Cyberchondria, Coping strategies and Coronavirus Anxiety Among Adults During COVID-19

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Certificate

This is to certify that M.Sc. research report on "**Cyberchondria, Coping strategies and Coronavirus Anxiety Among Adults During COVID-19"** prepared by Ayesha Shahid has been approved for submission to Quaid-i-Azam University, Islamabad.

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Ms. Saira Khan

Supervisor

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Dedicated

To

“My supporting parents and loving husband”

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ABSTRACT

The present study aimed at examining the relationship between cyberchondria, coping strategies and coronavirus Anxiety among Adults during COVID-19. The study also explored the predictive role of cyberchondria, approach coping strategies, avoidant coping strategies and humor coping strategies in prediction of coronavirus anxiety. The role of demographic variables i.e., age, gender, education, diagnosed with coronavirus anxiety and history of anxiety etc. and group differences were also studied. In this study sample of adults was taken from different residential area of Islamabad and Rawalpindi through online Google Doc form. The sample consisted of 302 adults in whom there were *(N=110)* males and *(N=192)* female adults. Measures included Cyberchondria Severity Scale ((McElroy & Shevlin, 2014), Brief Cope (Carver, 1997) and Coronavirus Anxiety Scale (Lee, 2020). Reliability of all of the scales indicated that these scales were reliable instruments for the respective constructs which they supposed to measure. The findings revealed that there is positive correlation between cyberchondria, avoidant coping strategies and coronavirus anxiety in adults. Whereas there is negative correlation between approach coping strategies, coronavirus anxiety and humor strategies. Significant differences were found between gender, education level, and diagnosis with reference to coronavirus anxiety and history of anxiety on study variables. The research will be useful in the field of mental health because it will allow mental health professionals to better understand how cyberchondria and the type of coping methods can play a big part in coronavirus anxiety and related crises in the future. The study's findings are also useful for people in the field of psychology, as they assist them comprehend the negative impacts of cyberchondria on psychiatric diseases such as coronavirus anxiety.

INTRODUCTION

Chapter 1

Introduction

A novel coronavirus (COVID-19) caused a viral pneumonia outbreak in Wuhan, China, in December 2019. It is exceedingly infectious and has estimated low to high mutation rates when compared to the other single-stranded RNA viruses in the category (Amodio, Vitale, Cimino, Casuccio, & Tramuto, 2020). 39500 fatalities in July 2020 (Dong & Gardner, 2020), with the United States, Brazil, and India having the highest cases (Dong & Gardner, 2020). As a result of the significant increase in contaminated cases, a large number of nations have imposed bans and lockout legislation.

There are many causes of covid-19 and many more. School and kindergarten openings, as well as no systemically relevant store travel, prohibitions and boundary closures, suspension of sporting activities and other events such as concerts, and social contact limitations were all part of the lockdown (Brooks, Webster, Smith, Woodland, & Rubin, 2020; Torales, Higgins, Castaldelli, & Ventriglio, 2020).

This chapter outlines the framework for investigating the importance and relevance of the study variables in Pakistan using applicable literature and concludes with the reference of study variables to Pakistani context.

The current Covid (SARS-CoV-2) COVID-19 pandemic has caused extreme mental and actual pressure, just as high paces of bleakness and mortality, since its episode in December 2019 (Rosenbaum, 2020; Sohrabi et al., 2020; Tanne et al., 2020; Wang et al., 2020). Uneasiness, wellbeing stresses, and security conduct, for example, social distance and hand disinfection are boundless during earlier scourges and pandemics (Ebola 2014/2016, H1N1 2009/2010, avian flu 2006, SARS 2003), as indicated by past investigations (Jalloh et al., 2018; Lau, Griffiths, Choi, and Tsui, 2010; Main, Zhou, Ma, Luecken, and Liu, 2011; Saadatian-Elahi, Facy, Del Signore, and Vanhems, 2010). A few investigations have started to analyze a nervousness and other mental indications during the current COVID-19 flare-up (Guo, Wang, Zhang, Li, Li, and Chen, 2020; Huang and Zhao, 2020; Lai, Shih, Ko, Tang, and Hsueh, 2020; Qiu, Shen, Zhao, Wang, Xie, and Xu, 2020).

Pakistan has been on high alert since the first case was detected in the country in February 2020. The government and health experts have urged taking preventative measures to avoid the disease from spreading (Mukhtar, 2020). These actions were increased when the quantity of cases and neighborhood transmission expanded. The public authority forced outright lockdown, the conclusion of stores and mosques, versatility limitations, and telecommuting to make social distance and forestall sickness spread. Remaining at home, social disconnection, and lockdown are for the most part prudent steps that may prompt mental and psychological wellness issues (Mukhtar, 2020). A review directed in Karachi, Pakistan, in March 2020 showed mental challenges like expanded dread and fear, just as changes in conduct to guarantee security (Balkhi , Nasir , Zehra, and Riaz, 2020).

This is surprising given that big disasters, especially those involving communicable diseases, are known to cause considerable changes in people's behaviour and mental health (Balaratnasingam & Janca, 2012). The people who were practically affected by the Covid's fear and uneasiness showed higher levels of hopelessness, self-destructive contemplations, profound emergencies, and liquor/drug adapting than the individuals who were unfortunate however not debilitated by the disease (Liu et al., 2020). Since a considerable number of individuals experience clinically critical dread and tension during an irresistible sickness pandemic (Taylor, 2019).

Excessive worry and uncertainty may be exacerbated by incessantly searching for information on social media, which can lead to a difficult-to-break cycle of Cyberchondria (Starcevic, Berle, & Arnaez, 2020). Cyberchondria is a word that has as of late been utilized to depict an example of conduct described by continuous web looks for clinical data, just as expanding levels of wellbeing nervousness. In a pandemic emergency, tension is increased as the media is overflowed with clashing data. Inordinate web medical care data looking for might be a type of wellbeing wanting (e.g., deciding whether side effects are a sign of a viral contamination) that can be hurtful and can trigger or support further security looking for conduct (e.g., more/extreme Internet use) because of possibly terrible material. According to a recent research, cyberchondria alters people's risk assessments and encourages them to adopt recommended health measures more immediately during pandemics such as COVID-19. On the other side, it can lead to excessive anxiety, catastrophizing, and

social isolation, all of which are harmful to one's mental health (Laato, Islam, Islam, & Whelan, 2020).

The web has developed into a basic worldwide wellspring of wellbeing data, with correspondence occurring on huge advanced web-based media stages equipped for sending data at quick rates, with a wide reach, and high infiltration. The capacity to rapidly spread data during a pandemic has demonstrated to enjoy different benefits, including helping medical care suppliers to get ready for the episode and permitting people to understand the earnestness of the issue. Approaching data has additionally added to an expansion in stress, which has provoked inescapable reception of security practices suggested by the medical services business. Since COVID-19 turned into a worldwide worry in January 2020, people have been prompted about commonly fundamental security practices like sterilization (washing hands, cleaning surfaces), aversion of social commitment, remaining at home, and wearing a defensive veil. Notwithstanding these specific suggestions, states all through the world set curfews to debilitate parties and the spread of the infection (Jokic-Begic, Korajlija, and Mikac, 2020).

COVID-19 has an impact on both physical and mental wellbeing. Coronavirus introduced critical wellbeing hazards, yet it additionally impacted the populace's social, mental, and psychological wellness (Banerjee, 2020). The situation with individuals' mental and psychological wellness identifies with their attention to their own capacity to adapt to life's burdens (Mushonga, 2020). Many factors have an impact on the people's psychological and mental health, such as the unknown nature of the sickness, social isolation, and quarantine (Mukhtar, 2020).

It is essential to distinguish between the effect of physical isolation imposed by lockdowns and the extent to which individuals subjectively feel lonely or supported by others during the COVID-19 pandemic. A person's social isolation may be defined as a state in which they are not in close proximity to or engaged with others. After all, they might not feel so alone. It's also important to understand that social support is complex and varies based on the type of help provided by a variety of people, including family, friends, and others (Ahn, Sohn, Lee, Cho, Hyun, & Choi, 2020). Varying forms of support have been found to have different impacts on stress reduction (Tambuyzer, Austin, Brooks, Larsson, Needleman, & Prunotto, 2020);

support from family and friends, for example, appears to have helped individuals feel maintained and share their ideas throughout the COVID-19 pandemic (Ye et al., 2020).

Infectious diseases psychosocial reactions may have an acute and long-lasting effect on mental health (Bortel, Basnayake, Wurie, Jambai, Koroma, & Nellums, 2016). Individuals can use a number of coping methods to alleviate psychological suffering. Some coping methods are inefficient and can aggravate mental health problems, whereas others can reduce the type and effects of psychological reactions. Improved knowledge of Community-wide psychological reactions, and good coping techniques, are important to properly managing this pandemic and to developing future pandemic mental health response plans. Positive emotional techniques for coping with psychological symptom reduction may prove useful. Psychosocial reactions, including good coping techniques, are important for optimum management of the present COVID-19 scenario and for developing pandemic reaction plans for mental health (Chew, Wei, Vasoo, Chua, & Sim, 2020).

In the current study the relationship between cyberchondria, coronavirus anxiety during COVID-19 among adults along with the coping strategies people are currently using the combat the situation. Because excessive search for coronavirus related information on google and different sources of electronic media caused coronavirus anxiety and it's also affected by the type of coping strategies were used. Additionally the role of demographic variables with study variables is also studied that may also affects the amount of coronavirus anxiety experienced and mentioned in previous researches. Every single individual were badly affected by pandemic and still facing many problems but adults who have to take care of their own health and as well as responsible for other family members were among more suffering during this pandemic and experience many mental health problems. This study will provide a new coronavirus literature to give researchers with information about the coronavirus anxiety aspects of the worldwide pandemic for present or future research to be done in Pakistan.

Cyberchondria

Cyberchondria is a continuous wellbeing looking for movement that can create and sustain concerns and stress. It is characterized as intermittent and additionally

exorbitant wellbeing related online inquiries associated with enthusiastic pressure (especially nervousness) (Brown and Powers, 2019; Starcevic and Berie, 2013).

The terms cyber and hypochondria combine to form the term cyberchondria. A cyber is a computer network, electronic media, or computer that allows users to communicate through the internet. Hypochondria are a condition in which a person is too concerned about contracting a certain ailment. As a result, cyberchondria denotes hypochondria associated with computer and internet use, which is most likely caused by it. The term's origins are unknown, although it is sometimes linked to a Wall Street Journal article by journalist Ann Carrns from 1999 titled "On the Internet, illnesses are prevalent, appealing to hypochondriacs' fears." The word has become well-known thanks to the media's use of it (Starcevic & Berle, 2013).

According to two extreme viewpoints, cyberchondria is a psychological disease, and a cyberchondria is someone who seeks healthcare information on the internet. Regardless of increased usage of the internet in recent years, cyberchondria has become a common problem. People have even gone so far as to look up healthcare information online in order to avoid going to the doctor and instead purchase medicine from a drugstore. Others use online searches to confirm diagnoses and medications prescribed by their doctors. People who are anxious about medical issues frequently turn to the internet for answers (Doherty-Torstrick et al., 2016; Mathes et al., 2018), as well as problematic internet usage (Vismara et al., 2020). Thus, it is apparent that cyberchondria can be impairing and it is harmful for individuals (Mathes et al., 2018).

While the second perspective of cyberchondria was largely seen as being excessively severe (Malik, Mustafa, Yaseen, Ghauri, & Javaeed, 2019), a person seeking knowledge on the internet, the first was warmly received (disorder). In 2001, a British publication named the Independent published an article claiming that cyberchondria was a new mental disease (Starcevic & Berle, 2013). Later, some writers advised that patients with the illness get a formal diagnosis (Belling, 2006). While others ceased stressing that it is a separate and novel mental problem. Others compared the illness to hypochondriasis (Keller, Padala, & Petty, 2008), referring to cyberchondria as the disease's 21st-century equivalent.

Over time, more advanced definitions have evolved, with some referring to cyberchondria as the inclination to assume one has a disease or condition based on information found on the internet (Malike et al., 2019). Many definitions stress the existence of worry by defining cyberchondria as psychological anxiety produced by online information exposure(Keller, Padala, & Petty, 2008).The following definitions include anxiety as a result of specific behaviour: enormous health anxiety resulting from online health research (Lee, Hoti, Hughes,& Emmerton, 2014). Unfounded concerns about similar symptomology based on the evaluation of literature and search results on the Internet and the escalation of psychological-related fears by users of the web to research psychological research (White & Horvitz, 2009).

As a result, cyberchondria appears to be associated with internet searches for medical information rather than passive exposure to online material. Whatever the description, the central worry and inclination to interpret normal changes in bodily functioning as a reflection of severe disease symptoms is at the heart of the disorder. It's an exaggeration that many individuals today use because they're used to monitoring their symptoms on the internet. An individual has cyberchondria would conduct lengthy web searches and mistakenly link a small symptom of an illness to a major condition, such as a bad headache being linked to a brain tumor. The more people search, the more likely it is that their imagined doom will be realized (Horvitz & Eric, 2009).

Nervousness and vulnerability can prompt a fanatical quest for data via online media, which can worsen tension and make a hard to-break cyberchondria circle (Thompson, Jones, Holman, and Silver, 2019). A pandemic circumstance, when media is barraged with befuddling data, is without a doubt uneasiness actuating. Cyberchondria has as of late been characterized as conduct described by unreasonable online looks for clinical data associated with developing levels of wellbeing concern (Vismara, 2020). Inordinate web-based wellbeing data looking can be a type of security looking for conduct (exploring whether indications are an indication of a viral contamination) that can trigger or build up additional security looking for conduct (more/extreme Internet use) because of possibly upsetting data (Schimmenti, Billieux, and Starcevic, 2020; Starcevic and Berle, 2013). Cyberchondria impacts individuals' peril evaluations and drives them to avoid potential risk all the more rapidly during pandemics like COVID-19, as indicated by ongoing review (Garfin, Sliver, and

Holman, 2019). On the other hand, it very well may be a danger factor for excessively increased concern, catastrophizing and social removing, which all affect emotional well-being (Abel and McQueen, 2020).

As far as setting off occasions and supporting factors, the media might assume a significant part in plagues/pandemics extreme COVID-19-related web use as wellbeing looking for conduct (Garfin, Silver, and Holman, 2020; Hansen, 2009). The utilization of media can address a security looking for conduct all by itself (exploring whether side effects are an indication of an infection disease) and because of conceivably upsetting data, can trigger or build up additional wellbeing looking for conduct (further/unnecessary Internet use, specialist visits) (Brown et al., 2019; Garfin et al., 2020; Jungmann, Brand, Kolb, and Witthoft, 2020; Starcevic and Berle, 2013).

Misinformation, defined as “false or incorrect information, especially that which is intentionally designed to deceive” (Lazer et al., 2018), poses a severe hazard to public health during pandemics such as COVID-19 (Zarocostas, 2020). The quick spread of such disinformation is aided by social media, and it may result in a failure to follow suggested public health measures or in engaging in non-recommended behaviours. One obvious example of disinformation circulated during the COVID-19 epidemic stated that 5G cellular network towers contribute to the virus's propagation, leading individuals to assault network towers.

Numerous organizations, including the WHO, have called for the development of measures to combat the spread of COVID-19 disinformation. The first step in creating such treatments is determining why individuals post unverified COVID-19-related material on social media. Cyberchondria is an intriguing prospective outcome of COVID-19 social media use that may be linked to the spread of disinformation (Starcevic, Schimmenti, Billieux, & Berle, 2021).

In the scientific literature available to date on the COVID-19-pandemic, in most cases the data obtained at one stage in the pandemic enables scientists to better understand the dynamics of perception of threats and the adoption of safety conduct. Researchers found that individuals with high cyberchondria overestimate and are more likely to voluntarily introduce security behaviour, even before government-based measures, which will prolong their period of concern in times of severe

unknowingness, such as the COVID-19 pandemic (Bajcar & Babiak, 2021). This would lead to the risk of virus infection. Researchers also anticipate that lock-down action will raise the anxiety and cause further changes in behaviour among the majority of people, although cyberchondria with higher degrees will stay more concerned and susceptible to safety. The information-search activity, which was often reported on the Internet in the first wave by 46% of participants, rose considerably. This was claimed to be the second wave by 75% (Uzun & Zencir, 2021).

The current review picked cyberchondria as the subject of this exploration on the grounds that, during viral scourges, a situation arises in which people devour more media reports, and lockdown additionally drives individuals to burn-through such wellsprings of data (Jungmann and Witthoft, 2020). As indicated by the information, there was an increment in uneasiness and a change in conduct during the underlying long stretches of the viral pestilence. Besides, the discoveries show that cyberchondria is connected to worry about the COVID-19 ailment and relates to prior reception of security practices during the plague (Zheng, Kim, Sin, and Theng, 2021).

In the light of the growing number of users worldwide, it is important to define cyberchondria. To begin with, there seems to be no discussion that the disease is connected with the online search and that the activity is excessive or intense. Excessive searching may suggest the frequency and length of time. The volume of material accessible or the obsessive attention to detail may also be considered. Another area of agreement is that it is neither pleasurable nor rewarding. The undesirable and unpleasant consequences of increased concern are linked to cyberchondria.

In short, in the presence of all of these factors and definitions, cyberchondria may be defined as the repetitive and excessive search for health and medical-related material on the internet, which is fueled by concern and anguish about one's health and only serves to exacerbate the anxiety and distress. The ailment is not diagnosed and occurs as a result of hypochondria and health concern. The comprehensive description distinguishes cyberchondria from the frequent or occasional internet search for health information, which may stem from a desire to learn or curiosity about one's own or another's symptoms (Avcin & Can, 2021).

Many aspects go beyond our control, including how long the pandemic persists, how others behave and how our communities will be affected. That is hard to tolerate and many of us react through the Internet constantly to ideas and imagine all the possible. So cyberchondria is an online information excessively or repeatedly seeking information related to increased levels of health worry or discomfort amid health emergencies such as the COVID-19 pandemic.

Coping strategies

Coping is the process of using cognitive, emotional, and/or behavioral strategies to handle a problematic person-environment connection (Folkman & Lazarus, 1985). As a result, coping strategies are important for people's health (Kraag et al., 2006), with implications for subjective well-being (Parsons et al., 1996; Sheldon & Lyubomirsky, 2006) and psychological well-being (Sheldon & Lyubomirsky, 2006; Loukzadeh & Bafrooi, 2013; Portocarrero & Bernardes, 2013).

Both psychological and social administrative procedures are involved in coping. Intellectual coping as the psychological activity for recognition of genuinely significant improvements is conceptualized. Intentional and controlled as automated and programmable, these creative initiatives may. The adapting idea comes from mental examinations that were led on pressure. In the reasonable examination of stress by Lazarus and Folkman, adapting works to two intellectual evaluations performed by the individual concerning the impression of a compromising circumstance and their accessible assets to manage it.

The conditional model of pressure keeps up with that when given a potential stressor, people make an essential evaluation about the danger of the improvement or occasion, trailed by ensuing examinations regarding whether they have the assets to manage the stressor. These evaluations, thusly, sway the strategies individuals decide to manage the risk (Folkman et al., 1986). People may by and large help feeling centered adapting techniques (passionate articulation, aversion centered), just as issue centered adapting systems critical thinking, intellectual rebuilding (Folkman and Lazarus, 1980) just as procedures that may not squeeze well into any of the classes (Yseldyk, Matheson, and Anisman, 2010). Albeit certain individuals are inclined to one adapting style over another, the particular techniques they use might vary contingent upon the situation (Folkman et al., 1986). It is likewise conceivable that adapting procedures may contrast in response to hazards that are exceptionally sure,

like a finding of a particular sort of malignant growth or coronary illness, versus dangers that are to some degree equivocal and obscure, like the probability of a pandemic.

Coping has traditionally been characterized as a type of adaptation induced in normal people by extremely demanding situations (Costa, Somerfield, & McCrae, 1996). Coping was described by the authors as constantly shifting cognitive and behavioral efforts performed by an individual in order to deal with demands that are particularly demanding and likely surpass individual capacities and/or resources (Lazarus & Folkman, 1984). According to these writers, there are three major aspects to the coping process the cause of stress cognitive appraisal (which involves assessing the experience as irrelevant, threatening, or positive, as well as assessing the individuals' and their environment's available coping resources) and coping methods. Problem versus emotion-focused coping, functional versus dysfunctional coping, approach versus avoidance coping, engagement versus disengagement coping, and main versus secondary control coping have all been historically divided into groups. The most well-known and often used technique of classifying coping behaviour into problem-focused or emotion-focused is Lazarus and Folkman's (1984) method.

Recent reviews and meta-analyses have found that coping aspects vary depending on the kind of stress and the sample (Campos, Iraurgui, Paez, & Velasco, 2004). Religion, positive reframing, comedy, and acceptance, for example, have all been characterized as problem-focused, emotion-focused, or avoidant techniques in various studies (Schnider, Elhai, & Gray, 2007).

Types of Coping. Hasting Kovshoff, Brown, Ward, Espinosa and Remington (2005) describe three forms of coping according to structured variables.

Approach/Problem focused coping strategies. Individuals that employ approach methods are more likely to employ problem-solving skills and have greater access to social resources (Ebata & Moos, 1991). When presented with manageable stressors, the employment of approach coping is thought to be linked to a reduction in the negative repercussions of trauma exposure (Clarke, 2006). Individuals usually utilize problem-driven coping approaches with challenges or problems that are potentially manageable. Most people use context-based and personal problem-driven coping strategies in Pakistan to fight a problem pandemic to protect themselves

further from the psychological aspects of viruses such as coronavirus anxiety and also to support the psychological well-being of viruses in difficult coronavirus situations. These many problem-focused coping strategies have been shown to be efficient in the past include self-protection, prevention and monitoring of diseases and institutional strategies based on evidence-based methods.

Avoidant coping strategies. The employment of distancing and distraction methods to stresses is the second sort of coping strategy, avoidance coping (Ebata & Moos, 1991). This technique appears to have a more complicated link with traumatic symptomatology development. While avoidant coping has been linked to poorer adult adjustment (Merrill et al. 2001) and higher levels of psychological distress (Littleton et al. 2007). An evaluation of this coping strategy in Pakistan suggests that people try to ignore the danger of coronavirus by not paying much attention to the threat and continuing with their daily routine, meeting friends and family, visit parks and malls. This negative coping strategy could actually help them to be calm in saying long term. As Salman et al (2020)'s latest study has also shown, distraction as the starting agent of coronavirus is used by individuals in Pakistan to escape danger.

Religious/Humor coping strategies. Shows religious coping (a person may look to religion when the strain is on him/her) and comedy as a positive technique to combat coronavirus persistence. In Pakistan there is already an elevated propensity to religion, which implies that people are looking forward to religion in the majority as comforts to a terrible scenario with corona-virus (Hashmi, Iqbal, Haque, & Saleem, 2020).

Observational assessments and coping reactions to possible threats, including viral disease, were carried out from the last pandemic. Model assessments of avian influenza hazards have revealed widespread susceptibility since individuals are not particularly well educated on avian flu and pandemic hazard or how to react to a pandemic (Elledge, Brand, Regens, & Boatright, 2008). Moreover, prior investigation has shown that inappropriate coping behaviours like deliberate avoidance of coping, including repressive actions during certain gatherings are used as a way of avoiding potential infection. In the 1990s, the increased concern and danger were, for example, prevalent in the context of the 2003 SARS outburst, of more conspicuous avoidance among individuals of Asian drop (Puteman, Delongis, Lee-Baggley, & Greenglass,

2009). Evocative techniques were connected to psychological distress while handling a plague, whereas positive coping with cyberchondria were related to (Main, Zgou, Ma, Luecken, & Liu, 2011). Whereas techniques such as coping denial strongly related to the flu epidemic in 2009 Influenza (Taha, Matheson, Cronin, & Anisman, 2014).

Demographical Differences in Coping Strategies

By examining prior coping studies, it was revealed that females employ issue solution techniques more frequently than males, as well as avoidance coping strategies (Wilson, Pritchard, & Revalee, 2005). The present coronavirus pandemic has been carried out in recent research. It is indicated that coping age disparities were also viewed as more beneficial approaches for adults and problem-oriented coping than adolescents (Young, Waugh, Minton, Charles, Haase, & Mike, 2020). Further cancer study has shown that married persons had better positive coping than individuals (Goldzweig et al., 2020).This study is aimed at examining the variations in gender, age and marital status in coping during a coronavirus pandemic on the basis of such data.

Coronavirus Anxiety

Anxiety is an emotion that is marked by tension, anxiety and bodily changes such as elevated blood pressure. People with anxiety have intrusive thinking or concerns typically recurrent. Some circumstances may be avoided out of concern. Physical symptoms such as sweating, tremors, disorientation or a quick heartbeat might also occur (APA, 2013).

Specifically, coronavirus anxiety included the cognitive (repetitive thinking, worry, processing biases, dreaming, and planning), behavioral (dysfunctional activities, avoidance, and compulsive behaviors), emotional (fear, anxiety, and anger) and physiological (sleep disturbances, somatic distress, and tonic immobility) (Sh & Rasskazova, 2020). Dizziness and tonic immobility, two coronavirus anxiety symptoms, appear to represent the physiological responses of increased anxiety to coronavirus-related stimuli. Even the coronavirus anxiety scale is made up of five somatic dread and anxiety symptoms that are induced by thoughts or knowledge concerning the coronavirus (Lee, 2020).

Feelings of worry and anxiety during a pandemic can exacerbate any existing mental health issues a person may have, as well as create dread and concern for their own and their loved ones' health. People who are fearful and one edge about coronavirus will in general experience a rational arrangement of undesirable, physiological side effects that are activated by musings or any information about this irresistible infection, as it increased the previous anxieties individuals are suffering from with coronavirus (Evren, Dalbudak, Topeu, & Kutlu, 2020). Psychological discomfort caused by problems such as generalized anxiety and melancholy may not be distinguished from other people's commitments to coronavirus worry.

Anxiety is a broad fear of a potential harm (APA, 2013). Unlike fear, which has a definite focus and resolves fast when the threat is removed, anxiety is hazy and dissipates far more slowly than dread (Kalat, 2007). Anxiety is also characterized by muscular tension, alertness for danger, and avoidant actions (APA, 2013). Sleep difficulties and appetite loss, two additional coronavirus anxiety scale symptoms, appear to reflect the physical repercussions of increased concern about the coronavirus. Given the duration and intensity of anxiety, it is not unexpected that similar symptoms are also seen in depression (APA, 2013).

Exploration on COVID-19 pandemic has shown that expanded dread is related with different emotional well-being results and demolishing previous mental conditions. Tension and misshaped view of hazard have been connected to different public psychological wellness concerns like trouble responses, wellbeing hazard practices, emotional well-being problems and poor saw wellbeing (Shigemura et al., 2020). Tension is related with more noteworthy weakness, hazard insight and commitment in preventive practices (Yildirım et al., 2020), proposing that nervousness is a significant mark of mental prosperity outcomes.

Anxiety can cause physical symptoms, and some of these may be similar to the symptoms of COVID-19 (Lee, 2020).

Symptoms of anxiety. When a person is anxious, they can experience a panic attack. This occurs when the body experiences intense physical and mental symptoms. Symptoms of a panic attack can include: chest pain, feeling like the heart is racing or pounding, feeling faint or dizzy, sweating and hot flashes, nausea, shortness of breath or a feeling of choking, chills, shaky limbs, numbness, tingling in the fingers, a dry mouth, ringing in the ears, butterflies in the stomach, disassociation,

or feeling as though one is not connected to one's body. A person may be concerned that experiencing these symptoms means that they have COVID-19 (Sowislo & Orth, 2013).

Symptoms of COVID-19. According to the CDC (center for disease control)Trusted Source, the main symptoms of COVID-19 include, fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle aches, headaches, new loss of taste or smell, a sore throat, congestion, a runny nose, nausea, vomiting and diarrhea.

Previous global disease outbreaks have shown significant connections between pandemic-related worry and increased symptoms of stress, anxiety, contamination fears, health anxiety, post-traumatic stress, and suicidality (Chong et al., 2004; Wheaton et al., 2012; Wu et al., 2009; Yip et al., 2010).

People's attitudes to pandemics (including health concerns) vary significantly (Gaygisiz et al., 2012). Worry is a multifaceted notion that ranges from a lack of awareness of one's own health to pathological health anxiety or hypochondriasis, described as anxieties and worry generated by a perceived threat to one's health (Abramowitz & Braddock, 2008; Bailer et al.,2016; Ferguson, 2009). In cognitive-behavioral theories of health anxiety and hypochondriasis, body sensations or benign symptoms are viewed as hazardous and as markers of a serious disease (Warwick, 1989; Witthoft & Hiller, 2010). This might cause concern over one's health and, as a result, hypochondriasis. The influence of triggering events (media reports, physiological arousal) on physical feelings, perception, and interpretation can be significant. Many people are afraid and concerned as the COVID-19 problem continues to wreak havoc on the global economy and everyday lives. Adults are particularly vulnerable since they have lost their employment and are frequently cut off from their families and other sources of support, which has been associated to despair, generalized anxiety, and suicidal ideation.

As a result of the uncertainty surrounding this pandemic, certain segments of the population may experience mental health difficulties such as worry and melancholy (Dar et al. 2017). Social isolation has been linked to both physical and mental health problems in the past (Holt-Lunstad et al., 2015). The allegations of negative psychological repercussions were common in a research of psychological sequelae in restricted people's samples (Brooks et al., 2020). They included confusion,

aggressiveness, and post-traumatic stress symptoms. A protracted period of seclusion, fear of infection, dissatisfaction, boredom, limited resources, and shortcomings were all identified as possible stressors in the review.

Individuals with broken Covid tension have an assortment of mental issues, and Covid disease is a critical danger factor for this type of psychopathology. These discoveries are essential for an upsetting pattern of Covid tension that has been archived in the United States and China (Lai et al., 2020; Xiang et al., 2020), just as India, where a man endeavored self destruction since he feared getting the infection (Lai et al., 2020; Goyal, Chauhan, Chhikara, Gupta, and Singh, 2020). These components may include differences in individual factors such as perceived disease vulnerability, intolerance to uncertainty as people who have previously been diagnosed with anxiety and the vulnerable population are at high risk of coronavirus anxiety as the situation in Pakistan becomes more muddled and severe day by day with no clear picture of when the current crisis will end as the situation in Pakistan becomes more muddled and severe day by day with no clear picture of when the current crisis will end. Economic factors, given that the majority of people in our country rely only on daily and monthly wages to run their houses, as well as the current virus crisis, which has led in the lockdown and closure of everything. Excessive misinformation from many sources of media, on the other hand, contributes to coronavirus anxiety by fueling uncertainty and worry about the unknown (Mukhtar, 2020)

Relationship between coronavirus anxiety and cyberchondria

Previous study on the causes of cyberchondria has revealed that it is significantly linked to anxiety. Anxiety sensitivity has been connected to cyberchondria, for example (Doherty-Torstrick et al., 2016; Norr et al., 2015; Vismara et al., 2020). Information overload has been connected to cyberchondria as a result of people's constant hunt for reinforcing information that validates their concerns and fears (White & Horvitz, 2009; Norr et al., 2015).

Media consumption has been linked to anxiety during previous pandemics, including the current COVID-19 pandemic (Gao et al., 2020; Moghanibashi-Mansourieh, 2020; Purohit et al., 2018; Roy et al., 2020). In terms of the particular relationship between viral knowledge and health concern, however, the data are

conflicting (Goulia et al., 2010; Lei et al., 2020; Wang et al., 2020). While Blakey and Abramowitz (2017) observed that having more viral knowledge is linked to higher anxiety, they also discovered that having more perceived knowledge is linked to less worry (Goulia et al., 2010; Lei et al., 2020).

Openness to web-based media and broad web research in the weeks paving the way to the primary checked case's appearance were connected to an increment in nervousness. As we estimated, those with undeniable degrees of cyberchondria at the beginning of the viral episode created more elevated levels of COVID-19 tension and avoided potential risk (Te-Poel, Baumgartner, Hartmann, and Tanis, 2016). For instance, during the 2003 SARS pandemic in Norway, led a definite account examination of media reports and presumed that the media exacerbated public nervousness, for instance, by specifically announcing negative individual cases or improper correlations (Black Death in fourteenth century) Europe and by utilizing passionate and sensational language. Extreme media search was demonstrated to be emphatically associated with uneasiness during past pandemics, including the flow COVID-19 pandemic (Gao et al., 2020; Moghanibashi-Mansourieh, 2020; Purohit et al., 2018; Roy et al., 2020).

As indicated by an exploration of 1615 individuals directed in Germany, cyberchondria joined with wellbeing nervousness is connected to critical infection fear (Jungmann &Witthoft, 2020). As indicated by information from a review with 225 members in Finland, cyberchondria impacted one's view of COVID-19 seriousness and vulnerability. It likewise fundamentally affected rousing people to follow the suggested wellbeing measures (Garfin, Silver, and Holman, 2020). The aftereffects of this review uncover that cyberchondria effectsly affects conduct just as roundabout impacts by means of concern, albeit the backhanded impacts were less, showing that cyberchondria is connected to conduct in a manner other than uneasiness.

Goulia and colleagues (2010) revealed, however, that perceived knowledge is linked to less concern. Wang (2020) discovered that while there was no relationship between viral knowledge and anxiety, a desire for greater understanding was linked to lower anxiety. Nonetheless, little review has been done on the plausible components that add to the linkages between media utilization, viral information, and uneasiness (Garfin et al., 2020). Connections are probably going to be reliant upon the sort,

content, source, objective, or potentially extent of online media source look (precise versus vague) (Gao et al., 2020; Garfin et al., 2020; Purohit et al., 2018).

Individuals who started checking the pandemic on the Internet early were logical instructed about defensive choices and started performing wellbeing practices half a month prior to the lockdown, which may clarify the immediate impact of cyberchondria on conduct. It would be interesting to check out the job of cyberchondria in the reception of hazardous practices that spread during the COVID-19 pandemic (for instance, utilizing dye to clean surfaces or devouring hurtful substances like chlorine dioxide–modern fade). It will likewise be captivating to research the job of COVID-19 uneasiness and cyberchondria in loosening up wellbeing practices.

Relationship between coronavirus anxiety and coping strategies

Adapting is a fundamental mental interaction that traces how an individual recognizes, assesses, reacts to, and gains from unpleasant circumstances. Many years of examination on individual contrasts and adapting associates has uncovered that adapting may either forestall or intensify the impacts of pressure, gloom, and fear on an individual's psychological and actual wellbeing. Ways of dealing with stress, to put it another way, are a scope of potential reactions to upsetting encounters (Lazarus and Folkman, 1984).

Avoidant adapting procedures (like forswearing and withdrawal) have been associated with mental grievances, though dynamic adapting systems (like arranging, positive understanding, and acknowledgment) have been connected to emotional prosperity despite a plague (Main et al., 2011). Corresponding to the 2009 H1N1 pandemic, Taha, Matheson, Cronin, and Anisman (2014) found that feeling centered adapting methods like self-fault, rumination, and inactive acquiescence were decidedly related with tension.

Infectious illness outbreaks can create both immediate and long-term mental health difficulties due to psychosocial responses (Bortel et al., 2016). To cope with psychological pain, people might employ a range of coping strategies. Some coping strategies are ineffective and can exacerbate mental health problems, while others can help to reduce the degree and impact of psychological reactions. To cope with psychological distress, a range of coping mechanisms can be applied, but only a few of them are effective (Mahmoud et al., 2012; Main et al., 2011). Coping techniques

are adaptive reactions to a stressful situation, such as the COVID-19 pandemic, in which an attempt is made to mitigate or prevent the stressor's repercussions. Problem-focused coping (an active attempt to manage a stressful situation by engaging in problem-focused actions to improve the situation or seek alternatives) is a frequent coping technique adopted in the aftermath of previous pandemics (Stanislawski, 2019).

Some participants said that there was no need to prepare since the United States was disaster-proof or that a vaccine will be produced in time to prevent widespread disease. In addition, a prior study discovered that ineffective coping behaviours, such as discriminatory acts directed at certain groups, were used to avoid infection. For example, in reaction to the HIV epidemic in the 1980s, homosexual men experienced acute intolerance (Herek, 1999), and in response to the 2003 SARS outbreak, high levels of fear and perceived threat were predictive of increased avoidance of people of Asian heritage (Herek, 2003; Puterman, Delongis, Lee-Baggley, & Greenglass, 2009).

When it comes to intra-demographic disparities in coping strategies and the COVID-19 pandemic, there was no significant variance in coping ways among age groups except for coping planning. One of the most important elements was found to be gender, with significant variations in self-distraction, planning, acceptance, and religious coping. Male respondents had much lower levels of self-distraction, acceptance, and religious coping, whereas female respondents had significantly lower levels of planning and humour coping. Furthermore, individuals who had a COVID-19-infected family member or relative exhibited much more acceptable coping than those who did not.

Rational of the study

Working from home, temporary unemployment, home-schooling children, and a lack of physical contact with other family members, friends, and coworkers are all new realities that need us to prioritize our mental and physical health. Fear, anxiety, and tension are all natural reactions to perceived and real risks, as well as uncertainty and the unknown. As a result, people's mental health has suffered, and they feel compelled to learn everything they can about coronavirus by searching online through a variety of sites. As a result, people's fear of the coronavirus has escalated as a result of unfiltered information on social media.

The present pandemic has wreaked havoc on Pakistan. It has taken a toll on the energy and psyche of healthcare professionals. Limited resources, illiteracy, misunderstandings, and the general people's inability to follow proper protocol may have increased risk for everybody, as well as dread and worry among the general public (Majeed, Sarwar, & Ramzan, 2021). Complete lockdown was imposed in various cities across Pakistan at first due to the life-threatening situation, but due to the country's economic conditions, it was lifted and shifted to partial or smart lockdown, which means that shops and restaurants will close at 10 p.m., students' physical classes will be shifted to online classes, and authorities will ask people to stay at home. A regular update on the disease is broadcast on news channels and the Internet, highlighting the number of individuals who have been infected and the number of people who have died as a result of COVID-19. Inadequate information and too much news can cause fear and worry among the general public, especially among middle-aged individuals who must care for their families and work to feed them (Ahmed, Vohra, Abduljabbar, Mariam, & Rehman, 2020).

There has been minimal study on the factors linked to coronavirus anxiety, coping techniques, and cyberchondria in the setting of virus epidemics until recently (Jokic-Begic, Lauri, & Mikac, 2020). There are few investigations on the present COVID-19 epidemic, in particular. People with pre-existing health worry or cyberchondria, for example, were thought to be more sensitive to anxiety and negative behaviours during pandemics like COVID-19, but there is little actual study on this, especially in adults (Asmundson & Taylor, 2020). The goal of this study was to look at the connections between coronavirus anxiety, cyberchondria, and coping mechanism during Covid 19 pandemic.

People spend hours every day checking their symptoms on the internet. People with greater levels of disease anxiety spent more time on the internet per day, according to research, whereas those with lower levels of illness anxiety spent less time per day on the internet (Nida, 2014). With a worry of developing a range of ailments already existent, internet medical consultation adds to these people's health concerns. People who are worried about their sickness are more inclined to overestimate their impairment, and these symptoms are especially frequent among adults during the COVID-19 epidemic (Malik, Mustafa, Yaseen, Ghauri, & Javaeed,

2019). Furthermore, this study aims for the first time to evaluate the link between cyberchondria with the current coronavirus anxiety.

Several studies have previously been conducted in a number of countries to investigate various psychological aspects of COVID-19, as well as the factors that contribute to the formation of false perceptions and the development of coronavirus anxiety among physicians and medical staff by repeatedly searching for information related to the virus. However, no particular research was conducted in Pakistan that directly related coronavirus anxiety, cyberchondria, and coping methods among adults; hence, the current study may contribute to the addition of existing body literature by filling this gap in the Pakistani literature.

During viral epidemics, anxiety is widespread as a result of witnessing others' suffering and fatalities (Broche-Perez, 2020). However, during the current COVID-19 outbreak, no study has been done on the significance of trait coronavirus anxiety, cyberchondria, or coping in the context of virus anxiety. As a result, the fundamental purpose of our research is to pinpoint these research variables in the context of the COVID-19 pandemic. Our findings will aid in a better understanding of the role of cyberchondria during viral epidemics, where studies conducted early on in the outbreak may aid in a better understanding of how anxiety develops.

Gender and age inequalities have been recorded in earlier studies of previous pandemics, but because the coronavirus is an ever-present worldwide pandemic in Pakistan, there is no visible literature on these components. As a result, the current study intends to look into the relationship between demographic variables such as age, gender, education, and coronavirus sufferers, family member/relative is an important variable, death of any close relative due to coronavirus, history of anxiety with cyberchondria, coronavirus anxiety, and coping strategies of adults, identified with the episode of novel coronavirus (Taylor et al., 2020; Garfin et al., 2020).

This research will help us better understand the psychological consequences of coronavirus, which is a little-studied issue since authorities and policymakers are more concerned with the virus's physiological effects, ignoring the virus's psychological effects on Pakistanis. The present study will also provide the framework for effectively managing the current outbreak and establishing mental

health response plans for future pandemics, which will require a better knowledge of psychosocial responses in the population as well as positive coping techniques.

METHOD

Chapter 2

Method

Objectives

1. To investigate the link between adult cyberchondria, coronavirus anxiety and coping strategies.

2. To investigate the link between demographics (age, gender, education level, coronavirus diagnosis, family/friend mortality due to coronavirus, and anxiety history) and research factors**.**

Hypotheses

Following hypotheses have been formulated on the basis of existing literature

1. There will be a positive relationship between cyberchondria and coronavirus anxiety among adults.
2. There will be a negative relationship between cyberchondria and coronavirus anxiety among adults.
3. There will be positive relationship between coronavirus anxiety and avoidant coping strategies among adults.
4. There will be negative relationship between coronavirus anxiety and avoidant coping strategies among adults.
5. There will be positive relationship between cyberchondria and approach focused coping and religious/humor coping with coronavirus anxiety.
6. There will be negative relationship between cyberchondria and approach focused coping and religious/humor coping with coronavirus anxiety.
7. Females will score high on coronavirus anxiety as compared to males.

Conceptual and Operational definitions

Cyberchondria. Cyberchondria is a typical safety-seeking habit that can create and perpetuate fears and worry. It is characterized by repetitive and/or excessive health-related online searches connected with emotional stress (particularly anxiety) (Brown et al., 2019; Starcevic & berie, 2013).

High scores on the Cyberchondria Severity Scale imply more cyberchondria, and vice versa (Starcevic, Schimmenti, Billieux, & Berle, 2021).

Coronavirus Anxiety. Feelings of worry and anxiety during a pandemic can exacerbate any existing mental health disorders a person may have, as well as induce dread and concern for their own and their loved ones' health (APA, 2013). Coronavirus anxiety is defined as a feeling of fear, uncertainty, confusion, and dread among the general people as a result of the development and quick spread of the world's most lethal and contagious disease with the most obliterating effects (Lee, 2020).

The novel coronavirus has sparked widespread anxiety. The Coronavirus Scale has been used to operationalize clinical degrees of coronavirus anxiety, with scores of nine or higher significant (Lee et al., 2020).

Coping Strategies. Coping is defined as cognitive and behavioral efforts to master, decrease, or accept the internal and/or external pressures imposed by a stressful transaction (Muller & Spitz, 2003).

In this study, the factor structure of Hasting et al., (2005) for Brief COPE (Carver, 1997) was used. Avoidance Coping, Approach Coping, and Religious/Humor Coping are the three subscales of the Brief COPE (Edenberg et al., 2012). The higher the score on each subscale, the more that particular coping technique or strategy is utilized, and the lower the score, the less (Fatima & Tahir, 2013).

Coping methods were divided into two categories in this study: approach and avoidant (Compas et al. 2001).

Instruments

A demographics sheet, as well as three measures: the Coronavirus Anxiety Scale (Lee, 2020), the Brief COPE Inventory (Carver, 1989), and the Cyberchondria Scale (McElroy & Shevlin, 2014) were used in present research.

Coronavirus Anxiety Scale (CAS). It is a 5-item self-report mental screener of dysfunctional anxiety associated with coronavirus crisis that is rated on 5-point scale from *0* (not at all) to *4* (nearly every day), based on experiences over the past

two weeks. The scores can range from 0-20. This scale has a Cronbach's alpha of .93 (Lee, 2020).

Cyberchondria Severity Scale (CSS-12). It is a 12-items self-report questionnaire that is rated on 5-point likert scale. The score on the scale range from 7 to 35. Items that are scored on 5-point likert-type scale (ranging from *1*= never to *5*= always). All items can be summed to form a total score. A higher score indicates higher level of distress. This scale has a Cronbach's alpha of .78 (McElroy & Shevlin, 2014).

Coping Strategies. Coping is a distinctive set of thoughts and behaviours that is triggered by the stressors or alarming situations (Compass, Smith, Saltzman, Thomsen, & Wadsworth, 2001). The Brief COPE compress of 28-items. Responses are rated on 4-point likert scale ranging from *1* (I have not been doing this at all) to *4* (I have been doing this a lot). The reliability of the scale is .81 and .88 (Hagan et al., 2017).

Research Design

The present study has a cross-sectional and correlational research design with the aim to find out the relationship cyberchondria, coping strategies and coronavirus anxiety among adults during coronavirus pandemic. Survey method was used for data collection.

Sample

Purpose of the present study was to explore the relationship between cyberchondria, coping strategies and coronavirus anxiety among Pakistani adults. The data was collected using a non-probability purposive sampling process. The overall sample included (N=302) Pakistani individuals having mean age of 26.26 year with an education level (Matriculation, Intermediate, Bachelors, and M.Phil.) Data was collected electronically through google form. Convenience sampling technique was used to collect data for the current study.

Table 1

Description of Demographic Variables (N=302)

Variables	***f(%)***	**Variables**	***f(%)***
Gender		**History of anxiety**	
Male	110(37.2)	Yes	91(30.1)
Female	192(62.8)	No	211(69.9)
Marital status			
Single	270(89.4)		
Married	32(10.6)		
Year of Education			
BS/M.Sc.	222(73.5)		
MPhil/PhD	80(26.50		
Do you have been diagnosed with COVID-19			
Yes	41(13.6)		
No	261(86.4)		
Family member/friends diagnosed with coronavirus			
Yes	191(63.2)		
No	111(36.8)		
Death of any close one due to coronavirus			
Yes			
No			

Table 1 indicates the various demographics obtained from the sample (N = 302). Majority of participants of sample comprised of females while the number of male participants was less. The numbers of married individuals in sample were comparatively low, while majority of participants were single. People who have degree of bachelors were more than those who have other educational level. The percentage of the individuals included in the sample who were suffering from the history of anxiety was low while high percentages of people were healthy. This table also shows the ratios of individuals diagnosed with coronavirus anxiety, family member/relatives death due to coronavirus anxiety and history of anxiety respectively.

Procedure

During the second wave of COVID-19, data was gathered from May to July 2021 for the current study. Before beginning the research, all scales were checked to ensure that they were available to the public domain. The scales were created electronically using Google Forms and delivered by email and various communication apps (WhatsApp, Messenger, and Instagram) via a link that respondents had to click to access the questionnaire. Participants were informed about the purpose of the research. They were assured of confidentiality. At the end, they were thanked for corporation.

RESULTS

Chapter 3

Results

During the COVID-19 pandemic, the present aimed to explore the relationship between cyberchondria, coping strategies, and coronavirus anxiety among adults. The data was analyzed using suitable statistical methods (descriptive and inferential statistics). The sample's demographic profile was derived using frequencies and percentages. The scales' and their subscales' alpha reliability coefficients were also calculated. To determine the data's normality for this study, descriptive statistics (*M, SD,* and skewness) were calculated. Correlation was computed to investigate the relationship between Cyberchondria, Coping Strategies and Coronavirus Anxiety along with their subscales. Regression analysis was used to investigate the influence of cyberchondria and coping strategies on coronavirus anxiety. The independent sample *t-test* was used to find out more about the disparities between demographic factors.

Psychometric Properties of Scales

For the descriptive statistics and psychometric properties the alpha reliability coefficients, mean, standard deviation, range, skewness and kurtosis of scales and subscales was determined.

Table 2

Cronbach Alpha Reliabilities and Descriptive Statistics for Scales (N=302)

					Range			
Scales	Items	α	*M*	*SD*	Potential	Actual	Skew	Kurt
CCS	12	.86	26.04	7.63	12-60	14-42	.34	-1.13
AVOBC	12	.85	24.41	6.36	0-48	12-40	.81	-.33
APPBC	12	.90	33.09	12.03	0-52	12-40	-1.02	-1.08
HRBC	4	.83	3.49	1.56	0-12	4-16	.65	.86
CVAS	5	.80	6.82	2.67	5-25	5-16	2.08	3.87

Note. CVAS= coronavirus anxiety scale, CCS= cyberchondria scale, AVOBC= avoidant brief cope, APPBC = approach brief cope, HRBC= humor/religion brief cope

Table 2 depicts the detailed descriptive statistics of scales and subscales which include Mean, Standard Deviation, Skewness, Kurtosis and actual and potential range. The reliability of study variables range for acceptable to excellent providing evidence for internal consistency of the measures. The values of kurtosis and Skewness lie in acceptable ranges. These values indicated that the data is normally distributed.

Correlation between Variables

Correlation between study variables. By using bivariate correlation analysis the relationship, its direction of the relationship between study variables was demonstrated in table below.

Table 3

Correlation between Cyberchondria, Brief coping strategies and Coronavirus Anxiety (N=302)

	Variables	1	2	3	4	5
1	Cyberchondria	-	.67**	-.38**	.18**	.41**
2	Avoidant coping strategies		-	-.49**	.26**	.69**
3	Approach coping strategies			-	.05	-.40**
4	Humor/religion coping strategies				-	.07
5	Coronavirus Anxiety					-

Note. *$p <$ .01; *$p <$ .05.

Table 3 indicates that a significant negative relationship was apparent between cyberchondria, coronavirus anxiety and approach coping strategies. Whereas as a significant positive relationship was apparent between cyberchondria, avoidant coping strategies, humor/religion coping strategies and coronavirus anxiety.

Predictors of cyberchondria

To explore the variance explained by the most significant predictors for coronavirus anxiety stepwise regression was conducted. Variable that is

cyberchondria and brief coping strategies (avoidant coping strategies and approach coping strategies) were added as predictors for stepwise regression taking coronavirus anxiety as outcome variable. To explore the strongest predictor among all these variables, these were entered simultaneously while running the analysis (see Table 4)

Table 4

Step-wise Multiple Regression Signifying Predictors of coronavirus (N=302)

					95 % CI	
Predictors	*β*	*SE*	ΔR^2	*F*	*LL*	*UL*
			Coronavirus Anxiety			
Step 1						
Constant	2.80**			283.53**	2.28	3.32
Cyberchondria	.69**	.48	.48		.145	.18
Step 2		.49	.01			
Constant	3.32**			148.36**	2.68	3.95
Cyberchondria	.73**	.49	.01		.15	.19
AVOBC	.12**				.33	.05

Note. AVOBC= avoidant brief cope,

*$p < .05$. **$p < .01$. ***$p < .001$.

Table 4 shows that cyberchondria in step 1 appears as the significant positive strongest predictor of coronavirus anxiety that's means high score on cyberchondria will lead to more coronavirus anxiety. It accounted 48% variance. In step 2, avoidant coping strategies emerged as a significant predictor and accounted for additional 1% variance. In all both cyberchondria and avoidant coping strategies accounted for 49 % variance.

Difference across male and female gender. In order to study gender differences across study variables independent sample *t-test* was conducted (see Table 5).

Table 5

Gender Differences in Cyberchondria, Brief coping strategies, Coronavirus Anxiety (N=302)

Variables	Females ($n = 192$)		Males ($n = 110$)				95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*	$t_{(302)}$	*p*	*LL*	*UL*	
CCS	27.11	7.61	24.17	7.34	3.27	.01	1.17	4.72	.30
AVOBC	26.30	12.45	21.11	8.12	3.91	.00	2.57	7.79	.40
APPBC	31.83	11.66	35.29	12.41	2.42	.01	6.26	.64	.20
HRBC	3.53	1.67	3.76	1.02	.121	.01	.67	.87	.20
CVAS	7.19	3.07	6.18	1.60	3.20	.02	.39	1.16	.40

Note. CVAS= coronavirus anxiety scale, CCS= cyberchondria scale, AVOBC= avoidant brief cope, APPBC = approach brief cope, HRBC= humor/religion brief cope

Table 5 indicates that females scored higher on cyberchondria, avoidant focused coping and coronavirus in comparison to males. While males scored higher on approach focused and humor coping strategies in comparison to females. Non-significant differences are apparent across humor focused coping strategies.

Differences on diagnosis of coronavirus. For the comparison of group differences in participants who are diagnosed with coronavirus (*n = 41*) and participants who are not diagnosed with coronavirus (*n =261*) on (see Table 6) on Cyberchondria, coping strategies and Coronavirus Anxiety (*n=302*) *t-test* was conducted.

Table 6

Do you diagnosed with coronavirus on Cyberchondria, Brief coping strategies, Coronavirus Anxiety (N=302)

Variables	Yes ($n = 41$)		No ($n = 261$)				95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*	$t_{(302)}$	*p*	*LL*	*UL*	
CCS	23.97	8.07	26.36	7.52	1.87	.06	-4.90	.122	
AVOBC	25.12	11.48	24.30	11.27	.42	.66	-2.93	4.57	
APPBC	32.53	9.35	38.23	12.93	3.16	.08	2.37	10.22	
HRBC	3.26	1.30	3.53	1.60	1.00	.31	.76	.25	
CVAS	8.63	3.60	6.54	2.38	4.82	.00	1.23	2.94	.70

Note. CVAS= coronavirus anxiety scale, CCS= cyberchondria scale, AVOBC= avoidant brief cope, APPBC = approach brief cope, HMBC= humor/religion brief cope

Table 6 indicates that participants who were diagnosed with coronavirus scored higher on coronavirus anxiety in comparison to those participants who were not diagnosed with coronavirus. Non-significant differences are apparent across cyberchondria, avoidant coping strategies, approach coping strategies and humor coping strategy.

Differences in friend/family member diagnosed with coronavirus. To check the group differences on friends/family member diagnosed with coronavirus independent *t-test* was computed (see table 7).

Table 7

Differences in friend/family member diagnosed with coronavirus on Cyberchondria Brief coping strategies, Coronavirus Anxiety (N=302)

Variables	Yes ($n = 191$)		No ($n = 111$)				95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*	$t_{(302)}$	*p*	*LL*	*UL*	
CCS	27.98	8.21	24.86	6.15	3.20	.01	-4.64	-1.11	.30
AVOBC	29.37	8.51	21.63	13.52	6.51	.01	40.27	-5.70	.70
APPBC	33.37	12.43	32.61	11.35	.528	.59	-2.07	3.59	
HRBC	3.41	1.56	3.76	1.02	.121	5.87	.67	.87	
CVAS	7.11	1.30	6.96	3.82	5.94	.02	-2.39	-1.20	.60

Note. CVAS= coronavirus anxiety scale, CCS= cyberchondria scale, AVOBC= avoidant brief cope, APPBC = approach brief cope, HMBC= humor/religion brief cope

Table 7 indicates that participants whose friend/family members were diagnosed with coronavirus scored higher on cyberchondria, avoidant focused coping and coronavirus in comparison to those participants whose friend/family members were not diagnosed with coronavirus. Non-significant differences are apparent across approach coping strategies and humor focused coping strategies.

Difference on participants whose close one are died due to coronavirus. To check the difference on participants whose closed love ones were died with participants whose did not experience of loss, independent *t-test* was computed.

Table 8

Difference on participants whose close one died due to coronavirus on Cyberchondria, Brief coping strategies, Coronavirus anxiety (N=302)

Variables	Yes *(n = 40)*		No *(n = 262)*				95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*	$t_{(302)}$	*p*	*LL*	*UL*	
CCS	24.98	8.21	27.86	6.15	4.20	.03	-4.64	-1.11	.47
AVOBC	41.37	8.51	49.63	13.52	5.51	.10	40.27	-5.70	
APPBC	33.37	12.43	32.61	11.35	.528	.59	-2.07	3.59	
HRBC	3.41	1.69	3.63	1.29	1.21	.22	.59	-.60	
CVAS	16.11	1.30	17.96	3.82	6.94	.43	-2.39	-1.20	

Note. CVAS= coronavirus anxiety scale, CCS= cyberchondria scale, AVOBC= avoidant brief cope, APPBC = approach brief cope, HRBC= humor/religion brief cope

Table 8 indicates that participants whose close ones died due to coronavirus scored higher on cyberchondria in comparison to those participants whose close ones did not die due to coronavirus. Non-significant differences are apparent across avoidant coping strategies, approach coping strategies, humor focused coping strategies and coronavirus anxiety.

Differences between with/without history of anxiety. In order to compare participants with and without a history of anxiety, *t-test* was conducted across study variables (see Table 9).

Table 9

Differences in with/without history of anxiety on Cyberchondria, Brief coping strategies, Coronavirus Anxiety (N=302)

Variables	Yes (*n = 91*)		No (*n = 211*)				95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*	$t_{(302)}$	*p*	*LL*	*UL*	
CCS	27.28	8.50	25.50	7.04	1.86	.04	-0.98	3.65	.20
AVOBC	24.28	11.77	24.46	11.17	.12	.89	-2.98	2.69	
APPBC	31.42	12.43	33.81	11.82	1.58	.15	5.34	.589	
HRBC	3.34	1.41	3.56	1.63	1.31	.25	.60	.16	
CVAS	7.34	3.31	6.76	2.58	.60	.00	-4.57	.867	.20

Note. CVAS= coronavirus anxiety scale, CCS= cyberchondria scale, AVOBC= avoidant brief cope, APPBC = approach brief cope, HRBC= humor/religion brief cope

Table 9 indicates that participants who have history of anxiety scored higher on cyberchondria and coronavirus in comparison to those participants who had no anxiety history. Non-significant differences are apparent across avoidant coping strategies, approach coping strategies and humor focused coping strategies.

Differences on education level. To compare participants across education level, *t-test* was conducted.

Table 10

Differences in education level on Cyberchondria, Brief coping strategies, Coronavirus Anxiety (N=302)

Variables	BS/Masters *(n =222)*		MPhil/PhD *(n = 80)*				95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*	$t_{(302)}$	*p*	*LL*	*UL*	
CCS	27.53	7.04	25.28	6.98	.34	.07	-0.98	3.65	
AVOBC	26.28	12.27	23.46	10.17	.21	.89	-2.98	2.69	
APPBC	31.42	12.43	33.81	11.82	1.42	.15	5.34	.589	
HRBC	3.34	1.41	3.56	1.63	.60	.25	.60	.16	
CVAS	7.34	3.31	6.76	2.58	1.60	.10	-4.57	.867	

Note. CVAS= coronavirus anxiety scale, CCS= cyberchondria scale, AVOBC= avoidant brief cope, APPBC = approach brief cope, HRBC= humor/religion brief cope. Non-significant differences were apparent across all study variables on education.

DISCUSSION

Chapter 4

Discussion

The goal of this research was to study the relationship between cyberchondria, coping methods, and coronavirus anxiety. It also planned to investigate the association between study factors and demographic characteristics (age, gender, education level, coronavirus diagnosis, family/friends diagnosed with coronavirus, death of family/friend owing to coronavirus, history of coronavirus). The study variables were assessed through Cyberchondria Severity Scale (McElroy & Shevlin, 2014), the Brief COPE Inventory (Carver, 1997), and the Coronavirus Anxiety scale (Lee, 2020).

The sample was drawn from diverse areas of Pakistan and includes (*N = 302*) males (*n = 110*) and females (*n= 192).* The age of the participants were 35 years and above *(M= 26.46, SD = 10.46).* Data was collected electronically using Google forms using the convenience sample method. Descriptive statistics such as mean, standard deviation, range, skewness, and kurtosis were used to analyze the study's scale and subscales. The mean value on each scale and subscale represents the participants' average scores. Each variable's standard deviation demonstrates that responses are spread from the mean. Pearson product moment correlation, regression analysis and *t*-test were used in this study to determine the relationships between study variables.

One of the objective of the study was to determine internal consistency using Cronbach's alpha coefficient values for all of the study variables (see Table 2). With a reliability of =.86, the Cyberchondria Severity Scale was found to good reliability. Approach Coping, Avoidant Coping, and Humor Coping subscales had Cronbach's Alpha reliabilities of.85, .90, and .83, respectively, in this study. While coronavirus anxiety had a reliability of.80, which indicates that all study measures are reliable.

Another objective of the study was to assess relationship between study measures. Cyberchondria, coping methods, and coronavirus anxiety were studied using Pearson product-moment correlations (see Table 3). Correlation analysis serves as a foundation for making predictions and doing higher-order analyses. The review's underlying theory was that cyberchondria and avoidant adapting methods would be emphatically identified with one another (see table 3). The ebb and flow study's discoveries support Hypothesis 1 just as prior research discoveries on Covid tension

and cyberchondria. In past pandemics, the overall pestilence of (mis)information spread quickly by means of online media stages and different channels by consistently looking with regards to indications and death rates, putting weak individuals at risk of creating tension problems. Cyberchondria can be a danger factor for tension during a pandemic, particularly if the Internet is overflowed with (mis)information (Jokic-Begic, Lauri, and Mikac, 2020). The capacity to quickly convey data during a pandemic has exhibited to enjoy different benefits, including helping medical services suppliers to get ready for the episode and permitting people to understand the earnestness of the issue. Approaching data impacts individuals and causes stress, which has provoked the inescapable reception of wellbeing practices moved by the medical care business (Singer, 2009). Successive openness to a local area calamity has been exhibited to bring about more noteworthy concern and elevated pressure responses, which can have chronic weakness repercussions (Garfin, Silver, and Holman, 2020). Sickness related worries, similar to the actual ailments, spread by means of the utilization of web-based media and consistent looking (Laato, Islam, Farooq, and Dhir, 2020). This is one of the key over the top practices that add to the improvement of a nervousness related pandemic.

Adults' avoidant coping methods are positively related to coronavirus anxiety, according to hypothesis 2 of the current study. The findings of the correlation study backed up thishypothesis, demonstrating that when people adopt more avoidant coping mechanisms, their coronavirus anxiety rises as well. Many previous studies have found that using distance and distraction tactics to cope with stress is known as avoidance coping, which means that people who used avoidant coping strategies to cope with stressors in the environment, particularly those that are uncontrollable like health-related pandemics, have a more complicated relationship with traumatic symptoms development including developing anxiety, depression etc. Avoidant coping has been associated to poor adult adjustment and higher levels of psychological distress (Littleton et al., 2007). People who are worried about getting the flu use less approach coping methods and rely more on avoidant coping strategies, according to previous study on the influenza pandemic (Taha et al., 2014). People who used avoidant coping mechanisms to deal with the terrible reality of coronavirus have more coronavirus anxiety and psychological distress, which is understandable given the present COVID-19 pandemic situation.

As we move forward, Coronavirus anxiety is negatively related to approach coping methods among adults during the COVID-19 pandemic, according to hypothesis 3 of the current study. The results of the correlation study supported this hypothesis, demonstrating that using approach coping methods reduces coronavirus anxiety and vice versa. This conclusion is in line with this research. People who use approach strategies are more likely to select problem-solving skills and have more access to social resources, according to Ebata and Moos (2001). This means that people who used approach or active coping strategies to deal with environmental stressors (pandemic) have a lower risk of developing coronavirus anxiety. Another study found that when people are exposed to controlled stressors, they adopt approach coping, which is connected to a reduction in the negative effects of trauma exposure and decreased anxiety (Clarke, 2006). It can be demonstrated in the current COVID-19 pandemic scenario that persons who have a healthy and practical attitude to dealing with the pandemic crisis are less likely to acquire anxiety and other psychological issues (Babore et al., 2020).

Due to the limited of data in Pakistan, a stepwise regression analysis was used to establish the impact of cyberchondria and coping methods on coronavirus anxiety in table 4. The study's findings revealed that cyberchondria influenced the sample's coronavirus anxiety, accounting for 48% of variance, while avoidant coping methods accounted for an additional 1% variance. In conclusion, the strongest predictors of coronavirus anxiety are cyberchondria and avoidant coping strategies. Coronavirus is the major cause of mental health disorders in Pakistan and throughout the world, thus the findings seem plausible, including an enhanced degree of coronavirus anxiety among people (Wang et al., 2020). The more worried individuals become, the more they want to learn about the coronavirus. In a nutshell, cyberchondria is a condition characterized by excessive or frequent online health information searching, as well as heightened levels of concern or discomfort about one's health. Many investigations have tracked down a critical connection among's cyberchondria and nervousness (Bajcar and Babiak, 2019; Bajcar, Babiak, and Olchowska-Kotala, 2019). Coronavirus, accordingly, imparts dread in a similar way as past miserable and lethal viral infections have before. Therefore, the danger impression related with COVID-19 isn't irrational all by itself, and people are more keen on looking into Covids (Schimmenti, Billieux, and Starcevic, 2020; Taylor et al., 2020). Cyberchondria is a

mental condition, as indicated by two outrageous conclusions (Singh, Fox, and Brown, 2016), and a cyberchondriac is somebody who look through medical services data on the web (Balog-Way &McComas, 2020; Bargain &Aminjonov, 2020). Notwithstanding, cyberchondria has turned into a predominant condition as web use has extended as of late.

People have even gone so far as to hunt for healthcare information online in order to avoid going to the doctor, particularly in the period of pandemics, when going out is so dangerous because you can become infected (Krause, Freiling, Beets, & Brossard, 2020). Because individuals are hiding behind avoidant coping and are unable to apply positive or problem-focused approaches to cope with the negative impacts of the coronavirus pandemic, avoidant coping is having a negative impact on the amount of coronavirus anxiety that people feel. In order to keep oneself calm, hide from reality, and ignore the threat of the coronavirus, the Pakistani population adopts avoidant coping mechanisms when they are more concerned about the virus. The public's understanding of how to combat this life-threatening infection is hampered by the public's maladaptive coping strategy (Saad, Ashfaq, Abbas, & Mehmood, 2020). During the COVID-19 epidemic, previous investigations demonstrated that avoidant coping techniques had an influence on depressed and anxious symptomatology. While avoidant coping has been associated to poor adult adjustment (Merrill et al., 2001) as well as higher levels of psychological distress and anxiety (Littleton et al., 2007), these findings might have been exaggerated due to publication bias (Littleton, et al., 2007). Adults who "repress," or conceal sentiments after looking for pertinent information, demonstrate greater avoidant coping methods, (Bonanno, 2020).

It was further hypothesized that females will have more coronavirus anxiety than males. This hypothesis was tested using an independent *t-test*, and significant differences were observed (see table 5). A recent coronavirus investigation confirmed this hypothesis, finding that females had a significant level of coronavirus anxiety (Mazza et al., 2020). Furthermore, a recent study in Pakistan discovered that females have greater coronavirus anxiety than males (Abid et al., 2020). Females have been linked to increased psychological distress, making them more prone to internalizing concerns like worry, according to past studies (Vlassoff, 2007). The results can be rationalized by the female personality domains of negative effects and detachment (Anderson, Sellborn, &Salekin, 2018), which may be the cause of female anxiety.

Gender differences in anxiety and depression have been observed by several previous COVID-19 studies. For example, female participants are more likely than male participants to experience negative emotions such as worry and despair (Gu et al., 2020; Nie et al., 2020). There are gender-based differences in the factors that impact anxiety and depression in solitary COVID-19 persons, with males reporting a higher overall tendency for symptoms but female participants reporting having more.

On the coronavirus anxiety construct, there is a substantial difference between individuals who have been diagnosed with coronavirus and participants who have not been diagnosed with coronavirus, as seen in Table 6. Patients who had previously been diagnosed with coronavirus had more concerns about health-related precautions and significant coronavirus anxiety, according to the literature. Recent research (Shahid et al., 2020) has also found that people with comorbidities had a higher risk of coronavirus anxiety. Individuals with a history of medical problems, particularly those who have already experienced the worst symptoms of coronavirus symptoms, may perceive their health as poor, and frequenting hospitals and psychiatrists for medical and psychological reasons may make them more susceptible to catching a virus and developing a new disease. Understanding the characteristics that predict anxiety in response to such occurrences is important since some people feel clinically significant anxiety as a result of such events, such as being diagnosed with the COVID-19 virus (Xiang et al., 2020). People who have been diagnosed with coronavirus have reported an upsurge in anxiety symptoms during the COVID-19 pandemic. COVID-19-related health concerns and bereavement experiences may increase the risk of mental health issues in those who have been diagnosed with coronavirus, although causality cannot be established.

Table 7 demonstrates that there are substantial differences in cyberchondria and coronavirus anxiety between individuals whose family members were diagnosed with coronavirus and those whose family members were not diagnosed with COVID-19. This conclusion is backed up by research. Adults with COVID-19, especially those who had a family member diagnosed with COVID-19 or who died from COVID-19, were more likely than other patients to experience grief and anxiety, according to one research (Yang, Zhang, Li, & Chen, 2021). This could be due to the fact that coronavirus is fatal, and people are constantly gathering a large amount of information from the internet and other forums about death and infected cases of

coronavirus not just in Pakistan, but all over the world, and developing severe coronavirus anxiety as a result of seeing their family/friends suffer from severe coronavirus symptoms (Niepel, Kranz, Borgonovi, Emslander, & Greiff, 2020). Another cause for the increased search for coronavirus-related information is that family members with coronavirus or who have somatic symptoms, health anxiety, or distress utilize social media and the Internet to get health information are known as having cyberchondria (Hashemi, Dini, Griffiths, Lin & Pakpour, 2020).

Table 8 reveals that there are substantial differences between individuals whose family members died from COVID-19-related cyberchondria and those whose family members did not die from COVID-19-related cyberchondria. The current study's findings back up this assertion. According to one research, those who had a family member who was diagnosed with COVID-19 or died from it had a higher chance of despair and anxiety, which boosted cyberchondria and spent a lot of time learning all they could about the COVID-19 pandemic (Rancans et al., 2020). According to studies, family relationships become more powerful and emotional during a coronavirus pandemic, but many people lose loved ones as a result of the virus, becoming more anxious and encouraging the habit of searching online (Wang et al., 2020). This finding can be justified because it is human nature to want to know about a disease that affects them or someone they care about in order to be alerted to its impending severity or to prevent it from spreading like coronavirus.

Table 9 demonstrates a significant difference in cyberchondria and coronavirus anxiety among people with a psychiatric history of anxiety, indicating that they are more susceptible to developing coronavirus worry. A mental health screener for coronavirus anxiety was used in this investigation, and the sample was examined based on coronavirus anxiety cut scores. The data in table 9 demonstrated significant differences as clinically diagnosed. On the coronavirus anxiety scale, those with a history of anxiety did well, but no significant differences were found in the other study parameters. The current conclusion is supported by the fact that individuals who already have anxiety are more afraid and concerned about COVID-19-related symptoms, according to Lee (2020). They tend to feel a cohesive collection of unpleasant, physiological sensations that are triggered by thoughts or information about this infectious disease (Evren, Evren, Dalbudak, Topcu, & Kutlu, 2020; Lee, 2020). While the justification for the significant difference in cyberchondria in people

with a history of cyberchondria is that most people, particularly in the Pakistani context, never double-check the information they get from online searches or electronic media and instead accept it as fact, which promotes the unheard-of phenomenon of cyberchondria. People with generalized anxiety disorder may turn to the internet for coronavirus-related medical information to help them overcome their worries. This habit is more common in people who have a history of anxiety because they are already vulnerable to developing more anxiety and compulsive behavior to search that reinforces their unhealthy behavior. With the rapid spread of the novel coronavirus illness 2019 (COVID-19), people with generalized anxiety disorder may turn to the internet for coronavirus-related medical information to help them overcome their worries. Individuals with cyberchondria, anxiety sensitivity, and negative metacognitive views may be more concerned in such situations than those without these traits (Garcia-Priego, 2020).

Table 10 reveals that non-significant differences were found in all of the current study's constructs. As a result, the participants' educational level had no impact on cyberchondria, coping methods, or coronavirus anxiety among adults during the coronavirus pandemic. This might be because pandemics affect everyone in the world equally, and everyone is equally concerned about the coronavirus pandemic, regardless of their degree of knowledge.

Conclusion

Finally, the findings of this research give adequate evidence to validate the presented hypotheses of the study. More specifically, the impact of gender, education, coronavirus diagnosis, death of loved ones, and anxiety history on cyberchondria, coping methods, and coronavirus anxiety in adults during the COVID-19 pandemic, both directly and indirectly. The study's findings can be used in therapeutic settings to identify sensitive characteristics that increase the chance of developing pandemic-related anxiety and to effectively treat and design interaction strategies related to it.

Limitations and Suggestions

The current study has limitations, just like any other scientific study. As a result, before interpreting the findings of this study, the following limitations should be considered, which are detailed enough to be useful in future research.

1. The current study was correlational, and social desirability was not controlled, which might have altered the study's outcomes; as a result, future research should take this into consideration.
2. Rather than face-to-face random sampling, the survey approach relied heavily on network invitations, and participants were required to be able to use or comprehend network technologies. Participants in this study had to have an online connection and be able to understand how the digital system works and how to fill out the questionnaires.
3. All instruments in English version were used in this study due to the newly created coronavirus anxiety scale. In the future, Urdu translations of all scales might be used to create a more diverse sample.
4. Due to the objective character of the questionnaires, it is probable that participants did not report properly because the data was acquired using self-report measures. As a consequence, multi-informant data or qualitative data gathering methodologies may be used in future investigations.
5. Boredom may have impacted the outcomes of this study because the questionnaire booklet was large and time-consuming.
6. As a result, in the future, a simpler version of the instruments may be used.

Implications

Following are some theoretical and practical consequences of the current research based on the findings.

This study will be valuable for research since it will add to our understanding of adult coronavirus anxiety during the coronavirus pandemic in Pakistan. Researchers that want to go deeper into the study factors with the coronavirus-infected population might use the findings as a starting point. During these critical coronavirus times, the current study will aid clinicians in understanding the impact of the coronavirus pandemic and designing community recovery programs and infection control practices for both disease prevention and anxiety management, as well as providing additional support to people who are at a higher risk of developing pandemic-related anxieties. There's also a need to develop efficient therapeutic coping skills to deal with the coronavirus, which the present study can help with. It is prudent to be included cyberchondria as disorder in one of the diagnostic manuals as such

symptoms are often observed across the globe. In the current situation, citizens are often afraid to visit a doctor. Therefore, it is suitable to opt for e-counseling, which is provided at no cost or with minimal charges keeping the pandemic in mind. The findings of the study are also valuable for psychologists, as they help them understand the detrimental effects of cyberchondria on psychiatric conditions like anxiety.

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APPENDICES

Appendix A

Inform consent

I am Ayesha Shahid student of MSc. at National Institute of Psychology, Quaid-i-Azam University Islamabad. I am conducting a research for partial fulfillment of my MSc degree on the sample of university students to explore the Corona Virus Anxiety, Cyberchondria and Psychological Wellbeing among adults.

Participation in this research project is voluntary. I request you to participate in my research and share honestly about your experiences and thoughts. I understand that sharing your experiences and opinion with anyone is very hard but your participation will help us a lot in understanding the phenomenon in a better way. If you find some questions that you really do not want to answer, you can leave but sharing true and honest information is important for us so that we could know the real experiences and thoughts of our youth.

If you decide to participate in this research, you will be given a questionnaire booklet on which you can share your experiences and opinions. This will take only 10 to 15 minutes of your precious time. I assure you that I will not ask your name or any other identity and information provided by you will remain confidential and only be used for research purposes. You have all the right to discontinue participation at any point without giving any explanation. If some statement is not clear to you, you can ask me and I will explain about it. Thank you for your time in reading this information sheet.

Please sign below if you have read and decided to participate in this research study.

Participant's signature: ——————————

Appendix B

Demographic sheet

1. Age _____
2. Gender

Male	Female

3. Education level

Bachelor	Master	M.Phil.

4. Profession _____

5. Diagnosed with coronavirus

Yes	No

6. Family member/relative diagnosed with coronavirus

Yes	No

7. Death of any close one due to coronavirus

Yes	No

8. History of Anxiety

Yes	No

Appendix C

Coronavirus Anxiety Scale

Instruction: Please indicate the degree of your agreement and the disagreement for each statement by selecting the options that best represent your point of view. Please provide your answer using the scale below

	Items	Not at all	Rare less than a day or two	Several days	More than seven days	Nearly all days over the last 2 weeks
1	I felt dizzy, lightheaded, or faint, when I read or listened to news about the coronavirus.					
2	I had trouble falling or staying asleep because I was thinking about the coronavirus.					
3	I felt paralyzed or frozen when I thought about or was exposed to information about the coronavirus.					
4	I lost interest in eating when I thought about or was exposed to information about the coronavirus.					
5	I felt nauseous or had stomach problems when I thought about or was exposed to information about the coronavirus.					

Appendix D

Cyberchondria Severity Scale

Instructions: Please read the following statements and indicate how they typically apply to you by marking a tick the appropriate number. Please note that this questionnaire relates to perceived medical conditions (i.e. conditions you think you might have) rather than conditions that have been diagnosed by a medical profession.

	Items	Never	Rarely	Sometimes	Often	Always
1	If I notice an unexplained bodily sensation I will search for it on the internet					
2	Researching symptoms or perceived medical conditions online distracts me from reading news/sports/entertainment articles online					
3	I read different web pages about the same perceived condition					
4	I start to panic when I read online that a symptom I have is found in a rare/serious condition					
5	Researching symptoms or perceived medical conditions online leads me to consult with my GP					
6	I enter the same symptoms into a web search on more than one occasion					
7	Researching symptoms or perceived					

	medical conditions online interrupts my work (e.g. writing emails, working on word documents or spreadsheets)					
8	I think I am fine until I read about a serious condition online					
9	I feel more anxious or distressed after researching symptoms or perceived medical conditions online					
10	Researching symptoms or perceived medical conditions online interrupts my offline social activities (e.g. reduces time spent with friends/family)					
11	I suggest to my GP/medical professional that I may need a diagnostic procedure that I read about online (e.g. a biopsy/ a specific blood test)					
12	Researching symptoms or perceived medical conditions online leads me to consult with other medical specialists (e.g. consultants)					

Appendix E

Brief COPE

Instructions: The following questions ask how you have sought to cope with a hardship in your life. Read the statements and indicate how much you have been using each coping style.

	items	I haven't been doing this at all	A little bit	A medium amount	I've been doing this a lot
1	I've been turning to work or other activities to take my mind off things.				
2	I've been concentrating my efforts on doing something about the situation I'm in.				
3	I've been saying to me "this isn't real".				
4	I've been using alcohol or other drugs to make myself feel better				
5	I've been getting emotional support from others.				
6	I've been giving up trying to deal with it.				
7	I've been taking action to try to make the situation better.				
8	I've been refusing to believe that it has happened.				
9	I've been saying things to let my unpleasant feelings escape.				
10	I've been getting help and advice from other people.				
11	I've been using alcohol or other drugs to help me get through it.				
12	I've been trying to see it in a different light, to make it seem more positive.				

13	I’ve been criticizing myself.				
14	I've been trying to come up with a strategy about what to do.				
15	I've been getting comfort and understanding from someone.				
16	I've been giving up the attempt to cope.				
17	I've been looking for something good in what is happening.				
18	I've been making jokes about it.				
19	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.				
20	I've been accepting the reality of the fact that it has happened.				
21	I've been expressing my negative feelings.				
22	I've been trying to find comfort in my religion or spiritual beliefs.				
23	I’ve been trying to get advice or help from other people about what				
24	I've been learning to live with it.				
25	I've been thinking hard about what steps to take.				
26	I’ve been blaming myself for things that happened				
27	I've been praying or meditating				
28	I've been making fun of the situation.				