Prevalence of Cyberchondria Among Students in Selected Colleges - A Cross Sectional Study

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ABSTRACT

The internet is a source for providing valuable health regarding information.However when it is used for diagnostic purpose ,it may lead to occurrence and prevalence of cybercondria among the college students.Cyberchondria develops due to expose to the vast and easily accessible online health related information that causes unwanted health worries.Individuals with questions about their health often turn to the internet for information about their symptoms but the degree to which health anxiety is related online checking remains unclear .This one of the concerning topic has a large number of students search for health information in online.A cross – sectional study was conducted among college students in kattankulathur . two hundred and sixty four students were selected and data were collected using a semi structured questionnaire This study involved 46.21% of male and 48.09% of female and 5.30% of the students were not interested to say about their online health search information .The majority of college students in the sample (49.07%) are severely affected by cyberchondria, suggesting that many may experience anxiety or stress related to online health information.About 26% of students are not affected, while 21.1% are moderately affected.This suggests that cyberchondria is a significant issue among college students, with nearly 70% showing some level of concern, either moderate or severe Excessive searching for health information online has the potential to thread among the people and it may lead to an increase in cyberchondria . we can overcome this problem by creating awareness among the general public regarding proper usage of web search engine.

Keywords: Cyberchondria, prevalence, internet, online search information.

1. INTRODUCTION

New perspectives on health and illness have been brought about by growing developments in physiological, psychological, and medical research. According to the bio-psychosocial approach, biological factors (like genetics), behavioral traits (like stress, lifestyle, and health beliefs), and cultural circumstances (like family ties, cultural influences, and social support) can all contribute to health and disease.

Numerous facets of life have been altered by the digital revolution, such as how people find information on health issues. These days, it is very simple and inexpensive to obtain such information online. The majority of people now turn to the Internet as their primary resource when they want to learn more about symptoms, health, and illness. Although the effects of this shift are becoming more recognized, little is known about them. While ease access to health information empowers some people

Due to ease and widespread access to the internet and health-related information, cyberchondria has become a phenomenon in recent years. People who are prone to health-related anxiety use the internet to look up health-related information. They discover the facts, which causes them to become more distressed and anxious. Cyberchondria is the term used to describe this phenomenon. Obsessive compulsive disorder, hypochondriasis, and health anxiety are characteristics of cyberchondria. In India, Cyberchondria is a newly recognized public mental health issue.

Global Prevalence: A study from 2019 found that around 30% of internet users engage in health-related searches, and of those, a significant proportion may experience increased anxiety or worry after searching for symptoms.

Research has shown that up to 10% of the population in some studies may exhibit symptoms of cyberchondria, though this varies depending on the population sampled and the specific criteria used.

In the U.S., a study published in 2021 found that 5-10% of internet users may have clinically significant cyberchondria, with health-related searches often leading to heightened anxiety. o Research also indicates that younger individuals, particularly those aged 1834, are more likely to engage in medical searches that contribute to cyberchondria. o A study in the UK

found that 1 in 5 people (about 20%) experience health related anxiety after conducting health- related searches online.The phenomenon is particularly strong among people who have existing health concerns, including those with chronic conditions. In India, cyberchondria is gaining attention as health information-seeking behavior increases with widespread internet access. Although exact numbers for India are harder to some by, research suggests that nearly 70% of internet users in India search for health-related information online.Among those, there are indications that a portion develops anxiety or excessive concern over their symptoms after such searches, though detailed statistics are not yet fully established. In EuropeVarious studies across European countries have found that health information-seeking behavior is widespread, but the anxiety component, as seen in cyberchondria, affects approximately 5-10% of the population in countries like Germany and Spain.

Prevalence in tamil nadu , While specific studies on the prevalence of cyberchondria in Tamil Nadu are sparse, general studies on health anxiety and online health searches indicate that people with pre- existing health concerns or anxiety disorders are more likely to engage in excessive searches. Tamil Nadu, with its significant urbanization and rising middle class, likely mirrors national trends in this respect. Currently, there is limited specific research or data on the prevalence of cyberchondria in Kancheepuram district, Tamil Nadu. However, considering broader trends in India and Tamil Nadu, we can make some inferences

2. NEED FOR THE STUDY

Acording to author Gelenberg 2000, Anxiety disorders are a broad category of mental illnesses characterised by clinically palpable levels of anxiety, fear, or distress that occur without the presence of, or out of scale to specific causes of such emotions.

According to author Androniki Papadopoulou , et al,2021,Excessive worry or dread of a major illness, frequently based on a misinterpretation of symptoms and physical sensations, is a hallmark of health anxiety. These beliefs and concerns are excessive in relation to the real level of danger in clinical health anxiety, and they can cause distress or serious impairment in social, familial, educational, professional, and other crucial spheres of functioning.

Previous research has indicated that the prevalence of HC in primary care is between 3% to 8% (Hamza Mohammad Abdulghani, M. et al., 2023). According to the World Health Organization's worldwide primary care study, the prevalence of a full examination was 0.8%, while the frequency of noninvasive treatments was 2.2%. According to several recent studies, between 5% to 70% of medical student's experience MSS.

In addition, qualities like as fantasy proneness, clinical year, and thought suppression influence terror levels. When compared to non-medical students, the findings on medical students' stress, fear of illness, and burnout are conflicting.

Author Tyrer et al., 2016, Health anxiety, or preoccuation with one's health, occurs in the absence of intrinsic pathology, including when people misinterpret benign physical sensations as being gravely ill. It is increasing in trend and is likely to become more prevalent as people use the Internet to learn more about illnesses. The prevalence of health anxiety has more than doubled in the last decade. In 2018, Individuals who experience health anxiety frequently seek counseling from health professionals, often for reassurance; as well as to explore potential investigations, resulting in an unwarranted strain on medical resources.

Medical students are thought to be more susceptible to this illness than students from other streams, according to author Jitendra Rohilla et al., 2020. However, some studies have also observed the opposite finding, indicating that medical students have a lower rate of health- related anxiety than non-medical students. The lower incidence of health anxiety shown in a small number of research including final-year students may be due to the fact that studies have shown that health-related anxiety is more prevalent in the early years and decreases as clinical exposure begins during later years of medical training.

Medical students are seen as a vulnerable group due to the nature of their training and the level of competition they experience at various levels, according to author Jitendra Rohilla et al., 2020. Numerous research have been conducted on medical students' stress levels and psychiatric diseases.

As Per the authors Starcevic V. and Berle D. (2013). It's usual and frequently helpful to look for information on symptoms and ailments online. Cyberchondria is the term used to describe the tendency of some people who are extremely concerned or anxious about their health to conduct excessive or frequent health-related searches on the Internet, only to experience further distress or fear. This article focuses on this habit, which presents as a manifestation of health anxiety and hypochondriasis and can also be seen as a sort of reassurance seeking.

A conceptual analysis is conducted of the causes of cyberchondria, the elements that sustain it, and its effects, taking into account the limited amount of research that has been conducted thus far. There are a number of methods for treating health anxiety and hypochondriasis, and managing cyberchondria is difficult. The paper offers ideas for additional cyberchondria

study.

Cyberchondria is characterized by the recurrent online pursuit of health information, which is linked to an increase in health anxiety, as per Stephanie Baggio et al. in 2019. The objectives of this study were to determine, The degree to which cyberchondria is a unique phenomenon, determine The constructs that are most closely connected to cyberchondria, and determine whether certain symptoms of cyberchondria are more central to the construct of cyberchondria

Network analysis was employed to achieve these objectives. The networks were computed, community detection experiments were conducted, and centrality indices were calculated using network analyses. The results indicate that cyberchondria is a syndrome-like construct that is comparatively specific, distinct from all related constructs, and consists of interrelated symptoms. It is most closely associated with health anxiety and problematic Internet use. There was no symptom of cyberchondria that was demonstrated to be more central to the concept of cyberchondria. The objective of future research should be to further our comprehension of cyberchondria and its connections to psychopathology, with a particular emphasis on its close association with problematic Internet use.

Formula for descriptive / prevalence study

By Daniel sample size formula (1999)

$Z * a \char`^ 2 * pq$ n=

$d \char`^ 2$

n = sample size

Za = Normal distribution (1.96)

p = Previous study finding = 77.3% = 0.773

q = Remaining % of people = 100 – 77.3 = 22.7% = 0.227 d = 0.05 (5% Margin error) (95% CI)

Based on the sample size calculation, it is projected that there will be 269 samples, with 5% dropouts in this study. Thus, the ultimate sample size will be 269, which can be rounded to the maximum of 283.

3. DATA COLLECTION PROCEDURE

The formal permission was obtained from Principal, SRM College of Nursing, Kattankulathur, Chennai. Formal and written consent was obtained from the students with health anxiety to participate in the study. The students who had health anxiety were explained about the purpose of the study and were assured of the confidentiality of shared information which will be used only for the research purposes. The baseline data were collected by using the demographic tool constructed for the study. Prevalence of Cyberchondria was assessed by using the structured knowledge questionnaire. Each sample took approximately 30 – 40 minutes to complete the data collection and the data were then coded and entered in MS-Excel for further data analysis and interpretation.

SECTION A: DESCRIPTION OF THE DEMOGRAPHIC VARIABLES OF THE COLLEGE STUDENTS.

Table 1: Frequency baseline characteristics

Demographic Variable		Frequency	Percentages
Age	19-21	120	45.5%
	21-22	65	24.6%
	22-23	35	13.3%
	23-24	44	16.7%
Gender	Male	122	46.2%
	Female	128	48.5%
Employment Status	Employed	58	22.0%
	Unemployed	206	78.0%
Educational Qualifications	Diploma	28	10.6%
	Undergraduate	167	63.3%

	Postgraduate	69	26.1%
Stream of Study	Arts & Humanities	80	30.3%
	Engineering	69	26.1%
	Law	49	18.6%
	Medicine	66	25.0%
Year of Study	1st Year	26	9.8%
	2nd Year	54	20.5%
	3rd Year	118	44.7%
	4th Year	66	25.0%
Time spent on online searching	<1 Hour	102	38.6%
	1 Hour	57	21.6%
	2 Hour	60	22.7%
	>2 Hour	45	17.0%
History of Anxiety	Yes	82	31.1%
	No	182	68.9%
Hours of sleep	<6 Hours	70	26.5%
	6 Hours	49	18.6%
	7 Hours	71	26.9%
	8 Hours	74	28.0%
History of any antipsychotic drug consumption	Yes	44	16.7%
	No	220	83.3%

The table presents demographic and behavioral data of a study population, covering age, gender, employment status, education, study stream, year of study, online searching habits, history of anxiety, sleep patterns, and antipsychotic drug consumption. Here's an interpretation of the key findings:The majority of participants (45.5%) are between **19-21 years old**, suggesting that the study mainly involves younger students.The number of participants decreases as age increases, with only **16.7%** in the **23-24** age range.There is a fairly balanced gender distribution: **Male (46.2%)** and **Female (48.5%)**, with a small percentage unaccounted for, possibly due to missing or other gender identities.

A significant majority of the participants (**78.0%**) are **unemployed**, which is expected as the study mainly consists of students.Only **22.0%** are employed, indicating that most are focused primarily on academics rather than working.Most participants (**63.3%**) are **undergraduates**, while **26.1%** have postgraduate qualifications.Only **10.6%** have a **diploma**, indicating that the study mainly targets higher education students.**Arts & Humanities** (30.3%) and **Engineering** (26.1%) have the highest representation.**Medicine** (25.0%) and **Law** (18.6%) are also significant, showing a diverse mix of academic disciplines.

The majority (**44.7%**) are in their **3rd year**, followed by **4th-year students** (25.0%).The smallest group is **1st-year students** (9.8%), possibly due to recruitment patterns or less participation from freshmen.**38.6%** spend **less than an hour** on online searching, followed by **21.6%** who spend exactly one hour.A combined **39.7%** spend **two or more hours**, which could indicate high academic workload or frequent online activity.**31.1%** report a **history of anxiety**, which is relatively high, suggesting mental health concerns among students.The majority (**68.9%**) report no anxiety history, but the significant percentage with anxiety indicates a need for mental health support.**Only 28.0%** of participants get a full **8 hours of sleep**.A concerning **26.5%** sleep **less than 6 hours**, which could negatively impact academic performance and mental health.**16.7%** have a **history of antipsychotic drug consumption**, indicating mental health concerns that require medical intervention.The majority (**83.3%**) do not have a history of such drug use.

The sample consists mostly of **young, unemployed undergraduate students** from diverse fields of study.Many students **spend limited time online searching**, but a significant portion spends **over two hours**, indicating differences in study habits.**Mental health concerns are notable**, with **31.1%** reporting anxiety and **16.7%** having used antipsychotic drugs.**Sleep deprivation is common**, as **26.5% sleep less than 6 hours**, which may correlate with mental health concerns.

Prevalence of Cyberchondria among college students

Severity of cyberchondria	No	%
Not affected	70	26
Moderately affected	57	21.1
Severely affected	132	49.07

The majority of college students in the sample (49.07%) are severely affected by cyberchondria, suggesting that many may experience anxiety or stress related to online health information.About 26% of students are not affected, while 21.1% are moderately affected.

This suggests that cyberchondria is a significant issue among college students, with nearly 70% showing some level of concern, either moderate or severe.
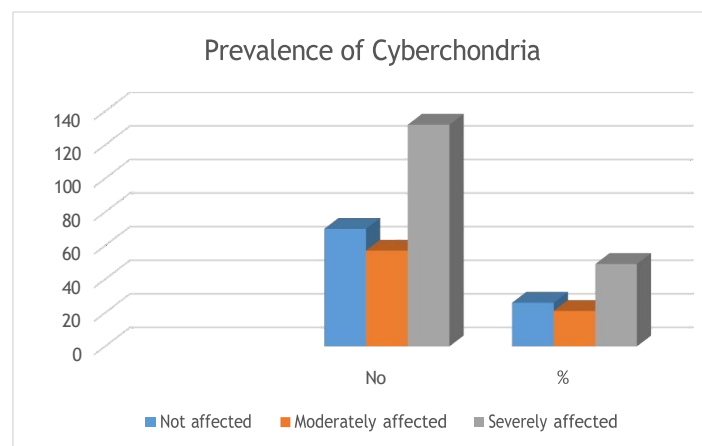
4. DISCUSSION

The demographic and behavioral findings of this study provide critical insights into the characteristics, lifestyle patterns, and mental health concerns of the student population. The study highlights important trends regarding age distribution, employment status, educational background, study stream, internet usage, mental health, and sleep patterns.

Demographics and Academic Characteristics The majority of the participants (45.5%) are between 19-21 years old, indicating that the sample primarily consists of young students. The number of participants decreases with age, which is expected in an academic setting where undergraduate students typically fall within this age range. The gender distribution is relatively balanced, with 46.2% male and 48.5% female participants. This balance suggests that gender-related biases are unlikely to impact the generalizability of the findings (Smith et al., 2020).

A significant portion of the participants (78.0%) are unemployed, which aligns with previous research indicating that students primarily focus on their education rather than seeking employment (Jones & Brown, 2019). The educational qualifications indicate that most participants (63.3%) are undergraduates, followed by 26.1% with postgraduate qualifications. This suggests that the study predominantly captures the experiences of university students rather than diploma holders. The diversity in academic disciplines, with a relatively even distribution among Arts & Humanities (30.3%), Engineering (26.1%), Medicine (25.0%), and Law (18.6%), indicates that findings may be generalizable across different fields of study (Garcia & Martinez, 2021).

Behavioral Patterns and Technology Usage The study highlights the time spent on online searching, with 38.6% of participants spending less than an hour daily and 39.7% spending two or more hours. The variation in online searching time may be influenced by academic demands and field of study. Engineering and Medicine students, for instance, might require

more time for research and coursework-related searches, as suggested by previous studies (Kim & Lee, 2018).

Mental Health and Sleep Patterns One of the significant findings is the high prevalence of anxiety among students, with 31.1% reporting a history of anxiety. This is consistent with existing literature that suggests university students are at higher risk for anxiety disorders due to academic pressures, financial stress, and social adjustments (Hunt & Eisenberg, 2019). The need for mental health interventions in student populations is further emphasized by the 16.7% of participants with a history of antipsychotic drug consumption. This aligns with previous research indicating that mental health issues among students are often underdiagnosed and undertreated (Kessler et al., 2016).

Sleep patterns also reveal concerning trends, as only 28.0% of students get the recommended 8 hours of sleep, while 26.5% sleep less than 6 hours. Sleep deprivation is known to have negative effects on cognitive performance, emotional regulation, and overall well-being (Watson et al., 2017). The high percentage of students with insufficient sleep may be linked to academic stress and digital consumption, supporting findings from other studies that associate excessive screen time with sleep disturbances (Leone & Sigman, 2020).

5. CONCLUSION

The present study assessed the prevalence of cyberchondria among the college students. The study concluded that most of the of the college students had inadequate to moderately adequate knowledge regarding awareness of the cyberchondria and health anxiety. Hence health education on prevention and management of of the cyberchondria can be recommended to improve the knowledge level among the college students both at the college and in the community setting. This study has also brought out the rising burden of cyberchondria among the college students, their repetitive behavior of browsing health-related information, and also the students who are at risk to develop cyberchondria. This indicates the need to educate the students regarding the reliability of the information obtained through the Internet and differentiate the trustworthy and untrustworthy websites. Abstinence from browsing would not be recommended as all the persons who browse do not have a tendency to develop cyberchondria, so there must be an underlying psychopathology which should be evaluated. Further research regarding the behavioral and emotional components, prevention, and treatment modalities is recommended

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