Cyberchondria and Health: Exploring the Linkages

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Cyberchondria is a contemporary phenomenon characterized by excessive health-related internet searching, online self-diagnosis, and heightened health anxiety. The present paper is aimed at providing an overview of the current state of research on cyberchondria, its underlying factors, and its impact on individuals' mental health and healthcare systems. It presents a comprehensive analysis of existing literature, highlighting the key contributors to cyberchondria, including the availability of online health information, confirmation bias, and the influence of online communities. It also examines the detrimental consequences of cyberchondria, such as increased anxiety, stress, avoidance behaviors, and unnecessary medical testing and consultations. The paper concludes by emphasizing the need for further research to deepen our understanding of cyberchondria and develop targeted interventions. By addressing this growing health concerns, we can promote a healthier online health environment and enhance individuals' well-being while ensuring the efficient utilization of healthcare resources.

Introduction

The most popular and often utilised source for any queries among the youth regarding health is now the Internet. In a recent general population surveys by AlMuammar and colleagues (2021) about 90% of the participants were found tobe using the Internet for health-related searches. The accelerated growth of information and communication technologies (ICT) is becoming more and more connected to the future of health care services. New telecare models have a significant positive impact on how health systems are used, patient-doctor relationships, and people's health (Santana et al. 2011). Utilization of internet facilities in getting the information related to the wellbeing of an individual is considered very helpful specially by the young adults. It ensures the independence of individuals who want to remain at home while raising the level of convenience and subsequently the quality of healthcare. The Internet lowers barriers and makes medical services more accessible, but it also has an impact on the doctor-patient relationship and could change how a patient is treated.

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Although a general population may benefit from learning about the nature, aetiologies, and current preventative and treatment measures for particular diseases through online searches for health-related material and may feel more in control as a result of this (McmMullan et al. 2019), it may result in considerable amounts of anxiety and worry. It is mainly because there are typically multiple medical alternatives leading to a differential diagnosis, and within this differential diagnosis there may be infrequent but potentially lethal conditions (White & Horvitz, 2009).The overwhelming majority of people who use the Internet to look for health-related information do so in a nonpathological or even adaptive way, but a fraction engages in overly frequent online searches that significantly raise their distress or worry. Cyberchondria (CYB) has been used to characterize this behaviour (Starcevic&Berle, 2013).

Frequent use of the internet for health-related searches become problematic and anxiety-provoking, possibly especially for those who are anxious and health-conscious. Furthermore, people might utilise these searches to make erroneous or worrying self-diagnoses. With the rise of digital technology, such search procedures, along with cyberbullying, cybersuicide, and cybersex, may signify a reconfiguration of certain behaviours and/or psychological entities (Starcevic&Aboujaude, 2015).

A number of studies have found cyberchondria to be linked with a number of unfavourable outcomes, including functional impairment (Barke et al., 2016), lower quality of life (Mathes et al., 2018), and lower satisfaction with visits to the doctor (Tanis et al., 2016). In order to better understand how to assess this novel but widespread health-related concern in the digital era, a more sophisticated approach to treatment is needed (Vismara et al., 2020).

Young individual between the age range of 18-25 years spent a significant time on the internet and 31.8% of them stated that they always use the internet to search health related issues and show a positive correlation between their perceived stress and cyberchondria (Polat et al, 2022). In addition, a health science study at Ege University about students' health anxiety is documented in the literature. It was discovered that 83.7% of students utilised their mobile phones to access the internet, and that 14.2% of students had done so in pursuit of health-related information (Bati et al. 2018).

With the main goal of better understanding how cyberchondria has been affecting young people, this review takes into account a considerably wider variety of findings in cyberchondria literature. Finding out the prevalence of cyberchondria, its effects on the younger population, and other factors influencing cyberchondria in young adults are the specific goals of this review.

Prevalence of Cyberchondria

The average Internet penetration rate across the globe is 63.2%, demonstrating that the Internet has established itself as the go-to channel for reaching a sizable audience with customized communications (Internet world Stats, 2020).According to a survey of more than 12,000 people conducted in 12 different countries, nearly half of participants utilized "Google" as a search engine for the purpose of self-diagnosis (Mcdaid& Park 2011). This indicates that the Internet has become a substitute for a health practitioner. In March 2019, the vice president and MD of Google Health was mentioned in The Telegraph, an Indian English daily newspaper, as noting that approximately 7% of daily Google searches belong to health-related searches, which amount for approximately 70,000 searches per minute.

These statistics escalated during the COVID-19 pandemic when everything was forced to be closed by governments and people have been asked to work from the comfort of their own homes. As a direct consequence of this, the Internet exerts an unprecedented amount of control over people's day-to-day activities (Zhang et al. 2020). People were also spending much more time on social media and playing online video games as a direct result of the rise in popularity of online classes and arrangements that allow them to work from home (Prakash et al. 2020). The practice of searching for health information online spiked up during the Covid-19 pandemic (Verma, Das and Singh, 2021) and now it is very common in the young population to search for any unidentified symptoms about their health on the internet to reduce their anxiety about it. People's fear and apprehension about their health can lead them to compulsively check the internet for information, which increases their anxiety and starts a vicious cycle of cyberchondria that is difficult to break (Jokic et al. 2020; Mafftei& Holman, 2020).

Students in today's society are susceptible to persuasion from several online sources, including social media platforms, other websites, and the information offered by a variety of health-related websites.According to Bessière et al. (2010), conducting health research online was associated with a minor but consistent rise in feelings of hopelessness and anxiety. This could potentially interfere with a student's ability to concentrate on their academic work.They may be more prone to check up medical symptoms online, which puts them at a greater risk of acquiring an anxiety condition related to their use of the internet in relation to their health (Malik et al. 2019). Higher online health information search rates have been associated with lower academic performance (Dagar et al. 2019; Bati et al. 2019), which causes students to feel uneasy and concerned.

People do all of these searches relating to their health to alleviate their anxiety and worries about their health, but it may evolve into habits of internet searching and surfing that are difficult to overcome (Ko & Yen, 2020). There is a deluge of content pertaining to health throughout various online and social media platforms. It was discovered that the majority of the pieces of information presented in the news and articles were both erroneous and incomplete (Cinelli et al. 2020). According to the findings of Doherty-Torstrick et al. (2016), having access to vast amounts of information online, along with an increased interest in one's health, can increase one's level of health anxiety.

The information available on the internet about the different diseases make the individual anxious, once

the symptoms has been searched. People began devoting an increasing amount of their time to the pursuit of health-related knowledge as a result of the proliferation of health-related content throughout the internet and various social media platforms. However, these facts aren't always reliable. Sometimes they come from trustworthy sources, but the majority of the time they are merely based on unreliable or deceptive sources. It makes people unclear and adds to cognitive overload, which is supported by earlier research that revealed cyberchondria is associated with both cognitive overload (White & Horvitz, 2009) and ambiguity (Norr et al. 2015). According to Laato et al. (2020) a person's dependence on information obtained from online sources, information overload, perceived severity, and perceived vulnerability all have a positive link with cyberchondria.

Effects of Cyberchondria

Although searching for health-related material online offers certain unintended advantages that assist people learn about illnesses, their treatments, and cures (White & Horvitz, 2009),Some people repeatedly surf the web for information about their physical and mental well-being to satisfy their hunger for knowledge, which results in distress and anxiety (Ivanova &Karabeliova, 2014).Young populations are very much concerned about their health, and they adopt different health practices to get instant health benefits.Cyberchondria is the inappropriate behaviour of looking up medical information online to reduce stress and anxiety but actually making the illness worse (Starcevic&Aboujaoude, 2015). It is referring to the unwarranted rise in concerns with general symptomatology, which is based on the results of internet searches (White & Horvitz, 2009).There is a connection between cyberchondria and increased levels of health anxiety, stress, and depression, as well as a correlation between cyberchondria and obsessive-compulsive disorder (OCD) (Vismara et al, 2020; Bajcar&Babiak, 2021; Fergus & Spada, 2018;).Higher levels of health anxiety may be linked to more frequent use of the Internet to look for health-related information, according to research on nonclinical people (Eastin et al., 2006; Baumgartner & Hartmann, 2011) Such Internet usage can be seen in the increased amount of time spent online seeking medical information and the possibility of looking for a wider range of health information, such as accounts of other people's experiences with illnesses (Muse et al., 2012). However, if a person is prone to having health anxiety, excessive use of the Internet to acquire medical information or more exposure to health-related content online may come before a bout or the development of the condition. It has been noted that many Internet users experience greater health anxiety when utilising the internet for health-related objectives (White & Horvitz, 2009), and that this concern is also linked to increased depressive symptoms (Bessiere et al., 2010).

According to Sarkar (2020), the most obvious manifestation of the negative influence is seen in the technologically savvy members of the youth population. He continued by saying that cyberchondria intensifies discomfort over time, resulting in elevated blood pressure, anxiety, and muscular spasms. According to the findings of recent studies, ineffective methods of emotional regulation like ruminating and catastrophizing are positively connected with both cyberchondria and health anxiety (Fergus &Rusell, 2016; Gorgen et al. 2014; Jungmann &Witthoft, 2020).

Recent studies have indicated that cyberchondria has an effect on people's perceptions of the severity of a danger and prompts them to take recommended preventative health measures more quickly during pandemics such as COVID-19 (Garfin et al., 2020). On the other hand, it can be a risk factor for excessively heightened concern, catastrophizing, and social distance, all of which have a negative affect on one's mental health in a pathological way (Abel &Mcqueen, 2020).

Studies have discovered strong correlations between cyberchondria and a variety of dispositional factors, including increased anxiety sensitivity and intolerance of ambiguity (Fergus, 2015; Norr, Albanese, Oglesby, Allan, & Schmidt, 2015), negative affect (Fergus and Spada, 2017, Fergus and Spada, 2018; Norr, Oglesby, et al., 2015), low self-esteem (Bajcar&Babiak, 2019), and low metacognitive beliefs (Fergus & Spada, 2018).

Excessive reliance on online health information can lead to challenges in doctor-patient relationships (Eichenberg& Schott, 2019). Young adults may question or challenge medical professionals' opinions, potentially leading to mistrust or difficulty in following medical advice. This can hinder effective communication and collaboration with healthcare providers.

Factors influencing Cyberchondria

There are several research which shows that health anxiety is positively associated with Cyberchondria

(Bati et al., 2016; Baumgartner & Hartmann, 2011; McElroy et al., 2019). According to the findings of certain studies, those who experience higher levels of anxiety believe they are more susceptible to illness and pay more attention to news and information about health in general (Hadjistavropoulos et al., 1998).Negative cognitive schemas and dysfunctional beliefs about health and diseases are said to be responsible for the development and maintenance of intense health anxiety, as stated by Salkovskis et al. (2003).

People who have low self-esteem are more likely to feel greater health anxiety, and they frequently mistake somatic symptoms for signs of a genuine and potentially life-threatening physical illness (Rizwan & Ahmad, 2015). People who have poor self-esteem are more likely to have dysfunctional cognitions, such as excessive emotions of culpability for harm, catastrophic interpretations of intrusive thoughts, and obsessive behaviours (Salkovskis, 1999). As a consequence of this, those who have low self-esteem are at a greater risk of developing cyberchondria, a specific form of PIU that manifests itself in an impaired ability to exercise self-control over Internet use (Fergus & Dolan, 2014).

Both optimism and pessimism have been linked to a variety of health-related behaviours. One of the personal resources that is related with caring for one's mental and physical health is optimism, which is why it is so important (Carver et al., 2010).It is linked to health-conscious actions including employing new technology for preventive measures, good lifestyle choices, and information searching about health (Trinkhaus, 2019), but it is also negatively linked to cyberchondria (Maftei& Holman, 2020). Having an overly positive outlook may cause one to disregard obvious symptoms and to underestimate the likelihood of developing an illness(Sharot et al., 2007).A pessimistic outlook, on the other hand, raises the risk of overly critical self-diagnosis as well as the identification of diseases that do not actually exist. This may cause persons seeking medical information to experience increased levels of anxiety and stress (Trinkhaus, 2019). According to research conducted by Bajcar and Babiak (2020), a positive correlation has been found between pessimism and cyberchondria.

The absence of emotional regulation and impulsive control creates circumstances that are favourable for problematic Internet use (Caplan, 2010), which is strongly associated with cyberchondria (Bottesi et al., 2021). According to research, maladaptive emotional regulation methods like cyberchondria and health anxiety are positively connected with behaviours like rumination and catastrophizing (Fergus &Rusell, 2016; Jungmann &Witthoft, 2020).

Conclusion

To conclude, the research paper through light on the phenomenon of cyberchondria and its implications for individuals' mental health and healthcare systems. The findings demonstrate that the availability of online health information, while beneficial in many ways, has also led to a significant increase in health anxiety and hypochondriacal behaviors. The ease of access to vast amounts of medical information, coupled with individuals' tendency to overinterpret symptoms, has fueled the development of cyberchondria as a distinct condition.

Through a comprehensive review of existing literature, this paper has highlighted several key factors contributing to the development and maintenance of cyberchondria. These factors include excessive searching for health-related information, confirmation bias, online self-diagnosis, and the influence of online communities. Moreover, the paper has explored the negative consequences of cyberchondria, including increased anxiety, stress, avoidance behaviors, and unnecessary medical testing and consultations. It has also emphasized the impact on healthcare systems, including the burden on healthcare providers and the potential for misinformation and misdiagnosis.

The prevalence of cyberchondria among young people is a growing concern. The accessibility of health information online has empowered individuals to take control of their health, but it has also given rise to anxiety and hypervigilance. The constant exposure to alarming health-related content can lead to heightened health anxiety, resulting in excessive worry, preoccupation with symptoms, and unnecessary medical testing.

To address the detrimental effects of cyberchondria on young people, it is essential to promote digital literacy and critical thinking skills. Education programs and interventions should focus on teaching individuals how to evaluate the reliability of online health information and recognize the limitations of self-diagnosis. Encouraging healthy information-seeking behaviors and promoting a balanced approach to self-care are crucial steps in mitigating the negative impact of cyberchondria.

While this review paper has provided valuable insights into the effects of cyberchondria on young people, there is still much to be explored. Future research should focus on understanding the long-term consequences of cyberchondria, its impact on different populations, and the effectiveness of interventions aimed at mitigating its negative effects.

Nevertheless, further research is needed to deepen our understanding of cyberchondria and develop targeted interventions. Future studies could explore the long-term effects of cyberchondria, the impact on specific populations (e.g., adolescents, older adults), and the efficacy of various interventions. By addressing these gaps in knowledge, we can advance our understanding of cyberchondria and devise effective strategies to mitigate its negative consequences.

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