

OCCURRENCE AND PATTERN OF ILLNESS ANXIETY DISORDER AMONG MEDICAL STUDENTS OF KERALA

Community Medicine

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ABSTRACT

Background: Illness anxiety disorder previously known as hypochondriasis is an unrealistic fear of having a serious medical condition or fear being at high risk of becoming ill. Illness anxiety is common among medical students due to the vast amount of medical knowledge they acquire during studies and exposure to new clinical experiences and competitive environment. Students misinterpret typical body functions as signs of illness and these anxieties result in distress among them which interfere with their academic performance and mental well-being. This study is intended to find out the prevalence of illness anxiety disorder among medical students in a private medical college in Thiruvananthapuram district, Kerala. **Methods:** A cross sectional study was conducted among the medical students of a private medical college in Thiruvananthapuram. Students from all academic years including internship were included in the study. Calculated sample size was 554. Illness attitude scale containing 29 items was used to assess the illness anxiety. The total score of the scale is 108 and cut-off of 47 and above diagnosed as illness anxiety disorder. **Results:** Among 554 students participated 102 (18.41%, 95% CI :15.3- 21.9) was found to have illness anxiety disorder. Anxiety is found to be more among students of preclinical and paraclinical years than clinical years. There is a significant association between year of study and illness anxiety with p value= 0.001. Illness anxiety affects day to day life causing distress in 47(8.48%) of students. **Conclusion:** In this study about 18.41% of medical students is found to suffer from illness anxiety disorder. All medical students should be made aware of illness anxiety disorders which can occur during their learning process. Medical Curriculum for undergraduates should include educational sessions to counteract such ideas and fears by incorporating different coping techniques and counselling.

KEYWORDS

Illness anxiety disorder, hypochondriasis, medical students, Kerala

INTRODUCTION

Illness anxiety disorder previously referred to as hypochondriasis is an unrealistic fear of having a serious medical condition or fear of being at risk of becoming ill. People with illness anxiety disorder misinterpret typical body functions as signs of illness. Constant fear and worry about their health may cause stress which affects their physical and mental wellbeing(1). According to Diagnostic and Statistical Manual of Mental Disorders (DSM-5) those with illness anxiety disorder generally does not experience symptoms and they frequently check themselves for signs of illness and take extreme precautions to avoid health risks(2). They devote excess time and energy to health concerns often obsessively researching them(3). Illness anxiety is common among medical students due to the vast amount of medical knowledge they acquire during studies and their exposure to new clinical experiences and competitive environment(4). Such illness anxieties among medical students are also known as 'Medical student syndrome'. Students usually misinterpret their body functions as signs of illness and these anxieties result in distress among them which interfere with their academic performance and mental wellbeing(5). Therefore it is important to recognize and make awareness among medical students about such anxieties and succour them to manage such fears. This study is intended to find out the prevalence of illness anxiety disorder among medical students in a private medical college in Thiruvananthapuram district, Kerala.

METHODS

A cross sectional study was carried out among medical students and interns in a private medical college in Thiruvananthapuram district, Kerala during July to September 2021. The sample size was calculated by applying the formula $n = 4pq/d^2$, where $p = 0.147$, the prevalence obtained from the study done by Rohilla et al(6) and precision is taken as 20%. The sample size was calculated as 554 students.

Data were collected using a semi structured questionnaire which included questions on socio-personal details and from Illness attitude scale, a self-rated measure that consists of nine subscales designed to assess fears, attitudes & beliefs associated with hypochondriacal concerns and abnormal behaviour which was developed by Robert

Kellner in 1980's. The items in the scale are distributed under the subscales worry about illness, concerns about pain, health habits, hypochondriacal beliefs, thanatophobia, disease phobia, bodily preoccupations, treatment experience and effects of symptoms.(7). The highest score is 12 for each subscale and the total score is 108, obtained by adding the scores of the 9 scales. A cut-off score of 47 & above is diagnosed as illness anxiety disorder(8). Those students who were not interested to participate in the study were excluded.

Data was entered in Microsoft Excel and analysed by SPSS software version 26. Categorical variables were expressed in terms of percentage. Chi square test was used as the test of significance between two variables. If more than 20% of the cells have the expected frequency less than 5, fishers exact test was done (9). p value of < 0.05 was considered to be statistically significant.

RESULTS AND DISCUSSIONS

ILLNESS ANXIETY DISORDER

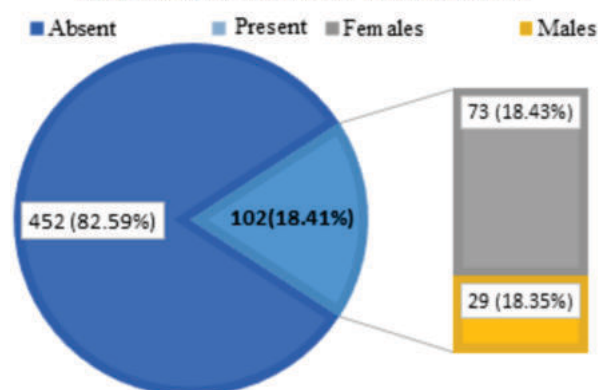


Figure 1: Prevalence Of Illness Anxiety Disorder Among Medical Students

A total of 554 students from all academic years and interns were included in the study. Mean age of the students were 21.29 years ($SD=1.85$ years). Out of 554 students, 396(71%) were females and 158(29%) were males. Among the total students 152(27.43%), 178(32.13%), 95(17.14%), 63(11.4%), 66(11.9%) belonged to first year, second year, final year part 1, final year part 2 and internship respectively. Habit of frequent internet browsing about diseases were present in 256(46%) students. Regarding self-perception on illness anxiety, in 47(8.48%) students it causes distress affecting their day-to-day life. Among 554 students, 102 students (18.41%) with 95% CI [15.3, 21.9] were found to have illness anxiety disorder with a score of 47 & above in the illness anxiety scale. Among 102 medical students with illness anxiety, 73 (18.43%) were females and 29 (18.35%) were males (Figure 1).

The mean score of illness anxiety disorder is 33.83 ± 13.7 . The mean score among male and female students are 32.96 ± 14.2 and 34.17 ± 13.5 respectively. In these students with illness anxiety disorder, 29 were in first year, 28 was in second year, 13 was in final year part 1, 26 were in final year part 2 and 6 were interns (Figure 2). Among the nine subscales worry about illness had high score in both male and female students (Table 1). There is a statistically significant association between year of study and illness anxiety with $\chi^2=28.041$, $df=4$ and p value = 0.001.

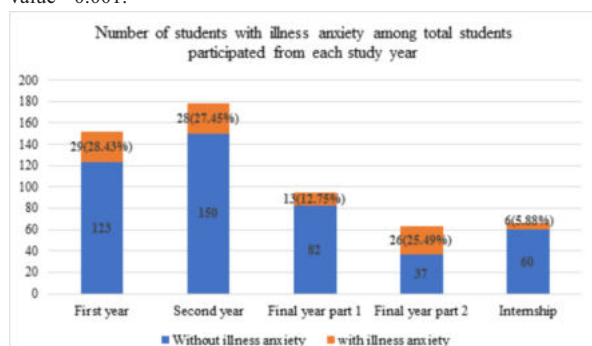


Figure 2: Proportion Of Students With Illness Anxiety In Each Year Of Study (n=554)

Table 1: The Table Shows Mean Score Of Students In Each Subscale Of Illness Anxiety Scale

Subscales Of Illness Attitude Scale	Males Mean ($\pm SD$)	Females Mean ($\pm SD$)
Worry about illness	9.21(1.91)	9.32(2.32)
Concerns about pain	6.62(1.76)	7.62(2.22)
Health habits	7.17(1.89)	7.77(2.47)
Hypochondriac beliefs	4.83(1.83)	4.27(2.69)
Thanatophobia	6.83(2.84)	5.99(2.69)
Disease phobia	3.52(1.86)	2.79(1.64)
Bodily preoccupations	5.14(1.86)	6.41(2.37)
Treatment experience	5.03(1.52)	5.08(1.98)
Effects of symptoms	6.72(2.06)	7.05(2.51)

The prevalence of illness anxiety in our study is almost similar to the prevalence of 14.7% obtained in a study conducted in North India by Rohilla J et al(6). Another study conducted among medical students in Saudi Arabia also reported illness anxiety prevalence as 17% were the short version health anxiety inventory was used. Earlier studies by Hunter et al(10), Woods et al(11), Moss-Morris and Petrie(12), Hodges(13), and Collier(14), supported that medical students are at higher risk of developing health-related anxiety and hypochondriac concerns.

In this study we were able to find a significant statistical association between study year and illness anxiety. In a meta-analysis done among health science students in China it was found that the pooled prevalence of hypochondriac symptoms was 28% (95% confidence interval = 19.0%–38.0%) with raw prevalence ranging from 15% to 55%. There is no significant effect of the study year on health illness anxiety(15). A cross-sectional study in medical students of a Brazilian university has found that anxiety is more among students in the initial years of the course than in the later years. However, the difference was not statistically significant(16). Kiejna A et al in their study found that female gender is relatively more often associated with diagnosis of anxiety disorders(17) but in our study both female and male students are having similar prevalence of illness anxiety.

CONCLUSION

In this study, 18.41% of medical students was found to suffer from illness anxiety disorder among which 8.48% of students it causes distress affecting their day-to-day life. There was a significant association between year of study and illness anxiety. Male and female students are having similar prevalence of illness anxiety. All medical students should be made aware of illness anxiety disorders which can occur anytime during their learning process in the medical school. Medical Curriculum for undergraduates should include educational sessions to counteract such ideas and fears by incorporating different coping techniques and counselling.

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