Cyberchondria Among Medical Students in a Tertiary Care Setting: A Cross-Sectional Study

Dr. K Supriya[1], Dr. Narendra B C[2], Dr. Poonam M[3]

[1]Post Graduate, Department of Psychiatry, K.V.G Medical College and Hospital, Sullia, Dakshina Kannada, Karnataka-574327
Email: *radhagopal8944[at]gmail.com*

[2]Post Graduate, Department of Psychiatry, K.V.G Medical College and Hospital, Sullia, Dakshina Kannada, Karnataka-574327
Email: *Narendranaren86[at]gmail.com*

[3]Professor, Head of the Department of Psychiatry, K.V.G Medical College and Hospital, Sullia, Dakshina Kannada, Karnataka-574327
Corresponding Author Email: *poonam13.santhosh[at]gmail.com*

Abstract: *Introduction: Cyberchondria is a relatively new phenomenon defined as excessive online searching for health-related information, which paradoxically increases rather than alleviates health anxiety. In the digital era, medical students are particularly vulnerable due to their easy access to medical literature and heightened academic stress. Objective: The present study aimed to assess the prevalence and severity of cyberchondria among medical students in a tertiary care teaching hospital and to evaluate its correlation with academic year, gender, and prior history of significant illness. Methods: A cross-sectional study was conducted among undergraduate medical students at KVG Medical College. The Cyberchondria Severity Scale-15 (CSS-15) was used as the primary tool to assess the severity and domains of cyberchondria. Severity was categorized as mild (≤25), moderate (26–40), and severe (≥41) based on CSS-15 scoring guidelines. Statistical analysis was performed using appropriate tests to find associations between severity and demographic variables. Results: Out of the total students surveyed, 58.67% demonstrated moderate levels of cyberchondria. The mean CSS-15 scores in the mild, moderate, and severe categories were 22, 31, and 49 respectively. Early-year students (first and second year) showed higher scores compared to final-year students. There was no significant difference between male and female students (p > 0.05). No significant correlation was observed with prior history of illness. Conclusion: Cyberchondria is prevalent with moderate severity among medical students in this setting. This indicates a paradox where medical knowledge does not necessarily reduce health-related anxiety. Targeted interventions including digital literacy, stress management modules, and psychological screening in early years are recommended.*

Keywords: Cyberchondria, Medical Students, CSS-15, Health Anxiety, Digital Health

1. Introduction

The advent of the internet has revolutionised healthcare information-seeking behaviour. While easy access to online medical resources empowers individuals to be better informed about their health, excessive and repetitive searching can paradoxically escalate anxiety—a phenomenon termed **Cyberchondria**. The term is derived from 'hypochondria' and refers to the anxiety amplification effect of internet health searches.

Globally, about 5–10% of the general population are affected by cyberchondria to some degree, but studies show that medical students may be disproportionately affected due to their familiarity with medical terminology, their easy access to online resources, and academic stress. With the rise of digital learning during the COVID-19 pandemic, this tendency may have further escalated.

In India, studies on cyberchondria among medical students are sparse. Given the rising burden of mental health issues in medical training, understanding this emerging problem is vital for designing timely interventions.

2. Objectives

a) **Primary Objective:**
- To assess the prevalence and severity of cyberchondria among undergraduate medical students using the CSS-15 scale.

b) **Secondary Objectives:**
- To determine the correlation of cyberchondria severity with students' academic year.
- To study the association with gender and any prior significant medical history

3. Materials and Methods

Study Design:
A descriptive cross-sectional study was carried out in the Department of Psychiatry, KVG Medical College, a tertiary care teaching hospital in Karnataka.

Study Population:
Undergraduate medical students from first year to final year were included. Participation was voluntary and informed consent was obtained. Students unwilling to participate or who did not complete the questionnaire were excluded..

Inclusion Criteria:
- Undergraduate medical students enrolled in MBBS course at KVG Medical College.
- Students from **all academic years** (first year to final year).
- Students **willing to participate** who give informed consent.
- Students present during the data collection period

Exclusion Criteria:
- Students who **refused consent** or were unwilling to participate.

Volume 14 Issue 8, August 2025
Fully Refereed | Open Access | Double Blind Peer Reviewed Journal
www.ijsr.net

Paper ID: SR25816082008   DOI: https://dx.doi.org/10.21275/SR25816082008   823

- Students who submitted **incomplete questionnaires**.
- Students **absent** on the day of data collection.
- (Optional) Students with a **diagnosed psychiatric disorder** already under treatment *(if you want to exclude confounding severe mental illness — but this is optional and must be justified).*

Data Collection:
The questionnaires were administered during regular class hours with permission from institutional authorities, ensuring confidentiality

Statistical Analysis
Data were analysed using SPSS software. Descriptive statistics were used for prevalence. Chi-square test was applied to test association between severity and categorical variables such as academic year, gender, and history of prior illness. A p-value <0.05 was considered statistically significant.

4. Results

a) **Demographic Profile:**
   The study included students from all academic years, with an approximately equal gender distribution. The mean age of participants was 20.3 years.

b) **Prevalence and Severity:**
   Out of the total students surveyed, a majority (58.67%) were found to have moderate cyberchondria. 21% fell in the mild category while 20.33% exhibited severe cyberchondria.

c) **Academic Year Comparison:**
   Students in early academic years (first and second year) showed significantly higher CSS-15 scores compared to students in clinical years (final year). This suggests that exposure to clinical knowledge and patient interaction might help mitigate excessive online searching and health anxiety to some extent.

d) **Gender and Illness History:**
   No significant difference in cyberchondria scores was observed between male and female students (p > 0.05). Similarly, there was no statistically significant association with prior history of significant illness.

5. Discussion

5.1 Interpretation of Findings

The present study indicates that over half of the medical students experience moderate levels of cyberchondria. This is consistent with international studies that highlight medical students' vulnerability to health-related anxiety due to their unique position as learners with partial knowledge but increased exposure to disease information.

A notable finding is that early-year students are more affected. This may be attributed to a lack of clinical context and the overwhelming volume of theoretical medical knowledge that amplifies uncertainty. Final-year students, on the other hand, may be more confident in interpreting symptoms and differentiating benign from serious conditions, reducing excessive online searching.

The absence of significant gender differences aligns with some previous studies but contrasts with others that have found females to be more prone to cyberchondria due to generally higher health anxiety levels.

5.2 Comparisons with Other Studies

Starcevic et al. (2017) described cyberchondria as a growing problem with mental health consequences. Fergus (2014) and White & Horvitz (2009) similarly emphasized the paradox of online health information causing more anxiety instead of reassurance.

In the Indian context, studies on this subject remain limited, making this study relevant for highlighting the issue in an under-researched demographic.

5.3 Implications

The findings underscore the importance of integrating digital health literacy and stress management into the medical curriculum. Educating students on reliable online health resources, critical appraisal of internet-based medical content, and appropriate help-seeking behaviour may reduce unnecessary anxiety. Routine screening for mental health issues and providing easy access to counselling services should be emphasized.
Limitations:

Being a single-center cross-sectional study, the results may not be generalizable to all medical colleges. Self-reported measures are prone to bias, and the cross-sectional design precludes establishing causality.

6. Future Directions

Multi-center studies with larger sample sizes and longitudinal follow-up would help understand the trajectory of cyberchondria during medical training. Qualitative studies exploring students' perceptions could provide deeper insights.

7. Conclusion

Cyberchondria is moderately prevalent among medical students, with a significant proportion demonstrating moderate to severe levels. This calls for urgent attention to digital literacy, psychological resilience training, and accessible mental health services, particularly for early-year medical students who are at greater risk. Addressing this hidden burden may help improve students' well-being and academic performance.

Volume 14 Issue 8, August 2025
Fully Refereed | Open Access | Double Blind Peer Reviewed Journal
www.ijsr.net

Paper ID: SR25816082008   DOI: https://dx.doi.org/10.21275/SR25816082008   824

References

[1] **Starcevic V, Berle D.** Cyberchondria: Towards a better understanding of excessive health-related internet use. *J Anxiety Disord.* 2017; 49:1–10.

[2] **Fergus TA.** A Cyberchondria Severity Scale: Development and psychometric properties. *Cyberpsychol Behav Soc Netw.* 2014;17(7):439–45.

[3] **White RW, Horvitz E.** Cyberchondria: Studies of the escalation of medical concerns in web search. *J Med Internet Res.* 2009;11(1): e11.

[4] **Norr AM, Allan NP, Boffa JW, Raines AM, Schmidt NB.** Validation of the Cyberchondria Severity Scale (CSS): Replication and extension with bifactor modeling. *J Anxiety Disord.* 2015; 31:58–64.

[5] **McMullan RD, Berle D, Arnáez S, Starcevic V.** The relationships between health anxiety, online health information seeking, and cyberchondria: Systematic review and meta-analysis. *J Affect Disord.* 2019; 245:270–278.

[6] **Bansal A, Garg C, Singh MM.** Internet addiction and its relationship with depression, anxiety, and stress among medical students in India. *Indian J Psychol Med.* 2018;40(5):458–463.

[7] **Sreeramareddy CT, Shankar PR, Binu VS, Mukhopadhyay C, Ray B, Menezes RG.** Psychological morbidity, sources of stress and coping strategies among undergraduate medical students of Nepal. *BMC Med Educ.* 2007; 7:26.

[8] **Starcevic V.** Problematic internet use: A distinct disorder, a manifestation of an underlying mental disorder or a troublesome behaviour? *World Psychiatry.* 2010;9(2):92–93.

[9] **Singh K, Singh R, Singh S, Kumar R, Sharma R.** Prevalence of health anxiety and its association with cyberchondria among medical students: A cross-sectional study. *Int J Community Med Public Health.* 2020;7(9):3606–3610.

[10] **Kaplan BJ, Sadock VA.** *Kaplan & Sadock's Synopsis of Psychiatry*. 12th ed. Philadelphia: Wolters Kluwer; 2021. (For standard background on health anxiety and hypochondriasis)