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Comparison of Research Diagnostic Systems in an Edinburgh Community Sample

C. DEAN, P. G. SURTEES and S. P. SASHIDHARAN

Summary: Four research diagnostic schemes are compared in one community sample. The prevalence of psychiatric disorder ranged from 8.7 per cent (ID-Catego, threshold and definite) through 13.7 per cent (RDC, probable and definite) to 20.3 per cent (Bedford, borderline and definite). The main comparison made is between the PSE/ID/Catego and SADS/RDC systems. Sixty-one per cent of cases are identified as such by both these schemes. There is poor agreement about labelling; only 56 per cent of cases of depression and 16.7 per cent of cases of anxiety are so diagnosed by both systems. A *post hoc* check list was used to identify Bedford cases; all bar one were found to fulfil RDC *and* PSE case criteria. The results are compared with those from other centres which have used the same diagnostic criteria in community studies.

One of the problems in population studies of psychiatric disorders is that no consensus has been reached about what constitutes a case. It is evident that if the defining characteristics of a case vary from survey to survey, the number and type of cases found will differ. It is thus impossible to conclude from comparisons between such surveys whether there are true differences in rates between populations. One of the main aims of this survey is to use four definitions of a case in the same population at the same time to examine how alternative diagnostic schemes relate to each other with respect to total morbidity rates.

We also want to examine whether different diagnostic schemes use labels like anxiety and depression in the same way. Although each system has a range of similar sounding diagnoses, it is not certain that they are describing the same clinical entities. Our third aim is to examine the relationship between factors which are thought to be of aetiological importance, and, caseness—as defined by alternative diagnostic schemes. It is conceivable that such factors might be related to caseness as defined by one diagnostic system and not by another, and that this could account for discrepancies between studies which have used different case definitions. The relationship between a number of demographic variables and psychiatric caseness, as defined by three diagnostic schemes, is reported elsewhere (Surtees *et al*, 1983).

Over the last fifteen years a number of operational rules have been laid down to help in the delineation of criteria for regarding an individual as suffering from a psychological disorder. These have been used in population studies to estimate the prevalence of psychiatric disorders in the community. Wing and his colleagues have devised a reliable, structured psychiatric interview, the Present State Examination (PSE), which gathers information about many symptoms. There is also a computer programme (Catego) (Wing and Sturt, 1978) which incorporates their diagnostic rules and gives a Catego class and an International Classification of Diseases (ICD–8) (General Register Office, 1968) diagnosis for patients who have enough symptoms to be regarded as psychiatrically ill. There is a 40 item version of the PSE, suitable for use in a non-hospital population (Wing *et al*, 1977), which deals mainly with neurotic symptoms. Although the PSE was devised for use by clinicians in a hospital setting it has been increasingly used in population surveys. The short version has been shown to be reliable in the hands of trained lay interviewers with little clinical experience (Cooper *et al*, 1977).

More recently, Wing's group have devised an eight point Index of Definition (ID) (Wing *et al*, 1978) of psychiatric disorder. This comprises a number of levels of certainty that a disorder is present, ranging from no symptoms at all (ID1), to threshold disorders (ID5), to definite cases (ID6–8). The ID assigned to each case is arrived at by taking into account the number and the specificity of the symptoms recorded. An individual who is ID5 or above is deemed to have a diagnosable condition and can be assigned a Catego class and an ICD diagnosis. The Catego and ID computer pro-

grammes may be applied to both the full and the 40 item version.

A similar development in the standardization of psychiatric diagnoses has occurred in the United States of America. The first diagnostic criteria based on operational definitions were evolved in St Louis (Feighner criteria) (Feighner *et al*, 1972). These criteria may be applied to symptom information obtained in any clinical interview. Spitzer and his colleagues later elaborated these criteria to produce the Research Diagnostic Criteria (RDC) (Spitzer *et al*, 1978). They also designed a structured interview for establishing symptom information, the Schedule for Affective Disorders and Schizophrenia (SADS) (Endicott and Spitzer, 1978). This enables the interviewer to obtain and rate information about clinical features during the whole episode of illness, as well as during the current month. The RDC are applied to the symptom information obtained for the whole episode. Long-standing personality disorders, if present, can modify the final current RDC diagnosis. The SADS and RDC have also been applied to community samples; and they have been shown to be reliable when used by non-clinical interviewers.

Finally, an important community survey conducted by Brown and his colleagues from Bedford College, London (Brown and Harris, 1978) used explicitly clinical case criteria. The Bedford team subsequently published a *post hoc* check list (Finlay-Jones *et al*, 1980). This summarizes their clinical criteria and so allows their cases to be replicated.

This is the first study to compare these four alternative diagnostic systems in one population. We predict that the Feighner case rate will be the lowest, followed by Catego and RDC, and that the Bedford College criteria will give the highest case rate.

Method

The data reported in this paper result from interviews with 576 women, who were a random sample (approximately 1 in 100) of all women between the ages of 18 and 65 years living in the North East sector of Edinburgh. The design and methodology of the survey are detailed elsewhere (Surtees *et al*, 1983).

For the purpose of the study we produced our own instrument, the Psychiatric Assessment Schedule (PAS). This was designed to collect information for the four diagnostic schemes. The first 40 items of the PSE were used *unchanged* as the basis for the schedule, as the ID and Catego require that the symptoms be ascertained in this strictly defined way. This enabled us to apply to Catego and ID programmes without modification. The RDC can be applied to clinical information other than the SADS (Spitzer *et al*, 1978), so wherever an RDC symptom had a PSE equivalent we used the PSE equivalent. The RDC and PSE symptoms we regarded as equivalent are listed in Appendix A. On the whole, we considered a PSE rating of one (denoting the presence of a PSE symptom) to be a more severe rating than a score of three on the SADS rating scale (denoting the presence of an RDC symptom). For example, a score of three for poor concentration on the SADS means that the individual is "definitely aware of limited attention span but it causes no difficulties". Whereas a score of one on the PSE for poor concentration means "moderate form of symptom present during the past month (eg can read a short article, can concentrate if he tries hard), or an intense form (cannot attempt to read or concentrate) less than 50 per cent of the time". By using a PSE equivalent we tended to underestimate RDC symptoms.

In some instances an RDC symptom was not ascertained by the PSE: for example, on questions relating to increased appetite and weight gain, trouble with sleeping or sleeping more than usual, preoccupation with thoughts of death, and some details about panic attacks. Here we added the appropriate question from the SADS, modifying the rating to a three point scale to bring it into line with the PSE. The behavioural ratings necessary for the RDC were taken from the PSE wherever possible. Two extra SADS ratings "demandingness or clinging dependency" and "self pity" were added. Questions to find out the length of time an illness had been present and the extent to which symptoms cause impairment of functioning were added, as these are needed for an RDC diagnosis and are absent from the PSE. The RDC requires that there is a symptom free period of at least 2 months between episodes of illness. To find out the onset date of a particular episode of illness, we established when the subject had last felt like her normal self for two months or more. All these questions appear in Appendix A.

Women who fulfil the criteria for a case at the time of interview may not be acute cases but, instead, may have personality disorders with long standing symptoms. Therefore we included a section derived from the SADS which assesses the personality disorders which have associated mood disturbances—Briquet's disorder, cyclothymic personality disorder, intermittent depressive disorder, and labile personality disorder.

Also, as the RDC diagnoses are episode based, we added a section to our interview, derived from the SADS, to deal with the six months prior to interview. A computer programme was devised which would give us a one month or an episode based RDC diagnosis from our schedule. This programme takes onset data into account so that episodes of illness which are less

than 2 months apart are regarded as one episode, in accordance with the RDC criteria. The computer derived diagnoses were checked by three clinicians. In three cases the RDC computer diagnoses were corrected by hand because the onset data had resulted in diagnoses which did not accord with clinical judgement.

We used PAS equivalents for symptoms on the Bedford *post hoc* check list, and for the items required by the St Louis criteria for depression (see Appendix B for details). The PAS did not collect enough information for us to think that a St Louis diagnosis of anxiety could be made with accuracy. Lastly, we devised a computer programme which would identify cases fulfilling the Bedford case (or borderline case) criteria and the Feighner criteria for depressive illness. The final PAS schedule is limited in that it collects information primarily for the affective disorders. It does not enable diagnoses such as alcoholism, anorexia nervosa, obsessive compulsive disorder, phobic disorder, schizophrenia, or any organic state to be made.

The 576 women in the study were interviewed by a team of interviewers using the PAS. The interviews were tape-recorded. Audio-tapes of those who achieved caseness on the basis of the interviewer's ratings, and a one in ten sample of the rest, were listened to by staff members and re-rated. Staff re-rating of current symptomatology confirmed 67.8 per cent of the findings from the interviewed cases. Only these confirmed cases are reported in the prevalence estimates. Although we gave the RDC cases diagnostic labels based on the whole illness episode, for present purposes we only included cases who had achieved RDC caseness on the basis of symptoms recorded during the previous month. This was so that we might compare case rates according to the four diagnostic schemes using the same time base (one month).

Although we had no reason to believe that the reliability of the PAS would be any different from the PSE or the SADS (it being a fusion of the two), the three staff members (2 psychiatrists and a clinical psychologist) did undertake a separate inter-rater reliability study of a representative sample of 30 interviewed cases. Using the index IA (p) (Cohen, 1960), there were no values below 0.7 for the agreement between any pair of staff raters on the presence of a diagnosable condition. This confirms satisfactory agreement on the assignment of caseness using the PAS.

Results

According to three of the diagnostic schemes, the overall prevalence of psychiatric disorder in the sample of 576 women was estimated to be as follows: 8.7 per cent ID-Catego (threshold and definite cases), 13.7 per cent RDC (probable and definite cases), and 20.3 per cent Bedford (borderline and definite cases). Table I gives details of the diagnoses and their frequencies according to the three schemes. The percentage of cases of depression and of anxiety identified by the different diagnostic schemes are also shown in Table I.

The Bedford College classification differs from the other three in that any one individual can receive a label of *both* anxiety and depression; this makes a comparison with the other classifications difficult. The rates for the Bedford College mixed cases are there-

TABLE I

Estimated prevalence of psychiatric disorder amongst a community sample of 576 women: four alternative diagnostic systems applied (rates as a %)

Diagnostic system and assigned diagnosis	Frequency	Rate
Catego/ICD, eighth edition		
Definite (ID6) manic depressive, depressed type 296.2 or depressive neurosis 300.4	9	1.6
Threshold (ID5) manic depressive, depressed type 296.2 or depressive neurosis 300.4	25	4.3
Threshold (ID5) anxiety neurosis 300.0	3	0.5
Threshold (ID5) phobic neurosis 300.2	13	2.3
Research Diagnostic Criteria (episode based)		
Major depressive disorder	40	7.0
Minor depressive disorder	10	1.7
Generalized anxiety disorder	15	2.6
Panic disorder	4	0.7
Briquet's disorder	1	0.2
Cyclothymic personality disorder	3	0.5
Intermittent depressive disorder	5	0.9
Labile personality disorder	1	0.2
Bedford College Checklist Classification		
Case depression	7	1.2
Case depression, borderline anxiety	9	1.6
Case depression, case anxiety	2	0.4
Case anxiety	3	0.5
Borderline depression, case anxiety	1	0.2
Borderline depression	16	2.8
Borderline depression, borderline anxiety	15	11.1
Borderline anxiety	64	11.1
Feighner Criteria		
Definite depression	11	1.9
Probable depression	5	1.9

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fore reported separately from those receiving a label of anxiety or depression alone. The case rate for depression is 8.7 per cent for RDC and 5.9 per cent for Catego, compared with 4 per cent for Bedford College (definite and borderline cases of depression alone). The Feighner depression rate is lower at 2.8 per cent, partly because the illness has to be present for a longer period of time to qualify, and partly because the symptom requirements are more difficult to fulfil than for the other schemes. The case rate for anxiety is 3.3 per cent for RDC and 2.8 per cent for Catego, compared with 11.6 per cent for Bedford College (definite and borderline cases of anxiety alone). In addition to these rates, 4.7 per cent of the Bedford College sample received a mixed label of anxiety *and* depression.

From the above data it is not possible to decide to what extent the different diagnostic schemes pick up the same *cases*. Our next task was to cross-classify RDC cases against Catego cases. Eighty individuals were either ID or RDC cases, or both (Table II). Of these 49 (61 per cent agreement) were both ID and RDC cases; 30 (38 per cent) were regarded as RDC cases alone; one case was an ID case only.

TABLE II

Cross-classification of current psychiatric "caseness" determined by Research Diagnostic Criteria (RDC) and Catego

Case classification by Catego	Case classification by RDC		
	Case	Non-case	Total
Case	49	1	50
Non-case	30	496	526
Total	79	497	576

TABLE IIIA

Cross-classification of current diagnoses assigned by Research Diagnostic Criteria (RDC) (one month based), and Catego

RDC diagnosis	Catego class* (and ICD diagnosis, eighth edition)				
	R (296.2/300.4)	N (300.4)	A (300.0/300.2)	None assigned	Total
Definite/probable major depressive disorder	7	15	0	2	24
Definite/probable minor depressive disorder	3	8	7	8	26
Definite/probable panic disorder	0	0	2	0	2
Generalized anxiety disorder	0	0	7	20	27
None assigned	1	0	0	0	1
Total	11	23	16	30	80

*Class R (Retarded depressions).
Class N (Neurotic depressions).
Class A (Anxiety states).

TABLE IIIB

Cross-classification of current diagnoses assigned by Research Diagnostic Criteria (RDC) (episode based), and Catego

RDC diagnosis	Catego class* (and ICD diagnosis, eighth edition)				
	R (296.2/300.4)	N (300.4)	A (300.0/300.2)	Non-assigned	Total
Definite/probable major depressive disorder	8	19	5	8	40
Definite/probable minor depressive disorder	1	2	2	5	10
Definite/probable panic disorder	0	0	3	1	4
Generalized anxiety disorder	0	0	2	13	15
Intermittent depressive disorder	0	2	1	2	5
Other personality disorders	1	0	3	1	5
Non-assigned	1	0	0	0	1
Total	11	23	16	30	80

*Class R (Retarded depressions).
Class N (Neurotic depressions).
Class A (Anxiety states).

Tables IIIA and IIIB indicate the extent to which cases which are identified by both RDC and Catego schemes share the same diagnosis. Table IIIA is a cross-classification of the 80 cases which fulfilled the criteria for either an RDC or Catego case. The Catego class and ICD-8 diagnosis is compared with the RDC diagnosis based on the symptoms obtained for the current month. Although this is an artificial comparison (RDC diagnoses would normally be made on symptoms occurring during the whole episode), we thought that it was useful to examine the difference in labelling between the two schemes produced by the same symptom set.

It is evident from Table IIIA that cases are not receiving comparable labels from the two diagnostic schemes. There is agreement about labelling in only 25 per cent (9/36) of anxiety cases. This is understandable in the light of the different criteria. The Catego rules assign the label of anxiety neurosis if there is an affect of anxiety with associated autonomic symptoms; whereas it is possible to achieve an RDC label of generalized anxiety disorder without autonomic symptoms. Of the 16 Catego anxiety cases only nine receive an RDC label of general anxiety or panic disorder. The other seven receive a label of minor depressive disorder. This difference results from the way in which a mixture of anxiety and depression are dealt with by the two systems. The Catego system allows either anxiety or depression to be primary, but the RDC system has a hierarchy whereby depression always takes precedence over anxiety. The agreement about cases labelled as depression is better than the agreement over those labelled anxiety; 65 per cent (33/51) of depressives received such a label from both systems.

Two cases of major depressive disorder were not assigned by Catego. This is because the diagnosis was made without a depressed mood being recorded. "Pervasive loss of interest" is an alternative necessary criterion to depressed mood in the RDC but not in Catego. Thirty-one per cent (8/26) of minor depressive disorders were also not assigned by Catego. In some instances this was because the criteria for minor depressive disorders are easily achieved. The requirements are a depressed mood and two out of a list of 16 symptoms. Some minor depressive disorders which were not assigned by Catego were classical depressive illnesses, with early morning wakening, loss of libido, anergia, or slowed thinking.

Table IIIB shows a cross-classification of the Catego/ICD–8 diagnosis compared with the RDC diagnosis (one month prevalence rate, with episode based diagnosis) arrived at by taking into account symptoms during the whole episode rather than in the previous month, and after applying the hierarchy whereby personality disorders, Briquet's, cyclothymic, and labile and intermittent, take precedence over current minor depressive disorder and generalized anxiety disorder. The rationale for this hierarchy is that symptoms occurring during the current month in such cases are likely to be attributable to the personality disorder, and so no extra diagnosis is necessary. We regard these episode based RDC diagnoses in Table IIIB as being ones made in accordance with RDC rules, and therefore the comparison with the Catego/ICD–8 diagnosis is more legitimate. But, as noted above, we only included cases which achieved caseness on the basis of symptoms which occurred during the previous month.

There is even less agreement about labels than before, with agreement of 56 per cent (32/57) in cases of depression (intermittent depressive disorders included) and 17 per cent (5/30) in cases of anxiety. There are similar *numbers* of anxiety states according to both schemes (16 Catego and 19 RDC), which makes the reported rate of cases of anxiety look similar. But the *actual* cases so named are, in the main, different. The only Catego case which did not achieve RDC caseness was one which had only two symptoms recorded, depressed mood and self depreciation. These symptoms do not fulfil the criteria for an RDC minor depressive disorder, which requires depressed mood and at least two other symptoms.

TABLE IV

Breakdown of caseness by Bedford, Catego and Research Diagnostic Criteria for 576 women

Case classification by Bedford Checklist Criteria	Case classification RDC and Catego				Total
	RDC and Catego	RDC only	Catego only	Non-assigned	
Case	21	1	0	0	22
Borderline case	27	18	1	49	95
Non-assigned	1	11	0	447	459
Total	49	30	1	496	576

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The cross-classification of the Bedford cases and borderline cases (derived by using the post hoc check list) with the ID and the RDC is shown in Table IV. It can be seen that all except one of the Bedford cases are Catego cases, and only 42 per cent (21/50) of the Catego cases are Bedford cases. All the Bedford cases fulfilled the criteria for an RDC case, as did 47 per cent (45/95) of the borderline cases; but only 28 per cent of the RDC cases were Bedford cases. The fact that the Bedford case rate is so much lower than the RDC or ID case rate is not accounted for by the use of a different time base (all are one month prevalence figures), or by particular symptom duration requirements. The Bedford check list has no such requirement. The lower Bedford case rate is entirely due to the use of a more specific symptom set than the other two schemes. Table IV shows that almost all the Bedford cases fulfil the criteria for an RDC *and* a PSE case; whereas only 28 per cent (27/95) of the Bedford borderlines fulfil the criteria for both, and less than half fulfil the criteria for either. The numbers were too small to enable a cross-classification of Feighner cases of depression with the other 3 diagnostic schemes.

Discussion

It is rather discouraging that the two main diagnostic schemes we compared showed such a wide disagreement, particularly about diagnostic labels. In fact, the disagreement has been minimized by the using of PSE equivalents for some RDC symptoms. The differences would almost certainly have been greater if we had used separate symptom criteria for both diagnostic schemes throughout. By using the PSE equivalents we may have underestimated symptoms from the RDC point of view, as symptoms which failed to meet PSE criteria may have been severe enough to reach RDC criteria. This was not true for anxiety symptoms; for the PSE, nervous tension and autonomic anxiety can be rated if the symptoms have been definitely present during the past month. Whereas the RDC requires that anxiety needs to be present *most of the time* for at least two weeks. We did overcome this difficulty to some extent by ascertaining how long the symptoms had been present, but we still may have overestimated anxiety symptoms for the RDC.

During this study we became aware of the difficulty of defining a symptom. The RDC tends to regard impairment of function as the criterion by which a symptom or syndrome is regarded as pathological. According to PSE criteria a symptom has to be out of proportion to the circumstances, unpleasant, and not easily turned off by the patient's own efforts or external distractions before it is counted. There is no right answer to the question of what is a symptom. By using the recommended PSE cut-offs we found that many of the women whose audio-tapes we listened to had sub threshold symptoms which could not be rated. Our study, in line with other recent surveys, identified individuals in the community who fulfilled hospital based criteria. This meant that women with symptoms did not necessarily fulfil the criteria for a diagnosis, even though they frequently had impairment of function, and regarded themselves as unlike their usual self. There may be an argument for devising new criteria, for use in the community, which would enable such cases to be classified systematically.

We used the PSE in the usual way by basing the diagnosis on the previous month's symptoms. The RDC system which bases the diagnosis on symptoms occurring during the whole episode of illness was thought to be more in accord with normal clinical practice and common sense. And this makes a big difference to the diagnosis achieved, as Table III (A and B) demonstrates. For the sake of comparability we regarded as cases those who had fulfilled the criteria for a case during the previous month, but we also examined the effect that using symptoms from the whole episode had on the diagnosis. This meant, for instance, that some patients who fulfilled the criteria for an anxiety disorder in the previous month were labelled as a depressive disorder when details of the whole episode were taken into account.

The finding of such discrepancies over the diagnoses of anxiety and depression is disturbing, particularly because recent studies have examined the relationship between different types of life event and the nature of subsequent illness. It is difficult to see how this avenue of research can be productive when there is so little consensus about diagnostic labels. The Bedford College scheme allows cases to be labelled anxiety and/or depression. This has much to commend it, as it removes the problem of the need to categorize cases artificially as belonging to one or other diagnostic category.

Comparison with other centres

Because we have used multiple criteria in the same population we have been able to compare our prevalence figures with centres which have used both the PSE/Catego and SADS/RDC systems. Table V compares the prevalence of psychiatric disorder in Edinburgh women, according to the two diagnostic schemes, with prevalence rates in other centres. The rates of psychiatric morbidity are very similar at around 10 to 15 per cent. This seems to indicate that the large differences in prevalence rates reported in earlier studies are almost entirely due to the use of different case criteria; and that when semi-structured interviews and operational definitions of illness are used these differences disappear. The suggestion is

TABLE V

Estimates from different centres of the prevalence of minor psychiatric disorders in women (rates as a %)

Centre	N	Method	Rates		
			Overall	Anxiety	Depression
Edinburgh 1983	576	PSE-ID-Catego	8.7	2.8	5.9
Canberra (Henderson *et al*, 1979)	85	GHQ-PSE-ID-Catego	11.0*	3.0	6.7
London (Bebbington *et al*, 1981)	170	PSE-ID-Catego	14.9**	4.5	9.0
Edinburgh 1983	576	RDC	13.7	3.3	8.7
Newhaven (Weissman *et al*, 1980)	291	SADS-L+RDC	15.0	3.4	7.9

* Weighted back to a population of 756, of which 396 were women.
** Weighted back to a population of 800, of which 407 were women.

that the prevalence of psychiatric illness does not vary greatly between centres; and, also, that the disagreement about individual symptom severity noted above does not make a big contribution to case rate differences.

It is surprising that the agreement is so good when one considers that the studies had different designs and are not strictly comparable. For instance, the RDC rates in Edinburgh and Newhaven are very similar even though the Edinburgh rates do not include alcoholism, schizophrenia, phobic disorders, and some personality disorders and the Newhaven data is that of a second follow-up after an interval of several years, with heavy attrition. The PSE case rates in London are higher than those in Canberra and Edinburgh. This may be due to the fact that in the London survey a proportion of the sample were re-interviewed after quite a long interval (four to six weeks), and the rates were obtained for the whole sample by a weighting back procedure. A similar procedure was carried out in the Canberra survey, but the re-interview took place within a few days. In our study any individual regarded as a case had the audio-tape of their interview listened to and re-rated by a clinician. This removed a problem present in the London study, of symptoms having changed by the time of the psychiatrists' interviews.

The rates of anxiety and depression in the four centres were also compared (Table V). The RDC rates for both anxiety and depression in Newhaven and Edinburgh are almost identical. As with the total prevalence rates, the Edinburgh and Canberra PSE rates for anxiety and depression are very similar, and the London rates are higher.

We were able, by using the *post hoc* check list published by the Bedford group (Finlay-Jones *et al*, 1980), to replicate the type of case used in Brown's study (Brown and Harris, 1978). This *post hoc* check list was devised from a number of studies, of which three were community studies and two were general practice studies. As the Bedford group also compared their cases with the ID we were able to test the effectiveness of the *post hoc* check list in identifying similar cases. They found 94 per cent (143/152) of their cases to be ID5 or ID6, compared with our 96 per cent (21/22). Thirty-nine per cent (72/184) of borderline cases were ID5 or ID6 compared with our 30 per cent (28/95). These data suggest that the *post hoc* check list identifies cases similar to those used in the Bedford studies. Unfortunately, the comparison reported in the Finlay-Jones *et al* (1980) paper is based on cases from all five studies. The authors did not give a separate comparison of the cases from the three community studies with the ID. It is likely that the community cases were less severely ill than the general practice cases and less likely, therefore, to be ID cases. If, in spite of this reservation, use of the published criteria accurately replicates the type of case used in Brown's work (Brown and Harris, 1978), then we have demonstrated that Brown's cases fulfil the criteria for two well known diagnostic schemes.

This within-study comparison highlights the lack of consensus about what constitutes a case and how such cases should be labelled. We hope that our work will help improve international agreement on nosology, and promote easier comparison of rates between centres.

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Appendix A

RDC criteria with PSE equivalents and extra questions

Major depressive disorder

1. Dysphoric mood or pervasive loss of interest or pleasure.
   = PSE depressed mood: Symptom 23; or PSE loss of interest: Symptom 22.

2. Four of the following eight symptoms for probable, five for definite.
   a Poor appetite or weight loss, or increased appetite or weight gain.
   = PSE loss of weight due to poor appetite: Symptom 34; + extra questions:
   Have you had an increase in appetite?
   Have you gained weight over the last three months—three point scale.
   b Sleep difficulty, or sleeping too much.
   = PSE delayed sleep: Symptom 35; PSE early wakening: Symptom 37; + extra questions:
   Have you had trouble sleeping?—three point scale.
   Are you sleeping longer, or more than usual?—three point scale.
   c Loss of energy, fatiguability or tiredness.
   = PSE subjective anergia and retardation: Symptom 36; PSE tiredness or exhaustion: Symptom 06.
   d Psychomotor agitation or retardation.
   = PSE slowness and underactivity: Sympton 110; PSE agitation: Symptom 111.
   e Loss of interest or pleasure in usual activities, including social contact or sex (this symptom cannot be used if it is used as the entry criteria in 1).
   = PSE loss of interest: Symptom 22; PSE social withdrawal: Symptom 28; PSE loss of libido: Symptom 38.
   f Feeling of self-reproach or excessive or inappropriate guilt.
   = PSE pathological guilt: Symptom 33.
   g Complaints or evidence of diminished ability to think or concentrate, such as slowed thinking, or indecisiveness.
   = PSE subjective inefficient thinking: Symptom 19; PSE poor concentration: Symptom 20.
   h Recurrent thoughts of death or suicide, or any suicidal behaviour.
   = PSE suicidal plans or acts: Symptom 25; + extra question:
   When a person gets depressed she may think about dying or suicide—have you?—two point scale.

3. Duration of dysphoric features at least one week beginning with the first noticeable change in the subject's usual condition. One week for probable diagnosis, two weeks for definite.

Question: You've told me about feeling tense/anxious/depressed etc. (as appropriate), when did you start feeling like this? (Date whichever started first). If Symptoms not still present ask—When did things get better? Note duration of symptoms: 0 = No symptoms or less than 1 week; 1 = 1 week but less than 2 weeks; 2 = 2 weeks or more.

4. When did you last feel like your normal self for two months or more?

5. Extra question inserted to assess impairment of functioning.
   During this time when you have been depressed (or panicky or anxious etc.) did you seek help from someone? or did anyone suggest you seek help? or did you take any medication? or did you act differently with people, family, or at work?

Minor depressive disorder

1. A relatively persistent depressed mood dominates the clinical picture (or is co-equal with anxiety). The depressed mood may be described as depressed, sad, blue, hopeless, low or down in the dumps.
   = PSE depressed mood: Symptom 23.
2. Two or more of 16 symptoms
   First eight as in major depressive disorder
   + *i* Nonverbal manifestation of depression such as tearfulness or sad face.
   = PSE observed depression: Symptom 121.
   j Pessimistic attitude.
   = PSE hopelessness: Symptom 24.
   k Brooding about past or current unpleasant events.
   = PSE neglect due to brooding: Symptom 21.
   PSE worrying: Symptom 04.
   l Preoccupation with feelings of inadequacy.
   = PSE self depreciation: Symptom 29.
   m Resentful, irritable, angry or complaining.
   = PSE irritability: Symptom 40.
   n Demandingness or clinging dependency.
   — extra behavioural item:
   Has sought undue assistance, praise or reassurance frequently from others, eg asks for advice or opinions of others—three point scale.
   o Self pity.
   p Excessive somatic concern.
   = PSE hypochondriasis: Symptom 09.
3. Duration one week for probable, two for definite.
   Extra question as above for major depressive disorder.
4. Impairment of functioning.
   Extra question as above for major depressive disorder.

Generalized anxiety disorder

1. Relatively persistent generalized anxious mood, described as anxious, nervous, jittery, tense, restless or uptight.
   Subjective feeling of nervous tension: PSE Symptom 10.
   Free floating autonomic anxiety: PSE Symptom 11.
2. At least one of the following:
   a Difficulty falling asleep
   Delayed sleep: PSE Symptom 35.
   b Sweating, blushing, dizziness, palpitations and shortness of breath.
   Free floating anxiety: PSE Symptom 11.
   We also designed an extra box for the rating of these autonomic symptoms.
   c Muscular tension or tremors.
   Muscular tension: PSE Symptom 7.
   d Persistent worrying about future events.
   Anxious foreboding with autonomic accompaniments: PSE Symptom 12.
   e Fidgeting or inability to sit still.
   Restlessness: PSE Symptom 8.
3. Duration of episode of at least two weeks—onset and duration assessed as in major depressive disorder.
4. Must result in impairment in functioning, at home, school, work or socially, or result in taking medication or seeking or being referred for help.
   Extra question as above.

Panic disorder

1. At least six panic attacks in six weeks for a definite and three attacks in three weeks for a probable diagnosis. The SADS definition of a panic attack differs from the PSE definition of a panic attack. The SADS defines a panic attack as a "circumscribed episode of intense fear or apprehension with sudden onset, not associated with physical exertion or life threatening situations and accompanied by at least two of a list of symptoms (mainly autonomic)". It does not include episodes which last all day or which are limited to a circumscribed phobic stimulus. The PSE definition of a panic attack is a "discrete episode of autonomic anxiety which the subject *tries to terminate by taking some drastic avoiding action.*" We had therefore to insert questions which covered the SADS definition of a panic attack, i.e. panic not necessarily leading to action.

Inserted questions

Did you have any panic attacks not leading to any action? For how many weeks did you have at least one attack a week? (Include both kinds of panic attack)—three point rating scale.

2. Three or more of a list of ten autonomic symptoms for a definite diagnosis, two for a probable.
   —We inserted the list of symptoms into the PSE. These are checked by the interviewer and rated on a three point scale. (0 = None or 1 symptom; 1 = 2 symptoms; 2 = 3 or more symptoms).
3. Nervousness between the panic attacks.
   The question "Were you nervous or anxious much of the time between attacks?" was inserted.
4. Impairment of functioning—as previously.

Appendix B

Feighner criteria for primary depression with PAS equivalents

1. Dysphoric mood—PSE depressed mood, Symptom 23.
2. At least 5 of the following symptoms for definite, 4 for probable:
   a Poor appetite or weight loss
   PSE loss of weight due to poor appetite: Symptom 34; or SADS "poor appetite" Symptom (See Appendix A).
   b Sleep difficulty (include insomnia or hypersomnia).
   PSE delayed sleep: Symptom 35; or early wakening: Symptom 37; or SADS "sleeps more than usual" symptom (See Appendix A).
   c Loss of energy (e.g. fatiguability or tiredness).
   PSE subjective anergia and retardation: Symptom 36; or PSE tiredness or exhaustion: Symptom 6.
   d Agitation or retardation.

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PSE slowness and underactivity: Symptom 110; or PSE agitation: Symptom 111.

e Loss of interest in usual activities or decrease in sex drive.
PSE loss of interest: Symptom 22; PSE loss of libido: Symptom 38.

f Feelings of self reproach or guilt.
PSE pathological guilt: Symptom 33.

g Complaints of or actually diminished ability to think or concentrate, such as slowed thinking or mixed-up thoughts.
PSE subjective inefficient thinking: Symptom 19; PSE poor concentration: Symptom 20.

h Recurrent thoughts of death or suicide, including thoughts of wishing to be dead.
PSE suicidal plans or acts: Symptom 25; or SADS "preoccupation with thoughts of death or suicide" (See Appendix A).

*C. Dean, B.A., M.B., Ch.B., M.R.C.Psych., *(Present address: Consultant Psychiatrist, Department of Psychiatry, Manchester Royal Infirmary, Manchester)*

P. G. Surtees, B.Sc., M.Sc., Ph.D.,

S. P. Sashidharan, M.B., B.S., M.R.C.Psych.,

M.R.C. Unit for Epidemiological Studies in Psychiatry, University Department of Psychiatry, Royal Edinburgh Hospital, Morningside Park, Edinburgh, EH10 5HF

*Reprint requests.

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