

COMPARISON OF HEALTH ANXIETY IN PSYCHIATRY AND NEUROLOGY SETTINGS

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(Received, 4th February 2022, Revised 30th October 2022, Published 4th October 2022)

Abstract: *The aim of this study is to assess clinical correlates and prevalence of health anxiety in psychiatry and neurology outpatient clinics. A Prospective study was carried out at Neurology and psychiatry Department of Nishtar Medical Hospital from July 2020 to July 2021. Demographic data, clinical symptoms, comorbidities and diagnosis was recorded. Patients were given general hypochondriasis subscale of Illness Behavior Questionnaire and Short Health Anxiety Inventory (SHAI). Epi-info 7.013 was used for data entry and Stata 12.14 was used for data analysis. The prevalence of health anxiety in neurology and psychiatry was 18% and 26%, and overall prevalence was 21%. Higher health anxiety was reported in subjects with higher education, it may be due to increased awareness about illness. Health anxiety was higher in skilled workers as compared to semiskilled. The health anxiety was higher in subjects with more than one diagnosis as compared to those with single diagnosis. Health anxiety is common in neurology and psychiatry settings. Further evaluation is needed to evaluate its effects on health consultation.*

Keywords: Health anxiety, neurology, psychiatry

Introduction

Health anxiety is defined as concern regarding health when there is no pathology or mild pathology (Tyrer, 2020). In severe form it constitutes hypochondriasis (Kumar et al., 2018). Prevalence of health anxiety varies significantly in various health settings. A research conducted to evaluate prevalence rate of health anxiety using Short Health Anxiety Inventory (SHAI) showed that about 20% subjects suffered from health anxiety (Wang et al., 2020). Another study conducted on chronic patient patients, prevalence of severe health anxiety was 51% and hypochondriasis was 37% (Gibler et al., 2019). Studies show high level of health anxiety in multiple sclerosis and diabetes mellitus (Janzen Claude et al., 2014; Strober, 2018). An epidemiological study showed that at the time of assessment 3.4% subjects had health anxiety (Ferrão, 2019). A review conducted on epidemiology of health anxiety showed that in general population prevalence of health anxiety, hypochondriasis and abridged hypochondriasis ranged from 2.2%-13.2%, 0.1%-4.5% and 0.5%-2.1% (Weck et al., 2014). Such variations are accounted to medical diagnosis, settings and specialties. In developing countries like ours, there is scarcity of research on health anxiety. The aim of this study is to assess clinical correlates

and prevalence of health anxiety in psychiatry and neurology outpatient clinics.

Methods

The prospective study was conducted in neurology and psychiatry department of Nishtar Medical Hospital from July 2020 to July 2021. Patients aged above 18 years were included in study. Patients with severe mental and physical incapacity were excluded. Patients were selected through random sampling. Demographic data, clinical symptoms, comorbidities and diagnosis was recorded. Patients were given general hypochondriasis subscale of Illness Behavior Questionnaire and Short Health Anxiety Inventory (SHAI). SHAI is a self-report questionnaire for assessing health concerns. It included domains of disease conviction; illness worry and negative impacts. The SHAI has sensitivity to treatment, good reliability and criterion validity. Using standard translation procedure SHAI was translated. Illness Behavior Questionnaire is self-administered in which responses are recorded as "yes"/"no". In the expanded version 62 items are present. 11 of which were from general hypochondriasis subscale of Illness. Behavioral Questionnaire assesses



hypochondriacal responses to illness (Prior and Bond, 2008).

Epi-info 7.013 was used for data entry and Stata 12.14 was used for data analysis. For descriptive analysis mean, median or proportion was used. Test scores for every scale and patient proportion with threshold scores were computed. SHAI items which assess body vigilance and illness worry were included. R² values were used for assessing correlation between SHAI and IBQ. Chi-squared tests and t-tests were used for comparing responses from psychiatry and neurology department. P < 0.05 was considered statistically significant.

Results

The study was conducted on 740 patients, 355 were in neurology and 385 were in psychiatry setting. The mean age of the subjects was 36± 11.76 years, higher in psychiatry group (38 ± 10.96) than neurology group (36 ± 11.7). 48% (355) of the total sample were women, psychiatry group had more women as compared to neurology group(p< 0.05). 466 (63%) were from urban background, 14% (104) were illiterate. 12% (89) subjects were unemployed, 24% (178) were housewives while rest were semiskilled and skilled workers. The majority of patients were from upper lower (385, 52%)and lower middle (192, 26%) class. Most common diagnosis were seizure (25%), depression (18%), anxiety disorder (14%) and somatoform disorder (16%). In psychiatry

sample the most common diagnosis was depression (31%), while in neurology the most common diagnosis was seizure (51%). There was more than one diagnosis (second diagnosis) in psychiatry group. Most common second diagnosis in neurology was other psychiatry diagnosis (2%), seizure (1%) and headache (1%). Other comorbidities like tuberculosis, diabetes mellitus, thyroid disorders and cardiovascular disorders were present in 15% of the sample. The mean SHAI score in neurology and psychiatry was 14.17 ± 7.22 and 15.76 ± 8.02 respectively, total mean score was 14.98 ± 7.66. There was statistically significant difference in mean SHAI scores. With cutoff score of ≥ 20, the prevalence of health anxiety in neurology and psychiatry was 18% and 26%, and overall prevalence was 21%. There was statistically significant difference in two groups. For 14 items the cutoff score was ≥ 27, the prevalence in neurology and psychiatry was 4% and 8%. The mean SHAI score was compared with socioeconomic status, education level, marital status, background, gender and age. Direct correlation between education and SHAI score was found. SHAI score was higher for somatoform disorder than other diagnosis (Table I).Correlation between IBQ score and 14 item SHAI score in neurology (+0.56, p < 0.01) and psychiatry (+0.64, p < 0.01) was significant. Total correlation among all subjects was also significant (+0.62, p < 0.01)

Table I Correlation between Socio demographic characters and SHAI score

	Psychiatry			Neurology		
	n	Score	P-value	n	Score	P-value
		Mean (95% CI)			Mean (95% CI)	
Gender						
Male	200	14.4 (14.1,16.5)	.15	185	11.9 (11.7,13.8)	.52
Female	230	13.3 (13.2,15.1)		125	12.3 (12.5,14.2)	
Education						
Illiterate	71	11.8 (11.2, 14.6)	.03	33	10.4 (9.5, 13.1)	.24
Primary education	200	13.9 (12.8, 15.8)		195	12.0 (12.1, 14.1)	
Secondary or higher	101	14.7 (14.2, 17.2)		140	12.7 (12.5, 14.9)	
Occupation						
Unemployed	45	13.3 (12.1, 16.4)	.01	44	12.79 (10.68,14.89)	.62
Unskilled	85	11.7 (11.2, 14.1)		30	11.04 (9.42,14.66)	
Semiskilled	80	18.1 (15.2, 18.9)		145	12.53 (12.32,14.44)	
Skilled	35	17.3 (13.8, 18.5)		36	13.42 (12.43,16.21)	
Others	30	13.2 (11.7, 16.5)		32	12.09 (11.28,14.99)	
Housewife	105	13.2 (11.7, 15.6)		73	11.53 (11.06,13.98)	
Physical symptoms						
No	121	12.01 (11.4, 14.4)	.01	198	11.8 (11.9, 13.7)	.08
Yes	300	14.5 (14.6, 16.3)		121	13.1 (13.1, 12.1)	

[Citation: Amjad, N., Ikram-ul-Haq, M., Mazhar, N., Mussadiq, K., Sajida, I., Malik, A.A. (2022). Comparison of health anxiety in psychiatry and neurology settings. *Biol. Clin. Sci. Res. J.*, 2022: 133. doi: <https://doi.org/10.54112/bcsrj.v2022i1.133>]

Psychological symptoms						
No	340	13.4 (13.5, 15.1)	.02	310	11.8 (12.1, 13.4)	.01
Yes	55	15.9 (14.1, 19.2)		35	14.6 (13.4, 17.5)	

Discussion

In our study the health anxiety prevalence in neurology and psychiatry was 18% and 26% respectively. In different studies there are variations regarding cut off score for health anxiety and 14 or 18 items because there was controversy regarding applicability of last four item in certain medical settings. Due to this, the first 14 items were included in this study for assessing prevalence. Demographic variables in both the groups were significantly different; therefore, difference in prevalence was not only because of setting. Compared to another study, the results of our study showed lower prevalence of health anxiety in neurology (Ghandour et al., 2019). Major diagnosis of somatoform in psychiatry group is associated with higher prevalence of health anxiety in this group. In previous studies, cutoff score ≥ 27 was used for discriminating hypochondriasis from other disorders (Alberts et al., 2013). In this study this cutoff was used for the first 14 items, it revealed that the prevalence in neurology and psychiatry to be 4% and 8%. Assessment of demographic characters shows more women in psychiatry group as compared to neurology. However, gender difference was not significant in the total sample. The difference may be due to increased presence of somatoform disorders, depression and anxiety whose prevalence is higher in women (Prabha et al., 2020). The majority of the sample belonged to urban background. Higher health anxiety was reported in subjects with higher education, it may be due to increased awareness about illness. Health anxiety score was not correlated with age, this finding was in line with previous studies (Bilani et al., 2019). In our study correlation between gender and health anxiety was not found; however previous studies show higher rate in women (Baloğlu et al., 2018; Thorgaard et al., 2018). Though there were more women in psychiatry as compared to neurology group, the mean SHAI score in men were higher than women. This study showed that health anxiety was higher in subjects with more than one diagnosis as compared to those with single diagnosis. The health anxiety score was also higher in patients diagnosed with both psychiatric and neurological

disorders. Comparison of health anxiety score with other studies was difficult due to scarcity of data, though it has been compared with different diagnosis and symptoms. Moreover, in our study only few subjects were diagnosed with hypochondriacal disorder, and they were put under somatoform disorder group. Prevalence of health anxiety was significantly influenced by multiple diagnosis, somatoform disorder and education. The strength of the study is that psychometrically validated tools were used. The limitations even though psychometrically validated tools were used, they required validation in our setting.

Conclusion

Health anxiety is common in neurology and psychiatry settings. Further evaluation is needed to evaluate its effects on health consultation.

Conflict of interest

The authors declared absence of conflict of interest.

References

- Alberts, N. M., Hadjistavropoulos, H. D., Jones, S. L., and Sharpe, D. (2013). The Short Health Anxiety Inventory: A systematic review and meta-analysis. *Journal of anxiety disorders* **27**, 68-78.
- Baloğlu, M., Kozan, H. İ. Ö., and Kesici, Ş. (2018). Gender differences in and the relationships between social anxiety and problematic internet use: Canonical analysis. *Journal of medical Internet research* **20**, e8947.
- Bilani, N., Jamali, S., Chahine, A., Zorkot, M., Homs, M., Saab, M., Saab, R., Nabulsi, M., and Chaaya, M. (2019). Illness cognition and health anxiety in parents of children with cancer. *Journal of psychosocial oncology* **37**, 713-728.
- Ferrão, Y. A. (2019). Other obsessive-compulsive related disorders. *A Transdiagnostic Approach to Obsessions, Compulsions and Related Phenomena* **3**:320.
- Ghandour, R. M., Sherman, L. J., Vladutiu, C. J., Ali, M. M., Lynch, S. E., Bitsko, R. H., and Blumberg, S. J. (2019). Prevalence and

- treatment of depression, anxiety, and conduct problems in US children. *The Journal of pediatrics* **206**, 256-267. e3.
- Gibler, R. C., Jastrowski Mano, K. E., O'Bryan, E. M., Beadel, J. R., and McLeish, A. C. (2019). The role of pain catastrophizing in cyberchondria among emerging adults. *Psychology, Health & Medicine* **24**, 1267-1276.
- Janzen Claude, J. A., Hadjistavropoulos, H. D., and Friesen, L. (2014). Exploration of health anxiety among individuals with diabetes: Prevalence and implications. *Journal of Health Psychology* **19**, 312-322.
- Kumar, V., Avasthi, A., and Grover, S. (2018). Somatosensory amplification, health anxiety, and alexithymia in generalized anxiety disorder. *Industrial psychiatry journal* **27**, 47.
- Prabha, L., Ganjekar, S., Gupta, V., Desai, G., and Chaturvedi, S. K. (2020). A comparative study of health anxiety in neurology and psychiatry settings. *Journal of neurosciences in rural practice* **11**, 125-129.
- Prior, K. N., and Bond, M. J. (2008). The measurement of abnormal illness behavior: Toward a new research agenda for the Illness Behavior Questionnaire. *Journal of Psychosomatic Research* **64**, 245-253.
- Strober, L. (2018). Quality of life and psychological well-being in the early stages of multiple sclerosis (MS): Importance of adopting a biopsychosocial model. *Disability and health journal* **11**, 555-561.
- Thorgaard, M. V., Frostholm, L., and Rask, C. U. (2018). Childhood and family factors in the development of health anxiety: A systematic review. *Children's Health Care* **47**, 198-238.
- Tyrer, P. (2020). Why health anxiety needs to be recognised in hospital practice. *Clinical Medicine* **20**, 339.
- Wang, Y., Duan, Z., Ma, Z., Mao, Y., Li, X., Wilson, A., Qin, H., Ou, J., Peng, K., and Zhou, F. (2020). Epidemiology of mental health problems among patients with cancer during COVID-19 pandemic. *Translational psychiatry* **10**, 1-10.
- Weck, F., Richtberg, S., and MB Neng, J. (2014). Epidemiology of hypochondriasis and health anxiety: comparison of different diagnostic criteria. *Current Psychiatry Reviews* **10**, 14-23.



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