

# Cyberchondria: Unraveling the Impact of Online Health Information on Health Anxiety

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## ABSTRACT

Cyberchondria, the worsening of one's health anxiety due to spending too much time researching health topics online, is an important concept in the 21st century. In this brief communication, we briefly review the literature to explore its causes, psychological mechanisms, and its implications in mental health and healthcare systems, as well as possible strategies of management. We highlight the importance of awareness and intervention by healthcare practitioners, discuss implications, and recommend directions for future work in research and clinical practice.

**Keywords:** Anxiety, Compulsivity, Cyberchondria, Health anxiety, Problematic internet use, Quality of life, Reassurance seeking.

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## INTRODUCTION

The internet has revolutionized access to health information, making it readily available at the fingertips of users worldwide. This newfound democratization of information has many advantages that were never previously available, but it has come with numerous unintended consequences, including the recent surge in "cyberchondria." Cyberchondria is derived from the words "cyber" and "hypochondria," implying a person who continuously looks up health information on the internet and becomes anxious about his/her self-care. Through this paper, the authors seek to study what cyberchondria is, how it affects individual patients and national healthcare systems when cyberchondria is left unaddressed, and finally, how it can be effectively managed.

## Causes and Mechanisms

Cyberchondria arises from the vast online health information which goes mostly unregulated. Search engines prioritize more alarming results, referred to as "ranking bias," as search engines are also business entities. Consequently, users find that their symptoms are indicative of more serious or rare diseases.<sup>1</sup> This may be more pronounced among individuals with pre-existing anxiety disorder or with high levels of health anxiety.<sup>2</sup>

Cognitive models propose a theoretical perspective for understanding the psychological mechanisms underlying cyberchondria. According to these models, people with health anxiety frequently misinterpret neutral physical symptoms as threatening and can potentially be further reinforced through online searching for illness content, leading to a vicious cycle of heightened anxiety and checking behaviors.<sup>3,4</sup>

## Implications for Mental Health

The consequences of cyberchondria are serious in terms of mental health. The enhanced anxiety related to the condition can result in various psychological and physical symptoms, creating a spiral of stress and health preoccupations.<sup>5</sup> Research has indicated that cyberchondria can worsen existing conditions, such as generalized anxiety disorder and obsessive compulsive disorder, leading to chronic worry and compulsive checking behaviors.<sup>6</sup>

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## Impact on Healthcare Systems

The increasing prevalence of cyberchondria has a negative impact not only on individual patients, but also on the healthcare system. Cyberchondriacs are more likely to present at medical appointments or make requests that they undergo unnecessary tests and procedures in order to alleviate their heightened health fears. As a result of the overuse of health services, healthcare systems may suffer from a greater demand, increased costs, and increased access to services, and potentially unnecessary procedures could lead to iatrogenic consequences for healthcare consumers.<sup>7</sup>

## Digital Health Literacy

Enhancing digital health literacy is crucial for coping with cyberchondria. Teaching individuals how to evaluate the credibility of online health resources and accurately interpreting medical information may potentially reduce the risk of cyberchondria. Public health campaigns and educational syllabus should include interventions designed to strengthen digital literacy so that individuals have a built-in resilience against misinformation.<sup>8</sup>

## Cognitive Behavioral Therapy

Cognitive behavioral therapy is an evidence-based intervention for health anxiety and cyberchondria. This therapeutic approach involves helping individuals activate and implement adaptive thought processes, which in turn reduces the urge to search for health information online.<sup>4</sup> Techniques such as exposure therapy and cognitive restructuring specifically address the fears and behaviors associated with cyberchondria.<sup>9</sup>

## Role of Healthcare Providers

Health professionals play an essential role in the management of cyberchondria. By recognizing and addressing the condition and providing reassurance, healthcare providers can assist patients to manage their anxiety, while also learning to provide reliable health information to patients and guiding them to trustworthy online resources that can reduce unnecessary worry and healthcare visits.<sup>5</sup> Furthermore, it is necessary for healthcare professionals to be trained to recognize and address cyberchondria in order to manage patients effectively.<sup>10</sup>

## Future Research Directions

Additional research is needed to enhance the understanding of cyberchondria and to create tailored ways to intervene. Further longitudinal research is needed to identify the processes leading to the development of cyberchondria over time as well as understanding the long-term implications for healthcare utilization and mental health.<sup>11</sup> Lastly, another possible area for future research is to investigate the effectiveness of various therapeutic interventions or psychoeducation that may help healthcare providers develop better methods in managing these types of conditions.

## CONCLUSION

In the digital era, cyberchondria is one of the considerable challenges. Given the potentially high burden of COVID on mental health and healthcare services, the results underscore that post-acute-care pathways need to be tailored to match overarching public health strategies for pandemic preparedness and responsive health systems. Despite the recent increase in curiosity over cyberchondria, some key questions remain unanswered, including its formal definition and nosological status vis-à-vis hypochondriasis, and its relationship with obsessive-compulsive symptoms and anxiety sensitivity. Systematic research is required to study the ill effects of cyberchondria on an individual and healthcare system. Finally, preventive and management strategies need to be formally tested and validated.

The negative impact of cyberchondria can be minimized by reinforcing digital health literacy, employing relevant cognitive–

behavioral interventions on targeted patients, and encouraging early involvement of medical professionals in the process. As the internet population grows, more attention has to be paid to the problems that cyberchondria raises and how its effects can be mitigated in favor of a better health information seeking experience.

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## REFERENCES

1. White RW, Horvitz E. Cyberchondria: Studies of the escalation of medical concerns in web search. *ACM TOIS* 2009;27(4):1–37. DOI: 10.1145/1629096.1629101.
2. Baumgartner SE, Hartmann T. The role of health anxiety in online health information search. *Cyberpsychol Behav Social Netw* 2011;14(10):613–618. DOI: 10.1089/cyber.2010.0425.
3. Taylor S. Understanding and treating health anxiety: A cognitive-behavioral approach. *Cogn Behav Pract* 2004;11(1):112–123. DOI: 10.1016/S1077-7229(04)80015-4.
4. Muse K, McManus F, Leung C, et al. Cyberchondriasis: Fact or fiction? A preliminary examination of the relationship between health anxiety and searching for health information on the Internet. *J Anxiety Disord* 2012;26(1):189–196. DOI: 10.1016/j.janxdis.2011.11.005.
5. McMullan RD, Berle D, Arnáez S, et al. The relationships between health anxiety, online health information seeking, and cyberchondria: Systematic review and meta-analysis. *J Affect Disord* 2019;245:270–278. DOI: 10.1016/j.jad.2018.11.037.
6. Starcevic V, Berle D. Cyberchondria: Towards a better understanding of excessive health-related Internet use. *Expert Rev Neurother* 2013;13(2):205–213. DOI: 10.1586/ern.12.162.
7. Singh K, Brown RJ. Health-related Internet habits and health anxiety in university students. *Anxiety Stress Coping* 2014;27(5):542–554. DOI: 10.1080/10615806.2014.888061.
8. Ahmed MH, Guadie HA, Ngusie HS, et al. Digital health literacy during the COVID-19 pandemic among health care providers in resource-limited settings: Cross-sectional study. *JMIR Nurs* 2022;5(1):e39866. DOI: 10.2196/39866.
9. Nadeem F, Malik NI, Atta M, et al. Relationship between health-anxiety and cyberchondria: Role of metacognitive beliefs. *J Clin Med* 2022;11(9):2590. DOI: 10.3390/jcm11092590.
10. Doherty-Torstrick ER, Walton KE, Fallon BA. Cyberchondria: Parsing health anxiety from online behavior. *Psychosomatics* 2016;57(4):390–400. DOI: 10.1016/j.psych.2016.02.002.
11. Starcevic V, Berle D, Arnáez S. Recent insights into cyberchondria. *Curr Psychiatry Rep* 2020;22(11):56. DOI: 10.1007/s11920-020-01179-8.