EXTENT OF CYBERCHONDRIA AMONG ADULTS IN THRISSUR CORPORATION, KERALA.

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DECLARATION

I hereby declare that this dissertation entitled ***"Extent of Cyberchondria Among Adults In Thrissur Corporation, Kerala"*** is a bonafide record of my original research work. This dissertation has not been submitted, either in part or in full, to any other university or institution for the award of any degree or diploma. All sources of information, including published and unpublished works of other authors, have been appropriately cited and acknowledged within the text.



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CERTIFICATE

This is to certify that the dissertation entitled ***"Extent of Cyberchondria Among Adults In Thrissur Corporation, Kerala"*** is a Bonafide record of the research work carried out by ***Dr. Divya Abraham K*** is under my guidance and supervision.

This dissertation is submitted in partial fulfillment of the requirements for the award of the ***Master of Public Health*** degree***.***



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GLOSSARY OF ABBREVIATIONS

AOR	Adjusted Odds Ratio
ASHA	Accredited Social Health Activist
CSS	Cyberchondria Severity Scale
IAMAI	Internet and Mobile Association of India
ICD	International Classification of Diseases
OCD	Obsessive-Compulsive Disorder
OR	Odds Ratio
PUI	Problematic Internet Usage
PTSD	Post-Traumatic Stress Disorder
WHO	World Health Organisation

ABSTRACT

Background: Internet's widespread use has transformed the way individuals access health information, often replacing professional consultation with self-guided online searches. While convenient, this can sometimes lead to increased anxiety about health, a phenomenon known as cyberchondria. This study aims to assess the extent of cyberchondria and its associated factors among adults in Thrissur Corporation, Kerala.

Methodology: A cross-sectional survey was conducted among 472 participants. Data was collected using a structured interview schedule, which included questions regarding demographic characteristics, details about internet use, internet searches for health information, health-seeking actions, and the Cyberchondria Severity Scale-12 for assessing cyberchondria. The data were analysed using the statistical package R version 4.4.1. The Chi-square test was used to test the associations, and logistic regression was used to estimate odds ratios and 95% confidence intervals.

Results: Cyberchondria was experienced by nearly half of the participants (49.4%, 95% CI: 44.8%–54.0%). Lower odds of experiencing cyberchondria were observed among males compared to females (AOR = 0.57; 95% CI: 0.34–0.94), among participants with secondary education or below compared to graduates (AOR = 0.41; 95% CI: 0.26–0.65), and with increasing age (AOR = 0.99; 95% CI: 0.97–1.00). Higher odds of experiencing cyberchondria were observed among individuals who used the internet for more than two hours daily (AOR = 1.79; 95% CI: 1.1–2.9), those who planned and successfully limited their internet use (AOR = 4.58; 95% CI: 2.16–10.5), and those who attempted online remedies (AOR = 4.07; 95% CI: 2.43–6.98).

Conclusion: The novelty of the present study lies in exploring the extent of cyberchondria and examining its associated factors among the general population. The findings revealed significant associations between demographic variables, such as younger age, and behavioral characteristics, including higher internet usage and using online remedies, with experiencing cyberchondria. Based on these findings, interventions should improve digital health literacy to help individuals critically assess online health information.

Chapter 1

Introduction

1.1 Background

The internet has become an integral part of our modern life, helping us to connect worldwide and giving us access to unlimited information. According to the Internet Society, internet access is the ability for individuals or devices to connect to the global internet, enabling activities like communication, information retrieval, and various online interactions. This access is facilitated through broadband, Wi-Fi, or mobile networks. From the almost 8 billion people in the world, 5.35 billion, or roughly 66 percent of the population, have internet access, as reported by Statista. By 2029, this number is projected to grow to 7.9 billion. (Internet Usage Statistics In 2024 – Forbes Home, 2024). Currently, India has 820 million active Internet users; more than half (442 million) are from rural areas (internet usage: How India is using the Internet - The Economic Times,). Kerala state recognized the Internet as a basic human right in 2016 (Kurian, 2023). So, currently, the state has high internet penetration, with 87 out of 100 people having Internet access surpassing the national average (60 out of 100).

In healthcare, the internet's influence is like a double-edged sword. On one hand, it can give access to so much information and facilities like telemedicine, and on the other hand, it has many challenges that it can spread misinformation and convince so many people quickly.

The internet’s influence is evident in the internet health search. Due to the easy accessibility and immediacy of online information, people tend to look to the Internet for health information (Hesse et al., 2005; Kobryn and Duplaga, 2024). Unlike other means of health information, the internet provides a wide range of information that allows the general

public to check symptoms, treatments, and prevention methods.(Diaz et al., 2002). Some studies show that the younger and more educated are more actively using the internet for health searches. (Rice, 2006). This access may lead to more importance being given to internet-based information than to doctors' opinions.(Gualtieri, 2009). According to a study, people use the internet to better understand of their condition after a doctor's consultation. (Hesse et al., 2005).

However, overdependence on online health information has its drawbacks. An overabundance of information, coupled with a lack of regulation, can lead to misinformation and make it difficult for people to process information. This can negatively impact people's mental health (Misra and Stokols, 2012; Schmidt et al., 2018).

If one person relies on the internet too much for health information, it can increase health anxiety. The condition with excessive online health searches along with increased anxiety is called “Cyberchondria” (McElroy et al., 2019). It also has features of compulsion (Khazaal et al., 2021) and reassurance (Kobryn and Duplaga, 2024). Cybechondria shares some features with health anxiety and hypochondriasis; its internet origin behaviour makes it more concerning in today's internet-driven world.

In India, this digital healthcare is expanding due to the National Digital Health Mission and the adoption of telemedicine. These digital advancements also bring consequences since they can lead to self-diagnosis or self-medication (Raja et al., 2024) and increase anxiety due to some unverified information, raising the issue of a psychological impact. In Kerala, the high literacy rate and rapid digital advancement have created a unique opportunity to learn about the online health information-seeking behavior and mental well-being.

Chapter 2

Review of Literature

This section summarizes the literature search done using PubMed, Web of Science, Google Scholar, and other related reports cited in the text. The keywords used were cyberchondria, health anxiety, internet, COVID-19, hypochondriasis, online health information, and online health searching.

2.1 Internet Access

We all live in a world connected by the Internet, which has become an unavoidable part of our lives.

According to the Internet Society, internet access is the ability for individuals or devices to connect to the global internet, enabling activities like communication, information retrieval, and various online interactions. This access is facilitated through technologies such as broadband, Wi-Fi, or mobile networks.

2.1.1 Usage of the Internet Around the World

From the almost 8 billion people in the world, 5.35 billion, or roughly 66 percent of the population, have internet access, as reported by Statista. By 2029, this number is projected to grow to 7.9 billion. On average, individuals spend six and a half hours online each day, according to the Global Web Index. However, those aged 16 to 24 years spend an extra 2.5 hours online compared to individuals aged 55 to 64 years. In general, people under 24 are more likely to have internet access than those 25 and older, with a significant 10 percent difference, as noted by Statista. Globally, 75 percent of people aged 15 to 24 years are connected to the internet, compared to 65 percent of those 25 and older. On average, people spend nearly four hours daily using mobile devices and over an hour on desktop devices.(Internet Usage Statistics In 2024 – Forbes Home, 2024)

India has the highest number of people who are not yet connected to the web. About two-thirds of the global population is connected to the Internet, with Asia and the Pacific leading in broadband subscriptions. The spread of mobile internet has grown significantly, as smartphones have become more accessible and affordable. Around ninety-two percent of internet browsing and 59 percent of all web connections are through mobile phones, which shows the role of mobile phones in accelerating internet usage. Around the world, 70 percent of men and 64.4 percent of women use the Internet; this gender gap is more evident in the least developed countries (LDCs). China has the highest number of internet users with 1047.4 million, followed by India (932.23 million), and the US (307.34 million). (*Statista*, 2024)

2.1.2 India's Internet Usage

As of now, India has 820 million active internet users, with over half (442 million) residing in rural areas (internet usage: How India is using the Internet - The Economic Times, 2024). This makes India the second-largest online market in the world, after China. But comparing the number and increase in accessibility, the penetration is just about 52.4 percent; it is less than the worldwide average (66%) (*Statista*, 2024). In 2023 alone, internet penetration grew by 8 percent in India. Rural India has more active users, but urban India spends more time per day. (internet usage: How India is using the Internet - The Economic Times, 2024)

India had a Digital India launch in 2015; it is said to be one reason for the increased internet penetration across different socio-economic groups. Besides that, internet use increased rapidly at the beginning of the COVID-19 pandemic. While transitioning to the digital world, there is more of streaming videos and music, gaming, shopping, and news through various online platforms. This internet inclusion incorporated regional languages along with English; this has also added to the need for digital literacy, especially among women. India has high internet restrictions compared to the world, especially increased content

regulation. This is also a challenge, along with the need for digital literacy. (*Statista*, 2024). A joint report by the Internet and Mobile Association of India (IAMAI) and analytics firm Kantar projects that, despite existing challenges, India's active internet user base will rise to 900 million by 2025.(Over 50% Indians are active internet users now; base to reach 900 million by 2025: report - The Hindu, 2023)

2.1.3 Kerala's Internet Usage

In 2016, Kerala state recognized the Internet as a basic human right (Kurian, 2023). Currently, the state has high internet penetration, with 72 percent internet access surpassing the national average (60 out of 100). Kerala has the highest penetration of the internet, followed by Goa (71%) and Maharashtra (70%). (*FE Tech Bytes*, 2025)

Kerala has a network called Kerala Fibre Optical Network (KFON), which has reached even the most remote areas, like tribal hamlets in Wayanad. Maybe for these reasons, Kerala's internet penetration is highest in rural areas, unlike some other states. (Kurian, 2023).

2.2. Online Health

As the internet influenced every domain of life, its impact on health was also very evident.(Duggan, 2013; Lee et al., 2015)The Internet influences how people perceive health or seek medical help. Internet health may be considered one of the social determinants of health (Morley et al., 2020). Technologies and online information play an important role in people's decision-making. People are not passive but actively decide on health-related matters. (Chew and Eysenbach, 2010).

With the penetration of the internet, access to health information has increased substantially. In a survey done in 2018 in India, 41.3 percent used the internet for health searches once a week (The Indian Express, 2018). People actively search for health information on the internet even before they consult a healthcare provider, which develops

an online health information-seeking behavior (HISB) (Jia et al., 2021). This illustrates how people obtain information regarding health risks, illnesses, and behaviors aimed at protecting their health. (Lambert and Loiselle, 2007).

Increased online HISB shows the need for e-health literacy, which is the capability to locate, understand, and apply internet health information. (Norman and Skinner, 2006). With low-level e-health literacy, people are more vulnerable to misinformation. (Kim and Xie, 2017). The Internet gives easy access and convenience for seeking information (Dutta-Bergman, 2004). This accessibility encourages prevention methods, timely intervention, and proper understanding of health conditions. (Duggan, 2013).

With the increased benefits, the lack of regulation of online health information poses risks. One such issue was the spread of misinformation through social media and other platforms. With too much information available, both accurate and inaccurate, it is difficult for people to process it. The World Health Organization refers to this information overload as an "infodemic."(Infodemic, 2023). Moreover, social media platforms like Facebook create "echo chambers," which means people get information that matches what they believe, which increases misinformation and can lead to dangerous health behaviors.(Schmidt et al., 2018). Such information overload and misinformation can increase anxiety.

Platforms such as search engines, social media, and health-specific websites have an enormous amount of information available at one click. Such easy accessibility also comes with consequences if the reader doesn't have critical skills to analyse the quality and credibility of such pieces of information. Online health searches usually start with doubts about symptoms, diagnostic procedures, or treatment plans. These searches can educate patients, but there can also be a risk of increasing anxiety and misinterpretation of their symptoms. One such studied phenomenon is called Cyberchondria.

2.3 Cyberchondria

2.3.1 Definition

The word “cyberchondria” is the combination of two words, “cyber” and “hypochondriasis”.(Loos, 2013; Starcevic and Berle, 2013)So, the word suggests a condition of hypochondriasis related to or originating from internet use. “Cyberchondria may be defined as an excessive, maladaptive or repeated search for health-related information on the Internet, driven by distress or anxiety about health, which only worsens such distress or anxiety”(Starcevic and Berle, 2013). It can be called 21st-century hypochondriasis(Starcevic et al., 2021). The term cyberchondria describes increased health anxiety from internet health searches(McElroy et al., 2019; White and Horvitz, 2009). People tend to spend more time on unclear and daunting information. (Thomas, 2023).

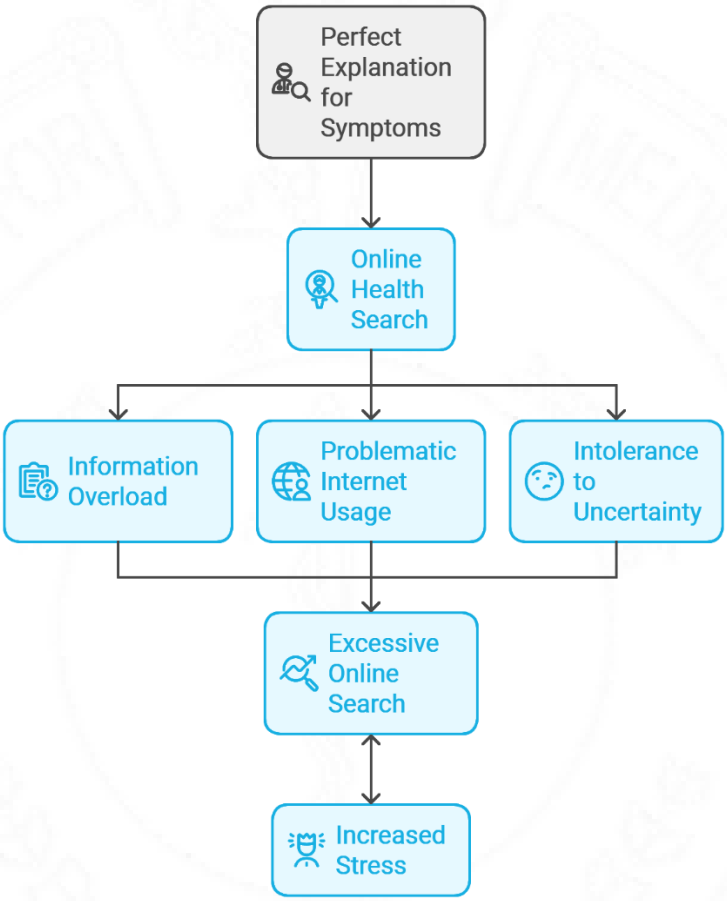
Since this condition is a relatively new term, there is no direct mention of Cyberchondria in the Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (DSM-5), but indirectly in the explanation of illness anxiety disorder that "compulsively research their presumed disease (e.g., on the internet)"(Sabir and Naqvi, 2023).As well in ICD-11, only hypochondriasis is mentioned.(Vismara et al., 2022).

One person can search for their health-related query online, which can lead to an excessive search due to a person's problematic internet usage, (Fergus and Spada, 2017) information overload on the internet, (Infodemic, 2023; Swar et al., 2017) or intolerance to uncertainty(Norr et al., 2015) which influences stress levels. However, it's unclear whether excessive search increases stress levels or whether increased stress level drives excessive online searches.

Cyberchondria is not just a simple online health search, it includes complex behavioral and psychological responses. For example, a headache can have several causes, ranging from stress to severe conditions such as a brain tumor. Exposure to such vast knowledge without

a proper context and medical expertise can increase anxiety and also lead to an iterative loop of health search. Additionally, search engines and other platforms often prioritize relevance over accuracy due to their algorithmic nature, which gives extreme conditions first, exacerbating this cycle of search and distress. Some studies suggest that if one person is already having health anxiety, they can be more vulnerable to Cyberchondria.

Figure 1: **Mechanism Linking Online Symptom Searches to Distress**



2.3.2 Core Factors of cyberchondria

Some key aspects have been proposed to describe the multidimensional construct of cyberchondria(Mestre-Bach and Potenza, 2023).

They are as follows:

2.3.2.1 Excessiveness

The person engaged in an escalated level of health search. This is the core element of cyberchondria.(McElroy et al., 2019)

2.3.2.2 Compulsion

The internet health search is deterring the person from online and offline activities. This can lead to disruption of life activities. There is a significant association between cyberchondria and compulsive internet health searches.(Khazaal et al., 2021)

2.3.2.3 Distress

There are increased levels of health anxiety or distress from online searches. Some studies say that cyberchondria can overlap with health anxiety. (Fergus and Russell, 2016)

2.3.2.4 Reassurance

With the heightened level of distress and online searches, there is a tendency to seek professional or medical advice to confirm information, which is also leading to increased healthcare utilization.(Kobryn and Duplaga, 2024).

2.3.3 Co-morbidities or related conditions

2.3.3.1 Health Anxiety

A meta-analysis by MCMullan *et al*, revealed that there is a significant association between cyberchondria and health anxiety rather than the usual online health search and health anxiety. This suggests that health anxiety is more common in people with cyberchondria compared to the general population. For these people, repeated searches further increase anxiety. (McMullan et al., 2019)

2.3.3.2Hypochondriasis

The relationship between hypochondriasis and cyberchondria is still under investigation. Cyberchondria, by some researchers, is considered another form of hypochondriasis. (Starcevic et al., 2021). People with an illness anxiety disorder may be

more prone to develop health anxiety from online health searches. (Doherty-Torstrick et al., 2016)

2.3.3.3 Obsessive-Compulsive Disorder (OCD)

Both Cyberchondria and OCD have some common symptoms such as unwanted, intrusive, and anxious thoughts. In cyberchondria, these mental states can be due to a consequence of not checking about one's health condition online; if they compulsively check, that can further increase the anxiety level.(Starcevic and Berle, 2013). There is a positive association between cyberchondria and OCD symptoms. (Norr et al., 2015).

2.3.3.4 Problematic Internet Usage (PIU)

PIU is a lack of control over internet use, which is also a reason for heightened distress level. Cyberchondria can be one PIU of online health search.(Fergus and Spada, 2017). Some features of PIU, like lack of control in usage, emotional distress, and preoccupation, are also found in cyberchondria. (Starcevic and Berle, 2013).

2.3.4Impact of the COVID-19 pandemic on Cyberchondria

The COVID-19 pandemic had an impact on everyone's daily life. Since there were so many restrictions on offline activities, people used the internet more, and as a consequence, problematic internet usage was high.(Király et al., 2020). During the pandemic, there was an increase in mental health issues such as depression, distress, PTSD, suicidal ideation (Raj et al., 2020), and anxiety due to social isolation. Since there was so much uncertainty about health in the pandemic situation, this resulted in increased online health searches, which can be considered as one problematic usage triggered by the pandemic(Starcevic et al., 2021). Because of the uncertainty surrounding the pandemic, there was too much dependence on unverified online sources, which increased unnecessary panic.(Varma et al., 2021) During the pandemic period, the prevalence of cyberchondria increased due to

information overload and health anxiety. After all, the COVID-19 pandemic created ideal conditions for cyberchondria. (Farooq et al., 2020).

2.4 Epidemiology

2.4.1 International Context

One study comparing 597 Brazilian and Portuguese dentists found that cyberchondria is more common in women, younger dentists, and Brazilian people. It also suggests that younger individuals use more technology, so prevalence is higher among them. There is a gender difference in the prevalence, where women tend to use the internet more, and anxiety is also high. Further study found increased health anxiety during the COVID-19 pandemic, which can also trigger the problem. (Serra-Negra et al., 2022)

Another study done in 1613 Polish internet users found that with the increasing level of cyberchondria, visits to family physicians and specialists, diagnostic procedures, emergency services, and hospital admissions also increased. However, it created aversion towards the vaccination against COVID-19. Overall, the study suggested cyberchondria can be a predictor of health care utilization. (Kobryn and Duplaga, 2024)

A study done on 311 volunteers aged between 18 and 65 years who could be approached through Google Forms in Turkey found that there were increasing levels of cyberchondria with increasing fear of the COVID-19 virus. They also found that those with higher scores on the cyberchondria severity scale had a poor general health perception. (Esra Sayar et al., 2023)

Another study, which was done on 500 adults in Pakistan who were purposefully selected, studied the relationship between health anxiety and metacognitive beliefs (biased thinking and beliefs about the uncontrollability of thoughts) with cyberchondria. They found that health anxiety, cyberchondria, and metacognitive beliefs have a positive correlation; also,

metacognitive beliefs strengthen the relationship between cyberchondria and health anxiety. (Nadeem et al., 2022)

Prevalence of cyberchondria

A cross-sectional survey done among university students in Pakistan found the prevalence of cyberchondria as 74.2 percent (50.4% had a moderate level and 23.8% had a high level of cyberchondria). They also found a higher level of cyberchondria among women (p-value<0.05). Further, cyberchondria was high among those who had any diagnosed medical condition.(Sabir and Naqvi, 2023)

Another study conducted among 518 volunteers from the Saudi population approached through Google Forms found a very high prevalence of cyberchondria, at 97.9 percent (the moderate level was 83.4%, and the high level was 14.5%). They compared smartphone addiction and e-health literacy rate. Many of the participants had smartphone addiction (66.6%) and e-health literacy (72.6%), which may be the reason for the higher level of prevalence of cyberchondria. (El-Zayat et al., 2023)

2.4.2 Indian studies

Among Professionals

A cross-sectional study was done among 205 IT professionals in Chennai, which found the prevalence of cyberchondria as 55.6 percent. The study also found that general mental health and cyberchondria are negatively associated. Compared to other constructs (distress, compulsion, reassurance), excessiveness was high among study participants.(Makarla et al., 2019)

Another study among 243 IT professionals in Bhubaneswar found cyberchondria prevalence of 46.5 percent. The mean score using CSS-15 was 43.8±10.62. the mean score

was higher among individuals who reported spending more than one hour on the internet at night, and those who experienced fear or anxiety when visiting a doctor or dentist.

Among students

A study was done among 160 undergraduate students of Andhra Pradesh and found the prevalence of cyberchondria to be 22.5 percent. It was lower than the study done on IT professionals in Chennai (55.6%) (Makarla et al., 2019), in metabolic syndrome patients in South India (42.5%) (Pawar et al., 2022) and in dental students(98.7%) (Patanapu et al., 2022). Here, they also found that excessiveness was higher compared to other components of the cyberchondria scale. The study compared cyberchondria scores with academic performance; the higher cyberchondria score was correlated with poorer academic performance.(Kulsum et al., 2023)

One cross-sectional survey among 300 dental students of Bangalore found that cyberchondria had a direct correlation with depression (p-value <0.001), stress (p-value <0.001), and anxiety (p-value <0.001). Women had relatively severe cyberchondria compared to men (p-value =0.01), similar to the study done in university students in Pakistan.(Sabir and Naqvi, 2023). Fear of contamination and fear of getting infected with COVID-19 also impacted experiencing cyberchondria.(Shailaja et al., 2020)

Among others

In a cross-sectional study among 379 outpatients with metabolic syndrome in a tertiary care hospital, 42.5 percent were severely affected and 28 percent were moderately affected with cyberchondria. Similar to the above-mentioned studies, excessiveness was the highest component. Overall, the cyberchondria score and socio-demographic variables were not correlated. Reassurance and mistrust had a positive linear relation (p-value<0.001) while reassurance and distress had a negative linear relation (p-value=0.004). History of

myocardial infarction, cyberchondria have a significant relationship; those who had a history of myocardial infarction had a lower median score for CSS than those who didn't have a history. (p-value=0.02). (Pawar et al., 2022)

One study in 543 outpatients of the homeopathic clinic and 224 participants from home-to-home visits found positive correlations between cyberchondria and information overload ($r = 0.595$, $p < 0.001$), cyberchondria and perceived vulnerability ($r = 0.503$, $p < 0.001$), and between information overload and perceived vulnerability ($r = 0.588$, $p < 0.001$). Information overload was reported to be high among those with chronic illness. (p-value=0.029).(Bala et al., 2021).

2.5 Rationale

The Internet has become an integral part of our lives, so it is very important to understand its effect on health. Several studies have been done on online health information-seeking behavior. If the information overload or processing of online information has any negative impact on mental health, it has to be studied. Cyberchondria involves excessive online searching and the elevation of health anxiety from it. Both mental and physical health should improve through technology, not the other way around. Therefore, it is important to understand the extent of cyberchondria and the factors associated with it in order to understand the scope of the problem and ways to reduce the distress. Several institution-based studies have been done to this end, but not in the general population. Thrissur district in Kerala, with its high levels of digital literacy, internet accessibility (Network, 2008), and overall literacy (India, 2011), provides a suitable study setting for understanding the impact of digital health behavior on the community. Hence, the present study was envisaged.

2.6 Objective

Major Objective

1. To assess the extent of cyberchondria among adults in Thrissur corporation.

Minor Objective

1. To find factors associated with cyberchondria among them.

Chapter 3

Materials and Methods

3.1 Study design

A cross-sectional survey was conducted among adults residing in Thrissur corporation, Kerala, to determine the extent of Cyberchondria and its associated factors.

3.2 Study setting

The study was conducted in Thrissur Corporation. The study participants were from the randomly selected 20 wards out of the 55 wards of the Thrissur corporation.

3.3 Study population

Adults residing in the randomly selected wards of Thrissur corporation for at least more than 6 months were approached to participate in the study.

3.4 Sample size estimation

The sample size was calculated using OpenEpi version 3.1 software. A recent study reported that Cyberchondria's prevalence was 55.6 percent among professionals working in the information technology sector in Chennai (Makarla et al., 2019). Using this information, with a relative precision of 10 percent, a confidence interval of 95 percent , and a design effect of 1.5, the sample size was estimated to be 472. After considering a 10 percent non-response rate, it was decided to approach 525 participants to achieve the final sample size.

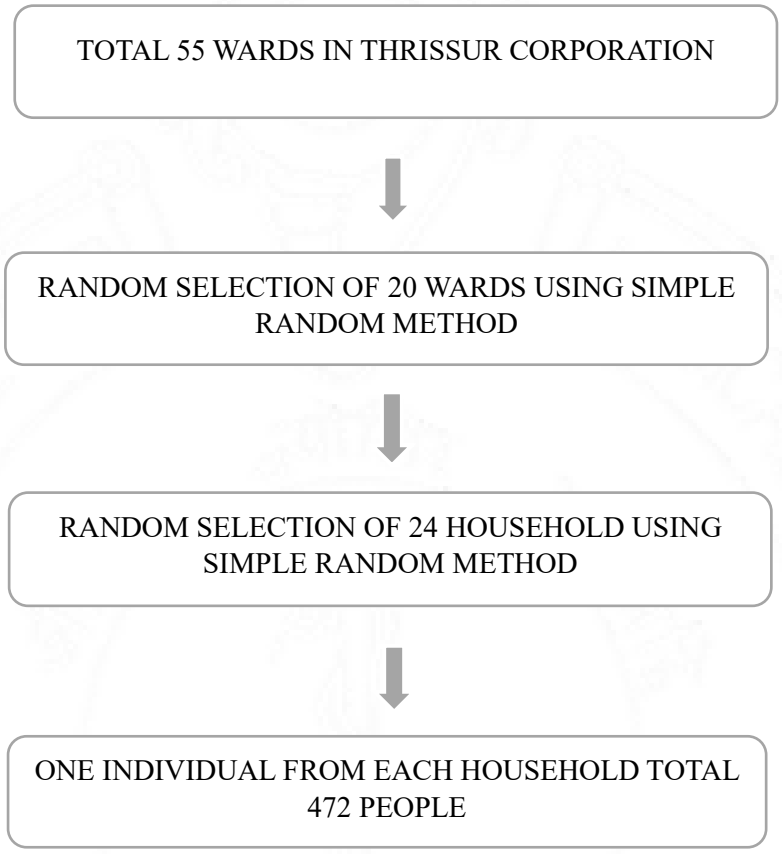
3.5 Sample selection procedure

Cluster sampling and simple random sampling were used as sampling strategies.

There are 55 wards in the Thrissur corporation. Out of these 55 wards, 20 wards were randomly selected by a simple random selection method using R software. From each ward, 24 households were selected randomly to achieve a total of 472 households. The households in a ward were selected by finding a main landmark. The direction for the survey was

decided using a pen rotation method, and the first household on the left was selected. Subsequently, every third consecutive household was selected. Only one eligible individual was selected from each household randomly by a lottery method (a total of 472 people)

Figure 2: Sampling strategy



3.6 Subject selection

Inclusion criteria

Adults who have resided in the Thrissur corporation for at least more than 6 months.

Exclusion criteria

- People who do not have access to or are not using the internet
- People who are not interested in participating in the study

3.7 Study duration

The duration of the data collection was 2 months, from 6th January 2025 to 8th March 2025.

3.8 Data collection process

A structured questionnaire schedule was developed in English and translated into Malayalam. For the selection of households from each ward, a location within each ward was selected using the main landmark in each ward, which was given by ward councilors, then direction was selected, and all the third consecutive houses till 24 people above 18 years of age were reached. If more than one eligible person who uses the internet were available in the house, one person was randomly selected by lottery method, but such situations were infrequent. Before going to each ward, ward councilors were contacted, and Accredited Social Health Activists (ASHA), Anganwadi workers or volunteers accompanied the PI. Or in some wards, the people were given prior information about the survey and the PI's name through their community groups. During the household visit, the investigator explained the purpose of the study. Then they were asked whether they had access to and were using the internet, and were above 18 years of age. After the confirmation of one eligible adult participant, the information sheet was explained (attached in Annexure I and Annexure II). After clarifying their concerns, they were asked to sign the consent form (attached in Annexure III and Annexure IV). Then the interview was taken (attached in annexure V and annexure VI). Table 1 shows the survey participation among people.

Table 1 Survey Participation among People

Survey participation	N
Number of houses approached	581
People who were not willing to participate	97
People who were not using the internet	9
People who don't speak English or Malayalam	3

3.9 Data Collection Tools

The tool for the data collection was a structured interviewer-administered questionnaire, which included the Cyberchondria Severity Scale-12 (CSS-12).

The tool had 6 sections

Section 1: General information

This section includes the participant ID, date, and time of the interview

Section 2: Demographic characteristics of the participant

This section covers the details regarding Age, Gender, Educational qualification, marital status, and disease conditions.

Section 3: CSS-12

This section captures excessiveness, distress, compulsion, and reassurance; each construct has three questions.

Section 4: Internet use

This section captures the average time and purpose of Internet usage.

Section 5: Internet health search

This section covers reasons for health search, information overload, and platforms for health search.

Section 6: Health-seeking actions

This section includes using medication without a prescription, stopping medication without a prescription, and performing diagnostic procedures due to the influence of the internet.

3.10 Data entry and storage

Data entry was done in the Open Data Kit (ODK) platform. PI is responsible for the data security and any breach of confidentiality. The online forms had no personal identifying information, and all the participants were coded with a unique participant ID. The collected data was stored in a password-protected computer.

3.11 Operational definition of variables

Outcome variable

Cyberchondria

The Cyberchondria Severity Scale (CSS-12) consists of 12 questions that measure four constructs: excessiveness, distress, compulsion, and reassurance, with each construct represented by three questions. Participants responded using a five-point Likert scale with options never, rarely, sometimes, often, and always. Each response was assigned a score from one to five, with higher scores indicating greater severity. The scores for all 12 questions were summed to obtain a total score for each participant, reflecting their overall level of cyberchondria. This total score was classified using the median to classify the severity of cyberchondria. The median score used for classification was 18. Based on this threshold, participants were categorized as experiencing and not experiencing cyberchondria.

Independent variable

Independent variables were demographic information, internet use information, details about internet searches for health information, and health-seeking actions. Demographic information included age, sex, educational qualification, marital status, pregnancy status of married women, parental status of married men and women, socioeconomic status by color of ration card, satisfaction with current health, presence of chronic condition, presence of any chronic health condition in family members. Internet use information included current occupation status, time of internet use, and self-limits on internet usage. Details about internet searches included for whom they search, perception about the availability of online health information, and trust in online health information. Health-seeking actions included frequency of health visits, satisfaction with the healthcare provider, and ever using online remedies or diagnostic tests without a doctor's permission.

Classification of independent variables

The sex of the participants was divided into male and female.

Education levels were classified as secondary or below and graduate and above.

Marital status was categorised as unmarried, married, and widowed.

Socioeconomic status was classified as upper, middle, and lower.

Satisfaction in health was classified as satisfied, neither satisfied nor dissatisfied, and dissatisfied.

Daily internet usage was categorized separately for work-related and non-work-related purposes, as either less than or equal to 2 hours or more than 2 hours.

Responses to the question regarding the purpose of online health searches were categorized as searches done for themselves, others, or both.

Perception about the availability of online health information were classified as too much, sufficient, and not enough information available.

Frequency of health visits was categorised as on regular intervals and when they had symptoms

Satisfaction with the healthcare provider was classified as satisfied, neither satisfied nor dissatisfied, and dissatisfied.

3.12 Data analysis

The data were analysed using R version 4.4.1. Frequencies and proportions were calculated for categorical variables, and the mean with standard deviation was computed for age.

The extent of cyberchondria was determined by calculating the proportion of participants who experienced cyberchondria, along with the corresponding 95% confidence intervals.

Associations between cyberchondria and various factors, including demographic characteristics, internet usage patterns, details of online health information-seeking behaviour, and health-seeking actions, were assessed using the Pearson chi-square test. Variables with statistically significant p-values were further analysed using univariable logistic regression to estimate Crude Odds Ratios (COR) with 95 percent confidence intervals. Those variables, found significant, were included in the multivariable model. The parsimonious model with the lowest AIC score was used for the final multivariable logistic regression.

3.13 Ethical consideration

The Institutional Ethics Committee of Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, Kerala, had reviewed the study and gave clearance to conduct the study (SCT/IEC/2332/DECEMBER/2024).

Before moving to each ward, verbal permission was obtained from each ward councilor. Participation in the study was completely voluntary. Informed consent was obtained from all participants prior to conducting the interviews. The identity and personal information of the participants were maintained in strict confidentiality. All consent forms will be securely stored under the custody of the Principal Investigator (PI).

Chapter 4

Results

This chapter presents the findings of the study in detail and is divided into three sections. The first section outlines the baseline characteristics of the participants, including demographic information, patterns of internet use, online health information-seeking behavior, and health-seeking actions. The second section explores the extent of Cyberchondria and its four dimensions: excessiveness, distress, compulsion, and reassurance. The final section examines the association between the independent variables and the outcome variable, Cyberchondria.

4.1 Demographic information of study participants

Information from a total of 472 study participants was collected. To achieve this, 581 individuals were approached, out of which 97 declined to participate in the survey for various reasons. This resulted in an overall non-response rate of approximately 17 percent, which was higher than the anticipated non-response rate of 10 percent. Major reasons for non-response were time constraints due to various reasons, distrust in the interview questions, not interested in signing the consent form, and not interested in providing the information.

Table 4.1 shows the demographic information of the study participants. The study included 472 participants with a mean age of 44 years (SD = 16.9). Among them, more than two-thirds of the participants (69.5%) were females. Regarding education, around half (48.7%) had completed secondary education or below, while the rest (51.3%) were graduates or had higher qualifications. Around two-thirds (69.3%) of the study participants were married. Among the 254 married women, only a few (2.3%) were pregnant at the time of the interview. Most of the participants (96.0%) possessed a ration card. Among those, 41.1% belonged to the upper socioeconomic class, 33.1 percent to the middle, and 25.8 percent to

the lower class. About satisfaction in current health status, the majority of participants (61.7%) reported being satisfied with their health, 18.6 percent were neutral, and 19.7 percent were dissatisfied. About 40.3 percent of participants reported having a chronic health condition. The reported chronic conditions among them were diabetes, hypertension, thyroid, allergies, arthritis, asthma, chronic pain, and cancer. Additionally, only less than half of the participants (32.6%) reported any chronic condition in family members other than the participant.

4.2 Internet Use among Study Participants

The information about internet use among participants is shown in Table 4.2. About one-third (32.6%) of the participants were currently employed. Among those employed (n=154), more than two-thirds (72.1%) reported using the internet as part of their job. For the study participants using the internet for their job, the time spent online for work-related purposes was evenly split, with half using it for two hours or less and the other half for more than two hours daily. When considering internet use outside of work, a larger proportion of participants (59.1%) reported spending two hours or less per day, while the rest (40.9%) used it for longer durations. The common purpose of internet use was entertainment, followed by work and learning. Most participants (82.0%) did not place any self-imposed limits on their internet usage. A smaller group (6.3%) had planned to limit their usage but could not do so, while a few (11.7%) successfully followed their planned limits of internet usage.

Table 4. 1 Demographic Information of Study Participants

Variable	Frequency, N = 472
Age of the participant in years Mean, (SD)	44 (16.9)
Sex of the participants	
Female	328 (69.5%)
Male	144 (30.5%)
Education Level	
Secondary or below	230 (48.7%)
Graduate and above	242 (51.3%)
Marital Status	
Unmarried	123 (26.0%)
Married	327 (69.3%)
Widowed	22 (4.7%)
Pregnancy status of married women (N = 254)	
Currently pregnant	6 (2.3%)
Not pregnant	248 (97.7%)
Parental status of married men and women (N= 350)	
Having Children	319 (91.1%)
Child-free	31 (8.9%)
Ration card Possession	
Yes	453 (96.0%)
No	19 (4.0%)
Socioeconomic status (N = 453)	
Upper	186 (41.1%)
Middle	150 (33.1%)
Lower	117(25.8%)
Satisfaction in Health	
Satisfied	291 (61.7%)
Neither satisfied nor dissatisfied	88 (18.6%)
Dissatisfied	93 (19.7%)
Suffering from a Chronic Condition	
Yes	190 (40.3%)
No	282 (59.7%)
Chronic Condition in Family Members	
Yes	154 (32.6%)
No	318 (67.4%)

Table 4. 2 Internet Use among Study Participants

Variable	Frequency N (%)
Current occupation status	
Currently working	154 (32.6%)
Currently not working	318 (67.4%)
Use of the Internet at the Job (N=154)	
Yes	111 (72.1%)
No	43 (27.9%)
Time of Internet Use for Job (N=110)	
<=2 hours	55 (50.0%)
>2 hours	55 (50.0%)
Time of Internet use excluding work	
< =2 hours	279 (59.1%)
>2 hours	193 (40.9%)
Self-imposed limit on Internet usage	
No	387 (82.0%)
Planned and couldn't	30 (6.3%)
Planned and limited	55 (11.7%)

4.3 Internet Search for Health information among study participants

The details about internet searches for health information among the study participants are shown in Table 4.3. Most participants (63.1%) reported searching for health information online at some point. Among them (n=298), three-fourths of the participants searched for information related to both themselves and others (74.5%), with a smaller proportion searching only for themselves (22.5%) or only for others (3.0%). The most common reason for turning to online health information was easy accessibility (93.6%). Other reasons included time constraints, mild symptoms, fear or unavailability of doctors, the perception

that it was cheaper, and stigma. Participants mainly looked up issues related to pain (40.6%), diagnostic procedures (28.2%), skin problems, chronic conditions, pregnancy, fever, mental health, and sexual health. When it came to perception about the availability of health information, nearly half of the participants felt that there was too much information online (53.7%), while others believed it was sufficient (41.6%); only a small number thought there wasn't enough (4.7%). Search engines (74.2%) were the most commonly used platforms, followed by video platforms and social media (63.4%). Two-thirds of the study participants (70.1%) of those who searched online said they trusted the health information they found. Reasons for this trust included content coming from credible sites (25.8%), claims that the information was from doctors (30.6%) or proven sources (10.5%), confirming with others (19.6%), or simply because it was common (37.3%). Interestingly, a quarter (25.8%) of the participants felt that the internet often suggested severe diagnoses, and a smaller group (15.1%) reported feeling like they might have a disorder after reading about it online.

Table 4. 3 Internet Search for Health information among study participants

Variable	Frequency N (%)
Ever searched for health information online	
Yes	298(63.1%)
No	174 (36.9%)
Online Health Searches were done for (N= 298)	
Self	67 (22.5%)
Others	9 (3.0%)
Both	222 (74.5%)
Reasons for Online Health Search (N= 298) *	
Easy accessibility	279 (93.6%)
Found online health search cheaper	30 (10.1%)
Symptoms were mild	55 (18.4%)
Fear/Unavailability of doctors	30 (10.1%)
Reasons for Online Health Search(N= 298) *	
Time constraints	44 (14.7%)

Stigma	17 (5.7%)
Main health problems searched *	
Fever	20 (6.7%)
Any pain	121 (40.6%)
Some tests or diagnostic procedures	84 (28.2%)
Mental health issues	17 (5.7%)
Sexual health issues	10 (3.3%)
Pregnancy related	33 (11.1%)
Any chronic conditions	46 (15.4%)
Skin related	72 (24.2%)
Perception about the availability of online health information (N= 298)	
Too much information	160 (53.7%)
Sufficient information	124 (41.6%)
Not enough information	14 (4.7%)
Main platforms used for health search *	
Search engines	221 (74.2%)
Video platforms and social media	189 (63.4%)
Trust in Online Health Information (N= 298)	
Yes	209 (70.1%)
No	89 (29.9%)
Reasons for trusting online health information (N= 209) *	
From a credible site	54 (25.8%)
Claimed to be told by a doctor	64 (30.6%)
Claimed to be proven	22 (10.5%)
Confirming with another person	41 (19.6%)
Its common	78 (37.3%)
A feeling of the internet always suggests a severe diagnosis (N= 298)	
Yes	77 (25.8%)
No	221 (74.2%)
Feeling of having a disorder after reading about it online (N= 298)	
Yes	45 (15.1%)
No	253 (84.9%)

* The total percentage may exceed 100% as respondents were allowed to select multiple options

Table 4. 4 Health-Seeking Actions among Study Participants

Variable	N (%)
Frequency of health visits	
At a regular interval	72 (15.3%)
Only when having symptoms	400 (84.7%)
Frequency of falling sick in the last year	
Never	113 (24.0%)
Occasionally	273 (57.8%)
Frequently	86 (18.2%)
Perceived need for a Doctor when falling sick (N= 359)	
Yes	347 (96.7%)
No	12 (3.3%)
Ability to Visit Doctor When Needed (N= 359)	
Yes	353 (98.3%)
No	6 (1.7%)
Satisfaction with the healthcare provider	
Satisfied	399 (84.6%)
Neutral	53 (11.2%)
Dissatisfied	20 (4.2%)
Tried online remedies after reading about it online	
Yes	114 (24.2%)
No	358 (75.8%)
Stopping medication after reading about it online	
Yes	4 (0.8%)
No	468 (99.2%)
Used a diagnostic test after reading about it online	
Yes	7 (1.5%)
No	465 (98.5%)

4.4 Health-Seeking Actions among Study Participants

The health-seeking actions among the study participants are shown in Table 4.4. Most participants (84.7%) reported visiting a healthcare provider only when they had symptoms, with a small proportion (15.3%) attending regular check-ups. Over the past year, more than

half (57.8%) had occasionally fallen sick, while fewer reported frequent (18.2%) or no illness (24.0%). Among those who fell sick in the last year (n=359), only a very small number (3.3%) felt no need to consult a doctor, and nearly everyone (98.3%) reported being able to visit a doctor when needed. The majority (84.5%) were satisfied with their healthcare provider, while a few were either neutral (11.2%) or dissatisfied (4.2%). About a quarter of the participants (24.2%) had tried online remedies after reading about them. Still, very few had stopped medication (0.8%) or used a diagnostic test (1.5%) based on online information without a doctor's prescription. No one ever changed medication after an internet suggestion.

4.5 Cyberchondria among study participants

The internal reliability of CSS-12 was calculated using Cronbach's alpha. The value for the scale was 0.87; for each construct, it was 0.92 for excessiveness, 0.91 for distress, 0.61 for compulsion, and 0.66 for reassurance.

The Mean score of CSS-12 was 20.17 with a standard deviation of 8.1, with a range of 12 to 42 (the total score ranges from 12-60). Participants not experiencing cyberchondria (at or below the 50th percentile) were 239 in number, accounting for 50.6% of the sample (95% CI: 46.0% – 55.2%). Participants experiencing cyberchondria (above the 50th percentile) totaled 233, corresponding to 49.4% of the sample (95% CI: 44.8% – 54.0%).

Coming to the mean scores of each construct, excessiveness had a mean score of 7.7 with a standard deviation of 4.3, and range of 3 to 15, distress had a mean score of 5.2 with a standard deviation of 3.3, and range of 3 to15, compulsion had a mean score of 3.5 with a standard deviation of 1.2, and range of 3 to 10, and reassurance had a mean score of 3.7 with a standard deviation of 1.5, and range of 3 to 12. Among the participants, excessiveness was higher, followed by distress, reassurance, and compulsion. (The score of each construct can range from 3 to 15)

4.6 Association of cyberchondria with demographic characteristics, internet use, internet searches for health information, and health-seeking actions among study participants.

The association of cyberchondria with demographic characteristics, internet use, internet searches for health information, and health-seeking actions among study participants is shown in Tables 4.5,4.6,7, and 4.8. The study revealed that younger individuals were significantly more likely to experience cyberchondria (OR=0.96, 95% CI: 0.95–0.97), with a median age of 34 years among those affected compared to 54 years in the unaffected group ($p<0.001$, $\chi^2=38.07$). Sex was significantly associated with cyberchondria ($p=0.016$, $\chi^2=5.84$), where females were more affected, compared to males with 39% lower odds of cyberchondria (OR=0.61, 95% CI: 0.41–0.91). Education level also showed a statistically significant association ($p<0.001$, $\chi^2=45.3$). Participants with graduate education and above were significantly more affected than those with secondary education or below (OR=0.28, 95% CI: 0.19–0.40). Marital status was another influential factor ($p<0.001$, $\chi^2=24.1$). Socio-economic status ($p=0.2$, $\chi^2=3.47$) and satisfaction with health ($p=0.6$, $\chi^2=0.98$) were not significantly associated with cyberchondria. Individuals with chronic conditions were less likely to experience cyberchondria than those without ($p<0.001$, $\chi^2=15.2$; OR=0.48, 95% CI: 0.33–0.69). However, having a chronic condition in the family was not significantly associated ($p=0.4$, $\chi^2=0.84$). (Table 4.5). Current occupation status also showed a significant association; individuals who are currently working had 1.53 times higher odds of experiencing cyberchondria compared to those who are not working ($p=0.031$, $\chi^2=4.65$). Internet usage patterns were strongly linked to cyberchondria. Participants who used the internet for more than two hours per day, excluding work-related use, were 2.6 times more likely to have cyberchondria ($p<0.001$, $\chi^2=25.0$). the self-imposed limits on internet usage also have an association with cyberchondria. ($p<0.001$, $\chi^2=36.6$). (Table 4.6). 298 people have ever searched online for health information. Those who felt

there was too much information were more likely to experience cyberchondria (p=0.009). Thinking about the credibility of online health information was also significantly associated (p=0.002, χ^2=9.96), with those who never questioned it being more affected. Although trust in online health information was not statistically significant (p=0.5, χ^2=0.49). The feeling of internet suggestions was always severe (p<0.001, χ^2=12.0), and a feeling of having a disorder after reading online content (p=0.001, χ^2=10.7) was also found to be associated with cyberchondria. (Table 4.7). Health-seeking behavior also played a role. Participants who visited a healthcare provider only when they had symptoms had over twice the odds of cyberchondria compared to those who went for regular checkups (p=0.003, χ^2=8.74; OR=2.19, 95% CI: 1.3–3.76). However, the frequency of falling ill (p=0.6, χ^2=1.18) and satisfaction with healthcare providers (p=0.4, χ^2=2.1) were not significantly associated. Cyberchondria was strongly linked with certain online behaviors. Participants who tried online remedies after reading about them had nearly five times higher odds of cyberchondria (p<0.001, χ^2=43.7; OR=4.68, 95% CI: 2.93–7.68). Although very few reported stopping medications (p=0.059) or using diagnostic tests (p=0.007) based on online information, such behaviors indicate a worrying trend. (Table 4.8).

Table 4. 5 Association of Cyberchondria with Demographic characteristics of participants

Variable	**Cyberchondria**		**p-value chi-square**	**χ2 statistic**	**Crude Odds Ratio**
Age in years	**Not affected (239) n(%)**	**High (233) n(%)**			
(Median, SD)	54 (17)	34 (15)	**<0.001**	38,071*	0.96 (0.95-0.97)

Variable	Cyberchondria	p-value chi-square	χ2 statistic	Crude Odds Ratio	Variable
Sex					
Female	154 (47.0)	174 (53.0)	**0.016**	5.84	1
Male	85 (59.0)	59 (41.0)			0.61 (0.41-0.91)
Educational level					
Secondary and below	153 (66.5)	77 (33.5)	**<0.001**	45.3	0.28 (0.19-0.40)
Graduate and above	86 (35.5)	156 (64.5)			1
Marital status					
Unmarried	42 (34.1)	81 (65.9)	**<0.001**	24.1	1
Married	179 (54.7)	148 (45.3)			0.43 (0.28-0.66)
Widowed	18 (81.8)	4 (18.2)			0.12 (0.03-0.33)
Socio-economic Status					
Lower	55 (47.0)	62 (53.0)	0.2	3.47	
Middle	86 (57.3)	64 (42.7)			
Upper	91 (48.9)	95 (51.1)			
Satisfaction with health					
Dissatisfied	51 (54.8)	42 (45.2)	0.6	0.98	
Neither satisfied nor dissatisfied	42 (47.7)	46 (52.3)			
Satisfied	146 (50.2)	145 (49.8)			
Suffering from a chronic condition					
Yes	117 (61.6)	73 (38.4)	**<0.001**	15.2	0.48 (0.33-0.69)
No	122 (43.3)	160 (56.7)			1
Chronic condition in the family					
Yes	112 (48.5)	119 (51.5)	0.4	0.84	
No	127 (52.7)	114 (47.3)			

* Wilcoxon rank sum test

Table 4. 6 Association of Cyberchondria with Internet use of participants

Variable	Cyberchondria		p-value chi-square	χ2 statistic	Crude Odds Ratio
Current occupation status	**Not affected (239) n(%)**	**High (233) n(%)**			
Currently working	67 (43.5)	87 (56.5)	**0.031**	4.65	1.53 (1.04-2.26)
Currently not working	172 (54.1)	146 (45.9)			1
Time of internet use, excluding work activities					
Less than or equal to 2 hours	168 (60.2)	111 (39.8)	**<0.001**	25	1
Greater than 2 hours	71 (36.8)	122 (63.2)			2.6 (1.79-3.81)
Self-imposed limits on internet usage					
No	221 (57.1)	166 (42.9)	**<0.001**	36.6	1
Planned and limited	10 (18.2)	45 (81.8)			5.99 (3.05-12.9)
Planned but couldn't	8 (26.7)	22 (73.3)			3.66 (1.65-8.95)

Table 4. 7 Association of Cyberchondria with Internet Search for Health information among study participants

Variable	Cyberchondria		p-value chi-square	χ2 statistic
Online health searches were done for (N=298)	**Not affected 70 n(%)**	**High 228 n(%)**		
For both	52 (23.4)	170 (76.6)	0.7*	
For themself	15 (22.4)	52 (77.6)		
For others	3 (33.3)	6 (66.7)		
Perception about the availability of online health information				
Sufficient	38 (30.6)	86 (69.4)	**0.009***	
Too much information	27 (16.9)	133.0 (83.1)		
Not enough information	5 (35.7)	9 (64.3)		
Ever thought of the credibility of online health information				
Yes	15 (45.5)	18 (54.5)	**0.002**	9.96
No	55 (20.8)	210 (79.2)		
Trust in online health information				
Yes	24 (26.1)	68 (73.9)	0.5	0.49
No	46 (22.3)	160 (77.7)		
A feeling of the internet always suggests a severe diagnosis				
Yes	63 (28.5)	158 (71.5)	**<0.001**	12.0
No	7 (9.1)	70 (90.9)		
A feeling of having a disorder after reading online				
Yes	68 (26.9)	185 (73.1)	**0.001**	10.7
No	2 (4.4)	43 (95.6)		

* Fisher's exact test

Table 4. 8 Association of Cyberchondria with Health-Seeking Actions among study participants

Variable	Cyberchondria		p-value chi-square	χ2 statistic	Crude Odds Ratio
Frequency of health visits	**Not affected (239) n(%)**	**High (233) n(%)**			
At a regular interval	48 (66.7)	24 (33.3)	**0.003**	8.74	1
only when having symptoms	191 (47.8)	209 (52.3)			2.19 (1.3-3.76)
Frequency of falling sick last year					
Never	62 (54.9)	51 (45.1)	0.6	1.18	
Occasionally	136 (49.8)	137(50.2)			
Frequently	41 (47.7)	45 (52.3)			
Satisfaction with healthcare provider					
Dissatisfied	7 (35.0)	13(65.0)	0.4	2.1	
Neutral	28 (52.8)	25 (47.2)			
Satisfied	204 (51.1)	195 (48.9)			
Tried online remedies after reading online					
Yes	27 (23.7)	87 (76.3)	**<0.001**	43.7	4.68 (2.93-7.68)
No	212 (59.2)	146 (40.8)			1
Stopped medication after reading about it online					
Yes	0 (0.0)	4(100.0)	0.059*		
No	239 (51.1)	229 (48.9)			
Used a diagnostic test after reading about it online					
Yes	0 (0.0)	7 (100.0)	**0.007***		
No	239 (51.4)	226 (48.6)			

*Fisher's exact test

4.7 Factors associated with cyberchondria: Results from multivariable logistic regression

Logistic regression analysis included all the independent variables found to have a significant association with cyberchondria. Table 4.9 shows the results of multivariable

regression analysis. A parsimonious model with the variables with the least AIC value was selected for the multivariable analysis. Finally, the best fit model included age, sex, educational qualification, internet usage time excluding work activities, and trying online remedies.

Lower odds of high cyberchondria were seen among males, those with education up to secondary level, and with increasing age. Males had about 43% lower odds compared to females (Adjusted OR 0.57), and individuals with secondary education or less had about 59% lower odds than those with higher education (Adjusted OR 0.41). Also, with each additional year of age, the odds of high cyberchondria slightly decreased (Adjusted OR 0.99, $p = 0.012$).

On the other hand, higher odds of high cyberchondria were found among those who planned and successfully limited internet usage (Adjusted OR 4.58), making them about 4.5 times more likely to experience cyberchondria. Similarly, those who tried online remedies were about 4 times more likely (Adjusted OR 4.07), planning to limit internet use but being unable to do so was not significantly associated, and individuals using the internet for more than 2 hours daily had about 1.7 times higher odds (Adjusted OR 1.73) compared to those with lower internet use.

Table 4. 9 Factors associated with Cyberchondria: Multivariable logistic regression

Variable	N	Cyberchondria		Adjusted OR (95% CI)	p-value
		Not affected (239) n(%)	High (233) n(%)		
Age in years	Median (SD)	54 (17)	34 (15)	0.99 (0.97-1.00)	**0.012**
Sex					
Female	328	154 (47.0)	174 (53.0)	1	
Male	144	85 (59.0)	59 (41.0)	0.57 (0.34-0.94)	**0.03**
Educational level					
Graduate and above	242	86 (35.5)	156 (64.5)	1	
Secondary and below	230	153 (66.5)	77 (33.5)	0.41 (0.26-0.65)	**<0.001**
Time of internet usage excluding work					
Less than or equal to 2 hours	279	168 (60.2)	111 (39.8)	1	
Greater than 2 hours	193	71 (36.8)	122 (63.2)	1.73 (1.08-2.8)	**0.024**
Self-imposed Internet Usage Limits					
No	387	221 (57.1)	166 (42.9)	1	
Planned and limited	55	10 (18.2)	45 (81.8)	4.58 (2.16-10.5)	**<0.001**
Planned but couldn't	30	8 (26.7)	22 (73.3)	1.26 (0.51-3.34)	0.6
Tried online remedies after reading about it online					
No	358	239 (51.4)	226 (48.6)	1	
Yes	114	27 (23.7)	87 (76.3)	4.07 (2.43-6.98)	**<0.001**

Chapter 5

Discussion and Conclusion

This section includes a detailed discussion of the study findings. The purpose of the study was to find the extent of Cyberchondria among the adults of Thrissur corporation. For this, a cross-sectional survey was done among 472 internet users. The study also intends to explore the demographic characteristics, details about internet use, internet searches for health information, and health-seeking actions of the participants that can be associated with cyberchondria.

5.1 General characteristics- demographic characteristics, internet use, internet searches for health information, and health-seeking actions among study participants.

In this study, the mean age of the participants was 44 years, and the majority were females, which was similar to the demographic profile of a cross-sectional study in Manipur state on cyberchondria, information overload, and preventive behaviour influenced by social media. (Bala et al., 2021). The proportion of women was higher in this study, maybe due to the higher sex ratio in Thrissur (Thrissur District Population Census 2011 - 2021 - 2025, Kerala literacy sex ratio and density, 2011) or the timing of the cross-sectional survey, which resulted in more women study participants. Most of the studies about cyberchondria have been done among IT professionals and college students in India. (Dagar et al., 2019; Kulsum et al., 2023; Makarla et al., 2019; Satyarup et al., 2023). The participants' mean age differed from these studies, which typically involve a younger population. Half of the participants were graduates or above, and others had an educational qualification of secondary or below More than two-thirds of the participants were married, similar to one study.(Bala et al., 2021). In the present study, 60 percent of participants used the internet less than 2 hours per day, excluding work activities, which differs from a study where 60% of the participants used the internet for more than 5 hours (Satyarup et al., 2023). This difference in duration may have affected the mean scores of cyberchondria. Around 63

percent of participants used the internet for health searches, with the common reason for online health search being easy accessibility, followed by mild symptoms, time constraints, and then online health search being cheaper and the unavailability of doctors. These reasons for internet usage in our study aligns with the results of a study by (Hullur et al., 2020). The most searched health problems by the study participants were any kind of pain, some tests or diagnostic procedures, dermatological issues, and any chronic condition. Another study among students in Maharashtra found that the main reasons for internet health search were headache, cough and cold, fever, constipation/diarrhoea (Hullur et al., 2020). These differences may be due to demographic characteristics or specific health needs.

5.2 Cyberchondria among study participants

Cyberchondria was measured using the Cyberchondria Severity Scale-12 (CSS-12). The Cronbach's alpha for the whole scale was 0.87; for each construct, it was 0.92 for excessiveness, 0.91 for distress, 0.61 for compulsion, and 0.66 for reassurance. When the CSS-12 scale was validated, Cronbach's alpha was found to be 0.90 for the whole scale. And for each construct, it was 0.83, 0.87, 0.87. 0.73 for excessiveness, compulsion, distress, and reassurance. (McElroy et al., 2019) Compared to this, internal reliability was questionable, for compulsion and reassurances, suggesting that these constructs may not be consistently measured in my sample. Compared with the Cronbach's alpha of Turkish translation, the excessiveness and distress had higher values while compulsion and reassurance had lower values (Terzi et al., 2024). In spite of this, CSS-12 has good psychometric properties, and it excluded the problematic construct “mistrust” from the original 33-item scale. Since there is no specific cut-off for the CSS-12 score, the median method was used to find the extent of Cyberchondria. The mean score was comparatively lower compared to other studies; here mean score for each construct was 7.7 (±4.3), 3.5 (±1.2), 5.2 (±3.3), and 3.7 (±1.5) for excessiveness, compulsion, distress, and reassurance,

respectively. And the total mean score was 20.17 (± 8.1). One study was done among university students in Pakistan, and the mean score was 34.35±9.41 and 36.73±7.74 in women and men, respectively. (Sabir and Naqvi, 2023). The current study was done among the general population, which can be one reason for the low score, both the mean and the corresponding constructs. The study among IT professionals in Chennai shows compulsivity 6.73(±3.10), distress 8.04(±3.04), excessiveness 9.35 (±2.85), and reassurance 8.72 (±3.31). Here, the score was highest for excessiveness and lowest for compulsion.(Makarla et al., 2019) This pattern was similar in both studies. Changes in the mean scores can be due to the mean age differences in the studies (80% of the participants were below 35 years (Makarla et al., 2019), in the current study mean age was 44 years with a standard deviation of 16.9). These changes in the mean score may also be due to lower time spent on the internet. More than half participants use less than or equal to 2 hours, and other studies about cyberchondria reported more time of internet usage per day.(Satyarup et al., 2023).

5.3 Association of cyberchondria with demographic characteristics, internet use, internet searches for health information, and health-seeking actions among study participants.

Cyberchondria was found to have an association with gender. Women had a higher chance of experiencing cyberchondria than men. Some other studies reported similar findings. (Kurcer et al., 2022; Patanapu et al., 2022; Sabir and Naqvi, 2023; Serra-Negra et al., 2022; Shailaja et al., 2020). Maybe women express more worry and fear than men, so anxiety due to searches was more visible among women. Or another possible reason can be that the assigned caretaker role of women may contribute to health searching for family members also. Age was considered a negative risk factor for cyberchondria (Gandla et al., 2021; Mrayyan et al., 2023), but most of these studies have been done among students. In the current study, age is also a negative risk factor. As age increases, the chances of

experiencing cyberchondria are found to be decreasing. This may be because younger individuals use more technology, including health searches, which can cause distress. Comparing the educational qualification of the participant with the cyberchondria score, participants with a graduation degree or above had a higher chance of cyberchondria when compared to those who had secondary or below education. A similar result was also obtained in a study among internet users in the Saudi population.(El-Zayat et al., 2023), The higher the educational level the higher the mean score for cyberchondria is also high. Maybe educated individuals tend to use the internet more for health information, and may have a greater tendency to make informed decisions; however, exposure to large or conflicting medical content may increase anxiety. This explains the higher scores of cyberchondria among highly educated people. There was an association between marital status and cyberchondria, similar to the study in Saudi.(El-Zayat et al., 2023). The people who used the internet for more than 2 hours also had higher odds of having cyberchondria. Similarly, some other studies have found an association between higher internet usage and cyberchondria (Yorulmaz et al., 2025). There can be higher odds of cyberchondria when daily internet use exceeds 2-3 hours. This is maybe due to higher screen time and more exposure to a wide range of health content, which can lead to uncertainty and anxiety. Interestingly, there was no association between perception or satisfaction in current health status and cyberchondria, contrary to one study finding in Turkey, which found that those with poor perceptions about their health status had higher odds of cyberchondria.(Esra Sayar et al., 2023). However, there was an association between the presence of a chronic condition with cyberchondria, similar to another study (Seda Şahan, 2024). The direction of this association is not studied. Self-imposed limits on internet use were found to be associated with cyberchondria. Those who planned and limited internet use had higher odds of cyberchondria than those who never planned. This may feel counterintuitive initially, but

those who limit their screentime can use the internet for specific purposes, like health information. In other words, those who already experience anxiety while going through such content might have reduced the time of use. Anyways, Other studies have found a dissimilar result than this, that smartphone addiction or problematic internet use was associated with cyberchondria.(El-Zayat et al., 2023). Cyberchondria was more common among those who tried online remedies or medicine without a doctor's advice. One study from Turkey found that using medications other than physicians' recommendations is associated with cyberchondria.(Esra Sayar et al., 2023). This behaviour may indicate that underlying anxiety may lead individuals to engage in self-medication or self-treatment practices. There was an increase in health care utilisation with cyberchondria from a previous study (Kobryn and Duplaga, 2024). In our study, even though the frequency of healthcare provider visits or using diagnostic tests was found to be associated with cyberchondria, there were not enough numbers to prove the direction of this association. Two-thirds of study participants used the internet for health information; among them, perception about availability was associated with cyberchondria. In a pervious study, information overload was found to be associated with cyberchondria. (Bala et al., 2021). Here, the feeling of too much information may be due to the information overload they face in online platforms, which gives more uncertainty and more distress. And a feeling of having a disorder after reading about it online, and a feeling that the internet always suggests a severe diagnosis, is also found to be associated with cyberchondria. One study among college students found similar results, as internet pop-ups exaggerated results that make people more anxious.(Hsu, 2025). This suggests the possibility that online information to exacerbate anxiety.

5.4 Strength of the study

As per the principal investigator's knowledge, no other study has assessed cyberchondria among the general population in Kerala. So, this might be the first study to explore cyberchondria. It also assessed internet health search patterns, including reasons, frequency, and types of symptoms searched. Another strength of the study is its generalizability. I used cluster sampling to ensure the proper representation of people in the Thrissur corporation. There will be minimal inter-observer bias as the principal investigator did the data collection and entry.

5.5 Limitations of the study

The tool used in the study, namely CSS-12, showed questionable internal consistency in two constructs, compulsion and reassurance. This was measured using Cronbach's alpha. The timing of the cross-sectional survey caused the underrepresentation of men and employed people. The present study was conducted exclusively in an urban setting. Data from rural or other geographic locations was not included.

5.6 Conclusion

The study found the extent of Cyberchondria and associated factors among the adults in Thrissur corporation. It was found that 49.4 percent experienced cyberchondria using a Cyberchondria Severity Scale-12. There was a significant association of cyberchondria with gender, educational qualification, duration of daily internet use, and some health-related characteristics like using online remedies or medicines. Interesting that those who said they planned and limited their internet use have more chances to have cyberchondria, which may suggest that purposeful health searches might increase distress. Feeling of information overload, having a disorder after reading online, and a belief that the internet always suggests severe diseases are also found to be associated with cyberchondria.

The study findings show the influence of online health information on people and its psychological impact. This distress from excessive searches is manageable. To tackle the problems, we can promote digital health literacy, especially among women and educated individuals. Guiding people to critically assess the content online will be a better idea. Creating a good relationship with the patient and the provider so people can communicate better and limit self-medication from unreliable online platforms.

5.7 Recommendations

- Promote digital health literacy, especially among women and educated individuals, to encourage reliance on trusted medical sources.
- Guide people to set structured internet time limits for health-related searches.
- Discourage self-treatment from unverified online remedies and promote doctor consultations.

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Annexure I

Participant Information Sheet (English)

Achutha Menon Centre For Health Science Studies (AMCHSS)

Sree Chitra Tirunal Institute For Medical Sciences & Technology (SCTIMST)

Trivandrum -11

Participant Information Sheet

I am Dr Divya Abraham K, currently pursuing Master of Public Health (MPH) at Achutha Menon Centre for Health Science Studies (AMCHSS), Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, Kerala. I am studying "extent of Cyberchondria among adults in Thrissur corporation, Kerala" as a part of my course work.

You are being invited to participate in this research study. Before you decide on whether to participate in this study or not, you must understand why the research is being done and what it will involve. Please read/listen to the information sheet and the consent form carefully and don't hesitate to ask if you have any doubts.

Purpose of the study

Cyberchondria has been defined as excessive or repeated online searching for health-related information, this happens when trying to ease health anxiety, but it ends up worsening instead. The purpose of this study is to find the Extent of cyberchondria among adults in Thrissur corporation, Kerala.

Procedure

If you agree to participate in the study, you will be asked to complete an interview schedule that will include questions focussed on demographic information, internet use, internet health search, and health-seeking actions. Additionally, I will use the Cyberchondria Severity Scale-12, to assess the severity of cyberchondria. The interview will take approximately 30-35 minutes of your valuable time.

Potential risks and Inconveniences

Participating in the study imposes no risk to your health. Although while answering some questions you may feel anxious.

Possible benefits

Your participation in the study will not give any direct benefit to you now other than knowing your Cyberchondria levels. However, the findings from the study will help us to understand the cyberchondria level present in the general population. If I feel that u may benefit from medical advice or counselling, I may inform you for the same. I can suggest someone if psychological counselling is needed. Please feel free to contact.

Cost and financial benefit

There is no cost for participation in this study. Participation is completely voluntary, and no payment will be provided. Similarly, money will not be taken from to participate in the study.

Confidentiality

Information obtained in this study will be kept strictly confidential. A participant identification number will be assigned to each participant which will help to maintain the strict confidentiality of the data collected. Your name will not be used in reporting information in publications or reports.

Withdrawal from the study

Your participation in the study will be completely voluntary. You are free and have the right to withdraw at any time during the study. There will be no penalty for withdrawal or not participating in the study.

Contact information

If you have any research-related questions, you may contact me

Dr Divya Abraham K

Principal Investigator

MPH 2023, AMCHSS, SCTIMST

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Alternatively, the member secretary of our institute's ethics committee at the following address:

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Annexure II

Participant Information Sheet (Malayalam)

അച്യുതമേനോൻ സെന്റർ ഫോർ ഹെൽത്ത് സയൻസ് സ്റ്റഡീസ് (എ.എം.സി.എച്ച്.എസ്.എസ്.)

ശ്രീ ചിത്ര തിരുനാൾ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഫോർ മെഡിക്കൽ സയൻസസ് ആൻഡ് ടെക്നോളജി

തിരുവനന്തപുരം – 11

പങ്കാളിയുടെ വിവര ഷീറ്റ്

ഡോ. ദിവ്യ അബ്രഹാം. കെ. എന്ന ഞാൻ തിരുവനന്തപുരം ശ്രീചിത്ര തിരുനാൾ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഫോർ മെഡിക്കൽ സയൻസസ് ആൻഡ് ടെക്നോളജിയിലെ അച്യുതമേനോൻ സെന്റർ ഫോർ ഹെൽത്ത് സയൻസ് സ്റ്റഡീസിൽ (എഎംസിഎച്ച്എസ്എസ്) മാസ്റ്റർ ഓഫ് പബ്ലിക് ഹെൽത്ത് (എംപിഎച്ച്) പഠിക്കുന്നു. എന്റെ കോഴ്സ് ജോലിയുടെ ഭാഗമായി "കേരളത്തിലെ തൃശ്ശൂർ കോർപ്പറേഷനിലെ മുതിർന്നവർക്കിടയിൽ സൈബർകോൺഡ്രിയയുടെ നിരക്ക്" ഞാൻ പഠിക്കുന്നു.

ഈ ഗവേഷണ പഠനത്തിൽ പങ്കെടുക്കാൻ നിങ്ങളെ ക്ഷണിക്കുകയാണ്. ഈ പഠനത്തിൽ പങ്കെടുക്കണോ വേണ്ടയോ എന്ന് തീരുമാനിക്കുന്നതിന് മുമ്പ്, എന്തുകൊണ്ടാണ് ഗവേഷണം നടത്തുന്നതെന്നും അതിൽ എന്തൊക്കെ ഉൾപ്പെടുമെന്നും നിങ്ങൾ മനസ്സിലാക്കണം. വിവര ഷീറ്റും സമ്മത പത്രവും ശ്രദ്ധാപൂർവ്വം വായിക്കുക / കേൾക്കുക, നിങ്ങൾക്ക് എന്തെങ്കിലും സംശയങ്ങൾ ഉണ്ടെങ്കിൽ ചോദിക്കാൻ മടിക്കരുത്.

പഠനത്തിന്റെ ഉദ്ദേശ്യം

ആരോഗ്യവുമായി ബന്ധപ്പെട്ട വിവരങ്ങൾക്കായി അമിതമായ അല്ലെങ്കിൽ ആവർത്തിച്ചുള്ള ഓൺലൈൻ തിരയലിനെ സൈബർകോൺഡ്രിയ എന്ന് നിർവചിച്ചിരിക്കുന്നു, ആരോഗ്യ ഉത്കണ്ഠ ലഘൂകരിക്കാൻ ശ്രമിക്കുമ്പോൾ ഇത് സംഭവിക്കുന്നു, പക്ഷേ പകരം ഇത് വഷളാകുന്നു. കേരളത്തിലെ തൃശ്ശൂർ കോർപ്പറേഷനിലെ മുതിർന്നവർക്കിടയിൽ സൈബർകോൺഡ്രിയയുടെ ശതമാനം കണ്ടെത്തുകയാണ് ഈ പഠനത്തിന്റെ ഉദ്ദേശ്യം.

നടപടിക്രമം

പഠനത്തിൽ പങ്കെടുക്കാൻ നിങ്ങൾ സമ്മതിക്കുന്നുവെങ്കിൽ, ഡെമോഗ്രാഫിക് വിവരങ്ങൾ, ഇന്റർനെറ്റ് ഉപയോഗം, ഇന്റർനെറ്റ് ആരോഗ്യ തിരയൽ, ആരോഗ്യം തേടുന്ന പ്രവർത്തനങ്ങൾ എന്നിവയിൽ ശ്രദ്ധ കേന്ദ്രീകരിക്കുന്ന ചോദ്യങ്ങൾ ഉൾപ്പെടുന്ന ഒരു അഭിമുഖ ഷെഡ്യൂൾ പൂർത്തിയാക്കാൻ നിങ്ങളോട് ആവശ്യപ്പെടും. കൂടാതെ, സൈബർകോൺഡ്രിയയുടെ തീവ്രത വിലയിരുത്തുന്നതിന് ഞങ്ങൾ സൈബർകോൺഡ്രിയ തീവ്രത സ്കെയിൽ -12 ഉപയോഗിക്കും.

അഭിമുഖത്തിന് നിങ്ങളുടെ വിലയേറിയ സമയത്തിന്റെ ഏകദേശം 30-35 മിനിറ്റ് എടുക്കും.

സംഭവ്യമായ അപകടസാധ്യതകളും അസൗകര്യങ്ങളും

പഠനത്തിൽ പങ്കെടുക്കുന്നത് നിങ്ങളുടെ ആരോഗ്യത്തിന് ഒരു അപകടവും വരുത്തുന്നില്ല. ചില ചോദ്യങ്ങൾക്ക് ഉത്തരം നൽകുമ്പോൾ നിങ്ങൾക്ക് ഉത് കണ് ഠ തോന്നിയേക്കാം.

സാധ്യമായ നേട്ടങ്ങൾ

പഠനത്തിലെ നിങ്ങളുടെ പങ്കാളിത്തം നിങ്ങളുടെ സൈബർകോൺഡ്രിയ നിലകൾ അറിയുകയല്ലാതെ ഇപ്പോൾ നിങ്ങൾക്ക് നേരിട്ടുള്ള പ്രയോജനമൊന്നും നൽകില്ല. എന്നിരുന്നാലും, പഠനത്തിൽ നിന്നുള്ള കണ്ടെത്തലുകൾ പൊതുജനങ്ങളിൽ നിലനിൽക്കുന്ന സൈബർകോൺഡ്രിയ നില മനസ്സിലാക്കാൻ ഞങ്ങളെ സഹായിക്കും. വൈദ്യോപദേശത്തിൽ നിന്നോ കൗൺസിലിംഗിൽ നിന്നോ നിങ്ങൾക്ക് പ്രയോജനം ലഭിച്ചേക്കാമെന്ന് എനിക്ക് തോന്നുന്നുവെങ്കിൽ, അതിനായി ഞാൻ നിങ്ങളെ അറിയിച്ചേക്കാം. സൈക്കോളജിക്കൽ കൗൺസിലിംഗ് ആവശ്യമാണെങ്കിൽ എനിക്ക് ആരെയെങ്കിലും നിർദ്ദേശിക്കാൻ കഴിയും. ദയവായി ബന്ധപ്പെടാൻ മടിക്കേണ്ടതില്ല.

ചെലവും സാമ്പത്തിക നേട്ടവും

ഈ പഠനത്തിലെ പങ്കാളിത്തത്തിന് ചെലവൊന്നുമില്ല. പങ്കാളിത്തം പൂർണ്ണമായും സ്വമേധയാ ഉള്ളതാണ്, ഒരു പണമിടപാടും നടത്തുകയില്ല. അതുപോലെ, പഠനത്തിൽ പങ്കെടുക്കുന്നതിന് പണം എടുക്കില്ല.

രഹസ്യാത്മകത

ഈ പഠനത്തിൽ നിന്ന് ലഭിക്കുന്ന വിവരങ്ങൾ കർശനമായി രഹസ്യാത്മകമായി സൂക്ഷിക്കും. ഓരോ പങ്കാളിക്കും ഒരു പങ്കാളി തിരിച്ചറിയൽ നമ്പർ നൽകും, ഇത് ശേഖരിച്ച ഡാറ്റയുടെ കർശനമായ രഹസ്യാത്മകത നിലനിർത്താൻ സഹായിക്കും. പ്രസിദ്ധീകരണങ്ങളിലോ റിപ്പോർട്ടുകളിലോ വിവരങ്ങൾ റിപ്പോർട്ട് ചെയ്യുന്നതിന് നിങ്ങളുടെ പേര് ഉപയോഗിക്കില്ല.

പഠനത്തിൽ നിന്നുള്ള പിൻവാങ്ങൽ

പഠനത്തിലെ നിങ്ങളുടെ പങ്കാളിത്തം പൂർണ്ണമായും സ്വമേധയാ ആയിരിക്കും. നിങ്ങൾക്ക് സ്വാതന്ത്ര്യമുണ്ട്, പഠന വേളയിൽ ഏത് സമയത്തും പിൻവാങ്ങാനുള്ള അവകാശമുണ്ട്. പഠനത്തിൽ നിന്ന് പിൻവാങ്ങുന്നതിനോ പങ്കെടുക്കാതിരിക്കുന്നതിനോ പിഴയൊന്നും ഉണ്ടായിരിക്കുന്നതല്ല.

സമ്പർക്ക വിവരങ്ങൾ

നിങ്ങൾക്ക് ഗവേഷണവുമായി ബന്ധപ്പെട്ട എന്തെങ്കിലും ചോദ്യങ്ങൾ ഉണ്ടെങ്കിൽ, നിങ്ങൾക്ക് എന്നെ ബന്ധപ്പെടാവുന്നതാണ്

ഡോ ദിവ്യ എബ്രഹാം കെ.

പ്രധാന അന്വേഷകൻ

MPH 2023, AMCHSS, SCTIMST

ബന്ധപ്പെടാനുള്ള നമ്പർ: 8943086250

ഇ-മെയില് : divyatreesa19@gmail.com

അല്ലെങ്കിൽ ഗൈഡ്,

ഡോ. ശ്രീകാന്ത് അമ്പാട്ടിപ്പുടി,

അസോസിയേറ്റ് പ്രൊഫസർ

അച്യുതമേനോൻ സെന്റർ ഫോർ ഹെൽത്ത് സയൻസ് സ്റ്റഡീസ്

SCTIMST, തിരുവനന്തപുരം

കേരളം-695011

ടെലിഫോൺ (ഓഫീസ്): 0471-2524233

ഇ-മെയില് : asrikant@sctimst.ac.in

പകരമായി, ഞങ്ങളുടെ ഇൻസ്റ്റിറ്റ്യൂട്ടിന്റെ നൈതിക സമിതിയുടെ മെമ്പർ സെക്രട്ടറി ഇനിപ്പറയുന്ന വിലാസത്തിൽ:

ഡോ. ശ്രീനിവാസ് ജി, ഡോ.

മെമ്പർ സെക്രട്ടറി സ്ഥാപന നൈതിക സമിതി

സ്റ്റിംസ്റ്റ്, തിരുവനന്തപുരം 695011

ഓഫീസ്: 04712524689

ഇ-മെയില് : iec.mem.sec@sctimst.ac.in

Annexure III

Informed Consent (English)

I confirm that I have read/ heard and understood the information regarding the study **"Extent of Cyberchondria among adults in Thrissur corporation, Kerala"** as provided in the participant information sheet. All my questions concerning this study have been answered satisfactorily. I also understand that my identity and personal information will be kept confidential. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without consequences.

By signing this form, I agree to participate in this study. A copy of this form has been given to me.

Date:

Place:

Name of the participant Signature/Thumb impression

Principal Investigator Signature

Annexure IV

Informed Consent (Malayalam)

സമ്മതപത്രം

വിവര ഷീറ്റിൽ നൽകിയിട്ടുള്ള "കേരളത്തിലെ തൃശ്ശൂർ കോർപ്പറേഷനിലെ മുതിർന്നവർക്കിടയിൽ സൈബർകോൺഡ്രിയയുടെ നിരക്ക്" എന്ന പഠനവുമായി ബന്ധപ്പെട്ട വിവരങ്ങൾ ഞാൻ വായിച്ചുവെന്നും കേട്ടുവെന്നും മനസ്സിലാക്കിയെന്നും ഞാൻ സ്ഥിരീകരിക്കുന്നു. ഈ പഠനവുമായി ബന്ധപ്പെട്ട എന്റെ എല്ലാ ചോദ്യങ്ങൾക്കും തൃപ്തികരമായ ഉത്തരം ലഭിച്ചിട്ടുണ്ട്. എന്റെ ഐഡന്റിറ്റിയും വ്യക്തിഗത വിവരങ്ങളും രഹസ്യസ്വഭാവത്തോടെ സൂക്ഷിക്കുമെന്നും ഞാൻ മനസ്സിലാക്കുന്നു. എന്റെ പങ്കാളിത്തം സ്വമേധയാ ഉള്ളതാണെന്നും ഒരു കാരണവും പ്രത്യാഘാതങ്ങളും നൽകാതെ ഏത് സമയത്തും പിൻവാങ്ങാൻ എനിക്ക് സ്വാതന്ത്ര്യമുണ്ടെന്നും ഞാൻ മനസ്സിലാക്കുന്നു.

ഈ പത്രം ഒപ്പിടുന്നതിലൂടെ, ഈ പഠനത്തിൽ പങ്കെടുക്കുന്നതിന് ഞാൻ സമ്മതിക്കുന്നു. ഈ ഫോമിന്റെ ഒരു പകർപ്പ് എനിക്ക് നൽകിയിട്ടുണ്ട്.

തീയതി:

സ്ഥലം:

പങ്കാളിയുടെ പേര് ഒപ്പ്/പെരുവിരലടയാളം

പ്രധാന അന്വേഷകന്റെ ഒപ്പ്

Annexure V

Interview Schedule (English)

1. GENERAL INFORMATION

1.1Participant ID				

(Two digit for ward and two digit for household)

1.2	Date and time of interview	

2. DEMOGRAPHIC INFORMATION

SL.No	Questions	Response
2.1	Age completed in years as of 1st January 2025	
2.2	Sex	□ 1. Male □ 2. Female □ 3.Transgender
2.3	What is your highest educational Qualification?	□ 1. No formal education □ 2. Up to Primary □ 3. Up to Secondary □ 4. Graduate □ 5.Postgraduate and above
2.4	What is your marital status?	□ 1. Unmarried □ 2.Married □ 3.Divorced □ 4. Widowed □ 5.Separated □ 6.Living with a partner
2.4.1	Are you currently pregnant?	□ 1.Yes □ 2.No

2.4.2	Do you have children?	□ 1.Yes □ 2.No
2.5	Do you have a ration card? If the answer in “No” skip to 2.6	□ 1. Yes □ 2. No
2.5.1	What is the colour of your ration card?	□ 1. Yellow □ 2. Pink □ 3. Blue □ 4. White
2.6	How satisfied are you with your current health?	□ 1. Very dissatisfied □ 2. Dissatisfied □ 3. Neither satisfied nor dissatisfied □ 4. Satisfied □ 5. Very satisfied
2.7	Do you have any health conditions that need regular medical care or treatment? (If the answer is “No” skip to 2.7)	□ 1. Yes □ 2. No
2.7.1	Please select if you have any of these health conditions (Multiple options are possible)	□ 1. Hypertension □ 2. Heart disease □ 3. Diabetes □ 4. COPD □ 5. Asthma □ 6. Osteoarthritis □ 7. Chronic pain □ 8. Depression □ 9. Anxiety □ 10. Stroke □ 11. Parkinson's disease □ 12. Chronic kidney disease □ 13. Cancer

		□ 14. Non-alcoholic fatty liver disease □ 15. Thyroid disorder □ 16. Others
2.7.2	If others, please specify	
2.8	Whether any of your family members currently residing with you have a health condition requiring regular medical care or treatment?	□ 1. Yes □ 2. No

3. CSS-12

Please read the following statements and indicate how they typically apply to you by circling 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.)

	Never	Rarely	Some-times	Often	Always
1. If I notice an unexplained bodily sensation I will search for it on the internet	1	2	3	4	5
2. Researching symptoms or perceived medical conditions online distracts me from reading news/sports/entertainment articles online	1	2	3	4	5
3. I read different web pages about the same perceived condition	1	2	3	4	5

4. I start to panic when I read online that a symptom I have is found in a rare/serious condition	1	2	3	4	5
5. Researching symptoms or perceived medical conditions online leads me to consult with my GP	1	2	3	4	5
6. I enter the same symptoms into a web search on more than one occasion	1	2	3	4	5
7. Researching symptoms or perceived medical conditions online interrupts my work (e.g. writing emails, working on word documents or spreadsheets)	1	2	3	4	5
8. I think I am fine until I read about a serious condition online	1	2	3	4	5
9. I feel more anxious or distressed after researching symptoms or perceived medical conditions online	1	2	3	4	5
10. Researching symptoms or perceived medical conditions online interrupts my offline social activities (e.g. reduces time spent with friends/family)	1	2	3	4	5
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)	1	2	3	4	5

12. Researching symptoms or perceived medical conditions online leads me to consult with other medical specialists (e.g. consultants)	1	2	3	4	5

4. INTERNET USE

SL.No	Questions	Response
4.1	Are you currently working? (If the answer is "No" skip to 4.2)	□ Yes □ No
4.1.1	Does your occupation involve internet usage?	□ 1. Never □ 2. Rarely □ 3. Sometimes □ 4. Often □ 5. Always
4.1.2	How many hours do you spend on the internet daily for work purpose?	
4.2	How many hours do you spend on the internet daily, excluding work-related activities?	
4.3	What were the most common reasons for using the internet? (multiple options are possible)	□ 1. Education/ Learning □ 2. Job-related work □ 3.Entertainment (movies, series, social media, gaming, etc.) □ 4. Online shopping □ 5. News □ 6. Health-related information □ 7. Others
4.3.1	If others, specify	

4.3.2	On these Could you please rank the reasons for using the internet, which is your top 3 priority?	□ Rank 1 □ Rank 2 □ Rank 3
4.4	In the last year, have you ever intentionally planned to limit your internet usage?	□ 1. Yes □ 2. No □ 3. Planned but couldn't □ 4. Planned and limited

5. INTERNET HEALTH SEARCH

SL.No	Questions	Response
5.1	Have you ever searched for health-related information on the internet? (If the answer is "No" go to "HEALTH SEEKING ACTIONS")	□ 1. Yes □ 2. No
5.2	When searching for health-related information online, do you primarily do it for yourself, others, or for both?	□ 1. For myself □ 2. For others □ 3.For myself and others
5.3	What were the most common reasons you searched for health information on the internet? (Multiple options are possible)	□ 1. Easy accessibility □ 2. Cheaper □ 3. Symptoms were mild □ 4. Fear of doctors □ 5. Unavailability of doctors □ 6. Unpleasant experience with doctors

		□ 7. Time constraints □ 8. Stigma with certain issues □ 9. Others
5.3.1	If others please specify	
5.4	What were all the main health problems you searched on the internet? (Multiple options are possible)	□ 1. Fever □ 2. Any pain (headache, stomach, etc) □ 3. Some tests or diagnostic procedures □ 4. Mental health issues □ 5. Sexual health issues □ 6. Pregnancy-related issues □ 7. Any chronic conditions □ 8. Skin-related issues □ 9. Others
5.4.1	If others, please specify	
5.5	What do you feel about the availability of health information online?	□ 1. The information available on the internet is too much □ 2. The information available on

		the internet is sufficient □ 3. The information available on the internet is not enough
5.6	Have you ever thought of the credibility of information on the internet?	□ 1. Yes □ 2. No
5.7	Which platforms do you use for online health-related searches? (Select all the options possible)	□ Search engines (e.g., Google, Bing) □ Social media platforms (e.g., Facebook, Instagram) □ Health-specific websites Forums or community □ Video platforms (e.g., YouTube) □ Mobile health apps □ Articles □ Other
5.7.2	If others, please specify	
5.8	Do you trust the health information online? (If the answer is “no” skip to 5.9)	□ 1. Yes □ 2. No
5.8.1	What factors make you trust the health information online? (Multiple options are possible)	□ 1. It is from a credible site □ 2. A famous person said it □ 3. It is claimed to be told by a doctor

		□ 4. It is claimed to be proven □ 5. I confirmed it with any other person □ 6. It's common □ 7. Others
5.8.2	If others, please specify	
5.8.3	Can you please tell of a site/few sites which according to you provides credible health related information.?	
5.8.4	Can you please tell of famous person/persons who made you trust that the health related information was credible?	
5.9	Have you ever felt that the internet always suggests a severe diagnosis?	□ 1. Yes □ 2. No
5.10	Have you ever experienced a situation where you began to believe you might have a medical condition or disorder after reading about it online?	□ 1. Yes □ 2. No

6. HEALTH SEEKING ACTIONS

SL.No	Questions	Response
6.1	How often do you visit a healthcare provider (doctor, nurse, or clinic) for general health checkups?	□ 1. Once a month □ 2. Every 3-6 months □ 3. Once a year □ 4. Only when I have symptoms

6.2	In the last year on an average, how many times did you fall sick? (If the answer is “never” skip to 6.2.2)	□ Never □ Occasionally (1-3 times) □ Frequently (4-6 times) □ Very frequently (>7 times)
6.2.1	Out of the times you fall sick, how often do you feel the need to visit a healthcare provider?	□ Never □ Sometimes □ Often □ Always
6.2.2	When you feel the need to visit a healthcare provider, how often are you able to actually go?	□ Never □ Sometimes □ Often □ Always
6.3	How satisfied are you with the interaction with the healthcare provider?	□ 1. Very satisfied □ 2. satisfied □ 3. Neutral □ 4. Dissatisfied □ 5. Very dissatisfied
6.4	Have you ever used medications or remedies without a healthcare provider’s advice or prescription due to the health suggestions obtained from the internet? If the answer is “No” skip to 6.5	□ 1. Yes □ 2. No
6.4.1	Can you recall for which condition you have used the medications or remedies without healthcare provider advice or prescription due to the health suggestions obtained from the internet?	

6.5	Have you ever stopped taking the medication without a doctor's advice due to the health suggestions obtained from the internet? If the answer is “No” skip to 6.6	□ 1. Yes □ 2. No
6.5.1	Can you recall for which condition you stopped taking the medication without a doctor's advice due to the health suggestions obtained from the internet?	
6.6	Have you ever done a diagnostic test/procedure without a doctor's advice due to the health suggestions obtained from the internet? If the answer is “No” skip to 6.7	□ 1. Yes □ 2. No
6.6.1	Can you recall for which condition you did diagnostic test/procedures without physicians’ advice due to health information obtained from online sources?	
6.7	Have you ever changed medicine due to the health suggestions obtained from the internet?	□ 1. Yes □ 2. No
6.7.1	Can you recall for which condition did you change medicine due to the health suggestions obtained from the internet?	

Annexure VI

Interview Schedule (Malayalam)

ഇന്റർവ്യൂ ഷെഡ്യൂൾ

1.പൊതുവായ വിവരങ്ങൾ

1.1 പങ്കാളിത്ത ഐഡി				

(വാർഡിന് രണ്ട് അക്കവും വീടിന് രണ്ട് അക്കവും)

1.2	ഇന്റർവ്യൂ തീയതിയും സമയവും	

2. ഡെമോഗ്രാഫിക് വിവരങ്ങൾ

ക്രമ നമ്പർ	**ചോദ്യങ്ങൾ**	**ഉത്തരം**
2.1	2025 ജനുവരി 1 വരെ പൂർത്തിയായ പ്രായം	
2.2	സെക്സ്	□ 1. പുരുഷൻ □ 2. സ്ത്രീ □ 3. ട്രാൻസ്ജെൻഡർ
2.3	നിങ്ങളുടെ ഏറ്റവും ഉയർന്ന വിദ്യാഭ്യാസ യോഗ്യത എന്താണ്?	□ 1. ഔപചാരിക വിദ്യാഭ്യാസം ഇല്ല □ 2. പ്രൈമറി വരെ □ 3. ദ്വിതീയം വരെ □ 4. ബിരുദധാരി □ 5. ബിരുദാനന്തര ബിരുദവും അതിനു മുകളിലും
2.4	നിങ്ങളുടെ വൈവാഹിക നില എന്താണ്?	□ 1. അവിവാഹിതൻ □ 2. വിവാഹിതൻ □ 3. വിവാഹമോചനം നേടി □ 4. വിധവ/വിഭാര്യ

		□ 5. വേർപിരിഞ്ഞു □ 6. പങ്കാളിയോടൊപ്പം ജീവിക്കുന്നു
2.4.1	നിങ്ങൾ ഇപ്പോൾ ഗർഭിണിയാണോ?	□ 1. അതെ □ 2.അല്ല
2.4.2	നിങ്ങൾക്ക് കുട്ടികളുണ്ടോ?	□ 1. ഉണ്ട് □ 2. ഇല്ല
2.5	നിങ്ങൾക്ക് റേഷൻ കാർഡ് ഉണ്ടോ? (ഉത്തരം "ഇല്ല" എന്നാണെങ്കിൽ 2.6 ലേക്ക് പോകുക)	□ 1. ഉണ്ട് □ 2. ഇല്ല
2.5.1	നിങ്ങളുടെ റേഷൻ കാർഡിന്റെ നിറമെന്താണ്?	□ 1. മഞ്ഞ □ 2. പിങ്ക് □ 3. നീല □ 4. വെള്ള
2.6	നിങ്ങളുടെ നിലവിലെ ആരോഗ്യത്തിൽ നിങ്ങൾക്ക് എത്രത്തോളം സംതൃപ്തിയുണ്ട്?	□ 1. വളരെ അസംതൃപ്തി ഉണ്ട് □ 2. അസംതൃപ്തി ഉണ്ട് □ 3. അസംതൃപ്തിയോ സംതൃപ്തിയോ ഇല്ല □ 4. സംതൃപ്തി ഉണ്ട് □ 5. വളരെ സംതൃപ്തി ഉണ്ട്
2.7	പതിവ് വൈദ്യ പരിചരണമോ ചികിത്സയോ ആവശ്യമുള്ള ഏതെങ്കിലും ആരോഗ്യ അവസ്ഥകൾ നിങ്ങൾക്കുണ്ടോ? (ഉത്തരം "ഇല്ല" എന്നാണെങ്കിൽ 2.7 ലേക്ക് പോകുക)	□ 1. ഉണ്ട് □ 2. ഇല്ല
2.7.1	നിങ്ങൾക്ക് ഈ ആരോഗ്യ അവസ്ഥകളിൽ ഏതെങ്കിലും നിങ്ങൾക്ക് ഉണ്ടെങ്കിൽ തിരഞ്ഞെടുക്കുക (ഒന്നിലധികം ഓപ്ഷനുകൾ സാധ്യമാണ്)	□ 1. ഉയർന്ന രക്തസമർദം □ 2. ഹൃദ്രോഗം □ 3. പ്രമേഹം □ 4. ദീർഘകാലമായുള്ള ശ്വാസംമുട്ട് □ 5. ആസ്ത്മ □ 6. വാതം

		□ 7. വിട്ടുമാറാത്ത വേദന □ 8. വിഷാദം □ 9. ഉത്കണ്ഠ □ 10. ഹൃദയാഘാതം □ 11. പാർക്കിൻസൺസ് രോഗം □ 12. വിട്ടുമാറാത്ത വൃക്കരോഗം □ 13. കാൻസർ □ 14. നോൺ ആൽക്കഹോളിക് ഫാറ്റി ലിവർ രോഗം □ 15. തൈറോയ്ഡ് രോഗം □ 16. മറ്റുള്ളവ
2.7.2	മറ്റുള്ളവ ഉണ്ടെങ്കിൽ ദയവായി വ്യക്തമാക്കുക	
2.8	നിങ്ങളോടൊപ്പം താമസിക്കുന്ന നിങ്ങളുടെ കുടുംബാംഗങ്ങളിൽ ആർക്കെങ്കിലും പതിവ് വൈദ്യ പരിചരണമോ ചികിത്സയോ ആവശ്യമുള്ള ആരോഗ്യ അവസ്ഥകൾ ഉണ്ടോ?	□ 1. ഉണ്ട് □ 2. ഇല്ല

3. CSS - 12

താഴെക്കൊടുത്തിരിക്കുന്ന പ്രസ്താവനകൾ വായിച്ച് അവയിലേതൊക്കെ നിങ്ങൾക്ക് ഏതളവിൽ അനുഭവപ്പെടുന്നുവെന്ന് ഉചിതമായ അക്കം വൃത്തത്തിലാക്കി വ്യക്തമാക്കുക. താഴത്തെ ചോദ്യാവലി ചില രോഗലക്ഷണങ്ങളെ സംബന്ധിക്കുന്നതാണെന്ന് ദയവായി ശ്രദ്ധിക്കുക.

(അതായത് നിങ്ങൾക്കുണ്ട് എന്ന് നിങ്ങൾക്ക് തോന്നുന്ന രോഗാവസ്ഥകളാണ് വ്യക്തമാക്കേണ്ടത്, അല്ലാതെ നിങ്ങൾക്കുണ്ടെന്ന് ഒരു സർക്കാരംഗീകൃത ഡോക്ടർ രോഗനിർണയം നടത്തിയ അവസ്ഥകളെപ്പറ്റിയല്ല നിങ്ങൾ വ്യക്തമാക്കേണ്ടത്.)

	ഒരിക്കലുമില്ല	അപൂർവമായി	ഇടയ്ക്കിടക്ക്	പലപ്പോഴും	എപ്പോഴും
1.ശരീരത്തിൽ വിശദീകരിക്കാനാകാത്ത ഒരനുഭൂതി ഉണ്ടായാൽ ഞാൻ അതിനെപ്പറ്റി ഇന്റർനെറ്റിൽ തെരഞ്ഞുനോക്കും	1	2	3	4	5
2.എനിക്കുണ്ടെന്നു ഞാൻ കരുതുന്ന രോഗലക്ഷണങ്ങളെപ്പറ്റിയോ അവസ്ഥകളെപ്പറ്റിയോ ഇൻറർനെറ്റിൽ വല്ലാതെ തിരയുന്നത് എന്നെ വാർത്ത/കായികം/വിനോദം സംബന്ധിച്ച ലേഖനങ്ങൾ വായിക്കുന്നതിൽനിന്നും ശ്രദ്ധതിരിക്കുന്നു	1	2	3	4	5
3.ഒരു രോഗാവസ്ഥയെപ്പറ്റി അറിയുന്നതിന് ഞാൻ പല വെബ് പേജുകളും വായിക്കാറുണ്ട്	1	2	3	4	5
4.എനിക്കുണ്ടെന്നു ഞാൻ കരുതുന്ന ഒരു രോഗലക്ഷണമോ അവസ്ഥയോ	1	2	3	4	5

ഒരപൂർവ്വ/ഗുരുതര രോഗത്തിന്റെ ലക്ഷണമാണെന്ന് ഇൻറർനെറ്റിൽ വായിച്ചാൽ ഞാൻ പരിഭ്രാന്തൻ/ പരിഭ്രാന്ത ആകാറുണ്ട്					
5.ഞാൻ കരുതുന്ന രോഗലക്ഷണങ്ങളെപ്പറ്റിയോ അവസ്ഥകളെപ്പറ്റിയോ ഇൻറർനെറ്റിൽ തിരയുന്നത് എന്നെ പൊതുരോഗ ഡോക്ടറുടെ അടുത്തെത്തിക്കുന്നു.	1	2	3	4	5
6.ഒരേ രോഗലക്ഷണങ്ങളെക്കുറിച്ചറിയാൻ ഞാൻ പലതവണ ഇന്റർനെറ്റിൽ തിരയാറുണ്ട്	1	2	3	4	5
7.രോഗലക്ഷണങ്ങളെപ്പറ്റിയോ അവസ്ഥകളെപ്പറ്റിയോ ഇൻറർനെറ്റിൽ തിരയുന്നത് എന്റെ ജോലി തടസ്സപ്പെടുത്താറുണ്ട് (ഉദാഹരത്തിന്, ഈമെയിൽ എഴുതുന്നതിന്, വേർഡ്	1	2	3	4	5

ഡോക്യുമെന്റ് അല്ലെങ്കിൽ സ്പ്രെഡ്ഷീറ്റ് ഉണ്ടാക്കുന്നതിന്).					
8.ഗുരുതരമായ ഒരു അവസ്ഥയെക്കുറിച്ച് ഓൺലൈനിൽ വായിക്കുന്നതുവരെ ഞാൻ സുഖമായിരിക്കുന്നു വെന്ന് ഞാൻ കരുതുന്നു	1	2	3	4	5
9.ഇന്റർനെറ്റിൽ ഒരു ഗുരുതര രോഗലക്ഷണത്തെപ്പ റ്റിയോ അവസ്ഥയെപ്പറ്റിയോ വായിച്ചതിനുശേഷം എനിക്ക് ഉത്കണ്ഠയോ ആകുലതയോഅനുഭ വപ്പെടുന്നു	1	2	3	4	5
10.ഗുരുതര രോഗലക്ഷണങ്ങളെപ്പ റ്റിയോ അവസ്ഥകളെപ്പറ്റിയോ ഇന്റർനെറ്റിൽ തിരയുന്നത് എന്റെ ഓഫ്ലൈൻ സാമൂഹികപ്രവർത്ത നങ്ങളെ തടസ്സപ്പെടുത്തുന്നു (ഉദാഹരണത്തിന്, കൂട്ടുകാരും	1	2	3	4	5

കുടുംബവുമായി സമയം ചെലവിടുന്നത് കുറയുന്നു).					
11.ഞാനെന്റെ പൊതുരോഗ ഡോക്ടറോടോ ആരോഗ്യ വിദഗ്ധനോടോ എനിക്ക് ഒരു രോഗനിർണയനടപടി ക്രമം വേണ്ടിവന്നേക്കുമെന്ന് നിർദ്ദേശിക്കുന്നു (ഉദാഹരണത്തിന്, ഒരു ബയോപ്സിയോ ഒരു പ്രത്യേക രക്തപരിശോധനയോ) .	1	2	3	4	5
12.ഗുരുതര രോഗലക്ഷണങ്ങളെപ്പറ്റിയോ അവസ്ഥകളെപ്പറ്റിയോ ഇന്റർനെറ്റിൽ തിരയുന്നത് എന്നെ മറ്റാരോഗ്യവിദഗ്ദ്ധരുടെ ഉപദേശം തേടുന്നതിലേക്ക് നയിക്കുന്നു (ഉദാഹരണത്തിന്, വിദഗ്ദോപദേശം നൽകുന്ന ഡോക്ടർ).	1	2	3	4	5

4. ഇന്റർനെറ്റ് ഉപയോഗം

ക്രമ നമ്പർ	ചോദ്യങ്ങൾ	ഉത്തരം
4.1	നിങ്ങൾ ഇപ്പോൾ ജോലി ചെയ്യുന്നുണ്ടോ? (ഉത്തരം "ഇല്ല" എന്നാണെങ്കിൽ 4.2 ലേക്ക് പോകുക)	□ 1. ഉണ്ട് □ 2. ഇല്ല
4.1.1	നിങ്ങളുടെ തൊഴിലിൽ ഇന്റർനെറ്റ് ഉപയോഗം ഉൾപ്പെടുന്നുണ്ടോ?	□ 1. ഒരിക്കലുമില്ല □ 2. അപൂർവമായി □ 3. ഇടയ്ക്കിടക്ക് □ 4. പലപ്പോഴും □ 5. എല്ലായ്പ്പോഴും
4.1.2	ജോലി ആവശ്യത്തിനായി നിങ്ങൾ പ്രതിദിനം എത്ര മണിക്കൂർ ഇന്റർനെറ്റിൽ ചെലവഴിക്കുന്നു?	
4.2	ജോലി സംബന്ധമായ പ്രവർത്തനങ്ങൾ ഒഴികെ, നിങ്ങൾ പ്രതിദിനം എത്ര മണിക്കൂർ ഇന്റർനെറ്റിൽ ചെലവഴിക്കുന്നു?	
4.3	ഏത് ആവശ്യങ്ങൾക്കാണ് നിങ്ങൾ സാധാരണയായി ഇന്റർനെറ്റ് ഉപയോഗിക്കുന്നത്? (ഒന്നിലധികം ഓപ്ഷനുകൾ സാധ്യമാണ്)	□ 1. വിദ്യാഭ്യാസം / പഠനം □ 2. ജോലിയുമായി ബന്ധപ്പെട്ടത് □ 3. വിനോദം (സിനിമകൾ, സീരീസ്, സോഷ്യൽ

		മീഡിയ, ഗെയിമിംഗ് മുതലായവ) □ 4. ഓൺലൈൻ ഷോപ്പിംഗ് □ 5. വാർത്തകൾ □ 6. ആരോഗ്യവുമായി ബന്ധപ്പെട്ട വിവരങ്ങൾ □ 7. മറ്റുള്ളവ
4.3.1	മറ്റുള്ളവ ഉണ്ടെങ്കിൽ ദയവായി വ്യക്തമാക്കുക	
4.3.2	ഇവയിൽ ഇന്റർനെറ്റ് ഉപയോഗിക്കുന്നതിനുള്ള കാരണങ്ങൾ ദയവായി റാങ്കുചെയ്യാമോ, നിങ്ങളുടെ മികച്ച 3 മുൻഗണന ഏതാണ്?	□ 1.റാങ്ക് 1 □ 2.റാങ്ക് 2 □ 3.റാങ്ക് 3
4.4	കഴിഞ്ഞ വർഷം നിങ്ങളുടെ ഇന്റർനെറ്റ് ഉപയോഗം പരിമിതപ്പെടുത്താൻ നിങ്ങൾ എപ്പോഴെങ്കിലും മനഃപൂർവ്വം പദ്ധതിയിട്ടിട്ടുണ്ടോ?	□ 1. ഉണ്ട് □ 2. ഇല്ല □ 3. ആസൂത്രണം ചെയ്തു, പക്ഷേ കഴിഞ്ഞില്ല □ 4.ആസൂത്രണം ചെയ്തു, പരിമിതപെടുത്തി

5. ഇന്റർനെറ്റിലെ ആരോഗ്യവുമായി ബന്ധപ്പെട്ട തിരയൽ

ക്രമ നമ്പർ	ചോദ്യങ്ങൾ	ഉത്തരം
5.1	നിങ്ങൾ എപ്പോഴെങ്കിലും ഇന്റർനെറ്റിൽ	□ 1. ഉണ്ട് □ 2. ഇല്ല

	ആരോഗ്യവുമായി ബന്ധപ്പെട്ട വിവരങ്ങൾ തിരഞ്ഞിട്ടുണ്ടോ? □ (ഉത്തരം "ഇല്ല" എന്നാണെങ്കിൽ പോകുക "ആരോഗ്യം തേടുന്ന പ്രവർത്തനങ്ങൾ " ലേക്ക് പോകുക)	
5.2	ആരോഗ്യവുമായി ബന്ധപ്പെട്ട വിവരങ്ങൾ ഓൺലൈനിൽ തിരയുമ്പോൾ, നിങ്ങൾ പ്രാഥമികമായി നിങ്ങൾക്കോ മറ്റുള്ളവർക്കോ അല്ലെങ്കിൽ രണ്ടു പേർക്കും വേണ്ടിയാണോ ഇത് ചെയ്യുന്നത്?	□ 1. എനിക്കുവേണ്ടി □ 2. മറ്റുള്ളവർക്കു വേണ്ടി □ 3. എനിക്കും മറ്റുള്ളവർക്കും വേണ്ടി
5.3	നിങ്ങൾ ഇന്റർനെറ്റിൽ ആരോഗ്യ വിവരങ്ങൾ തിരയാനുള്ള കാരണങ്ങൾ എന്തൊക്കെയായിരുന്നു? (ഒന്നിലധികം ഓപ്ഷനുകൾ സാധ്യമാണ്)	□ 1. എളുപ്പം എത്തിച്ചേരനാവുന്നതുകൊണ്ട് □ 2. വിലകുറഞ്ഞതുകൊണ്ട് □ 3. ലക്ഷണങ്ങൾ നേരിയതായിരുന്നു □ 4. ഡോക്ടർമാരോടുള്ള ഭയം □ 5. ഡോക്ടർമാരുടെ അഭാവം □ 6. ഡോക്ടർമാരിൽ നിന്നുണ്ടായ മോശം അനുഭവം □ 7. സമയ പരിമിതികൾ □ 8. ചില പ്രശ്നങ്ങളോടുള്ള വിമുഖത □ 9. മറ്റുള്ളവ
5.3.1	മറ്റുള്ളവ ഉണ്ടെങ്കിൽ ദയവായി വ്യക്തമാക്കുക	

5.4	നിങ്ങൾ ഇന്റർനെറ്റിൽ തിരഞ്ഞ പ്രധാന ആരോഗ്യ പ്രശ്നങ്ങൾ എന്തൊക്കെയാണ്? (ഒന്നിലധികം ഓപ്ഷനുകൾ സാധ്യമാണ്)	□ 1. പനി □ 2. എന്തെങ്കിലും വേദന (തലവേദന, വയറ് മുതലായവ) □ 3. ചില ടെസ്റ്റുകൾ അല്ലെങ്കിൽ രോഗനിർണയ നടപടിക്രമങ്ങൾ □ 4. മാനസികാരോഗ്യ പ്രശ്നങ്ങൾ □ 5. ലൈംഗിക ആരോഗ്യ പ്രശ്നങ്ങൾ □ 6. ഗർഭധാരണവുമായി ബന്ധപ്പെട്ട പ്രശ്നങ്ങൾ □ 7. ഏതെങ്കിലും വിട്ടുമാറാത്ത അവസ്ഥകൾ □ 8. ചർമ്മ സംബന്ധമായ പ്രശ്നങ്ങൾ □ 9. മറ്റുള്ളവ
5.4.1	മറ്റുള്ളവ ഉണ്ടെങ്കിൽ ദയവായി വ്യക്തമാക്കുക	
5.5	ഓൺലൈനിൽ ആരോഗ്യ വിവരങ്ങളുടെ ലഭ്യതയെക്കുറിച്ച് നിങ്ങൾക്ക് എന്താണ് തോന്നുന്നത്?	□ 1. ഇന്റർനെറ്റിൽ ലഭ്യമായ വിവരങ്ങൾ വളരെ കൂടുതലാണ് □ 2. ഇന്റർനെറ്റിൽ ലഭ്യമായ വിവരങ്ങൾ മതിയാകും □ 3. ഇന്റർനെറ്റിൽ ലഭ്യമായ വിവരങ്ങൾ പര്യാപ്തമല്ല
5.6	ഇന്റർനെറ്റിലെ വിവരങ്ങളുടെ വിശ്വാസ്യതയെക്കുറിച്ച് നിങ്ങൾ എപ്പോഴെങ്കിലും ചിന്തിച്ചിട്ടുണ്ടോ?	□ 1. ഉണ്ട് □ 2. ഇല്ല
5.7	ഓൺലൈൻ ആരോഗ്യവുമായി ബന്ധപ്പെട്ട തിരയലുകൾക്കായി നിങ്ങൾ	□ 1.തിരയൽ എഞ്ചിനുകൾ (ഉദാഹരണത്തിന്, ഗൂഗിൾ, ബിംഗ്)

	ഏത് പ്ലാറ്റ്ഫോമുകളാണ് ഉപയോഗിക്കുന്നത്? (സാധ്യമായ എല്ലാ ഓപ്ഷനുകളും തിരഞ്ഞെടുക്കുക)	□ 2.സോഷ്യൽ മീഡിയ പ്ലാറ്റ്ഫോമുകൾ (ഉദാഹരണത്തിന്, ഫേസ്ബുക്ക്, ഇൻസ്റ്റാഗ്രാം) □ 3.ആരോഗ്യ നിർദ്ദിഷ്ട വെബ്സൈറ്റുകൾ ഫോറങ്ങൾ അല്ലെങ്കിൽ കമ്മ്യൂണിറ്റി □ 4.വീഡിയോ പ്ലാറ്റ്ഫോമുകൾ (ഉദാഹരണത്തിന്, യൂട്യൂബ്) □ 5.മൊബൈൽ ഹെൽത്ത് ആപ്ലിക്കേഷനുകൾ □ 6.ലേഖനങ്ങൾ □ 7.മറ്റുള്ളവ
5.7.2	മറ്റുള്ളവ ഉണ്ടെങ്കിൽ ദയവായി വ്യക്തമാക്കുക	
5.8	നിങ്ങൾ ഓൺലൈൻ ആരോഗ്യ വിവരങ്ങളിൽ വിശ്വസിക്കുന്നുണ്ടോ? (ഉത്തരം "" ആണെങ്കിൽ 5.9 ലേക്ക് പോകുക)	□ 1. ഉണ്ട് □ 2. ഇല്ല
5.8.1	ഓൺലൈൻ ആരോഗ്യ വിവരങ്ങളിൽ വിശ്വസിക്കാൻ നിങ്ങളെ പ്രേരിപ്പിക്കുന്ന ഘടകങ്ങൾ എന്തൊക്കെയാണ്? (ഒന്നിലധികം ഓപ്ഷനുകൾ സാധ്യമാണ്)	□ 1. ഇത് വിശ്വസനീയമായ സൈറ്റിൽ നിന്നുള്ളതാണ് □ 2. ഇത് ഒരു പ്രശസ്ത വ്യക്തി പറഞ്ഞതാണു □ 3. ഇത് ഒരു ഡോക്ടർ പറഞ്ഞതായി അവകാശപ്പെടുന്നു □ 4. ഇത് തെളിയിക്കപ്പെട്ടതായി അവകാശപ്പെടുന്നു □ 5. മറ്റേതെങ്കിലും വ്യക്തിയുമായി ഞാൻ ഇത് സ്ഥിരീകരിച്ചു □ 6. ഇത് സാധാരണമാണ്

		□ 7. മറ്റുള്ളവ
5.8.2	മറ്റുള്ളവ ഉണ്ടെങ്കിൽ ദയവായി വ്യക്തമാക്കുക	
5.8.3	നിങ്ങളുടെ അഭിപ്രായത്തിൽ വിശ്വസനീയമായ ആരോഗ്യ സംബന്ധിയായ വിവരങ്ങൾ നൽകുന്ന ഒരു സൈറ്റ് / കുറച്ച് സൈറ്റുകളെക്കുറിച്ച് നിങ്ങൾക്ക് പറയാമോ??	
5.8.4	ആരോഗ്യവുമായി ബന്ധപ്പെട്ട വിവരങ്ങൾ വിശ്വസനീയമാണെന്ന് നിങ്ങളെ വിശ്വസിപ്പിച്ച പ്രശസ്ത വ്യക്തിയെക്കുറിച്ച് / വ്യക്തികളെക്കുറിച്ച് നിങ്ങൾക്ക് പറയാമോ?	
5.9	ഇന്റർനെറ്റ് എല്ലായ്പ്പോഴും കഠിനമായ രോഗനിർണയം നിർദ്ദേശിക്കുന്നുവെന്ന് നിങ്ങൾക്ക് എപ്പോഴെങ്കിലും തോന്നിയിട്ടുണ്ടോ?	□ 1. ഉണ്ട് □ 2. ഇല്ല
5.10	ഓൺലൈനിൽ വായിച്ചതിന് ശേഷം നിങ്ങൾക്ക് ഒരു മെഡിക്കൽ അവസ്ഥയോ തകരാറോ ഉണ്ടെന്ന് വിശ്വസിക്കാൻ തുടങ്ങിയ ഒരു സാഹചര്യം നിങ്ങൾ എപ്പോഴെങ്കിലും അനുഭവിച്ചിട്ടുണ്ടോ?	□ 1. ഉണ്ട് □ 2. ഇല്ല

6. ആരോഗ്യം തേടുന്ന പ്രവർത്തനങ്ങൾ

ക്രമ നമ്പർ	ചോദ്യങ്ങൾ	ഉത്തരം
6.1	പൊതുവായ ആരോഗ്യ പരിശോധനകൾക്കായി നിങ്ങൾ എത്ര ഇടവിട്ടാണ് ഒരു ആരോഗ്യ ദാതാവിനെ (ഡോക്ടർ, നഴ്സ് അല്ലെങ്കിൽ ക്ലിനിക്ക്) സന്ദർശിക്കുന്നത്?	□ 1. മാസത്തിലൊരിക്കൽ □ 2. ഓരോ 3-6 മാസവും □ 3. വർഷത്തിൽ ഒരിക്കൽ □ 4. എനിക്ക് രോഗലക്ഷണങ്ങൾ ഉള്ളപ്പോൾ മാത്രം
6.2	കഴിഞ്ഞ വർഷം ശരാശരി എത്ര തവണ നിങ്ങൾക്ക് അസുഖം വന്നു? (ഉത്തരം "ഒരിക്കലുമില്ല" എന്നാണെങ്കിൽ 6.2.2 ലേക്ക് പോകുക)	□ 1.ഒരിക്കലുമില്ല □ 2.അപൂർവമായി (1-3 തവണ) □ 3.ഇടയ്ക്കിടെ (4-6 തവണ) □ 4.വളരെ ഇടയ്ക്കിടെ (>7 തവണ)
6.2.1	നിങ്ങൾക്ക് അസുഖം വരുന്ന സമയങ്ങളിൽ, ഒരു ആരോഗ്യ പരിരക്ഷാ ദാതാവിനെ സന്ദർശിക്കേണ്ടതിന്റെ ആവശ്യകത നിങ്ങൾക്ക് എത്ര ഇടവിട്ട് അനുഭവപ്പെടുന്നു?	□ 1.ഒരിക്കലുമില്ല □ 2.ചിലപ്പോൾ □ 3.പലപ്പോഴും □ 4.എപ്പോഴും
6.2.2	ഒരു ആരോഗ്യ പരിരക്ഷാ ദാതാവിനെ സന്ദർശിക്കേണ്ടതിന്റെ ആവശ്യകത നിങ്ങൾക്ക് തോന്നുമ്പോൾ, നിങ്ങൾക്ക് എത്ര ഇടവിട്ട് പോകാൻ കഴിയും?	□ 1.ഒരിക്കലുമില്ല □ 2.ചിലപ്പോൾ □ 3.പലപ്പോഴും □ 4.എപ്പോഴും
6.3	ഒരു ആരോഗ്യ പരിരക്ഷാ ദാതാവുമായുള്ള ആശയവിനിമയത്തിൽ നിങ്ങൾക്ക് എത്രത്തോളം സംതൃപ്തിയുണ്ട്?	□ 1. വളരെ സംതൃപ്തി □ 2. സംതൃപ്തി □ 3. നിഷ്പക്ഷത □ 4. അസംതൃപ്തി □ 5. വളരെ അസംതൃപ്തി
6.4	ഇന്റർനെറ്റിൽ നിന്ന് ലഭിക്കുന്ന ആരോഗ്യ നിർദ്ദേശങ്ങൾ കാരണം ഒരു	□ 1. ഉണ്ട്

	ആരോഗ്യ പരിപാലന ദാതാവിന്റെ ഉപദേശമോ കുറിപ്പടിയോ ഇല്ലാതെ നിങ്ങൾ എപ്പോഴെങ്കിലും മരുന്നുകളോ പരിഹാരങ്ങളോ ഉപയോഗിച്ചിട്ടുണ്ടോ? ഉത്തരം "ഇല്ല" എന്നാണെങ്കിൽ 6.5 ലേക്ക് പോകുക)	□ 2. ഇല്ല
6.4.1	ഇന്റർനെറ്റിൽ നിന്ന് ലഭിച്ച ആരോഗ്യ നിർദ്ദേശങ്ങൾ കാരണം ആരോഗ്യ പരിപാലന ദാതാവിന്റെ ഉപദേശമോ കുറിപ്പടിയോ ഇല്ലാതെ ഏത് അവസ്ഥയ്ക്കാണ് നിങ്ങൾ മരുന്നുകളോ പരിഹാരങ്ങളോ ഉപയോഗിച്ചതെന്ന് നിങ്ങൾക്ക് ഓർമ്മിക്കാൻ കഴിയുമോ?	
6.5	ഇന്റർനെറ്റിൽ നിന്ന് ലഭിച്ച ആരോഗ്യ നിർദ്ദേശങ്ങൾ കാരണം ഡോക്ടറുടെ ഉപദേശമില്ലാതെ നിങ്ങൾ എപ്പോഴെങ്കിലും മരുന്ന് കഴിക്കുന്നത് നിർത്തിയിട്ടുണ്ടോ? ഉത്തരം "ഇല്ല" എന്നാണെങ്കിൽ 6.6 ലേക്ക് പോകുക)	□ 1. ഉണ്ട് □ 2. ഇല്ല
6.5.1	ഇന്റർനെറ്റിൽ നിന്ന് ലഭിച്ച ആരോഗ്യ നിർദ്ദേശങ്ങൾ കാരണം ഡോക്ടറുടെ ഉപദേശമില്ലാതെ ഏത് അവസ്ഥയിലാണ് നിങ്ങൾ മരുന്ന് കഴിക്കുന്നത് നിർത്തിയതെന്ന് നിങ്ങൾക്ക് ഓർമ്മിക്കാൻ കഴിയുമോ?	
6.6	ഇന്റർനെറ്റിൽ നിന്ന് ലഭിച്ച ആരോഗ്യ നിർദ്ദേശങ്ങൾ കാരണം ഡോക്ടർമാരുടെ ഉപദേശമില്ലാതെ നിങ്ങൾ എപ്പോഴെങ്കിലും ഒരു	□ 1. ഉണ്ട് □ 2. ഇല്ല

	രോഗനിർണയ നടപടിക്രമം നടത്തിയിട്ടുണ്ടോ? ഉത്തരം "ഇല്ല" എന്നാണെങ്കിൽ 6.7 ലേക്ക് പോകുക)	
6.6.1	ഇന്റർനെറ്റിൽ നിന്ന് ലഭിച്ച ആരോഗ്യ നിർദ്ദേശങ്ങൾ കാരണം ഡോക്ടർമാരുടെ ഉപദേശമില്ലാതെ ഏത് അവസ്ഥയിലാണ് നിങ്ങൾ ഏതെങ്കിലും രോഗനിർണയ നടപടിക്രമം നടത്തിയതെന്ന് നിങ്ങൾക്ക് ഓർമ്മിക്കാൻ കഴിയുമോ?	
6.7	ഇന്റർനെറ്റിൽ നിന്ന് ലഭിച്ച ആരോഗ്യ നിർദ്ദേശങ്ങൾ കാരണം നിങ്ങൾ എപ്പോഴെങ്കിലും മരുന്ൽ മാറ്റം വരുത്തിയിട്ടുണ്ടോ?	□ 1. ഉണ്ട് □ 2. ഇല്ല
6.7.1	ഇന്റർനെറ്റിൽ നിന്ന് ലഭിച്ച ആരോഗ്യ നിർദ്ദേശങ്ങൾ കാരണം ഏത് അവസ്ഥയിലാണ് നിങ്ങൾ മരുന്ന് മാറ്റിയതെന്ന് നിങ്ങൾക്ക് ഓർമ്മിക്കാൻ കഴിയുമോ?	

Annexure VII

IEC Approval Certificate

श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, त्रिवेन्द्रम
तिरुवनन्तपुरम - ६९५०११, केरल, इंडिया
SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY, TRIVANDRUM
Thiruvananthapuram - 695 011, Kerala, India
(An Institute of National Importance under Govt. of India)
Grams : Chitramet, Phone : +91-471-2443152, Fax : +91-471-2550728 / 2446433, E-mail : sct@sctimst.ac.in, Website : www.sctimst.ac.in

Institutional Ethics Committee
CDSCO Registration No: ECR/189/Inst/KL/2013/RR-24
DHR Registration No:EC/NEW/INST/2022/2775

SCT/IEC/2332/DECEMBER/2024 28.03.2025

Dr. Divya Abraham K
MPH Student, AMCHSS
SCTIMST, Thiruvananathapuram

Dear Dr. Divya Abraham,

The Institutional Ethics Committee held on 30th December, 2024, reviewed and discussed your application to conduct the study titled "**EXTENT OF CYBERCHONDRIA AMONG ADULTS IN THRISSUR CORPORATION, KERALA**" **(IEC /2332)** .

Principal Investigator	Dr. Divya Abraham K, MPH Student, AMCHSS, SCTIMST
Co-Principal Investigator(s)	Dr. Srikant A, Associate Professor, AMCHSS, SCTIMST
Duration of the study	6 months

The following members of the Ethics Committee were present at the meeting held on 30th December, 2024

SL. No.	Member Name	Highest Degree	Gender	Scientific /Non Scientific	Affiliation with Institution(s)
1.	Dr. Manoj Murhekar	MD (Preventive & Social Medicine)	Male	Social Scientist	No
2.	Dr. Annapurna.Y	MD	Female	Basic Medical Scientist	No
3.	Adv. Priya Kaimal	LLM, MBL	Female	Legal Expert	No
4.	Dr. Indu PV	MBBS, DPM, MPhil, PhD	Female	Clinician	No
5.	Dr. Rejnish Kumar	MBBS,MD ,DNB	Male	Clinician	No
6.	Smt. Rekha Radhakrishnan	M.A (Eng.); B.Ed	Female	Lay person	No
7.	Dr. Biju Soman	MBBS,MD, DPH, MSc, DLSHTM	Male	Basic Medical Scientist	Yes
8.	Dr. Syam K	MBBS, MD, DM	Male	Clinician	Yes
9.	Dr. Srinivas G	PhD	Male	Basic Medical Scientist (Member Secretary)	Yes

1

The following documents were reviewed:

Original submission

1. *IEC Application Form*
2. *Funding details and Budget*
3. *Covering letter addressed to the Chairperson, IEC, SCTIMST dated 07.12.2024 forwarded by HOD*
4. *Interview schedule in English and Malayalam*
5. *Informed Consent Forms in English and Malayalam*
6. *Participant Information Sheets in English and Malayalam*
7. *Checklist Form*
8. *Proposal*
9. *Declaration Form*
10. *CV of PI and Co-PI*

Revised submission

1. *Covering letter addressed to the Member Secretary, IEC, SCTIMST dated 12.01.2025*
2. *IEC recommendation letter dated 09.01.2025*
3. *Proposal*
4. *Participant Information Sheets in English and Malayalam*
5. *Interview schedule in English and Malayalam*
6. *Informed Consent Forms in English and Malayalam*

Revised submission on 26.03.2025

1. *Covering letter addressed to the Member Secretary, IEC, SCTIMST dated 26.03.2025 regarding the change of the title and objective of the study*
2. *Proposal*
3. *Participant Information Sheets in English and Malayalam*
4. *Interview schedule in English and Malayalam*
5. *Informed Consent Forms in English and Malayalam*

IEC Decision
The IEC approved the conduct of the study in the present form.

Remarks:
The Institutional Ethics Committee expects to be informed about the progress of the study, any SAE occurring in the course of the study, any changes in the protocol and patient information/informed consent and asks to be provided a copy of the final report.

There was no member of the study team / Guide who participated in voting / decision making process. The ethics committee is organized and operated according to the requirements of Good Clinical Practice and the requirements of the Indian Council of Medical Research (ICMR).

Sincerely,

Dr. G. Srinivas
Member Secretary, IEC

MEMBER SECRETARY
INSTITUTIONAL ETHICS COMMITTEE (IEC)
SCTIMST, THIRUVANANTHAPURAM

SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES & TECHNOLOGY
INSTITUTIONAL ETHICS COMMITTEE (IEC)
SCTIMST
THIRUVANANTHAPURAM

Annexure VIII

Plagiarism Report

Thesis_Draft_1

ORIGINALITY REPORT

10%
SIMILARITY INDEX

PRIMARY SOURCES

1	dspace.sctimst.ac.in Internet	214 words — 2%
2	www.ncbi.nlm.nih.gov Internet	98 words — 1%
3	www.forbes.com Internet	50 words — < 1%
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7	journals.plos.org Internet	30 words — < 1%
8	Han Zheng, Xiaoyu Chen, Shaoxiong Fu. "An exploration of determinants of cyberchondria: A moderated mediation analysis", Proceedings of the Association for Information Science and Technology, 2020 Crossref	27 words — < 1%
9	stockdiscovery.s3.amazonaws.com Internet	25 words — < 1%