

A correlation study to assess the level of cyberchondria and health anxiety among adults of silvassa, DNH and DD with a view to develop an informational module

Authors;

Prof. Premkumar C.¹, Ms. Crystal Patel², Ms. Ritu Singh³

¹Associate Professor at Shri Vinoba Bhave College of Nursing, Silvassa, DNH and DD.

²Nursing Tutor at Shri Vinoba Bhave College of Nursing, Silvassa, DNH and DD.

³M.Sc. (N) student at Shri Vinoba Bhave College of Nursing, Silvassa, DNH and DD.

***Corresponding Author:**

Ms. Ritu Singh

<https://doi.org/10.5281/zenodo.15428933>

Article Received: 20-March-2025, Revised: 10-April-2025, Accepted: 30-April-2025

ABSTRACT:

Background: In the digital era, access to medical information has become more readily available than ever before. The internet, with its vast array of health-related content, provides users with unprecedented opportunities to research medical symptoms, conditions, and treatments. **Aim:** The study was aimed at assessing the correlation between the level of cyberchondria and health anxiety among adults. **Methods:** This correlational study was conducted among adults selected by a convenient sampling technique and used modified CSS-12 and SHAI-14 as self-administered tools for data collection. **Result:** Among 388 respondents, age, gender, marital status, and income were having a significant association with the level of cyberchondria, and the same variables were not having a significant association with health anxiety. Pearson's coefficient of correlation analysis reflected a highly positive correlation between level of cyberchondria and health anxiety. **Conclusion:** As health anxiety is having a negative effect on the level of cyberchondria, preventive measures should be used by healthcare providers for the better mental health of the adults.

Keywords: *Level of Cyberchondria, Health Anxiety.*

INTRODUCTION:

The term cyberchondria first came in the U.K. press in the mid-1990s, and it comprises two parts: cyber" and hypochondriasis. Cyberchondria is defined as abnormal behaviour in which people excessively do an online health-related search that interrupts their daily life and causes distress.¹ In the digital age, the internet has become a primary source of health information for many individuals. However, this easy access to vast amounts of medical data can sometimes lead to cyberchondria conditions where individuals experience heightened anxiety about their health due to excessive online health-related information. Health anxiety, in general, involves excessive worry about one's health, which may not always be proportional to the actual medical evidence or conditions. Understanding the correlation between these phenomena is crucial for developing effective interventions.²

OBJECTIVES:

- To assess the level of cyberchondria and health anxiety among adults of Silvassa.

- To correlate the level of cyberchondria and health anxiety among adults of Silvassa.
- To find out the association between the level of cyberchondria and health anxiety in adults with their selected demographic variables.
- To develop and provide informational modules for prevention and management of cyberchondria and health anxiety.

MATERIAL AND METHODS:

The approach and design adopted for this research was a quantitative and correlational descriptive research design. The target population for this research was adults (18 to 60 years of age) of selected areas of Silvassa, selected by a non-probability convenient sampling technique. The sample size was 400, but 12 forms were filled out incompletely, so the final sample size for analysis was 388. The tools used for data collection were Modified CSS-12 with a reliability of ($r = 0.96$) and Modified SHAI-14 with a reliability of ($r = 0.87$) done by [1-week test-retest reliability]. The data was analysed by using descriptive and inferential statistics.

RESULTS:

Table: 1. Frequency and percentage wise distribution of adult population according to their demographic data. (N=388)

Demographic variables	Frequency	Percentage (%)
1.Age in years:		
18-30	234	60.31
31-40	84	21.65
41-50	62	15.98
51-60	8	2.06
2.Gender:		
Male	185	47.68
Female	203	52.32
Transgender	0	0
3.Marital status:		
Married	188	48.45
Unmarried	196	50.52
Divorced	1	0.26
Married separated	2	0.52
Widowed	1	0.26
4.Type of area:		
Urban	279	71.91
Rural	109	28.09
5.Education:		
Up to junior high school	19	4.90
High school	70	18.04
Higher secondary	78	20.10
Graduate	141	36.34
Postgraduate and above	80	20.62
6.Type of family:		
Nuclear	196	50.52
Joint	183	47.16
Extended	9	2.32
7.Chronic illness:		
Yes	13	3.35
No	375	96.65
8. Religion:		
Hindu	340	87.63
Christian	33	8.50
Muslim	13	3.35
Others	2	0.52
9. Family income:		
≥135169	54	13.92
67587-135168	10	2.58
50560-67586	21	5.41
33793-50559	111	28.61
20274-33792	92	23.71
6768-20273	48	12.37
≤6767	52	13.40
10. Working status:		
Currently working	240	61.86
currently not working	83	21.39
Retired	1	0.26
Never worked	64	16.49
11. Visited Psychiatric / psychologist for your mental health related issues:		

Yes	14	3.61
No	374	96.39
12. Usage of internet for health-related information		
<3 Hours	239	61.60
3-5 Hours	125	32.22
>5 Hours	24	6.18

Fig: 1. Percentage wise distribution to assess the level of Cyberchondria among adults of Silvassa, DNH and DD, (N=388)

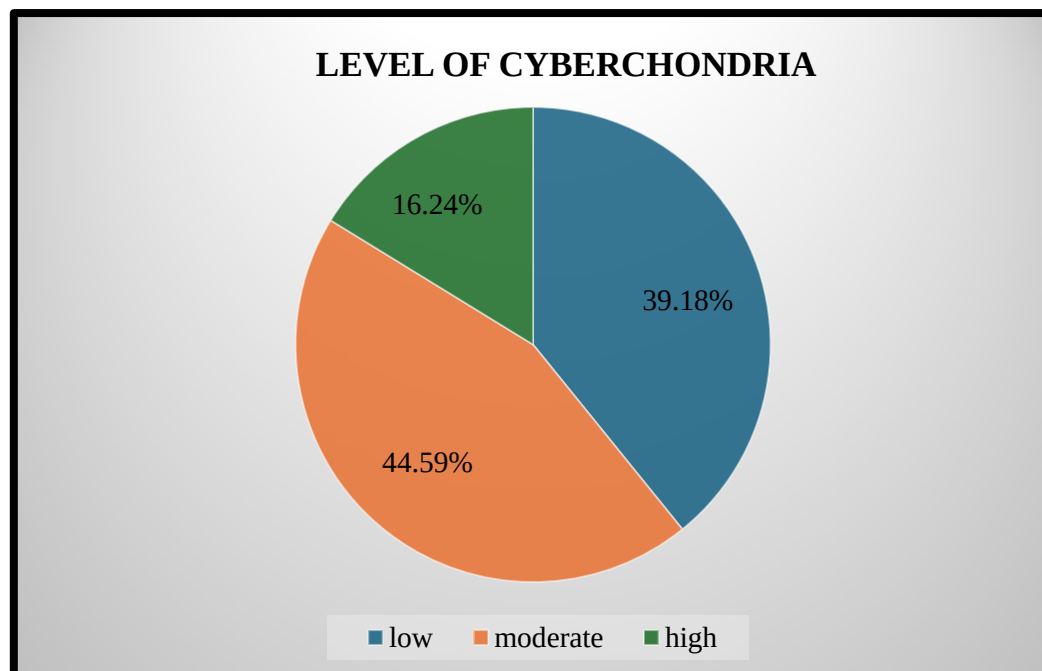


Fig: 2. Percentage wise distribution to assess the level of Health Anxiety among adults of Silvassa, DNH and DD (N=388)

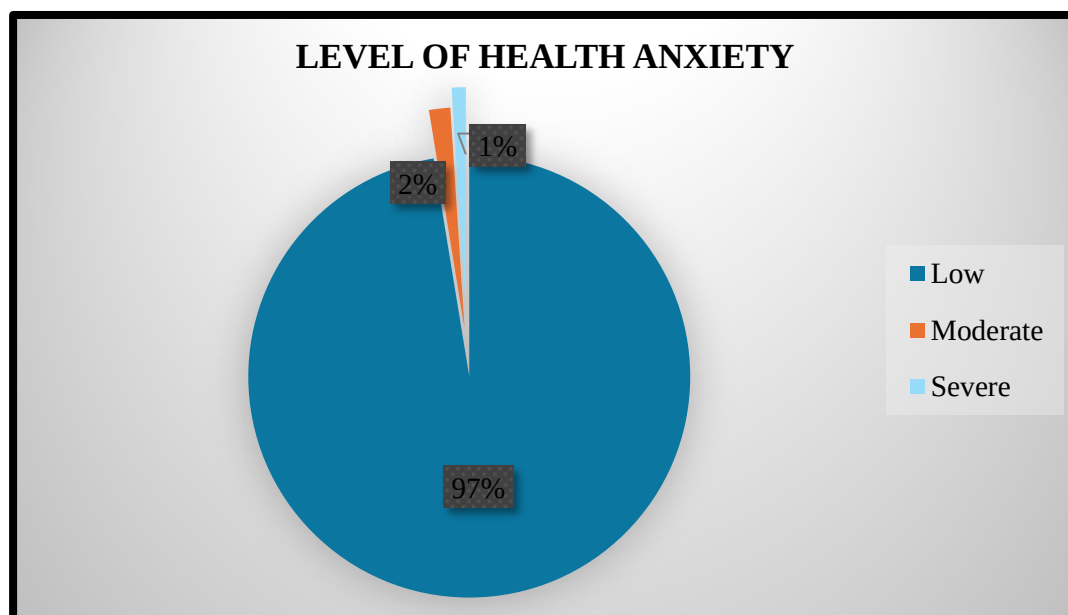


Table: 2. Correlation between Level of Cyberchondria and Health Anxiety among adults of Silvassa, DNH and DD. (N=388)

Sr. No.	Variables	Maximum Score	Mean	SD	'r' value	p-value
1.	Level of Cyberchondria	60	30.37	10.56	0.675	p<0.001*** (HS)
2.	Health Anxiety	42	16.56	6.38		

*p<0.05 significant, ** p<0.01 & ***p<0.001 Highly significant

Table: 3. Association between Level of Cyberchondria and demographic data. (N=388)

Demographic variables	Low		Moderate		High		χ^2 -value	p-value
	f	%	f	%	f	%		
1.Age in years:								
18-30	96	24.74	118	30.41	20	5.15	52.84 (df=6)	<0.001*** HS
31-40	27	6.96	43	11.08	14	3.61		
41-50	27	6.96	10	2.58	25	6.44		
51-60	2	0.52	2	0.52	4	1.03		
2.Gender:								
Male	68	17.53	69	17.78	48	12.37	25.27 (df=2)	<0.001*** HS
Female	84	21.65	104	26.80	15	3.87		
3.Marital status:								
Married	76	19.59	71	18.30	41	10.57	29.64 (df=8)	<0.001*** HS
Unmarried	76	19.59	101	26.03	19	4.90		
Divorced/Married separated /Widowed	0	0	1	0.26	3	0.78		
4.Type of area:								
Semi-urban	114	29.38	113	29.12	52	13.40	7.96 (df=2)	0.019* S
Rural	38	9.79	60	15.46	11	2.84		
5.Education:								
Up to junior high school	10	2.58	8	2.06	1	0.26	16.47 (df=8)	0.036* S
High school	35	9.02	33	8.51	2	0.52		
Higher secondary	27	6.96	37	9.54	14	3.61		
Graduate	51	13.14	60	15.46	30	7.73		
Postgraduate and above	29	7.47	35	9.02	16	4.12		
6.Type of family:								
Nuclear	76	19.59	85	21.91	35	9.02	1.805 (df=4)	0.772 NS
Joint	71	18.30	85	21.91	27	6.96		
Extended	5	1.29	3	0.77	1	0.26		
7.Chronic illness:								
Yes	2	0.52	6	1.55	5	1.29	6.04 (df=2)	0.049* S
No	150	38.66	167	43.04	58	14.95		
8. Religion:								
Hindu	142	36.60	156	40.21	42	10.82	35.43 (df=6)	<0.001*** HS
Christian	5	1.29	13	3.35	15	3.87		
Muslim	4	1.03	3	0.77	6	1.55		
Others	1	0.26	1	0.26	0	0		
9. Family income:								

≥135169	26	6.70	24	6.19	4	1.03	27.51 (df=12)	0.007** HS
67587-135168	2	0.52	8	2.06	0	0		
50560-67586	11	2.84	8	2.06	2	0.52		
33793-50559	45	11.60	47	12.1	19	4.90		
20274-33792	31	7.9	37	9.54	24	6.19		
6768-20273	25	6.44	19	4.90	4	1.03		
≤6767	12	3.09	30	7.73	10	2.58		
10. Working status:								
Currently working	87	22.42	108	27.84	45	11.6	13.51 (df=6)	0.036* S
Currently not working	28	7.22	41	10.57	14	3.61		
Retired	1	0.26	0	0	0	0		
Never worked	36	9.28	24	6.19	4	1.03		
11. psychiatric / psychologist for your mental health related issues:								
Yes	6	1.55	4	1.03	4	1.03	2.25 (df=2)	0.325 NS
No	145	37.63	169	43.56	59	15.21		
12. Usage of internet for health-related information.								
<3 hours	112	28.87	93	23.97	34	8.76	15.96 (df=4)	0.003** HS
3-5 hours	32	8.25	68	17.53	25	6.44		
>5 hours	8	2.06	12	3.09	4	1.03		

*-P<0.05 significant and *-P<0.01 &**-P<0.001 Highly significant, (Note: Significant at level of 0.05 level of significance, S-Significant, NS- Not Significant)

Table: 4. Association between Health Anxiety and Demographic data. (N=388)

Demographic variables	Mild		Moderate		severe		χ ² -value	p-value
	f	%	f	%	f	%		
1.Age in years:								
18-30	224	57.73	6	1.55	4	1.03	6.76 (df=6)	0.344 NS
31-40	84	21.65	0	0	0	0		
41-50	62	15.98	0	0	0	0		
51-60	8	2.06	0	0	0	0		
2.Gender:								
Male	182	46.91	1	0.26	2	0.52	2.36 (df=2)	0.308 NS
Female	196	50.52	5	1.29	2	0.52		
3.Marital status:								
Married	185	47.68	1	0.26	2	0.52	2.67 (df=8)	0.953 NS
Unmarried	189	48.71	5	1.29	2	0.52		
Divorced/Married separated /Widowed	4	1.04	0	0	0	0		
4.Type of area:								
Semi urban	270	69.59	6	1.55	3	0.77	2.41 (df=2)	0.300 NS
Rural	108	27.84	0	0	1	0.26		
5.Education:								
Up to junior high school							14.43 (df=8)	0.071 NS
High school	19	4.90	0	0	0	0		
Higher secondary	69	17.78	0	0	1	0.26		
Graduate	78	20.10	0	0	0	0		
Postgraduate and above	132	34.02	6	1.55	3	0.77		

	80	20.62	0	0	0	0		
6.Type of family:								
Nuclear	192	49.48	3	0.77	1	0.26	9.62	0.047*
Joint	178	45.88	3	0.77	2	0.52	(df=4)	S
Extended	8	2.06	0	0	1	0.26		
7.Chronic illness:								
Yes	12	3.09	1	0.26	0	0	3.46	0.177
No	366	94.33	5	1.29	4	1.03	(df=2)	NS
8. Religion:								
Hindu	330	85.05	6	1.55	4	1.03	1.45	0.963
Christian	33	8.51	0	0	0	0	(df=6)	NS
Muslim	13	3.35	0	0	0	0		
Others	2	0.52	0	0	0	0		
9. Family income:								
≥135169	51	13.14	2	0.52	1	0.26		
67587-135168	10	2.58	0	0	0	0	14.13	0.292
50560-67586	21	5.41	0	0	0	0	(df=12)	NS
33793-50559	104	26.80	4	1.03	3	0.77		
20274-33792	92	23.71	0	0	0	0		
6768-20273	48	12.37	0	0	0	0		
≤6767	52	13.40	0	0	0	0		
10. Working status:								
Currently working	234	60.31	3	0.77	3	0.77		
Currently not working	80	20.62	2	0.52	1	0.26		
Retired	1	0.26	0	0	0	0	1.37	0.967
Never worked	63	16.24	1	0.26	0	0	(df=6)	NS
11. psychiatric / psychologist for your mental health related issues:								
Yes	14	3.61	0	0	0	0	0.384	0.825
No	364	93.81	6	1.55	4	1.03	(df=2)	NS
12. Usage of internet for health-related information.								
<3 hours								
3-5 hours	234	60.31	4	1.03	1	0.26	4.95	0.293
>5 hours	121	31.19	1	0.26	3	0.77	(df=4)	NS
	23	5.93	1	0.26	0	0		

*-P<0.05 significant and *-P<0.01 &**-P<0.001 Highly significant, (Note: Significant at level of 0.05 level of significance, S-Significant, NS- Not Significant)

DISCUSSION:

The finding of the study was addressing the level of cyberchondria and health anxiety among adults of selected areas of Silvassa, DNH, and DD: 39.18% of adults were found to be at a low level of cyberchondria, 44.59% were found to be at a moderate level of cyberchondria, and 16.24% were found to be at a high level of cyberchondria, and 97.42% of adults were found to have mild health anxiety. However, individuals without Cyberchondria also exhibited health anxiety, with the highly positive correlation $r = 0.675$. The similar study was done with the aim to examine the moderating role of health literacy and health promotion behaviour and the mediating role of emotional regulation between health anxiety and cyberchondria among 755 residents of the Pakistani

population, resulting in the finding that health anxiety has a significant positive correlation with cyberchondria ($r=0.54$, $p<0.01$).³

CONCLUSION:

This study represents that cyberchondria is the newer cause of health anxiety, it is needed to be take measures for evaluation, prevention, and treatment and awareness programs should be conducted to enhance the professional consultation.

ACKNOWLEDGEMENT:

The author expresses their gratitude to all who supported directly or indirectly to complete this research study.

CONFLICT OF INTEREST:

There is no conflict of interest.

REFERENCES:

1. Nadeem F, Malik NI, Atta M, Ullah I, Martinotti G, Pettoruso M, VellanteF, Di Giannantonio M, De Berardis D. Relationship between Health-Anxiety and Cyberchondria: Role of Metacognitive Beliefs. *J Clin Med*. 2022;11(9):2590. doi: 10.3390/jcm11092590
2. White KM, Horvitz E. Cyberchondria: Studies of the relationship between health anxiety and online health information. *J Anxiety Disorder*. 2009;23(6):725-34.
3. Fang S, Mushtaque I. The Moderating Role of Health Literacy andHealthPromoting Behavior in the Relationship Among Health Anxiety, Emotional Regulation, and Cyberchondria. *Psychology Research and Behavior Management*. 2024 Dec 31:51-62.