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NON-ORGANIC DYSPEPSIA : A CONTROLLED PSYCHOMETRIC STUDY

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SUMMARY

Fifty-two non-organic dyspeptics, 40 organic dyspeptics and 40 age-sex matched normal controls administered the hindi version of Middlesex Health Questionnaire and the Amritsar Depressive Inventory. The non-organic cases scored significantly higher compared to the other two groups on the both the tests and on all the sub-scales of the MHQ. Cases with irritable bowel syndrome scored maximum on obsessive sub-scale and the remaining sub-groups (hypochondriasis, depression and hysterical neurosis) on the somatic sub-scale. The mean total score on MHQ was maximum in hysteria and minimum in irritable bowel syndrome.

Dyspepsia is a common yet a poorly understood problem in day to day clinical practice. In many patients dyspeptic symptoms are solely because of psychological factors; or else, they are just the overt manifestations of an underlying primary psychiatric illness (Chaudhary and Truelove, 1962; Jones *et al.*, 1968 and Mishra *et al.*, 1982). Such cases are often misdiagnosed, subjected to painful and unnecessary investigations and wrongly treated. It would therefore be very helpful if these cases are distinguished in a simpler way.

The present communication is a part of a controlled psychiatric study of non-organic dyspepsia and deals with the scores of such cases on the Hindi version of the Middlesex Hospital Questionnaire (MHQ) and Amritsar Depressive Inventory (ADI) vis-a-vis those of organic dyspeptics and normal controls.

MATERIALS AND METHODS

Details of case selection, interrogations and laboratory investigations have been given in an earlier paper (Mishra et al, 1982). Ninety-two consecutive cases with one or more dyspeptic symptoms (Appendix) of more than 15 days duration, attending the Medical O.P.D. of the M.L.B. Medical College, Jhansi were examined and investigated in detail. After completion of clinical assessment and investigations every patient was seen together by a consultant psychiatrist (GDS) and a consultant physican (DNM) so as to arrive at the final diagnosis (as) physical and/or psychiatric. Based on these informations the patients were classified into two groups viz., *non-organic* (52) in whom no organic cause could be discerned to account for the dyspepsia and *organic* (40) in whom some organic disease was identified which could explain the symptoms. The non-organic group consisted of cases with hypochondriasis (18), irritable bowel syndrome (11), hysterical neurosis (10), depression (10—2 neurotic and 8 endogenous), anxiety neurosis (2), and schizophrenia (2).

The patients of both these groups were administered the hindi version of the Middlesex Hospital Questionnaire (Srivastava and Bhat, 1974) and the Amritsar Depressive Inventory (Singh *et al.*, 1974). A third group (40) of age and sex matched normal subjects was also administered these questionnaires to serve as control.

OBSERVATIONS

On the MHQ, non-organic dyspeptics scored significantly higher compared to

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both the other groups with respect to the total score ($p<0.001$) as well as on all the sub-scales ($p<0.05$ to <0.001). The mean score in the former group was highest on the somatic (11.17 ± 2.59) followed by the obsessive sub-scale (9.53 ± 3.51). The organic cases differed from controls only on the sub-scales of somatic and hysterical anxiety ($p<0.001$). Similarly, the non-organic group scored very much higher on the ADI compared to organic cases as well as controls ($p<0.001$), The organic group did not differ from the controls in this regard (Table 1).

The four major sub-groups of non-organic dyspepsia did not differ significantly from each other as regards to these scores. Nevertheless, some trend was clearly discernible (Table II). All the sub-groups except irritable bowel syndrome (IBS) had

TABLE 1. *Psychological test scores (Mean ± S.D.) of dyspeptics.*

Test	Non-organic (n=52) (a)	Organic (n=40) (b)	Controls (n=40) (c)	Statistical significance					
				a Vs. b		a Vs. c		b Vs. c	
				t	P	t	P	t	P
Middlesex Hospital Questionnaire (MHQ)—									
FFA ..	8.61±3.92	4.75±3.44	4.75±3.64	4.10	<0.001	4.88	<0.001	0.00	..
OBS ..	9.53±3.51	7.68±3.23	7.95±3.79	2.62	<0.01	2.05	<0.05	0.34	>0.5
PHO ..	6.83±3.28	4.58±2.89	4.78±3.55	3.49	<0.001	2.84	<0.01	0.28	>0.5
SOM ..	11.17±2.59	8.73±3.21	4.83±3.22	3.92	<0.001	10.18	<0.001	5.42	<0.001
DEP ..	8.90±3.70	5.63±3.33	5.83±3.34	4.45	<0.001	4.17	<0.001	0.27	>0.5
HYS ..	7.58±2.55	5.98±3.09	3.43±2.58	2.70	<0.01	7.69	<0.001	4.08	<0.001
Total ..	52.90±13.94	37.30±12.40	32.00±15.62	5.67	<0.001	6.60	<0.001	1.68	>0.05
Amritsar Depressive Inventory (ADI)	19.25±8.01	9.95±6.62	7.55±5.33	6.09	<0.001	8.39	<0.001	1.79	>0.05

FFA—Freefloating anxiety; OBS—Obesessive anxiety; PHO—Phobic anxiety; SOM—Somatic anxiety; DEP—Depressive anxiety; HYS—Hysterical anxiety.

TABLE 2. *Psychological scores (Mean±S.D.) in four major sub-groups of non-organic dyspepsia.**

Tests	Hypochondriasis (n=18)	Irritable Bowel Syndrome (n=11)	Hysterical Neurosis (n=10)	Depression (n=10)
Middlesex Hospital Questionnaire				
FFA	9.06±4.14	8.55±3.55	9.22±4.52	8.40±3.84
OBS	9.67±3.05	10.36±3.14	10.33±4.18	8.70±3.27
PHO	6.50±3.07	4.45±2.18	7.78±3.46	8.30±3.43
SOM	11.22±2.56	9.27±2.53	11.78±2.17	12.20±1.93
DEP	8.50±3.20	7.91±3.08	9.89±4.23	10.00±4.40
HYS	7.94±2.75	7.75±2.66	7.56±2.88	7.70±2.26
Total	52.89±13.47	45.73±18.86	56.56±15.79	53.50±14.50
Amritsar Depressive Inventory	14.83±7.63	13.64±5.89	16.44±7.09	18.50±6.47

*None of the differences were statistically significant.

highest scores on the somatic sub scale. IBS, on the other hand had highest score on the obsessive sub-scale. The mean total score on MHQ was maximum in patients with hysterical neurosis (56.56±16.79) and minimum in those with IBS (45.73±18.86). On the ADI, the depressives had the highest scores (18.50±6.47) and the cases with IBS had the lowest (13.64+5.89).

DISCUSSION

Both the questionnaires were able to distinguish between the non organic and organic dyspepsias to a highly significant degree. On the MHQ, the non-organic cases scored very high on the total as well as on all the sub scales, suggesting a high level of neuroticism in these cases. Our findings in this regard were comparable to those of Chatterjee and Chakraborty (1975) who found markedly elevated anxiety levels in patients of dyspepsia compared to controls. These authors emphasized the role of personality factors in the genesis and perpetuation of functional dyspepsia, in that high neuroticism reduces pain threshold thus making the individual more susceptible to internal sensations which would otherwise remain ignored.

It is interesting to note that cases of IBS had highest scores on the sub-scale of obsessive anxiety, conforming the observations of earlier workers that the illness occurred predominantly in people with rigid obsessional and compulsive personality characteristics (Freedman *et al.*, 1976). Further, this group had lowest total score suggesting that these persons tend to bottle up their emotions, not giving them outward expression (Alexander, 1950). All the other three groups viz., hypochondriasis, hysterical neurosis and depression, had highest scores on the sub-scale of somatic anxiety, demonstrating a markedtendency in our patients to use symbolic body language for expressing their emotional problems (Teja et al, 1971).

The ADI was quite effective in distinguishing the non-organic from organic dyspeptics, the scores being significantly higher in the former group. Amongst the sub-groups of non-organic cases the inventory gave maximum scores in cases with depression which was quite expected.

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Appendix

Dyspeptic symptoms (*Jones* et al., 1968)

1. Abdominal fullness, pressure, pain or discomfort related to meals.
2. Gaseousness—distension, belching, flatulence.
3. Retrosternal heartburn.
4. Specific food intolerance.
5. Diminution/loss of appetite.
6. Nausea/vomitting.
7. Biliousness.
8. Eructations.
9. Altered bowel habits.
10. Mucus in stools.