THE INTERNET'S ROLE IN UNDERMINING THE CREDIBILITY OF THE HEALTHCARE INDUSTRY

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ABSTRACT

The widespread popularity of the internet can be considered both advantageous and detrimental to society, as the age of technological advancement sparks innovative ways in which people receive information. On one hand, the availability of the internet has allowed people to research their own health concerns and symptoms, which enables them to seek treatment faster. On the other hand, this can turn into an obsessive habit by cyberchondriacs who relentlessly scour the internet over any trivial health concern. Furthermore, the widespread popularity of the internet is also responsible for a surge in spreading misinformation, namely about the COVID-19 pandemic, which has led to undermining the credibility of trusted healthcare officials and organizations.

This paper aims to not only explore the problems that arise with the widespread availability of information via the internet, but to also explore possible solutions that would benefit society on both an individualized and collective scale. The solutions presented in this paper seek to assist individuals in rendering professional therapy services for Cognitive Behavior Therapy, and to assist the collective population in maintaining responsible internet usage.

Keywords: healthcare, COVID-19 pandemic.

INTRODUCTION

Decades prior to the invention and popularity of the internet, people sought products and services from physical venues and people. When in need of clothes or groceries, people would visit shops; when seeking medical services and treatments, people would make appointments with their physicians. Nowadays, the widespread use of the internet as a tool for everyday life has resulted in services and apps that no longer require physical spaces and people. This has resulted in endless quantity of services and information are readily available at anyone's fingertips – all one needs is a stable internet connection. Despite the innumerable benefits that this technological advancement has provided to societies around the world, there are significant drawbacks to the vast amount of readily available information at the hands of average people. This has been made

even more apparent with the rampant spread of misinformation during the height of the COVID-19 pandemic[1,2,3,4,5]. The overarching issue is that the internet has produced an environment where people can take their healthcare into their own hands, as opposed to relying on licensed medical professionals for diagnosis, advice, and treatment.

Physicians [6,7], pharmacists, and other professions inclusive of the healthcare industry were once regarded as distinguished sources of accurate medical advice and treatment; rarely did people contest the validity of their physicians' guidelines to curing diseases and maintaining their health. However, due to the widespread availability of information on social media and search engines, people now feel entitled to be knowledgeable on healthcare. Sites like Web.MD and MayoClinic provide comprehensive information on thousands of diseases - while the information these sites provide is helpful [8,9,10], it detracts from the understanding that these sites are intended to be mere references, not sources for diagnosis.

Problem Definition

These 'cyberchondriacs', or people who obsessively search the internet for information about health and disease, immediately begin feeling anxious and other negative emotions due to the overwhelming amount of information. This is mainly because, "seeking to 'diagnose' one's symptoms online may increase the likelihood of noticing and misinterpreting benign stimuli as evidence for disease; triggering anxiety and illness preoccupation" (Singh, K., Fox, J. R. E., & Brown, R. J. (2016). This is a great cause for concern in the healthcare industry because self-diagnosis is often times inaccurate [11.12.13.14], and may lead to dangerous and erroneous methods of self-medication.

Another detrimental effect of the rise in misinformation is the tendency to discredit trusted medical professionals and health organizations. This trend became apparent especially during the COVID-19 pandemic, when quarantines and lockdowns spread across the globe, effectively minimizing opportunities for people to visit hospitals and doctors' offices for accurate medical treatment and advice [15,16,17]. The World Health Organization (WHO) labels this phenomenon as an 'infodemic', when "too much information including false or misleading information in digital and physical environments during a disease outbreak", that "leads to mistrust in health authorities and undermines the public health response", which ultimately can "intensify or lengthen outbreaks when people are unsure about what they need to do to protect their health and the health of people around them." [18,19]

As the abundance of misinformation grows during an infodemic, so does the public's reluctance to undermine the credibility of public health officials and organizations. The rate of growth of the pandemic, vaccines and their side effects, medical treatments, and preventative measures are the main topics susceptible to public panic and misinformation during the COVID-19 pandemic. In desperate attempts to quell public panic, official health sector representatives and their respective organizations made grave attempts to emphasize the importance of trusting the health industry for reliable information and best practices for navigating through the pandemic.

However, these attempts could not ultimately change the impact of the infodemic and its influence on public health behaviors, which includes "panic buying" and disregarding sound health advice, such as stay-at-home orders, from public health officials [44,45,46,47,48].

The infodemic's impact on the credibility of the COVID-19 vaccination fundamentally changed the way the public viewed the vaccine as a legitimate preventative measure to COVID-19 infections. As trials of different versions of the vaccine began, popular social media platforms such as Facebook, Instagram, and Twitter began circulating posts with dramatized infographics, inflated statistics, and false information [49,50,51,52,53,54,55]. These posts perpetuated anti-vaccination sentiment from a large majority of the global population, resulting in panic and mistrust. According to the National Library of Medicine, spreading "vaccine-related misinformation on social media may exacerbate the levels of vaccine hesitancy, hampering progress toward vaccine-induced herd immunity, and could potentially increase the number of infections related to new COVID-19 variants." All of these effects negatively impact the health sector because they discredit safe and preventative measures, and instead, propagate further infections, which can ultimately lead to a spike in population deaths.

Proposed Solution

In spite of the dangers presented by the actions of cyberchondriacs and by the detrimental effects of the infodemic in discrediting the reputable healthcare industry, there are numerous, productive solutions that can be implemented by government and private organizations to ensure a healthier and more trustworthy dynamic between the public and the healthcare sector. These solutions rely on both responsible internet usage and moral personal responsibility, and can be easily implemented by the rise of awareness campaigns.

The fear and anxiety that is prevalent in cyberchondriacs stems from searching their mild symptoms on internet search engines such as Google or Bing, and spiraling into a rabbit hole of searching until they gather enough information to validate their fears. This is part of a larger cycle, where the more that they worry about a symptom, then the more they feel that specific symptom. Despite the notion that cyberchondria is an extremely difficult condition to treat, there have been strides in the scientific and medical fields to attempt solutions to solve it.

Cyberchondriacs can ease their panic and lead less anxious lives by learning how use the internet as an added resource and not their sole healthcare provider, and by learning how to seek professional medical services to manage stress effectively. Though cyberchondriacs may assume that their internet searches will provide them with answers, it is never enough to satisfy them and their dramatic health concerns. Instead, cyberchondriacs who want to heal from their condition must focus on breaking their continuous and harmful cycle of worrying about a symptom and then checking the internet for hours, even days, on end in order to find the answers that they are searching for [32,33,34,35,36].

Simply put, cyberchondriacs must use Googles less often, and schedule appointments with their doctors more often. In this case, doctors can evaluate the mental and physical fitness of cyberchondriacs [37,38,39,40], and prescribe medication and treatments accordingly. Besides treating any illnesses, doctors can also prescribe anti-anxiety medication such as alprazolam, diazepam, or clonazepam in order to alleviate their patients' constant and urgent need to scour the internet for every minor symptom they may experience in their bodies. As cyberchondriacs seek professional medical help, they can also strengthen the trust and bond they have with their healthcare providers. Healing from constant worry and anxiety for cyberchondriacs is possible through the active desire to become better, and through family and friend support [41,42,43,44,45]

Related Work

In the event that self-awareness and self-medication is not enough to implement positive change in their lives, cyberchondriacs can also seek professional medical services through Cognitive Behavioral Therapy, or through Hypnotherapy. By speaking to behavioral therapists or hypnotherapists, cyberchondriacs can unlearn their unhealthy behaviors and tendencies in order to implement lifestyle changes that take their minds away from constantly overthinking about their health and potential diseases. According to WebMD, cyberchondriacs can use therapy sessions to "challenge their assumptions and change their behavior" and can curb panic-induced behavior by agreeing on "a regular checkup every few months, instead of making emergency appointments every time they get freaked out."

Leading research suggests that Cognitive Behavioral Therapy (CBT) is by far the most popular and effective therapeutic treatment option for people who suffer from cyberchondria [42,43,44,45,46]. Cognitive Behavioral Therapy involves a mixture of comprehensive psychological education and exposure therapy. When a cyberchondriacs begin Cognitive Behavioral Therapy, they first examine the psychology of their unhealthy thinking patterns. With the guidance of a license therapist, cyberchondriacs educate themselves on the notions that their tendencies are based on unhelpful methods of thinking, on learned patterns of unhelpful behavior, and that despite their suffering from psychological issues, they can learn and implement more constructive methods of coping with their stress and anxiety, which ultimately allows them to regain control of their lives.

According to the American Psychological Association (APA), individuals suffering from cyberchondria can also alleviate their suffering using Cognitive Behavioral Therapy by "Learning to recognize one's distortions in thinking that are creating problems, and then to reevaluate them in light of reality" so that they can distinguish what are true, practical reasons for concern, among what are false or dramatic reasons for concern. This allows them to gain a more solid understanding of their own cyberchondria. By gaining that level of understanding, cyberchondriacs can then rely on newly gathered problem-solving skills to cope with any potentially difficult and anxiety-provoking situations. Ultimately, Cognitive Behavioral Therapy will allow cyberchondriacs to

develop a greater sense of confidence in their own abilities, as well as a greater level of trust towards certified healthcare professionals.

In spite of all the progress cyberchondriacs may make towards becoming less anxious about their health, the widespread availability of the internet will always provide platforms for rampant misinformation to fester and spread among the global masses. As this paper previously stated, the most practical solution to this issue is to raise awareness about misinformation, and to promote responsible internet usage and moral personal responsibility. Understandably so, it is easy for the average person to become caught up in the massive amounts of available information on the COVID-19 pandemic. However, it is everyone's duty to practice responsible internet usage by listening carefully to the misinformation being spread through social media. According to the Centers for Disease Control and Prevention (CDC), people can monitor "social media channels and traditional media outlets for misinformation" and then create "a log of that misinformation to identify trends in [their] area. This can help [them] understand where, when, why, and how misinformation is spreading in [their] community."

Moreover, according to the Centers for Disease Control and Prevention (CDC), people should "use trusted messengers to boost credibility and the likelihood of being seen and believed over misinformation" since "some people may not trust public health professionals or visit the health department website." The rise of social media influencers has put people in a unique position – they can inform and educate through their platform, and may reach people who would listen to them over any traditional trusted public health officials.

People across the world must practice responsible internet usage in hand with continuing to maintain personal moral responsibility in curbing the spread of deceptive misinformation about health and diseases, namely COVID-19. Instead of relying on a friend's Instagram post, or Facebook post about the dangers of the COVID-19 vaccination, people should take the time to briefly validate the credibility of the post they see by referencing a credible website to see whether or not it matches with the information they see on social media. If the information matches, then it is deemed valid information. However, if the information is inaccurate, then it is considered misinformation, and thus, the information should either be removed, reported, or shared with the strong disclaimer that it is incorrect, so that people who come across it can know it is inaccurate and unreliable [20,21,22,23].

On a grander scale than of the individual, global health organizations can also partner with local communities and governments to launch social media campaigns that generate more accurate awareness of COVID-19. According to the World Health Organization (WHO) [24,25,26,27], it has liaised with "the UN family, tech sector, media, civil society and other amplifying communities to understand concerns, co-develop messages, extend the reach of health information, and to respond to the information needs of communities." This level of community outreach can combat the rampant spreading of misinformation, and in turn, facilitate a more genuine and constructive trusting bond between people and the global healthcare [28,29,30] industry. This outreach

campaign would also be paramount in rebranding the negative reputation that COVID-19 vaccinations have garnered through the spread of misinformation. According to the National Library of Medicine, "False claims about COVID-19 vaccines can undermine public trust in ongoing vaccination campaigns, posing a threat to global public health" and that "the vaccine-related misinformation on social media may exacerbate the levels of vaccine hesitancy [31,32,33,34] hampering progress toward vaccine-induced herd immunity, and could potentially increase the number of infections related to new COVID-19 variants." Due to the disastrous effects of misinformation about COVID-19 vaccinations, it is imperative that these large global health organizations prioritize the awareness and education of the importance of individuals trusting the COVID-19 vaccine[56,57,58,59,60].

CONCLUSION

Though the United Nations (UN) and The Red Cross have been instrumental in stopping the spread of rampant COVID-19 misinformation, the World Health Organization (WHO) has made great strides to provide "universal access to credible health information, and building resilience to misinformation for people worldwide." However, the World Health Organization (WHO) also understands that "more efforts are needed to better understand the scale of the infodemic, and impact of strategies used to manage it, in order to develop new toolkits for countries." That being said, the future of mitigating infodemics seems positive, but there is much work left to be done. The World Health Organization (WHO) is currently in the process of "fostering new approaches to meet changing needs for an evolving health emergency infodemic response" which essentially provides "a foundation for further collaborations to also improve preparedness and early detection of emerging and resurgent health threats."

False claims about COVID-19, or practically any health and disease discourse, can easily undermine the reputation and credibility of trusted health officials and organizations on a global scale. Misinformation usually originates from panic, fear, and other sources of unfounded bias – it is never objective and statistically accurate. Though the notion of misinformation is not a new concept – in fact, it has been traced to centuries before the invention of the internet and technology – its effects can still be considered catastrophic, even to this day.

Due to the accessibility of the internet, social media platforms such as Twitter, Instagram, and Facebook have cultivated spaces for people to spread virtually any claim, regardless of its accuracy. For cyberchondriacs and people who spread misinformation alike, evidence and data-based solutions have been created and implemented to curb the continued spread of these detrimental practices. With the massive support of global health and wellness organizations, misinformation and misconceptions about the COVID-19 pandemic, as well as general disease and illness, is well en route to be curbed to a more manageable scale. By partnering with local authorities and societies, these larger health and wellness organizations can engage communities and ultimately gain their trust, so that the public will no longer be susceptible to falling for the lies

and deceptive information of unreliable and uncredible sources from the internet and from social media.

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