Hypochondriacal Fears, Beliefs and Attitudes among Medical and Art Students

Fawzi M.H.; Khashaba A.M. ; El- Maghraby M.M.; Assad A. A.; Sahloul M.I.; AbdEl-Latif R.R. and Elsafy E.R.

Abstract

To study the prevalence of hypochondraiacal fears, beliefs and attitudes among medical students and a matched group of art students. The two groups were students at Zagazig University, Zagzig-Egypt. They comprised 60 medical and art students. They were matched by age and sex. For assessment of personality we used the "Arabic version of Eysenk Personality Inventory". Hypochondriacal symptoms were measured with two questionnaires; the hypochondriacal Whitely Index and Illness Attitude Scale. The number of medical students who had 7 or more scores on the Whitely Index was 16 (26.5%) and the corresponding number of art students was 15 (25%). The number of medical students who had 3 (often) or 4(most of the time) scores on "Disease phobia" and "Hypochondriacal beliefs" scales of "Illness Attitude Scale" was 24 (40%) and the corresponding number of art students was 26 (43%). There was no significant difference between the medical students and the art students regarding either personality dimensions or level of hypochondriasis as measured by Whitely Index and Illness Attitude Scale.

Introduction: A high incidence of hypochondriacal concerns in medical students was reported in some studies. Hunter et al. (1964) examined students' case records and consulted with clinical teachers; they concluded that "probably no less than 70 percent of medical students suffer from groundless fears about disease at one time or another during their undergraduate careers". Woods et al. (1966) examined 33 randomly chosen third-year medical students. They found a disorder that they defined as " the development of either symptoms of/or hypochondriacal anxiety about the disease being studied by students". They concluded that 26 (78.8%) of the 33 students examined had "a positive history" of the disease at some point during their medical education. On the other hand, Kellner et al. (1986) administrated two validated scales of hypochondriacal concerns (The Illness Behavior Questionnaire and The Illness Attitude Scale) to 60 medical students and matched law students. They found that the point prevalence of hypochondriacal fears, beliefs and attitudes did not differ significantly between the two groups and that only 8.3% of each group scored in the range of patients with hypochondriacal neurosis.

Aim of the work was to study the point prevalence of hypochondriacal fears, beliefs and attitudes of medical students and a matched group of art students.

Subjects and Methods:

Subjects:

The two groups were students at Zagazig University, Zagazig, Egypt. They comprised 60 medical students and 60 art students who were selected as follows. We approached the medical students after one of their regular classes and asked them to participate in a study of attitudes toward illness. We assured them of

complete anonymity and confidentiality. The total number of students who participated in this study was "418". They comprised 241 from the 1st and 3rd year medical classes and 177 from the 1st and 4th year art classes.

We randomly chose 30 first year medical students (15 women and 15 men) and from the social data of the protocol-without the knowledge of the result of the self-rating scales-the art students were matched by age and sex. The same procedure was repeated with 38 third-year medical students and 30 art student of the same age and sex. Thus the groups were each composed of 30 women and 30 men.

Methods:
Self-rating Scales: For assessment of personality we used the "Arabic Version of Eysenk Personality Inventory" because it is easily administrated and scored. It yields two dimensions of personality (Neuroticism and Extroversion) in addition to the Lie scale

Hypochondriacal symptoms were measured with two questionnaires; Whitely Index and Illness Attitude Scale (translated into arabic by the authors).

The Whitely Index (Pilowsky,1967) consists of questions about 14 hypochondriacal attitudes. It yields three scores, "fear of disease; conviction about disease and bodily preoccupation". Each question is to be answered "Yes" or "No". The scores from 7-14 indicates hypochondriasis. The illness attitude Scale (Kellner et al. 1987) is a self-report questionnaire consisting of 9 subscales covering overt attitude of hypochondrisis (Worry about illness "WI"; Concern about Pain "CP"; Health Habits "HH"; Hypochondriacal Beliefs "HB"; Thanato-phobia "Tp"; Disease Phobia "DP";Bodily Preoccupation "BP"; Treatment Experience "TE" and Effect of Symptoms "ES"). Cues for self-rating for each question are on a horizontal line and are as follows; No Rarely, Sometimes, Often and Most of theTime. Each response is scored from 0-4 and the sum of three scores is the subscale score.

Statistical methods: We used the t-test to find out the significant differences between the two groups as regards the results of the psychometric scales.

Results: The total number of students who participated in this study was 418. This included 110 from the first year medical class; 131 from the third year medical class; 82 students from the first year art class and 95 from the fourth year art class. Because the number of male students who participated from the 1st year art class was only 14, we were obliged to select only 15 male and 15 females from each class.

Comparison between Medical and Art Students

Regarding age of the two groups, it ranges from (17-22y) for the medical group and from (17-24y) for the art group. There was no significant difference between the two groups regarding age (t=0.37 and p=Ns). The sex distribution was exactly the same in the two groups (50% males and 50% females). The number of medical students who had 7 or more scores on Whitely Index was 16 (16.7%) and the corresponding number of art students was 15(25%).

The number of medical students who had 3 (often) or 4 (most of the time) scores on "Disease phobia" and "Hypochondriacal Beliefs" scales of "Illness Attitude Scale" was 24 (40%) and the corresponding number of art students was 26 (43%).

As shown in Table (1) , there is no

significant difference between the medical and art students regarding either personality dimensions (Neuroticism and Extroversion) or level of hypochondriasis as measured by Whitly Index (t=0.97 and p=Ns) and Illness Attitude Scale.

Comparison between Male and Female Medical Students

As shown in table (2), the male medical students had higher mean scores than the females regarding "CP" and "BP" scales of Illness Attitude Scale.

Comparison between Male and Female Art Students

Table (3) shows that the only significant difference between male and female art students was found on the "Neuroticism" scale of (EPI) "Eysenk Personality Inventory".

Comparison between hypochondriacal and non-hypochondriacal students (Table 4)

According to the results of Whitly Index (WI), we classified the students into two groups, the hypochondriacal group (N=31) who had 7 or more scores and the non-hypochondriacal students (N=89) who scored less than 7. On comparing these two groups (Table 4), we found that the hypochondriacal students had higher mean scores on "Neuroticism; P<0.05"; Worry about illness (P<0.001); Concerns about pain (P<0.01); Disease phobia (P<0.001) and Bodily preoccupation (P<0.001).

This is in keeping with Costa et al. (1958) who found a high correlation between neuroticism and hypochondriasis.

Table (1) Comparison between Medical and Art Students

	Medical students Mean+SD	Art students Mean +SD	t	P
1-Eysenk Personality Inventory				
A- Lie	13.8±1.5	3.9±4.56	0.35	Ns
B-Neurotricism	5.9±3.58	15.15±3.84	1.1	Ns
C- Extroversion (E)	10.3±3.63	11.02±3.3	1.09	Ns
2-Whitly Index	4.6±3.4	5.1±2.35	0.97	Ns
3- Illness Attitude Scale				
Worry about illness(W)	4.8±3.03	5.55±2.85	1.39	Ns
Concerns about pain (CP)	4.2±2.39	3.77±2.36	0.99	Ns
Health habits (HH)	7.68±2.67	7.23±2.95	0.88	Ns
Hypochond beliefs (HB)	1.6±2.1	1.88±2.17	0.72	Ns
Thanatophobia (Th)	3.89±3.76	3.08±3.02	1.3	Ns
Disease phobia (Dp)	2.82±3.58	3.32±3.82	0.74	Ns
Bodily Preoccupation (Bp)	3.92±2.82	3.88±2.7	1.29	Ns
Treatment experience (TS)	4.02±2.24	3.48±2.33	0.08	Ns
Effect of Symptoms (ES)	5.4±3.63	3.88±5.15	2.45	<0.01

Table (2) Comparison between Male and Female Medical Students

	Medical students Mean±SD	Art students Mean ±SD	t	P
1-Eysenk Personality Inventory				
A- Lie	3.43±1.6	4.2±1.3	0.99	Ns
B- Neurotricism	15.33±3.76	16.5±3.35	1.27	Ns
C- Extroversion (E)	10.23±3.78	3.97±2.9	0.18	Ns
2-Whitly Index	5.2±3.78	3.97±2.9	1.4	Ns
3- Illness Attitude Scale				
Worry about illness(W)	4.2±3.16	5.43±2.8	1.59	Ns
Concerns about pain (CP)	4.83±2.69	3.57!1.89	2.1	Ns
Health habits (HH)	7.87!2.53	7.5±2.84	0.54	<0.05
Hypochond,beliefs (HB)	1.87±2.16	1.33±2.04	1	Ns
Thanatophobia (Th)	3.07±3.49	4.83±3.85	1.85	Ns
Disease phobia (Dp)	2.03±2.86	3.6±4.07	1.73	Ns
Bodily Preoccupation (Bp)	4.87±3.1	2.97±2.17	2.75	<0.01
Treatment experience (TS)	4.03±2.59	4.0±1.86	0.05	Ns
Effect of Symptoms (ES)	6.23±3.78	4.57±3.33	1.8	Ns

Table (3) Comparison between Male and Female Art Students

	Medical students Mean±SD	Art students Mean ±SD	t	P
1-Eysenk Personality Inventory				
A- Lie	3.9±1.83	3.9±1.49	0	Ns
B- Neurotricism	14.13±4.22	16.17±3.17	2.12	<0.05
C- Extroversion (E)	11.4±3.1	10.6±3.54	0.93	Ns
2-Whitly Index	5.0±2.18	5.1±2.5	0.17	Ns
3- Illness Attitude Scale				
Worry about illness(W)	5.7±3.03	5.4±2.69	0.41	Ns
Concerns about pain (CP)	3.87±2.8	3.67±1.86	0.33	Ns
Health habits (HH)	7.3±3.5	7.17±2.38	0.17	Ns
Hypochond,beliefs (HB)	1.9±1.9	1.87±2.45	0.05	Ns
Thanatophobia (Th)	3.03±3.5	3.13±2.5	0.13	Ns
Disease phobia (Dp)	3.07±4.11	3.57±3.57	0.5	Ns
Bodily Preoccupation (Bp)	3.83±2.67	3.93±2.79	0.14	Ns
Treatment experience (TS)	3.43±2.37	3.53±2.32	0.16	Ns
Effect of Symptoms (ES)	3.33±3.2	4.4±3.05	0.13	Ns

Table (4) Comparison between Hypochondriacal and Non-Hypochonriacal Students

	Hypochon students Mean±SD (N=31)	Non-Hypochon students Mean ±SD (N=89)	t(X2)	P
Age (Mean ±SD)	19.73±1.38	19.5±1.66	0.77	Ns
Sex				
Male%	15 (48.4%)	45 (50.6%)	-0.043	Ns
Female%	16 (51.6%)	44 (49.45%)		
Years of Study				
1st year Med. (N=30)	6 (20%)	20 (80%)		
3 rd year Med. (N=30)	10 (33.0%)	20 (66.7%)		
1st year Art (N=30)	8 (26.7%)	22 (73.6%)	-1.51	Ns
4 th year Art (N=30)	7 (23.3%)	23 (76.7%)		
Eysenk Personality Inventory				
A- Lie	3.48±13.54	3.94±1.5	1.13	Ns
B- Neurotricism	16.58±3.14	15.16±3.84	2.04	<0.05
C- Extroversion (E)	11.19±3.58	10.48±3.45	0.96	Ns
Illness Attitude Scale				
Worry about illness(W)	7.16±2.8	4.48±2.68	4.62	<0.001
Concerns about pain (CP)	5.2±2.83	3.45±1.95	3.76	<0.001
Health habits (HH)	8.13±2.67	7.22±2.84	1.596	Ns
Hypochond,beliefs (HB)	3.00±2.28	1.31±1.93	3.677	<0.001
Thanatophobia (Th)	4.94±3.59	3.02±33.23	2.63	<0.01
Disease phobia (Dp)	5.26±3.92	2.3±3.31	3.75	<0.001
Bodily Preoccupation (Bp)	5.52±2.17	3.34±2.55	3.89	<0.001
Treatment experience (TS)	3.18±2.46	3.73±2.24	0.16	Ns
Effect of Symptoms (ES)	5.58±3.28	4.13±3.49	1.82	Ns

Discussion: This study has itslimitations:

1- The findings are from one university and may not be representative of other medical and art students.

2- The term hypochondriasis used in this study refers only to symptoms of hypochondriasis(fear of having illness; belief of having illness and bodily preoccupation). It is not synonymous with hypochondriacal syndrome as defined in (DMS-III-R).

3- The sample size is relatively small (only 60 medical and 60 art students).

However this study may have some advantages:

1- The presence of a well matched group of art students as a control group.

2- The use of two validated scales for measuring hypochondriacal symptoms

(Whitly Index and Illness Attitude Scale).

Prevalence of Hypochondriasis

The point prevalence of hypochondriasis among medical and art students as measured by Whitly Index was 26.7% and 25 % respectively, while the prevalence as measured by Attitude Illness Scale was 40% and 43% respectively. Kellner et al. (1986) reported that the point prevalence of hypochondriasis among medical and art students at the University of New Mexico was 8.3% only. Hunter et al. (1964) and Woods et al. (1966) reported incidence rate of hypochondriasis among medical students to be over 70%.

Our results are compatible with these studies. The possible reasons for the lack of difference in hypochondriasis between medical and art students could be:

1-Hypochondriasis is not related to the type of study.
2- The scales used to measure hypochondriasis may be inadequately sensitive to detect the existing difference, however, Kellner et al. (1983) reported that the Illness Attitude Scale could discriminate even between family practice patients and random employees.
3- The students are not telling the truth thus obscuring the existing difference.

References

Coppen, A.and Metcalfe, M. (1965) : Effects of depressive illness on (E.P.I.) scores. Brit, J. Psychiatry, III, 236.

Costa, P. and McCrae, R. (1985) : Hypochondriasis, neuroticism and aging: when are somatic complaints unfounded?. Am. Psychologist, 40 : 19-28.

Diagnostic and Statistical Manual of mental Disorders Revised (1987) : The American Psychiatric Assocsiation, Washington D.C.

Hunter, R.; Lohrenz, J. and Schwortzman, A. (1964) : Nosophobia and hypochondriasis in medical education. J. Med. Educ., 41 : 785-790.

Kellner, R. (1983) : The prognosis of treated hypochondriasis : A clinical study. Acta. Psych. Scand. 67 : 69-79.

Kellner, R.; Fava, G. and Lisansky J. (1986) : Hypochondriacal fears and beliefs in DSM-III melancholia. J.Affective Disorders, 10 : 21-26.

Kellner R.; Abott P.;Winslow. and Pathak D. (1987) : Fears, beliefs and attitudes in DSM-III hypochondriasis. J. Nerv. Ment. Disorders, 175 : 20-25.

Knowles J. and Krietman N. (1965) : The Eysenk Personality Inventory, some considerations. Brit. J. Psychiatry, III, 755.

Pilowsky, I. (1967): Dimensions of hypochonriasis. Brit. J. Psychiatry, 113 : 88-93.

Woods S., Natterson J. and Silvermans N. (1966) : Medical student's disease : Hypochondriasis in medical education. J. Med. Educ.,41 : 785-790.

Authors

Fawzi M.H.
Head of Psychiatry Dept. Zagazig University.

Khashaba A.M.
Psychiatry Dept. Zagazig University

El- Maghraby M.M.
Psychiatry Dept. Zagazig University

Assaad A. A.
Psychiatry Dept. Zagazig University

Shaloul M.I.
Psychiatry Dept. Zagazig University

AbdEl-Latif R.R.
Psychiatry Dept. Zagazig University

Elsafy E.R.
Psychiatry Dept. Zagazig University

Address of correspondance

Prof. Fawzi M.H.
P.O.Box 22 Deir El Malak, Cairo 11657

المخاوف المرضية و المعتقدات و الاتجاهات لدى طلبة الأداب و الطب بجامعة الزقازيق

يهدف هذا البحث إلى دراسة مدى انتشار أعراض عصاب توهم المرض بين طلبة كلية الطب و طلبة كلية الأداب بجامعة الزقازيق

تم إختيار ٦٠ طالبا من الصفين الأول والثالث بكلية الطب و ٦٠ طالبا من الصفين الأول والرابع بكلية الأداب كمجموعة ضابطة و قد استخدمنا "مقياس وايتلى" و "مقياس مفهوم المرض " لقياس أعراض توهم المرض كما استخدمنا "اختبار ايزنك للشخصية" لقياس بعدى العصابية و الانبساطية.

و اظهرت النتائج انه لا توجد فروق ذات دلالة بين طلبة الطب و الأداب سواء فيما يتعلق بابعاد الشخصية أو مستوى توهم المرضى وفقا لنتائج اختبار ايزنك واختبارى. مقياس وايتلى" و "مقياس مفهوم المرض

Epilepsy

Carfully established Diagnosis:

Epilepsy is essentially a clinical diagnosis. Although investigations e.g. EEG may provide asisstance, the diagnosis is ususally made on the basis of clinical history as follows:

The attack:

Cicumstances

Timing

Precipitating factors

Symptoms preceding the attack

Symptoms during the attack

Symptoms after the attack

Eye witness account of the seizure.
A clear witnesses account is imperative
and every effort should be made
to obtain this.