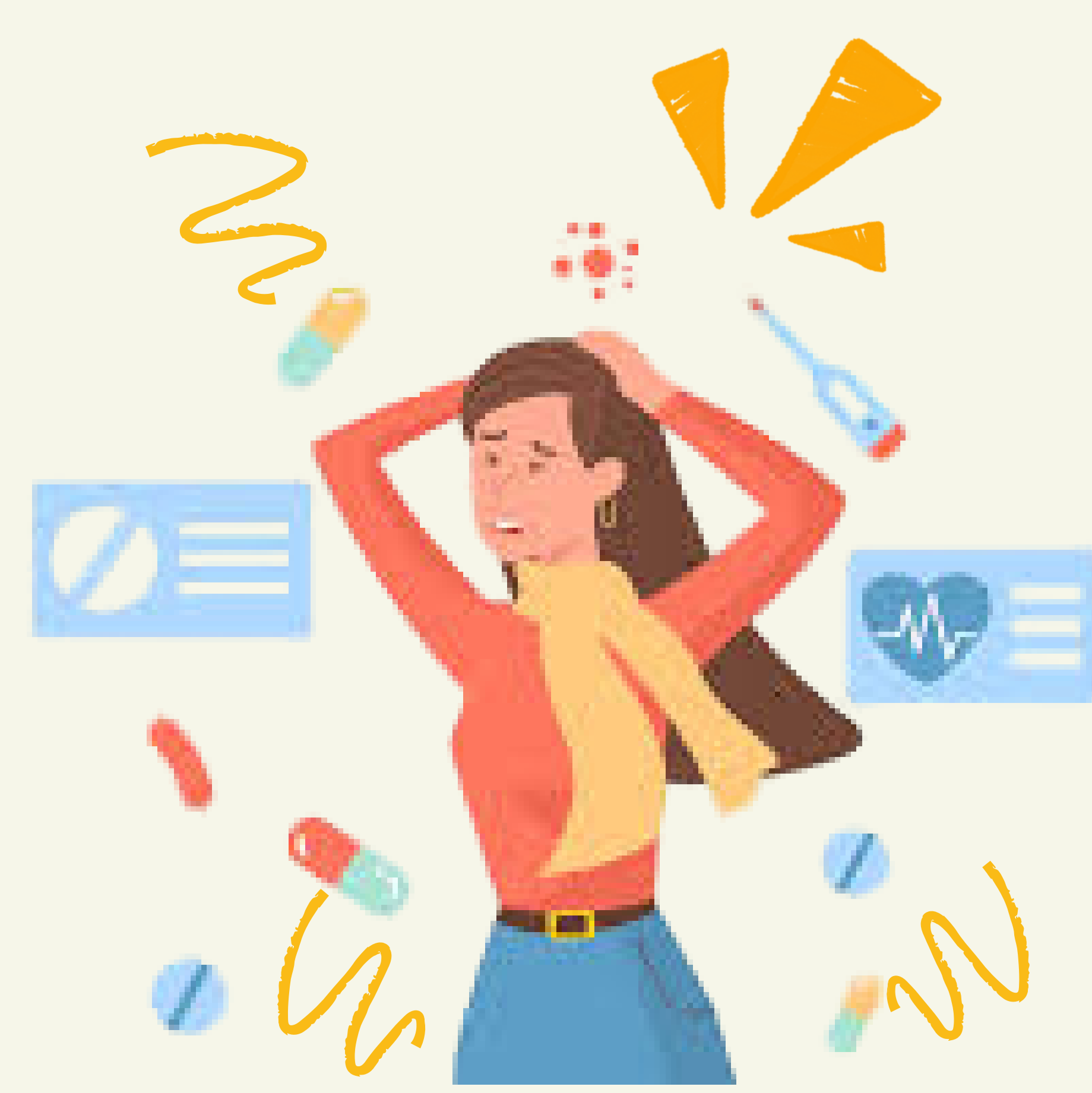# FROM SYMPTOMS TO CYBERCHONDRIA: UNRAVELING THE PSYCHOLOGICAL TRIGGERS IN ONLINE HEALTH ANXIETY

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ABSTRACT

People experiencing cyberchondria tend to compulsively search the internet for information about symptoms they may be experiencing, and they often misinterpret benign symptoms as signs of serious illnesses This study examines how health anxiety mediates the relationship between somatic symptoms and cyberchondria and explores whether obsessive-compulsive tendencies influence this mediation. Results indicated that somatic symptoms had positive direct effects on health anxiety and cyberchondria and health anxiety had a positive direct effect on cyberchondria. Health anxiety mediated between somatic symptoms and cyberchondria and obsessive-compulsive tendencies acted as the second-order moderator of this mediated effect suggesting that obsessive-compulsive tendencies weakened the positive association between health anxiety and cyberchondria. However, obsessive-compulsive tendencies had no direct effect on cyberchondria.

INTRODUCTION

The rise of cyberchondria, where individuals experience anxiety from excessive online health searches, has become a growing concern. Research suggests that somatic symptoms can increase both health anxiety and cyberchondria, but the role of obsessive-compulsive tendencies in this process is not well understood. This study examines how health anxiety mediates the relationship between somatic symptoms and cyberchondria and explores whether obsessive-compulsive tendencies influence this mediation.

Objectives The following are the objectives of the study: 1.To investigate the relationship of somatic symptoms with health anxiety and cyberchondria. 2.To study the relationship of health anxiety with cyberchondria. 3.To explore the mediating role of health anxiety in the relationship of somatic symptoms and cyberchondria. 4.To explore the moderating role of obsessive-compulsive tendencies in the mediating relationship of somatic symptoms and cyberchondria through health anxiety.

METHOD

Sample: A purposive sample of 300 adults including 150 ill with chronic illness and 150 healthy community controls was recruited from OPDs of various hospitals and universities in Sialkot city, respectively. The participants had completed at least 14 years of education, had internet access, and searched for health-related content online at least once a week.

Instruments: The Cyberchondria Severity Scale-12 (CSS-12; McElroy et al., 2019), The Short Health Anxiety Inventory (SHAI; (Salkovskis et al., 2002), The Obsessive-Compulsive Inventory-Revised (OCI-R; Foa et al., 2002), and Somatic Symptom Scale (SSS-8; Gierk et al., 2014).

Hypotheses: The following are the hypotheses of the study: 1. Somatic symptoms will have positive direct effects on health anxiety and cyberchondria and health anxiety will have a positive direct effect on cyberchondria. 2. Health anxiety will mediate the relationship of somatic symptoms and cyberchondria. 3. The positive association of indirect effect of somatic symptoms on cyberchondria through health anxiety will be stronger in adults with obsessive-compulsive tendencies.

RESULTS & DISCUSSION

Results indicated thatsomatic symptoms had positive direct effects on health anxiety and cyberchondria and health anxiety had a positive direct effect on cyberchondria. Health anxiety mediated between somatic symptoms and cyberchondria and obsessive-compulsive tendencies acted as the second-order moderator of this mediated effect suggesting that obsessive compulsive tendencies weakened the positive association between health anxiety and cyberchondria, although obsessive□compulsive tendencies had no direct effect on cyberchondria. Finally, as indicated by a significant index of moderated mediation, obsessive-compulsive tendencies weakened the positive indirect effect of somatic symptoms on cyberchondria through health anxiety. The findings align with prior research showing health anxiety as a key mediator linking somatic symptoms to cyberchondria (Fergus & Russell, 2016). Additionally, the moderating role of obsessive-compulsive tendencies reflects their influence in buffering maladaptive health anxiety behaviors while contributing to cognitive rigidity (Wheaton et al., 2010).

Table 1

Descriptive Statistics and Pearson Correlation of the Study Variables (N = 300)

Variables	M	SD	1	2	3	4
1.Cyberchondria	31.25	8.31	1	.41*	.17*	.44*
2.Health Anxiety	18.37	8.02		1	.33*	.58*
3.Obsessive-Compulsive Tendencies	28.23	10.74			1	.33*
4.Somatic Symptoms	9.31	6.27				1

*p<.01

Table 2

Obsessive Compulsive Tendencies as the Moderator of the Mediated Effect of Somatic Symptoms on Cyberchondria Through Health Anxiety (N = 300)

Paths	B	SE	95% CI for B LL	95% CI for B UL	ΔR²
Somatic Symptoms → Health Anxiety	.83***	.07	.70	.96	.34***
Somatic Symptoms → Cyberchondria	.34***	.07	.20	.48	
Health Anxiety → Cyberchondria	.83***	.16	.51	1.15	
OCD → Cyberchondria	.33***	.09	.16	.52	.28***
Health Anxiety x OCD → Cyberchondria	-.02***	.004	-.03	-.01	
Conditional Direct Effect					
Low OCD	.35***	.07	.26	-.53	
Medium OCD	.18***	.05	.08	.28	
High OCD	.07	.06	-.04	.18	
Conditional Indirect Effects (Somatic Symptoms → Health Anxiety → Cyberchondria)					
Low OCD	.33	.08	.19	-.49	
Medium OCD	.15	.04	.07	-.24	
High OCD	.06	.05	-.04	.16	
Index of Moderated Mediation	-.02	.01	-.03	-.01	

Low, medium, and high values correspond to the moderator's mean -1, mean, and mean+1 values, respectively.
*p<.05, **p<.01, ***p<.001

CONCLUSION

These results underscore the importance of considering obsessive-compulsive tendencies in the assessment and treatment of individuals exhibiting cyberchondria, particularly for those with high levels of health anxiety. Future research should further investigate these interactions in diverse populations to enhance our understanding of the psychological mechanisms driving cyberchondria and inform the development of tailored therapeutic approaches.

LIMITATIONS & SUGGESTIONS

1.The study's sociodemographic factors do not represent the broader Pakistani community, highlighting the need for a larger, more diverse sample. 2.The cross-sectional design limits causal inferences whereas a longitudinal approach could better establish causal links and track changes over time. 3.Evaluating participants' digital health literacy may provide information about their capacity to critically assess online health information.