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An Investigation of Hysteria using the Illness Behaviour Questionnaire

J. WILSON-BARNETT and M. R. TRIMBLE

Summary: Seventy-nine patients with a diagnosis of hysteria were compared, on a number of variables, with a control group of neurological patients without psychiatric morbidity, and with psychiatric patients free from somatic complaints. Demographic information was obtained, and rating scales for the assessment of personality and mood, were administered, as well as Pilowsky's Illness Behaviour Questionnaire. The data confirm the high incidence of affective disturbance in particular, depression and anxiety in patients with hysteria. There was no link between hysteria and early hospitalisation, although associations were found with sexual disturbances, a past history of vague or undiagnosed illness, affective inhibition, and denial. Relationships between personality and illness behaviour reveal links between personality dimensions and the reporting of illness.

The history of hysteria is long and controversial; throughout history, patients have presented to doctors with symptoms that do not accord with the medical understanding of disease processes. In contemporary terminology, patients receive various diagnoses including hysteria, hypochondriasis, 'functional overlay' and sometimes 'factitious illness,' 'compensation neurosis' and 'Munchausen Syndrome.' Significant contributions in the last century came from Briquet (1859), Charcot and his colleagues (Charcot, 1889) and, of course, Breuer & Freud (1895) who expansively documented case histories of hysteria, and sought psychoanalytical formulations for the development of symptoms. Chodoff (1974) emphasised how the nosological concept of hysteria had become fragmented, and clearly defined three main meanings: (a) Briquet's hysteria, defined by psychiatrists at St. Louis, (b) conversion hysteria, (c) a personality type referred to as the hysterical personality. These have become embodied into the DSM III as somatization disorder (300.81), conversion disorder (300.11), and histrionic personality disorder (301.50) respectively. Confusion exists in particular between the hysterical personality and hysteria, especially outside psychiatry; Chodoff & Lyons (1958) pointed out that there was no clear link between the hysterical personality and hysteria. In contrast, De Alarcon (1973) stated that "it may be safe to assume that probably all patients with symptoms of hysteria have some features of what we call the hysterical personality".

Although several authors have discussed the link between conversion hysteria and other associated psychopathologies such as depression (Ziegler *et al*, 1960; Klerman, 1982) or associated organic brain disease (Whitlock, 1967; Merskey & Buhrich, 1975), few systematic studies have been done with these patients using more objective methods for evaluation of psychopathology. A recent study (Roy, 1980), compared a group of patients diagnosed as having hysterical neurosis with a matched psychiatric population; he reported 88% to have a depressive syndrome, these patients scoring as high on self-rating questionnaires as depressed controls. An important conceptual shift was taken by Pilowsky with the introduction of the term 'abnormal illness behaviour' (AIB). The ideas upon which this was based derive from the work of Parsons (1951) and Mechanic (1962), in which illness behaviour was conceived as the manner in which individuals behave in relationship to their health. It is defined as: "the ways in which given symptoms may be differentially perceived, evaluated and acted (or not acted) upon by different kinds of persons" (Mechanic, 1968). Pilowsky's (1975) definition of AIB was: "the persistence of an inappropriate or maladaptive mode of perceiving, evaluating and acting in relation to the state of one's health." To investigate this phenomenon experimentally, he developed the Illness Behaviour Questionnaire (IBQ). This was derived from patients with clinical diagnoses of hypochondriasis and chronic pain (Pilowsky, 1967; Pilowsky & Spence, 1975); several meaningful dimensions have been isolated from the questionnaire which refer to: general hypochondriasis, disease conviction, psychological or somatic perception of illness, affective inhibition, affective disturbance, denial, and irritability.

We have further investigated the relationship between personality, affective disturbance, illness behaviour factors, and certain biographical details in patients referred to one of us (MT) with a

diagnosis of hysteria of 'functional outlay'. By comparing the distinctive characteristics of this main group with the comparison groups, we aimed to highlight points of importance in the recognition and management of patients classified as 'hysteria'.

Method

Patients: Seventy-nine patients, consecutively referred to the liaison psychiatric service of the National Hospitals, Queen Square, formed the main sample, ('hysteria'). They had presented to the hospital with well defined neurological symptoms but, following extensive neurological investigation, were found not to have identifiable neurological disease, and were thought to require psychiatric opinion or investigation. Patients suffering from pain were specifically excluded from this study, in view of the debate as to whether or not the pain should be included as a symptom of conversion hysteria (Merskey, 1979), and because the IBQ has already been employed in patients with intractable pain (Pilowsky & Spence, 1975). Patients in whom, at re-evaluation, clearly defined neurological disease was identified were also excluded. In this way, it was hoped that the contribution of organic factors in the population would be minimised. Two comparison groups matched for age were studied. The first was composed of 34 consecutively referred patients with psychiatric illness in whom somatic complaints, including pain, were not a feature of their presentation; the majority of these patients received a clinical diagnosis of depressive illness, anxiety neurosis, or varying types of personality disorder. The second was a group of 36 randomly selected neurological patients, without known psychpathology but with a clear neurological diagnosis. All patients were asked to participate in the study, which they were informed would provide information about their personality, feelings, and opinions with regard to their illness. They were interviewed and examined, and then given a set of instruments to complete 'in their own time'. They were informed that they could refuse to answer any or all of the questions if they wished, but none of them did so, and only two sets of data were unusable due to omissions or misunderstanding by the respondents.

Rating scales: Two instruments were used for assessing relevant personality dimensions. First, the Hysteroid–Obsessoid Questionnaire (HOQ), designed by Caine & Hope (1967). This questionnaire is composed of 48 items answered as true or false, and gives a score along a continuum from hysteroid to obsessoid personality traits. The highest score (48) would represent an extreme hysteroid trait, whereas lower scores represent obsessionality, emphasised by being overcareful, precise, controlling and experiencing deep negative emotions which are relatively constant. Secondly, the Eysenck Personality Inventory (EPI) (Eysenck & Eysenck, 1964) was used to provide measures of the dimensions of extroversion and neuroticism; it incorporates a lie score. Two scales were used to assess recent moods: Beck *et al's* (1961) Depression Inventory (BDI) and the Mood Adjective Check List (MACL) of McNair and Lorr (1964). The former has 21 symptom categories with four alternative responses, giving an assessment of current and recent feelings of depression. The maximum score is 63, those with mild depression ranging between 11 and 17, and those with moderate depression 18 to 23. The check-list is a self-report questionnaire with 24 adjectives rated on a four-point ordinal scale. Depression, anxiety, fatigue, vigour, and hostility are incorporated as factors. The Illness Behaviour Questionnaire (IBQ) was given to patients to assess their attitude and opinions regarding their own illness and treatment; it is a 62-item self-report questionnaire, producing seven main factors—phobic concern about health or hypochondriasis, conviction of disease and symptom preoccupation, somatic versus psychological perception of illness, affective inhibition, acknowledgement of anxiety and depression, denial of life problems, and irritability.

Biographical details: In order to examine certain specific hypotheses which have been previously raised regarding patients who develop conversion symptoms, particular note was made of the following features: (a) Place in family and number of sibs; (b) The age of first hospitalisation; (c) Any past illness which may have represented abnormal illness behaviour, these included early episodes of vague or undiagnosed illness, and earlier pain syndromes, such as abdominal pain of childhood; (d) Associated sexual problems were explored for both the main sample and the psychiatric controls. A clinical rating of problems was made by the investigator grading any sexual difficulties into mild, moderate, and severe.

Finally, on clinical examination, particular attention was paid to any accompanying sensory abnormalities, especially anaesthetic patches and hemianaesthesia.

The Kruskall Wallis analysis of variance and Mann Whitney U-Test were used to compare scores between groups. (The number of statistical comparisons evaluated was approximately 160).

Results

The demographic details of the groups are given in Table I. There is a higher proportion of females in the main sample and in the neurological group than in the psychiatric group, reflecting the overall predominance of females in these populations. In view of this sex difference and the possibility that males and females would score differently on a number of rating scales, an initial examination of the results was undertaken, comparing males with females; few significant differences emerged. A lower proportion of males ($n = 3$) than females ($n = 30$) had a history of seizures ($P < 0.01$). Depression scores

TABLE I
Sample characteristics

Group	*n*	*Males*	*Females*	*Age: mean (range)*
Hysterical	79	19	60	34.9 (18–63)
Psychiatric	34	17	17	37.7 (20–71)
Neurological	36	5	31	37.8 (20–64)
Total	149	41	108	36.7 (18–71)

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TABLE II

Personality test scores

Groups	*Hysteroid obsessoid score Mean (range)*	*Eysenck Personality Inventory Neuroticism*	*Extroversion mean (range)*	*Lie score*
Hysterical $n = 79$	21.7 (6–37)	11.3 (1–21)	10.4 (1–22)	3.6 (0–9)
Psychiatric $n = 34$	22.1 (11–41)	14.5 (4–21)	10.4 (3–23)	3.1 (0–9)
Neurological $n = 36$	25.0 (15–35)	11.8 (0–20)	12.4 (5–21)	3.7 (0–8)
Significance	H = 8.64 ($P < .01$)	H = 8.36 ($P < .01$)	H = 5.56 NS	H = 3.94 NS

TABLE III

Mood scores

Group	*Beck depression score Mean (range)*	*Mood adjective check list. Median (range) Depression*	*Anxiety*	*Vigour*	*Fatigue*	*Hostility*
Hysterical $n = 79$	15.2 (0–50)	4 (0–23)	3 (0–11)	1 (0–12)	4 (0–12)	0 (0–12)
Psychiatric $n = 34$	22.4 (0–50)	4 (0–21)	4 (1–11)	1 (0–11)	4 (0–11)	0 (0–10)
Neurological $n = 36$	6.9 (0–22)	1 (0–10)	3 (0–9)	2 (0–9)	3 (0–12)	0 (0–3)
Significance	H = 27.57 ($P < .001$)	H = 12.6 ($P < .001$)	H = 8.09 ($P < .01$)	H = 2.36 (NS)	H = 2.71 (NS)	H = 2.51 (NS)

TABLE IV

Illness Behaviour Factor Scores

Factors	*Hysterical group n = 79 Median (range)*	*Psychiatric group n = 34 Median (range)*	*Neurological group n = 36 Median (range)*	*Significance*
Phobic concern about health (maximum score = 9)	1 (0–9)	2 (0–8)	1 (0–8)	H = 4.12 NS
Disease conviction, symptom preoccupation (maximum score = 6)	2 (0–6)	3 (0–5)	2 (0–5)	H = 2.74 NS
Somatic *vs* psychological perception of illness (maximum score = 4)	1 (0–4)	1 (0–4)	1 (0–4)	H = 1.28 NS
Affective inhibition (maximum score = 5)	2 (0–5)	3 (0–5)	1 (0–5)	H = 7.78 ($P < .05$)
Acknowledgement of anxiety and depression (maximum score = 5)	2 (0–5)	4 (0–5)	1 (0–5)	H = 19.32 ($P < .01$)
Denial of life problems (maximum score = 5)	3 (0–5)	2 (0–5)	4 (0–5)	H = 6.35 ($P < .05$)
Irritability (maximum score = 5)	1 (0–5)	3 (0–5)	1 (0–5)	H = 8.47 ($P < .01$)

were higher for males on the BDI ($P < 0.01$) and factor 5 (affective disturbance) of the IBQ ($P < 0.05$); irritability (factor 7 of the IBQ) was also significantly higher in the males.

Order of birth within the family was found to differ across groups; when categorised as either the eldest or only child, middle or youngest, the distribution across categories was even for the main group and the psychiatric controls, but neurological patients were significantly more likely to be the only or eldest child. (χ_2 12.5, df 4, $P < .01$). Questions regarding past illness revealed early episodes of possible abnormal illness behaviour more frequently for those patients in the main group. (χ_2 28.2, df 2, $P < .001$). Early hospitalisation, however, was not significantly different between the groups.

Presenting symptoms in the main group were classified

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as follows: Motor = 27, sensory = 6, amnesia = 5, special senses = 7, fits = 28, multiple = 4, other = 2.

The neurological group classification was as follows: Motor = 20, sensory = 5, seizures = 5, multiple = 6. The duration of the present illness was not significantly different amongst the groups ($\chi_2 = 1.4$).

Investigation of associated sexual problems revealed a trend for more patients ($n = 27$) in the main group to have moderate or gross disturbance in current sexual activity, whereas only four of the psychiatric control sample were classified in this way. The mean scores for the personality tests, mood scores, and illness behaviour factors are given in Tables II, III, and IV. On the HOQ, the main group and the psychiatric group showed a similar distribution, both recording average scores given for neurotic populations by Caine & Hope (1967). The neurological patients had values that were more similar to those given for other general samples. Multi-variate analysis showed that the difference between the three groups was significant (H = 8.6, $P < .01$), but no evidence that the main group had

TABLE V

Correlations of illness behaviour questionnaire factors with personality and mood measures in the hysteria group (n = 79)

Illness behaviour questionnaire	*HOQ*	*Eysenck personality questionnaire*			*Beck*	*Mood Adjective Check List*					*Illness behaviour questionnaire factors*						
		N	*E*	*LIE*		*Depression*	*Anxiety*	*Fatigue*	*Vigour*	*Hostility*	*1*	*2*	*3*	*4*	*5*	*6*	*7*
FACTOR 1 Disease concern Hypochondriasis	−.26 *	.55 ***	−.16	.02	.50 ***	.53 ***	.43 ***	.05	−.32 **	.36 **							
FACTOR 2 Disease conviction	.01	.48 ***	.02	−.02	.54 ***	.26 *	.18	.01	−.13	.29 **	.01						
FACTOR 3 Somatic *vs* Psychological perception	−.21	.37 ***	−.21	−.04	.37 ***	.29 **	.38 ***	.05	−.25 *	.11	−.21	−.04					
FACTOR 4 Affective Inhibition	−.41 ***	.28 **	−.24 *	−.15	.23 *	.21	.34 **	.24 *	−.22	−.00	−.41 ***	−.08	.46 ***				
FACTOR 5 Acknowledgement of Anx. & Dep.	−.28 **	.67 ***	−.22 *	.07	.65 ***	.53 ***	.52 ***	.09	−.27 **	.34 **	−.28 **	.28 **	.38 ***	.24 *			
FACTOR 6 Denial of life problems	.13	−.32 **	.23 *	−.08	−.35 **	−.32 **	−.42 ***	−.19	.25 *	−.16	−.13	−.03	−.42 ***	−.42 ***	−.24 *		
FACTOR 7 Irritability	−.14	.53 ***	−.12	−.13	.61 ***	.46 ***	.41 ***	.18	−.28 **	.46 ***	−.14	.37 ***	.23 *	.22 *	.46 ***	−.14	

* $P < 0.05$ ** $P < 0.01$ *** $P < 0.001$

TABLE VI

Correlation of personality and mood measures in the hysteria group (n = 79)

	HOQ	*Eynsenck Personality Inventory*			*Beck*	*Mood Adjective Check List (MACL)*			
		N	*E*	*LIE*		*Depression*	*Anxiety*	*Fatigue*	*Vigour*
Hysteroid Obsessoid HOQ									
EPI Neuroticism N	−.27**								
EPI Extroversion E	.72***	−.22*							
EPI Lie	−.09 NS	−.13	−.06						
Beck	−.14	.72***	−.16	−.01					
MACL Depression	−.17	.59***	−.19	.09	.70***				
MACL Anxiety	−.14	.57***	−.14	−.07	.55***	.62***			
MACL Fatigue	−.09	.30**	−.08	.08	.24*	.38***	.49***		
MACL Vigour	.22*	−.39***	.25*	.05	−.35**	−.38***	−.18	−.28***	
MACL Hostility	−.04	.36**	−.08	.02	.49***	.63***	.37***	.07	−.13

* $P < 0.05$ ** $P < 0.01$ *** $P < 0.001$

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predominantly hysteroid personality profiles. Taking a cut-off point of 29, 19% of the main sample would be categorised as having the most florid elements of hysterical personality. On the EPI, differences on the neuroticism dimension were accounted for by significantly higher scores in the psychiatric group ($H = 8.36$, $P < .01$). There was no difference between the main group and the neurological group on this dimension ($z = 0.5$ NS). There was a trend for the neurological patients to score more highly on the extroversion dimension than both the other groups, but the lie scale revealed no significant differences.

Depression ratings on the BDI showed significant differences across all three groups. The psychiatric group scored higher than the hysteria group ($z = 12.2$ $P < .05$), and the hysteria group had significantly higher scores than the neurological patients ($z = 5.4$, $P < .001$). In the main group, 14 were rated as mildly depressed, 14 as moderately depressed, and 19 extremely depressed, the remainder reporting lower scores. Using the MACL, depression showed similar distributions of scores, the neurological group being lower than the other two groups. The main group scores were significantly higher than those of the neurological patients ($P < .001$), but not different to the psychiatric patient scores. This pattern was also reflected in the anxiety ratings. Neurological patients rated themselves as significantly less anxious than both the other groups, and there was no difference between the main group and the psychiatric controls. On fatigue, vigour, and hostility ratings, there was no difference between the groups.

Data from the IBQ have been analysed using the original seven major factors. Significant differences between the groups were not found for the first three factors—phobic concern about health, disease conviction and symptom preoccupation, and somatic versus psychological perception of the illness, although not significant, it is noted that the main sample reported greater affective inhibition compared to the neurological patients and scored higher than the psychiatric patients on denial of life problems. The neurological group had significantly higher scores than the psychiatric group on denial of life problems. Psychiatric patients, as might be predicted, scored more highly on acknowledgement of anxiety and depression, and reported more irritability than the other two groups.

Association between measures: Correlations, using Spearman rank method, were computed for the main sample ($n = 79$) to obtain more detailed information on relationships between their personality and mood profiles (see Table V and VI). The hysteroid score was significantly positively correlated with extroversion and vigour. It was significantly negatively correlated with neuroticism and negatively correlated with factors 1 (hypochondriasis), 4 (affective inhibition), and 5 (acknowledgement of anxiety and depression) on the IBQ. Further, there was a significant positive association between high scores on the HOQ and complaints of sensory loss ($z = 1.9$ $P < .05$).

The neuroticism score was correlated in the expected directions, i.e. positively with the BDI, and the MACL factors depression, anxiety, hostility and fatigue with negative correlations to vigour and the extroversion score. The latter was positively correlated with the MACL score of vigour. A significant correlation ($r = + .70$) existed between the Beck and MACL depression score, with lower correlations for anxiety, fatigue, and hostility and a negative correlation between the BDI and the MACL vigour score.

Relationships between these scores and the IBQ factors showed all of the latter except factor 6 (denial of life problems), to be significantly positively correlated with the EPI neuroticism score. The extroversion dimension of the EPI was positively correlated with factor 6 (denial), and negatively with affective inhibition and acknowledgement of anxiety and depression. The mood measures were also consistently correlated. The BDI was positively correlated with all IBQ factors except factor 6 (denial), where a negative association was recorded. Similar directions of correlation and significance were noted for the MACL factors of depression and anxiety. The Illness Behaviour Questionnaire showed several inter-correlations indicated in Table V. In particular, a significant negative correlation was noted between disease concern and acknowledgement of anxiety and depression; positive correlations between factor 3 (a low score indicating a tendency to somatise) and both factor 4 (affective inhibition) and factor 5 (acknowledgement of anxiety and depression) and a negative correlation with factor 6, denial of life problems.

Discussion

Thus, a group of patients presenting with conversion symptoms and receiving the clinical diagnosis of either hysteria or 'functional overlay' were studied to assess personality profiles and affective symptoms; they were compared with a group of patients with psychiatric symptomatology but no conversion symptoms, and with a group of patients with neurological symptoms and no obvious psychopathology. One of the most obvious findings is the high frequency of depressive symptoms in the index population; whether assessment is by the BDI or the MACL, the index group have significantly more depressive symptoms compared to the neurological controls, and similar depressive ratings to the psychiatric population. Interestingly, on the BDI, the psychiatric population score significantly higher, indicating either that there really are differences between the two in the frequency of depression, or that patients in the hysteria group failed to report their depressive symptoms to the full, even when using the more elaborate enquiry provided by rating scales. Further analysis of the individual profiles of the hysteria patients using the IBQ (Wilson-Barnett & Trimble, 1984) reveals that in the index population, a dichotomy is seen in the scores for both denial and affective disturbance; there is a group which scores highly and another

which scores low on both these indices. Thus, a further explanation for the lower mean score on depression scales in the hysteria group is that a subgroup exists in whom denial is high and depression is low. This dichotomy was not seen in the neurological control group. This association between affective disorder and hysteria is in line with that reported by several others including Ziegler *et al* (1960), Gadd & Merskey (1975), and Roy (1980). This has important therapeutic and theoretical implications. From the therapeutic point of view, it again underlines the need for careful psychiatric assessment in cases where conversion symptoms are present, as well as the possibility that in many of these patients, the pathophysiology of the condition is interlinked with the underlying affective disorder. Treatment in these cases should be orientated towards management of the underlying depressive illness and, in our experience, should rely heavily on both psychotherapeutic and pharmacotherapeutic methods.

By analysing other aspects of the demography of patients with conversion symptoms, we have attempted to explore the pathogenesis of these problems. In the past history of the index group, we were unable to find differences between them and the psychiatric controls with regard to their place in the family, although more of the neurological groups were first-born; this is in line with the known association between such birth position and subsequent neurological disability. We did not find a significant relationship between being the youngest in the family and presentation with psychopathology, as suggested by Stephens & Kemp (1962), and by Ziegler & Paul (1954); those studies did not use a control group for comparison. In contrast, Tsuang (1966) and Ljunberg (1957) were unable to uphold this relationship. One recent study (Morrison, 1983) suggests that in some forms of abnormal illness behaviour, e.g. Briquet's syndrome, there is a tendency for patients to be higher in the birth order than expected, so that this factor may be of importance only in selected patients. We were unable to confirm that early hospitalisation occurred more frequently in the hysteria patients. Thus, one suggested mechanism for the early 'imprinting' of abnormal illness behaviour as a coping mechanism through early hospitalisation was not supported here. However, the fact that the patients suffering from hysteria have significantly more earlier episodes of vague or undiagnosed illness emphasises the importance of accurate and full history-taking in these patients. Often, under the heading of Past Medical Illness, few details are recorded, and many illness episodes, reported in a vague way by the patient are not documented; operations such as appendicectomy are taken at face value, without enquiry as to whether, for example, they were the end-point of many years of complaining of vague abdomial pain or were truly a reflection of sudden onset acute appendicitis.

We have briefly commented on sexual disturbances in these patients, and would accept that the clinical assessment was subjective. It is of interest, however, that the figure of 27 (35%) of the main group with moderate or gross disturbance of sexual activity is remarkably similar to that reported by Merskey & Trimble (1979) of 38%. The important point here is that sexual disturbance is *not* universal in patients presenting with conversion phenomena and that in the relative absence of organic problems in our patients, the increased frequency in the index population is not related to the presence of organic disease which may impair sexual function. One explanation of these findings may be that they reflect the disturbed interpersonal relationships displayed by some of the index patients. The personality profiles shown by the rating scales confirm earlier work by Ljungberg (1957), Chodoff & Lyons (1958) and Merskey & Trimble (1979) that patients with conversion symptoms have varying personality styles. The figure given by Chodoff & Lyons was that three out of 17 patients with conversion hysteria had an hysterical personality, and Ljunberg quoted 21% for his series. Merskey & Trimble, using clinical evaluation only, also reported a figure of 19%. In this study, we have used rating scales to attempt to quantify the hysteroid component of the personality structure of patients with conversion symptoms; interestingly, the hysteroid score was rather less in the index group than in the neurological group. Taking a cut-off point of 29 as indicative of the hysterical personality, 19% of this sample would be thus rated, which is similar to the figures quoted above. This compares with 12% of the psychiatric group, confirming the earlier paper of Merskey & Trimble (1979) that the hysterical personality style is indeed commoner in patients presenting with conversion symptoms than in psychiatric controls. However, 31% of the neurological control group also fall into this category; the interpretation of this is not clear. An explanation, however, would be that neurological disease itself, particularly that affecting the central nervous system, alters the personality in this direction.

The fact that the neurological control group score high on the IBQ factor of denial (factor 6) supports this suggestion, and together these findings may be one explanation for the persistent reporting of

problems of hysteria in neurological patients, and the finding of a high frequency of organic brain disease in several series (e.g. Slater, 1965; Whitlock, 1967; Merskey & Buhrich, 1975). Further, it is in keeping with the suggestions of Weinstein & Kahn (1955), who drew attention to the often explicit nature of the denial in patients with neurological illness in contrast to other forms of illness. An alternative explanation might be that the scales used tend to produce higher scores for more normal people, although this was not implicit in their design. EPI data on patients with conversion symptoms have also been reported by others; our data agree with those of Roy (1982), which showed no differences between patients with conversion hysteria and controls.

All IBQ factors except factor 6 (denial) were positively correlated with the EPI score (neuroticism) and therefore were associated in the expected direction. The extraversion dimension of the EPI was positively correlated with vigour and factor 6 (denial) and negatively correlated with factor 4 (affective inhibition) and with 5 (affective disturbance). These data suggest important links between personality dimensions and the reporting of illness, emphasising the contributions of personality to the pathogenesis and presentation of conversion phenomena. The associations between extroversion and denial of life problems, and the negative association between depressive scores on the BDI and denial are further expressions of these links. This is further exemplified by the positive correlation between somatisation (factor 3, a higher score indicating less somatisation) and affective inhibition (factor 4), low acknowledgement of anxiety and depression (factor 5), and a high tendency for denial (factor 6). In other words the tendency to somatise is shown to link with low acknowledgement of affective symptoms, and a propensity for denial of life problems. Other workers, (Fava *et al,* 1982) using the IBQ in a general hospital setting have shown, in non-selected patients, that such denial tends to be positively correlated with depressive symptoms; thus, the inverse relationship we have shown here suggests a specific feature of patients with conversion phenomena.

Overall, the profile of our abnormal illness behaviour group may be said to be characterised by affective inhibition, i.e. a difficulty in expressing personal and emotional feelings, especially negative ones, to others but some acknowledgement of the depressive symptoms and more denial when compared with other psychiatric patients. This would suggest that, unlike some other patients who have been examined with abnormal illness behaviour using the IBQ (e.g. chronic pain—Pilowsky & Spence, (1975), they are susceptible to psychological interventions despite denial and somatic preoccupation, which is a point of clinical and theoretical importance. In clinical practice, many of them do not in fact refuse to see psychiatrists, particularly if psychiatric intervention is put to them in a tactful and acceptable way, and some openly request such referrals.

Further analysis of profiles reveals that the HOQ scores are negatively correlated with factor I, the hypochondriasis factor. This is interesting, in view of the widespread view that hysteria and hypochondriasis are not equivalent problems, and suggests an increasing tendency away from hypochondriacal presentations in patients with more hysteroid characteristics of their personality.

The presenting symptoms of our patients were typical for the population we have examined, i.e. a neurological specialist group. While we would not suggest that these presentations are universally found, it is interesting that in spite of repeated suggestions that classical conversion symptoms are no longer present in sophisticated societies (Abse, 1966), we accumulated a large number of such patients in a short period of time. Further, when analysing the symptom patterns in comparison with other work done from the National Hospitals and previously reported (Trimble, 1981), it can be seen that the symptom pattern has not changed with regard to presentation at this specialist centre over the past four decades. The fact that abnormal illness behaviour is relatively common in a neurological population, and very often reflects an underlying affective disturbance, suggests to us that equivalent pictures are found in other specialities, and recent reports of a high frequency of psychiatric disability in patients with, e.g. dermatological (Hughes *et al,* 1983) or gastroenterological presentations (Gomez & Dally, 1977) suggests that the present method of investigation could be extrapolated to other clinical populations, and that work in patients other than neurological ones would be rewarding.

Analysis of the profiles of our IBQ factors (Trimble *et al,* in preparation) reveals that our patients have less disease conviction and denial of life stresses and problems than some other groups of patients classified as having abnormal illness behaviour, e.g. the chronic pain patients investigated by Pilowsky & Spence (1975).

Further, they show more insight and express more affect. These data emphasise the importance, theoretically and clinically, of attempting to dissect our different varieties of abnormal illness behav-

iour in future research.

Although Slater (1965) emphasised that hysteria was a disguise for clinical ignorance and a fertile source of clinical error, it is a diagnosis which is still used frequently, especially in certain clinical settings. Even outside neurology, conversion phenomena are frequently seen and misinterpreted, patients presenting these problems sometimes receiving less sympathy than they may deserve and occasionally outright rejection. Because conversion symptoms and the related problem of hysteria are a valid subject for clinical research we have attempted to investigate some of the phenomena, using quantitative techniques and control samples.

References

ABSE, D. W. (1966) *Hysteria and related mental disorders*. Bristol: John Wright.

BECK, A. T., WARD, C. H., MENDELSON, M., MOCK, J. & ERBAUGH, J. (1961) An inventory for measuring depression. *Archives of General Psychiatry*, **4**, 561–571.

BRIQUET, P. (1859) *Traite clinique et therapeutique de l'hysterie*. Paris: J. B. Bailliere.

BREUER, J. & FREUD, S. (1893-95) *Studies on hysteria. Complete Psychological Works of Freud. Volume 2 (1955)*. London: Hogarth Press.

CAINE, T. N. & HOPE, K. (1967) *Manual Of The Hysteroid–Obsessoid Questionnaire*. London: University of London Press.

CHARCOT, J. M. (1889) *Clinical Lectures on Diseases of the Nervous System*. London: New Sydenham Society.

CHODOFF, P. (1974) The diagnosis of hysteria: an overview. *American Journal of Psychiatry*, **131**, 1073–1078.

—— LYONS, H. (1958) Hysteria, the hysterical personality and hysterical conversion. *American Journal of Psychiatry*, **114**, 734–740.

DE ALARCON, R. (1973) Hysteria and the hysterical personality: how come one without the other? *Psychiatric Quarterly*, **47**, 258–275.

EYSENCK, H. J. & EYSENCK, S. B. G. (1964) *Manual of the EPI*. London: University of London Press.

FAVA, G. A., PILOWSKY, I., PIERFEDERICI, A., BERNARDI, M. & PATHAK, D. (1982) Depressive symptoms and abnormal illness behaviour in general hospital patients. *General Hospital Psychiatry*, **4**, 171–178.

GADD, R. A. & MERSKEY, H. (1975) Middlesex Hospital questionnaire scores in patients with hysterical conversion symptoms. *British Journal of Medical Psychology*, **48**, 367–370.

GOMEZ, J. & DALLY, P. (1977) Psychologically mediated abdominal pain in surgical and medical outpatients. *British Medical Journal*, *i*, 1451–1453.

HUGHES, J. E., BARRACLOUGH, B. M., HAMBLIN, L. G. & WHITE, J. E. (1983) Psychiatric symptoms in dermatology patients. *British Journal of Psychiatry*, **143**, 51–54.

KLERMAN, G. L. (1982) In: *Hysteria*. Ed. Roy, A. Chichester: Wiley.

LJUNGBERG, L. (1957) Hysteria. *Acta psychiatrica scandinavica Supplement*, 112.

MCNAIR, D. M. & LORR, M. (1964) An analysis of mood in neurotics. *Journal of Abnormal and Social Psychology*, **69**, 620–627.

MECHANIC, D. (1962) The concept of illness behaviour. *Journal of Chronic Diseases*, **15**, 189–194.

—— (1968) *Medical Sociology*. New York: The Free Press.

MERSKEY, H. (1979) *The Analysis Of Hysteria*. London: Baillière, Tindall.

—— & BUHRICH, N. A. (1975) Hysteria and organic brain disease. *British Journal of Medical Psychology*, **48**, 359–366.

—— & TRIMBLE, M. (1979) Personality, sexual adjustment, and brain lesions in patients with conversion symptoms. *American Journal of Psychiatry*, **136**, 179–182.

MORRISON, J. R. (1983) Early birth order in Briquet's Syndrome. *American Journal of Psychiatry*, **140**, 1596–1598.

PARSONS, T. (1951) *The Social System*. Glencoe: Free Press.

PILOWSKY, I. (1967) Dimensions of hypochondriasis. *British Journal of Psychiatry*, **113**, 89–93.

—— (1975) Dimensions of abnormal illness behaviour. *Australian & New Zealand Journal of Psychiatry*, **9**, 141–147.

—— & SPENCE, N. D. (1975) Patterns of illness behaviour in patients with intractable pain. *Journal of Psychosomatic Research*, **19**, 279–287.

ROY, A. (1980) Hysteria. *Journal of Psychosomatic Research*, **24**, 53–56.

—— (1982) *Hysteria*. Chichester: Wiley.

SLATER, E. (1965) Diagnosis of hysteria. *British Medical Journal*, *i*, 1395–1399.

STEPHENS, J. H. & KEMP, M. (1962). On some aspects of hysteria: a clinical study. *Journal of Nervous and Mental Disease*, **134**, 305–315.

TRIMBLE, M. R. (1981) *Neuropsychiatry*. Chichester: Wiley.

TSUNG, M. T. (1966) Birth order and maternal age of psychiatric in-patients. *British Journal of Psychiatry*, **112**, 1131–1141.

WEINSTEIN, E. A. & KAHN, R. L. (1955). *Denial of Illness. Symbolic and Physiological Aspects*. Springfield. Ill: Thomas.

WHITLOCK, F. A. (1967) The aetiology of hysteria. *Acta psychiatrica scandinavica*, **43**, 144–162.

WILSON-BARNETT, J. & TRIMBLE, M. R. (1984) Abnormal illness behaviour, the nursing contribution. *International Journal of Nursing Studies*, **21**, 267–278.

ZIEGLER, D. K. & PAUL, N. (1954) On the natural history of hysteria in women. *Diseases of The Nervous System*, **15**, 301–306.

—— IMBODEN, J. B. & MEYER, E. (1960) Contemporary conversion reactions: a clinical study. *American Journal of Psychiatry*.

J. Wilson-Barnett, PhD, SRN, DipN, RNT, *Reader in Nursing Studies, Chelsea College, University of London, 552 Kings Road, London, SW10*

M. R. Trimble, MPhil, MRCP, FRCPsych, *Consultant Physician in Psychological Medicine, and Senior Lecturer in Behavioural Neurology, National Hospitals and Institute of Neurology, Queen Square, London, WC1N 3BG*

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