



A Cross Sectional Study to Assess the Severity of Cyberchondria among University Students

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ABSTRACT

Self-diagnosis usually starts with the several search engines like google, or yahoo, which can result in baffle information or data due to which people with grave clinical manifestations may not be directed to emergency treatment. Which can also lead to increase anxiety and a big question mark to the treatment of the physician. In the following paper we will focally point the evaluation of how student's health opinion and behaviour is been affected due to internet-based search result. Convenient sampling technique was used to collect the data. The data was collected through self-administered structured questionnaire to the students of SGT University, which included questions on the cyberchondria severity scale, in addition to the sociodemographic data. The prevalence of cyberchondria was 51.6%. This research stated a moderate web exploring regarding health details, issues and information among University students in SGT, Gurugram, Haryana. The nursing implications of the 15 items cyberchondria severity scale in the SGT students supported and can process for the large sample size in future further studies. The present study was on the severity and prevalence of cyberchondria among students. The result demonstrated to continue inner reliability with preceding results and assisted the short scale i.e., Cyberchondria Severity scale (CSS-15) model for a large group of sample size. The prevalence of cyberchondria among university students was comparable to same with the previous reviews. Student program for counselling featuring coping techniques, specially at the time of early study years, must be implemented.

Keywords: Prevalence, Cyberchondria, University students

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INTRODUCTION

In the 'internet era', various kinds of issues have immersed, one of these is "Cyberchondria", the term explains people's tendency to use the internet for self-diagnosis and management without taking into consideration the validity of the information they are believing [1]. Among the students of health science, it is very common for them to believe that they have contracted the disease that they studied [2]. They may further develop 'Health Anxiety' which can be identified by the urge to look up health related information on the internet [3]. Statistically speaking, 14.2% of students seek information regarding health on the internet. Further 83.7% use mobile phones for accessing the internet, 1/4th of the students conduct health scans once a week or more. 65.4% students find the information available on the internet as correct at medium to high levels [4]. The frequency of health scanning done based on internet information is correlated to "Cyberchondria", medical students scored higher in "distress, excessiveness and reassurance" sub scales [5]. The phenomenon has catastrophic consequences for patients and lead to misleading medical advice. About half the population has access to the internet, adolescents and young adults are the foremost users of this technology. According to a report the age group that makes use of the internet the most is 14-24 years [2, 6]. Internet is often given the metaphor of a double-edged sword while it has various advantages it also features disadvantages, such as addiction and depressive symptoms [7]. The rate of internet addiction varies from 1.5% to 25% in different populations. Medical students often end up believing that they have contracted disease that they have recently studied [8]. This belief can be observed in the form of health anxiety and searching on the internet for health-related information. Cyberchondria is denoted by repeated searches made on the internet for health-related information that may lead to increased levels of health anxiety [9]. We could define Cyberchondria as "the individual anxiety regarding his health that is enhanced or aggravated by the use of internet for searching medical detail, without the validation of details". The influence of internet on lifestyle and health choices are undeniable, the fact that all the information is now available at our fingertips has led many of us to seek health advice from the internet, making it a common practice for many individuals [10]. Health anxiety emerges as a psychological state, where somatic and mental concerns for our health

are stimulated by perceived threats to our overall health [11]. People with high levels of this form of anxiety are prone to seeking more health-related information from the internet compared to those who don't stress too much regarding their health. The more anxious a person becomes the more they seek information online that's for certain, and the reverse is also true. A positive feedback loop develops over time, similar to one that can be seen in 'OCD', which can further develop into something with a more severe and sinister nature over time, a primary psychiatric disorder known as "Hypochondriasis" or "health phobia" [12]. The term cyberchondria (cyber and hypochondriasis) is defined as "An excessive or repeated search for health-related information on the internet, driven by distress or anxiety about health, which amplifies such distress or anxiety" [13]. Medical students are not immune to health anxiety, the continuous pressure created by studies, demanding exams and the competitive environment leads to high levels of stress [14]. The build-up of this stress leads to increased somatic sensations that can be perceived as symptoms. The students of medical sciences are exposed to vast knowledge regarding the clinical field during studies [15]. The dependence on information provided by the internet is commonly accessed by these students, this accumulation of information that maybe full of errors leads to an error in judgement, which makes them perceive the somatic symptoms as a precursor to a medical disease [16]. The objectives of the present study were to estimate the prevalence and severity of cyberchondria among university students and; to find out the association between severity of cyberchondria among university students and selected demographic variables.

MATERIAL AND MEASURE

This was a cross sectional, descriptive, single centred study conducted at SGT University, Budhera, Gurugram. The survey included students from four different courses of nursing. Only students who filled out the questions were involved in this study. A standard questionnaire was sent to the students, primarily questions related to Cyberchondria Severity Scale, along with socio-demographic profile. A total of two hundred nursing students were recruited through convenient sampling technique. They completed questionnaire assessing the severity of cyberchondria through cyberchondria severity scale as well as their socio-demographic data. The questionnaire included two sections; the first section contained socio-demographic features (age, gender, education, income, marital status, college, year, chronic illness and so on), in the second section, the cyberchondria severity scale which is a 15-item questionnaire developed by McElroy and Shelvin.

Measure: The questionnaire was rated on a five-point Likert scale having five domains: compulsion, distress, excessiveness, reassurances, and mistrust of students. Each domain comprised of three three items each. And the score for each item ranged from 1-5 with the exception of last domain of Mistrust, which was marked in reverse order. The score range per domain was 1-15 for the first four constructs. The score was elucidated as score 1-15 not affected; score 16-45 moderately affected; score 46-75 severely affected.

This sequence reciprocates for the mistrust of the university students and figures were analysed and the number and percentage were planned.

RESULTS

A total of 200 students completed the questionnaire fully. Table 1 shows the description of demographic variables. Majority of the participants belonged to 21-25 years, among which majority were females (67%). Out of this, 58% participants were pursuing B.Sc nursing.

However, 54 % participants reported having obsessive compulsive symptoms. Whereas 2.5% don't have any symptom. Most of them (27%), reported having health anxiety symptoms.

Table 1-Division of students according to Socio Demographic Characteristics

	Variables	Frequency	Percentage
Age in year	a) 21 - 25 years	101	50.5%
	b) 26 - 30 years	78	39%
	c) 31 - 35 years	21	10.5%
Gender	a) Male	66	33%
	b) Female	134	67%
Marital Status	a) Married	29	14.5%
	b) Unmarried	165	82.5%
	c) Separated/Divorce	6	3%
Programme	a) GNM	32	16%

	Variables	Frequency	Percentage
enrolled	b) B.Sc.	116	58%
	c) P. B B.Sc	31	15.5%
	d) M.Sc	21	10.5%
Year of study	a) First	100	50%
	b) Second	71	35.5%
	c) Third	19	9.5%
	d) Fourth	10	5%
Mother education	a) No Formal Education	29	14.5%
	b) Primary Education	45	22.5%
	c) Senior Secondary	84	42%
	d) Graduate And above	42	21%
Father Education	a) No Formal Education	14	7%
	b) Primary Education	28	14%
	c) Senior Secondary	80	40%
	d) Graduate And above	78	39%
Mother's occupation	a) Govt.job	18	9%
	b) Private job	17	8.5%
	c) Home-maker	140	70%
	d) Self-employed	25	12.5%
Father's occupation	a) Govt. job	69	34.5%
	b) Private job	51	25.5%
	c) Home-maker	9	4.5%
	d) Self-employed	71	35.5%
Family monthly income	a) 40K-50K	90	45%
	b) 50K-60K	49	24.5%
	c) 60K-70K	36	18%
	d) 70K and above	25	12.5%
Having any Chronic Illness	a) Yes	28	14%
	b) No	172	86%
Duration of sleep	a) Less than 6	44	22%
	b) 6-7	85	42.5%
	c) 7-8	71	35.5%
Total time spent on internet	a) 2-3 hours	85	42.5%
	b) 3-4 hours	51	25.5%
	c) 4-5 hours	44	22%
	d) 5 hours and above	20	10%
Total time spent on internet regarding health issues	a) 1-2 hours	132	66%
	b) 2-3 hours	37	18.5%
	c) 3-4 hours	27	13.5%
	d) 4 hours and more	4	2%
Obsessive compulsive symptoms	a) Never	5	2.5%
	b) Rarely	48	24%
	c) Sometimes	36	18%
	d) Usually	108	54%
	e) Always	3	1.5%
Health related anxiety symptoms	a) Never	86	43%
	b) Rarely	7	3.5%
	c) Sometimes	44	22%
	d) Usually	54	27%
	e) Always	9	4.5%

Table 3 mean score of severity of Cyberchondria among undergraduate university students.

Domains	Possible Min-Max score	Mean± SD
Excessiveness construct	3-15	7.2 ±2.8
Compulsion construct	3-15	6.9±2.7
Distress construct	3-15	7.2±2.9
Reassurance construct	3-15	7.3±3
Mistrust Construct	3-15	8±3.3
Total	15-75	38.71±7.7

Table 3 shows the severity of Cyberchondria among undergraduate university students. The mean score of Excessiveness construct was 7.20 followed by Compulsion construct (6.97), distress construct (7.23), reassurance (7.33) and Mistrust of students (8.03). The overall mean score was 38.71.

Table 3a: Percentagewise distribution of students according to the subgroups score in four domains

Domains	Score 0 (Not Affected)		Score 1-7 (Moderately Affected)		Score 8-15 (Severely Affected)	
	f	%	f	%	f	%
Excessiveness construct	28	14%	133	66.5%	39	19.5%
Compulsion construct	28	14%	149	74.5%	23	11.5%
Distress construct	28	14%	139	69.5%	33	16.5%
Reassurance construct	35	17.5%	126	63%	39	19.5%

Table 3b: Percentagewise distribution of students according to the subgroups score in Mistrust domain

Domain	Score 0 (Severely Affected)		Score 1-7 (Moderately Affected)		Sore 8-15 (Not Affected)	
	f	%	f	%	f	%
Mistrust construct	27	13.5%	116	58%	57	28.5%

All participants were severely affected by Excessiveness and Reassurance domain with the percentage of 19.5% each. Although in the Mistrust construct, 58% students moderately. Out of all the constructs, compulsion was impacted severely.

There was significant association found between year of study, obsessive compulsive symptoms, health related anxiety symptoms and severity of cyberchondria at $p < 0.05$. The students enrolled in first year of study, those usually having obsessive compulsive symptoms and usually presented health related anxiety symptoms reported having greater levels of Cyberchondria.

DISCUSSION

This paper focused on estimating the prevalence and severity of Cyberchondria. In the present study, Cyberchondria was found to be very common among university students. All constructs reflected that the students were getting impacted through the five domains up to various degree after scrolling online related to health details. Among all the domain calculated, excessiveness and reassurance domain had affected the students on a larger figure in comparison to distress and compulsion. The least affect was found in the mistrust domain.

The “**Compulsion**” domain could adversely affect by the civilised executive and conceptual lives of students. With the mean% score of 46.5%, similar result was found in line with the studies guided by Bati AH et. Al [12].

The “**Distress**” domain is more instinctive and suggest there is an essence of distress related to internet searching regarding wellbeing details with the mean percentage of 48.2%. Singh and Brown also showed a productive relation among restlessness and searching regarding health [15].

The “**Excessiveness**” domain suggests that the student searching online for health-related manifestations frequently with the mean percentage of 48%².

The “**Reassurance**” domain recommended that the cyberchondriac students’ needs surety from the medical professional about the condition they have searched on internet with the mean% of 48.9%.

Suspected students searching on web for their secondary or tertiary suggestion and they start to recognize themselves with the main severe cases [1, 17].

The “**Mistrust**” of student’s domain suggests that the student has suspiciousness and fails to take any comfort from their doctors with the mean% of 53.5%. This is hold up by that study from Turkistani AA et al, and this was concluded as the client are about the details provided from their known clinical professional in comparison of online website [2].

CONCLUSION

To conclude the student of university who were detailed for using the online searching related to health details, impacted from cyberchondria domain. This indicate that the online searching can impact the students physiological, psychological and civilised project by providing in vast quantity of details and increase distress regarding to particular online searching.

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