

Assessing The Effect Of Cyberchondria On Eating Disorders And Chronic Diseases Among University Students (18-30 Years) At Superior University, Lahore.

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Abstract

Continuous online searching which paradoxically raises health anxiety and causes health-related issues, either chronic health problems or dysfunctional eating habits, is what is referred to as cyberchondria. Cyberchondria is a contemporary disorder that is growing by the day because of excessive usage of technology. This research paper embraced a quantitative cross-sectional research design, which was measured through a structured questionnaire with four sections formulated on validated measurement scales, such as the Cyberchondria Severity Scale (CSS), Eating Disorder Questionnaire, and Chronic Disease Self-efficacy Scale. The target population for this study was students from Superior University aged between 18 – 30 years. The statistical analysis of this research revealed a strong association of cyberchondria in eating habits and chronic diseases among university

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students aged between 18 and 30 years ($p < 0.05$). The post-health search anxiety and food-related cognitive interference ($p = 0.003$), conflicting online information and impaired concentration ($p = 0.001$), health anxiety and restrictive eating behaviors ($p = 0.018$) were significantly related. In addition, over-searching on the different symptoms of the disease was also associated with low self-esteem ($p = 0.012$) and with body dissatisfaction ($p = 0.013$). In general, the results show a high correlation of cyberchondria with eating habits, cognitive performance, and the risk of chronic diseases among college students. Overall, this study has provided useful insight into assessing the effects of cyberchondria on eating habits and chronic diseases among university students. The results indicate that proper health information should be encouraged and a balanced diet should be embraced to ensure their healthy wellbeing and to avoid stress and anxiety.

Introduction

The name cyberchondria, a term formed out of “cyber” and “hypochondria”, meaning that the individual with the condition is obsessively pursuing medical knowledge via the internet and, in exchange, his or her anxiety level is skyrocketing.

Eating disorders refer to unhealthy eating habits that are usually a symptom, which is a result of being concerned with body shape or weight. They encompass such diseases as anorexia nervosa, bulimia nervosa, and binge-eating disorder. According to the World Health Organization’s 2021 report, 16 million people experienced eating disorders, including almost 3.4 million children and adolescents [1].

Chronic diseases are chronic illnesses, which typically take a very long period to manifest; they are commonly lifelong diseases. These diseases are diabetes, hypertension, heart disease, and arthritis, among others. The WHO says that globally, at least 43 million have chronic diseases [2].

Trial Facts revealed that nearly all individuals in the age group of 18 to 49 who use the internet seek health information over the internet. Trial Facts found that most searches are related to a certain disorder or condition [3]. The onset of physical symptoms of cyberchondria is higher anxiety levels, accelerating heart rate, shortness of breath, and tightening of the throat. Physiological symptoms can be high stress levels, low sleep quality, and physical discomfort caused by anxiety. People who have a family history of mental health disorders show more severe cyberchondria symptoms [21].

The reliability of health-related use of the internet and cyberchondria are similar in adolescence and adulthood and are also related to the same psychological traits and symptoms as study by Jungmann and Dessauer [4] indicates. Ambrosini and Truzoli reported that compulsive behavior could be one of the factors contributing to the mechanism of cyberchondria. Thus, cyberchondria is a predictor of increasing anxiety and depressive disorder and could contribute to the quality of life [5]. Cyberchondria severity increases as internet-based health information seeking increases [13].

Cyberchondria is closely associated with health anxiety, and emotional regulation is a conciliator in this association [6]. In chronic illnesses, high cyberchondria levels of patients are more distressing [7]. Patient related fears and anxieties during surgery can, on the other hand, increase the high rates of Cyberchondria with the increased use of the internet to seek health related information [8]. Cyberchondria seriousness has found to be related to poor sleep and OCD symptoms as well [9]. Cyberchondria has been observed to negatively affect the quality of life of and there is a high likelihood of depression [10].

Cyberchondria level can be high in individuals who have internet access 24*7 [14]. Lifestyle habits are critical in the occurrence and course of cyberchondria in

university students. The importance of knowing the connection between cyberchondria and lifestyle choices is that lifestyle choices do not merely represent about mental health but also aid in altering the attitude of the university students towards eating disorders and risk of chronic diseases.

METHODOLOGY

The type of quantitative study research design was a **cross-sectional study**. The research was carried out in **Superior University Lahore**, among young adults aged **18 -30 years**. Based on the overall population of 10,000 students, the sample size of **350 individuals** was obtained. Cycle of data collection among the participants was done using a **simple random sampling** technique. The study lasted four months. The research complied with the rigorous ethical standards to protect the rights and welfare of the subjects. Data on the online health-related searching habits of the participants was collected using the standardized **Cyberchondria Severity Scale (CSS)** and **Eating Disorder Questionnaire (EDE-Q 6.0)**, **Chronic Disease Self-Efficacy Scale**, and a structured self-administered questionnaire. **SPSS** (Statistical Package for Social Sciences) software version 25 was used to analyze the data. The Chi-square test was employed in order to test the relationships among categorical data.

RESULTS

A total of 350 university students aged 18-30 years participated in the study, with the majority being undergraduate (99.1%). The results demonstrated that there is a strong relationship between cyberchondria and poor dietary habits and concerns regarding chronic diseases in the case of university students..

Table 1: Results of Cyberchondria, Eating Disorders Behaviors, and Chronic Disease Self-Efficacy Among Participants

Domain	Indicator	Participants reporting behavior/symptoms (%)
Cyberchondria	Repeated online health searches despite not wanting to	55.7%
	Feeling anxious/scared after online health searches	63.5%
	Increased worry about symptoms after searching online	69.4%
	Confusion due to conflicting online health information	72.0%
	Trusting online health information over professional advice	44.0%
Eating Disorders Behaviour	Restrictive eating due to health concerns	58.0%
	Difficulty concentrating due to food/health concerns	61.0%

	Low self-esteem related to health/appearance concerns	51.0%
Chronic Disease Self-efficacy	Confidence in managing health problems	67.0%
	Confidence in communicating with healthcare providers	71.0%
	Confidence in making medical decisions	65.0%
	Confidence in managing symptoms and daily activities	69.0%

More than half of the participants reported cyberchondria-related behaviors, including repeated online health searches (**55.7%**), anxiety following health-related searches (**63.5%**), and confusion resulting from conflicting online information (**72.0%**). Eating disorder-related behaviors were also common, with **58.0%** reporting restrictive eating patterns and **61.0%** experiencing food-related cognitive interference. Despite these concerns, most participants demonstrated moderate to high chronic disease self-efficacy, particularly in communicating with healthcare providers (**71.0%**) and managing symptoms and daily activities (**69.0%**).

Table 2: Significant associations between Cyberchondria, Eating Disorders & Health Outcomes

<i>Variables Associated</i>	<i>p-value</i>	<i>Interpretation</i>
Frequency of symptom checking and Restrictive food intake	0.008	Significant positive association
Post-health search anxiety and food-related cognitive interference	0.003	Significant positive association
Conflicting online information and Impaired concentration	0.001	Significant positive association
Health anxiety and restrictive eating behavior	0.018	Significant positive association
Excessive symptoms searching and Low self-esteem	0.012	Significant positive association
Online health information and Trust in AI for health advice	0.001	Significant positive association
Excessive online health searching and anxiety	0.001	Significant positive association
Mistrust of doctor's advice and Trust in online information	0.001	Significant positive association

All associations were statistically significant at < 0.005 . Significant relationships were observed between post-health search anxiety and food-related cognitive interference ($p = 0.003$), conflicting online health information and impaired

concentration ($p = 0.001$), and health anxiety and restrictive eating behaviors ($p = 0.018$), and excessive online symptom searching was significantly associated with lower self-esteem ($p = 0.012$).

Furthermore, participants who frequently searched for health information online reported higher levels of anxiety ($p < 0.001$). Trust in artificial intelligence for health information was significantly associated with online health-information seeking behavior ($p = 0.001$). The results also indicated that greater reliance on online health information was linked with an increased perceived risk of chronic diseases. Overall, cyberchondria demonstrated a significant relationship with eating behaviors, psychological well-being, and chronic disease-related outcomes among university students.

DISCUSSION

The results of this study are in line with other studies demonstrating that among young individuals, cyberchondria is highly linked to bad eating habits, elevated health anxiety, and an increased likelihood of chronic disease-related worries.

Previous research by White and Horvitz, who initially defined cyberchondria as the escalation of health worry brought on by repeated online symptom searches [11], is supported by this study's findings, a significant correlation ($p = 0.008$) between frequent symptom checking and attempts to restrict food intake. Another study published by Atak et al. shows that online health searches are beneficial to some extent in educating people, but complete reliance on online health information can be misleading [12]. These past studies align with current research results, revealing the impact of cyberchondria on young adults and the heightened risk of stress, anxiety, eating disorders, and chronic diseases among young adults.

According to a study by Starcevic & Berle, cyberchondria also plays a role in excessive worries about physical health and compulsive health-related behaviours [15]. This is consistent with the current study, which found that students who checked their symptoms more frequently were more inclined to change their eating habits. McElroy & Shevlin, who discovered a strong correlation between cyberchondria and anxiety, emotional distress, & recurrent negative thoughts [16], corroborate this conclusion. Similar to the current findings, results indicated that those with greater levels of health anxiety frequently have obsessive thoughts that impede focus and day-to-day activities ($p = 0.003$).

Simpson and Mazzeo's study discovered that young adults' restrictive eating and unhealthy food monitoring are caused by anxiety related to body image and chronic diseases [17]. This lends credence to the current study's conclusion that cyberchondria may act as a catalyst for eating disorders and poor mental health. A previous study by Torstrick, Walton, and Fallon discusses how people with more severe anxieties spend more time on online health searches and study their symptoms and become more anxious about it [18], which aligns with current findings of this study that people experience confusion if a medical professional advises them of something that contradicts what they have read online.

This study also found a relationship between a person feeling guilty after eating and their excessive online search ($p = 0.003$). This study also demonstrates the relationship between looking up health topics and experiencing difficulty concentrating due to thoughts about food, eating, or calories ($p = 0.005$). The present result found a statistically significant association between compulsive online searching and the extent to which weight and shape influence self-perception ($p = 0.001$). Ridvan Akdogan et al. conducted a study to examine the association between cyberchondria and eating disorders, which found cyberchondria is directly linked to more eating disorders and makes them feel worse about their body images by searching online [19]. In contrast, this study also found that compulsive searching is directly linked to how adults feel about their

shape and body.

A study published by Zheng et al. suggests that people who use online search engines to search for health-related issues and diseases usually increase online health information overload, which in turn increases people's trust in online information [20]. Similar to this, this study states a positive association, that if a doctor's advice doesn't match online health information, people get stressed or worried ($p=0.001$).

The current results are consistent with earlier research and support the notion that cyberchondria is a behavioral factor that influences nutrition and the risk of chronic illness, in addition to being a psychological problem. It highlights the necessity of awareness campaigns, expert advice, and digital health education to stop young adults from forming bad eating habits as a result of false health information found online.

CONCLUSION

The outcome of this study has shown a close relationship between Cyberchondria, eating disorders, and chronic diseases. Young people who have cyberchondria are at a higher risk of developing eating disorders and chronic illnesses; it is high time that this issue was given importance. To this end, additional studies are required to understand the impact of cyberchondria on people and what causes it. Awareness campaigns are highly needed in educational institutions, hospitals and medical camps to ensure that the young adults are made aware of how it can impact the quality of their lives and how they can deal with it. The problem must be addressed through a multidisciplinary model, which includes awareness efforts, access to sound health information, nutrition policies, and mental health care, etc.

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