association with new criteria of DSM V. As previously it was plagued by ambiguous definition and unreliable with DSM IV criteria. Disease phobia and disease conviction are the two main components of hypochondriasis. The person often searches for the diseases information and lives in extreme distress and anxiety. These hypochondriac characteristic often seen in medical students.*

**Methods:** *The study targeted 1175 students of which 393 from medical background and 792 was from science university. Students were provided with self assessment questionnaire based on HAI (Health anxiety Inventory). Statistical analysis was done on observation on Anxiety index by using Chi – square on statistical software SPSS Version 22.*

**Results:** *Prevalence of IAD and SSD and disease phobia level was slightly more seen for medical students compare to non medical as the fact they have to deal with the characteristic of disease throughout their life & has to read about it*

**Conclusion:** *The overall prevalence for SSD and IAD found as 3.28.% among students. However, further clear approach is needed for its classification with DSM V criteria. This because of co morbidity categorized and vague assessment for patients symptomatic behavior. It recommends for finding prevalence on general population with large sample size also the demographic factors affecting the results with more specific categorization to avoid co morbidity and better technique for identifying the patients.*

**Keywords:** *Hypochondriasis, Illness Anxiety Disorder (IAD), Somatic Symptoms Disorder (SSD).*

### Introduction

Fear & anxiety for diseases is a very common phenomenon for medical students. As young aspirants have to learn it throughout their academic

and deal with it throughout the career. Illness Anxiety Disorder (IAD) and Somatic symptom Disorder (SSD) are characterized of having extreme distress & anxiety for diseases and its symptoms.

American Psychiatric Association (APA) provided the new guidelines with DSM V criteria introducing two new entities, Illness Anxiety Disorder (IAD) and Somatic symptom Disorder (SSD)<sup>[1]</sup>. In DSM IV hypochondriasis and somatization disorder, have been abandoned. One of the main reason that somatoform disorder overemphasized the presence of medically unexplained symptoms, i.e. that a medical explanation for the patient's symptoms had to be ruled out for a psychiatric diagnosis to be made<sup>[2]</sup>. Individuals with IAD and SSD preoccupies thoughts of getting into or acquiring serious illness having less or no medical significance for their symptoms, causes high level of health anxiety, distress and continuous body examination. Person with IAD and SSD finds it very difficult in trusting negative reports, even after doctor's evaluation & reassurance for their good health. About 75 % of individuals with hypochondriasis are excessively concerned about preoccupation with their somatic symptoms and this condition could be known for Somatic Symptom Disorder (SSD)<sup>[3]</sup>. This preoccupation persists for at least six months of excessive fear and anxiety of serious illness<sup>[1]</sup>. IAD patients having the characteristics of preoccupation with having serious illness without or with mild somatic symptoms, which specifies them into, Care seeking and care avoidant types. While SSD shows the characteristics of excessive thoughts, feelings and behavior and state of being symptomatic persist for six month having one or more somatic symptoms. beliefs about disease, health, body and/or physical symptoms and beliefs that bodily symptoms are always dangerous because health is supposed to be a state without any symptoms<sup>[4]</sup>. Beliefs about having a serious illness in hypochondriasis often take the form of an ego-syntonic overvalued idea<sup>[5]</sup>, which dominates a person's thinking and behavior. Previous study in 1960 shows prevalence of hypochondriasis in medical students are more compare to other faculty students. This has been term medical student disease, nosophobia, hypochondriasis of medical student and medical studenititis<sup>[6]</sup>. Among 513 medical students 73% students reported having

visited to doctor at least once in the past six months. The overall significant hypochondriacal concern was 11.9 % <sup>[7]</sup>.

This study aims of finding prevalence of IAD & SSD among students from medical and non medical background. Study also reviews fear of disease while reading about diseases signs, symptoms among medical and non medical students.

### Methodology

A cross sectional study with target population of total 1175 students of which 393 are from medical background and & 782 are from non medical background (science graduate) is performed over a period of August 2017 to December 2017. Study involved students of government medical college Rajnandgaon (C.G.) India, where out of 393 students from basic to final year, 360 responded throughout the study. Rest 782 students from science university from non medical background of which 670 were respondent. Those who are known case of mental and medical illness are excluded from study. The ethical committee permission for the study was taken. The self assessment questionnaire was based on DSM V guidelines and HAI (Health Anxiety Inventory)<sup>[8]</sup>, score used for identifying the characteristics for IAD & SSD. The proforma was distributed among the students with trial unbiased without knowing the objective of the study. Based on diagnosis criteria of DSM V with new guidelines provided by American Psychiatric Association cases were identified with Health anxiety Index score (HAI) with 64 questions each containing four option for range 0-3, total 0-192 score<sup>[6]</sup>. After results, cases with characteristic of no symptoms for IAD and positive symptoms for SSD, were identified. Both Inter rarity for agree and disagree were counted for both the judgments for inclusion & exclusion of cases for significant symptoms (Cohen's K=1). The results are formulated on basis of self assessment with team of Psychiatrist, clinical psychologist and medicine consultant.

**Statistical analysis:** All the analysis were done by using SPSS Statistical software Version 22.

Statistical test, chi squared is used with 5 % level of significance (P-value =0.05) for the results

## Results

**Table 1:** Gender distribution of study population

Gender	Male	female	Total	Male	female	Total
	Total			Respondent		
Medical	194	199	393	185	175	360
Non Medical	377	405	782	312	358	670
Total	571	604	1175	497 (48.2%)	533 (51.8%)	1030 (100 %)

Total 1030 students [360 from medical & 670 from non medical background (science graduate)] were involved in the study. Male: Female ratio was approx. 1:1. [Table-1]

**Table 2:** Health anxiety index score for medical & non medical students

Health Anxiety Index	Medical Students		Non Medical Students		
HAI (Mean) (Std. Dev.)	Cases	Controls	Cases	Controls	P- Value
IAD	n=3 Mean (105.9) Std dev (20.9)	n=347 Mean (30.3) Std dev. (13.3)	n=5 Mean (102.3) Std.dev (20.6)	n= 652 Mean (29.8) Std.dev. (13.1)	0.8701 Insignificant
SSD	n=10 Mean (101.20) Std.dev. (20.3)		n=13 Mean (98.6) Std.dev (18.6)		0.3845 Insignificant
Total	13	347	18	652	

Health anxiety index comparison among cases and control between both groups was found insignificant. [Table-2]

**Table 3** Prevalence of IAD and SSD in medical and non medical students

Students	IAD + SSD		Total
	Yes	No	
Medical Students [IAD-0.97%, SSD-2.91%]	14 (3.88%)	346 (96.12%)	360 (100%)
Non Medical Students [IAD-0.74%, SSD-1.94%]	18 (2.68%)	652 (97.32%)	670 (100%)
Total	32 (3.28%)	998 (96.72%)	1030(100%)
Chi-square value- 1.125, df-1, p>0.05 Insignificant			

Prevalence of IAD + SSD slightly higher in medical students but it was statistically non significant. [Table-3]

**Table: 4** Fear for diseases after reading among medical and non medical students

Students	Fear for diseases after reading		P value
	Yes	No	
Medical	96	264	0.0168
Non medical	135	535	Significant

Fear for diseases after reading was significantly higher among medical than non medical students. [Table-4]

## Discussion

IAD (Illness Anxiety Disorder) and SSD (Somatic Symptom Disorder) the new entities were introduced by American Psychiatric Association with new diagnostic criteria of DSM V. Formerly with DSM IV criteria it was known as hypochondriasis, but it was plagued with ambiguous definitions often vague & unreliable diagnostic criteria.

In this study prevalence for IAD & SSD was 3.28 % for overall students [3.88 % for medical & 2.68 % for non medical students]. However there is no significant difference found in between medical and non medical students. In our previous study prevalence of combine IAD and SSD 3.61% among medical students, 0.84 % and 2.77% IAD and SSD respectively, with no significant association seen for gender and at academic level with new DSM V<sup>[9]</sup>. Different studies reveal different prevalence for hypochondriasis. According to DSM IV 3.4 % prevalence of hypochondriasis was found among medical students by Yousuf et. al. study in King Soud University<sup>[10]</sup>. In Magarinos M et al study prevalence of hypochondriasis in that setting was found in between 0.8 to 4.5% among primary care patients using<sup>[11]</sup>. The pooled prevalence of hypochondriasis according to ICD 10 2.2% at various site in cross national study in primary care<sup>[12]</sup>. Prevalence of hypochondriasis was estimated between 4.2% to 6.3% in medical out patients according to DSM III TR<sup>[13]</sup>.

In this study DSM V criteria is used for finding the prevalence of IAD & SSD were found 0.97 % & 2.91 % respect for medical students & 0.74 % & 1.94 % in non medical students with identifying significant somatic symptoms. However there is no statistical significance found in prevalence for medical and non medical students. Variability in prevalence of hypochondriasis is often seen with Obsessive Compulsive disorder (OCD), Post traumatic stress disorder (PTSD), Generalized Anxiety disorder (GAD), Border line personality disorder (BPD). Medical students has to deal with diseases and disorder throughout their life causing a

condition of disease phobia commonly known as medical student syndrome.

Present study shows observed characteristics of fear or phobia after reading about diseases having strong significance for medical students than non medical students. However research has shows that medical college causes students to experience a large amount of psychological pressure due to the work required, the stress of examinations, the anxiety associated with new clinical experiences and the competitive environment<sup>[14]</sup>. This may be the cause of slight higher percentage IAD and SSD among medical students than non medical. Also this study reveals 1:3 ratio for IAD and SSD prevalence which gives strong yardstick to the estimated values by American Psychiatry Association and also close to the observation found by Bailer J. Kerstner<sup>[15]</sup> in his study.

## Limitations of the study

Students were included in this study so the results cannot be generalized to community or other settings. Socio demographic data and co morbid psychiatry illness not included in study. There would be biases like interview bias, recall bias, nonresponsive selection. We recommended large sample sizes study with socio demographic data and co morbid psychiatry illness at multiple medical college in India.

## Conclusion

With new guidelines DSMV provided by American Psychiatry Association for identifying IAD & SDD patients , there exist variability for their prevalence among students , This because of co morbidity categorized & vague assessment for patients symptomatic behavior. It recommends for finding prevalence on general population with large sample size also the demographic factors affecting the results with more specific categorization to avoid co morbidity and better technique for identifying the patients.

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**Conflict of interest-** Nil

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