Self-Esteem, Vulnerability and Psychiatric Disorder in the Community

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One hypothesis concerning the nature of the link between negative self-appraisal and certain psychological disorders is that low self-esteem may be a consequence of both early and current experiences, and may predispose to breakdown. An alternative view is that the negative self-concept is only to be found in the presence of illness, which is the primary cause. Results are reported from a community survey, confirming the influence of certain biographical factors on self-esteem in the absence of illness, whereas other factors appear to operate only after the onset of illness. Anxiety as well as depression, has effects on self-esteem.

The link between depressed mood and a negative view of the self is a clinical commonplace, but the nature of the association is not well understood. Perhaps the most widely-held view is the traditional one that the change in affect is in some sense primary, and that the altered self-concept is to be understood as a secondary change or epiphenomenon.

An alternative view is that the altered self-concept may be primary. This can be given two forms, depending on the duration of the impairment. One view is that the impairment might be relatively brief; e.g. Beck (1967) has described a number of negative attitudes towards the self, which he believes to be of aetiological significance. These he sees as a 'pre-depressive constellation', and as being one of the mechanisms by which the depressive state is generated: 'constellation' may occur in response to an external stress, and may lead on to a depressive episode which runs its own course even when the stress itself ceases to operate. As we understand Beck, his theory accommodates the possibility that an individual who has a depressive illness might have experienced a state of low self-esteem which was only transitory (though presumably, he would argue that individuals whose self-concepts were easily disrupted or who habitually tended towards self-disparagement might be particularly liable to depression).

The other form of the thesis—that low self-esteem leads to depression—postulates a trait or personality predisposition. This 'predispositional view' has recently emerged with a new emphasis from the work of Brown & Harris (1978), who describe a number of variables, specified below, which they term 'vulnerability factors'. These, they suggest, do not cause depressive illness in their own right, but sensitise an individual so that, in the face of adversity, he or she will develop a depression. They propose that each of these factors operates by a final common pathway, i.e. by producing an impaired sense of self-esteem over a sustained period. The work on which the theory is based has not been without its critics (e.g. Tennant & Bebbington, 1978; Costello, 1982).

The view that an *abiding* state of self-disparagement is relevant to the genesis of depression could be tested using two main strategies. One is to study clinically depressed patients through their illness and into recovery, and monitor their self-esteem: if such patients have low self-regard as a trait, it should be detectable after remission of illness. Such studies have invariably shown no difference between ex-patients and normal controls (Mayo, 1967; Caine, 1970; Hamilton & Abramson, 1983). This evidence apparently weighs heavily against the 'trait' view, but if the treatment given for the illness had modified the patients' self-concepts, the conclusion would be less compelling. However, in the studies cited, the treatment did not include a major psychotherapeutic component. The converse strategy is to attempt to assess self-esteem in non-depressed subjects who later become depressed, and to compare them with those who remain depression-free. Such studies are of course difficult to carry out. We are familiar with only one (Lewinsohn *et al*, 1981) and here too the authors reported negative results: self-esteem measures did not predict subsequent depression, although the unsatisfactory design of the investigation perhaps limits the force of this conclusion.

These considerations prompted us to examine the

375

relationship between self-esteem and depression in a sample of women drawn from the general population. We took the opportunity to broaden the research issue, and to deal with three separate though connected topics. The first aim was to test hypotheses deduced from the Brown & Harris model by identifying, within the community, women who showed each of the putative vulnerability factors, but who were not at that time clinically ill. If the thesis is correct, these women should be significantly different from other non-depressed women on measures of self-esteem. We have also looked at the 'self-esteem' of women with an array of other characteristics which have emerged in our own work as discriminating between depressed and non-depressed women.

The second aim was to look at self-esteem amongst depressives from different social groups. It is possible that even after the onset of depressive illness, those in certain categories may show a more marked fall in self-esteem than others. Social factors, in other words, may be pathoplastic (may modify the form of the illness rather than being causal). By analogy, we would point to the neglected study by Lucas (1959), who reported that among deluded schizophrenics, the type of delusion varied by social class. The variables which we have tested are again those described by Brown & Harris as vulnerability factors, and the others which we ourselves postulate as relevant. We have also tried to determine whether the link between self-esteem and illness is to be regarded as specific to minor or major depressive disorder, and whether low self-esteem can be found in other groups of patients, such as those with anxiety states but without much depression.

Implicit in the previous two aims, and in the Brown & Harris model is a categorical concept of illness and normality. Many clinicians and research workers have suggested that most, though perhaps not all of the psychologically sick differ from those who are well only in lying on opposite sides of an arbitrary threshold, along a continuum of severity (e.g. Goldberg, 1972; Ingham & Miller, 1976). Adopting this concept of a continuum, it is more appropriate to examine the relationship between 'vulnerability factors' and self-appraisal within the whole sample, rather than analysing separately those who are ill and those who are not. If such a relationship were shown to exist, it would then be necessary to enquire whether it could be accounted for by variations in clinical state. We analysed our data from both these points of view.

In writing of self-esteem, self-appraisal, etc. we are of course aware that these terms are not necessarily synonymous, that different facets of the self-concept not only can be, but should be distinguished, and that the available instruments are at best conceptually primitive (though psychometrically sophisticated).

Method

Subjects

A random sample of women aged 18–65 years was drawn from the population of a geographically defined area of North Edinburgh. The sampling frame was the electoral register in force for the year ending 15 February 1981.

Interview and Interviewers: Each woman in the sample received a letter explaining the nature of the research project and inviting her to take part. This was shortly followed by a visit by one of a team of female interviewers, selected and trained specifically for this project: all had some relevant interviewing experience and most had a formal qualification in social work, marriage guidance counselling, nursing, or teaching. The training lasted six weeks, and was devoted largely to the administration and coding of a psychiatric assessment schedule (PAS) and a life events and difficulties schedule (LEDS). The former comprised the first 40 questions and some behaviour items from the Present State Examination (PSE) (Wing *et al*, 1974) with some additional questions derived from the Schedule for Affective Disorders & Schizophrenia (Spitzer *et al*, 1978). For present purposes, a 'case' is taken as a respondent who meets either the PSE Index of Definition at 5 or above *or* who meets the Research Diagnostic Criteria (RDC) of Spitzer *et al* (1978) with respect to the preceding four weeks. Further details of the PAS, the training of interviewers in its administration, and its validation, were described by Surtees *et al* (1983). The present report is concerned only with sections of the interview relating to socio-demographic and psychological variables, as described below.

Definitions of vulnerability factors

(a) *By Brown & Harris hypothesis*

Brown & Harris (1978) distinguished four levels in their ratings of the quality of relationships with confidants. From highest to lowest, these were: (i) a close confiding relationship with the husband or boyfriend, (ii) a similar relationship with some other person who was seen at least weekly, (iii) a good confidant seen less than weekly, and (iv) no one with whom they were prepared to discuss their intimate problems. This classification was based largely upon answers to standard questions, but information from the rest of the interview was sometimes used to overrule the standard procedure. Our aim in the present study was to use the same system as closely as possible. The following questions were asked:

"Supposing there was some crisis or emergency and you needed to talk things over with somebody, is there

anybody in the family or outside it, that you would turn to and share your troubles with?"

"Who would you go to first?"

"Can you tell ... absolutely everything—all your aches and pains and so forth?"

"Do you think that he/she tells *you* all his/her worries, troubles and aches and pains?"

"How often roughly have you contacted each other in the last month?"

This selection of information, using standard codings made by the interviewers, enabled us to define the following four categories, which come close to those of Brown *et al*. The questions were asked about more than one confidant, if present, and the one in the highest category was used: (1) Spouse or cohabitee. (2) Confidant other than spouse or cohabitee who is contacted once a week or more often. (3) Confidant other than spouse or cohabitee who is contacted less than once a week. (4) No close confidant.

To qualify for categories (2) or (3), the confidant had to be one to whom the respondent is able to "tell everything". Spouse or cohabitee meeting the "tell everything" criterion qualify for category (1). They also qualify for category (1) if the respondent "can but does not tell everything", provided she also states that they tell "all their troubles", i.e. that the confidant speaks openly to the respondent.

Separation from parents in childhood. If either parent had died, the age of the subject at the time of the death was recorded, and if there had been a separation from either parent for a year or more, then the age at the time and the reasons for the separation were noted. The important vulnerability factor, according to Brown *et al*, is loss of mother before the age of 11: this factor was recorded as present if the mother had died before the age of 11 or if there was clear evidence that there had been separation from the mother lasting for more than one year, before that age. In a small group, classified separately, there had been separation from both parents, possibly at different times, and it was known only that separation from at least one parent had occurred before 11.

Children under 14. People living in the subject's household, including children, were fully documented in the interview. The important vulnerability factor is said to be the presence of three or more children under 14 living at home.

Lack of employment. Full information was available about the employment situation for all subjects, and those who were not employed or were economically inactive for whatever reason were deemed to meet the criterion of Brown *et al* for "lack of employment outside the home". Women who were students or in part-time employment were considered to be employed.

(b) Other possible vulnerability factors

Social class. This is stated by Brown to be a factor of some importance, working-class women being at greater risk of depressive illness; however, he believes this is because it is associated with other causal factors. It was defined by the classification of Goldthorpe & Hope (1974). Groups 1–22

were combined into a middle-class section and groups 23–36 were called working-class (see Surtees *et al*, 1983 for further details).

Diffuse social support from relatives. The relevance of diffuse support has been shown in earlier studies. Our measure was a count of close relatives with whom the subject had contact at least weekly, other than confidants and members of the household. Close relatives were defined as husband, fiancé, parents, siblings, children, step-parents, step-children, step-siblings, half-siblings, parents-in-law, but not aunts, uncles, nephews, nieces, or cousins. If the contacts were face-to-face, they were allotted a greater weighting.

Diffuse support from friends. This was defined as the number of people met at least fortnightly on a 'chatting' level.

Unemployment of spouse. This did not include lack of employment due to sickness, disablement, or retirement and full-time students were considered employed.

Living alone. People living entirely alone were classified separately from one-parent families with no other adult in the household.

(c) Measurement of negative self-appraisal

Two scales, the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and the Foulds & Bedford Lack of Self-Confidence Scale (Bedford & Foulds, 1978), were used. We judged that conceptually, they would provide an acceptable first approximation to low self-esteem, could be administered within the time constraints of the interview, and would be acceptable to the respondents. Both scales are supported by a good deal of information concerning their relevance to depression and their psychometric properties. Their use is further reviewed in the Discussion section, while more technical details are given in the Appendix.

(d) Self-ratings of anxiety and depression

There were two visual analogue scales in which levels of severity were represented by five statements, positioned at intervals along a 10 cm line. Each subject was asked to mark her position along the line, and severity was defined as the distance in half-centimeter units from the least severe end, representing total absence of the symptom (see Miller & Ingham, 1979).

Hypotheses

These may be stated in positive form as follows:
1. Among normal women (non-cases), there are differences on both measures of self-esteem according to (a) the vulnerability factors described by Brown & Harris and (b) certain variables as specified below, and suggested by other studies.
2. Among women diagnosed as cases, there are differences on both measures of self-esteem between those with and

TABLE Ia (Non-cases)
Lack of self-esteem for Brown's vulnerability factors

	No.	Rosenberg Mean	SD	Foulds/Bedford Mean	SD
Confidant					
Spouse or cohabitee	202	1.00	1.23	10.35	2.30
Conf. (not spouse) seen at least weekly	183	1.11	1.47	10.72	2.64
Conf. (not spouse) rarely seen	23	1.61	1.64	12.00	3.51
No confidant	85	1.44	1.57	11.05	2.48
P		0.04	0.02*	0.01	0.01*
Separation from parents before 11					
No childhood separation	402	1.08	1.36	10.61	2.47
Known sep. from father only	56	1.37	1.60	10.75	2.63
Sep. from both (one before 11)	19	1.21	1.32	11.11	3.36
Known sep. from mother or both	16	2.00	1.83	11.94	3.07
P		0.04	0.01*	0.19	0.05*
Children under 14					
0	330	1.10	1.36	10.63	2.60
1	74	1.11	1.31	10.54	2.23
2	68	1.26	1.64	10.91	2.64
3 or more	21	1.62	1.72	11.33	2.52
P		0.36	0.12*	0.52	0.24*
Employment					
Employed	362	1.11	1.38	10.71	2.40
Unemployed	131	1.24	1.49	10.63	2.94
P		0.35		0.78	

*Where two P-values are reported, the first refers to a comparison between means of all categories in the left hand column. To comply as closely as possible with definitions stated by Brown & Harris (1978) some of these categories must be combined. For the second P-value, indicated with an asterisk, the categories marked with a vertical line in the left margin have been combined to give a single mean.

TABLE Ib (Non-cases)
Lack of self-esteem for social and demographic factors other than Brown's

	No.	Rosenberg Mean	SD	Foulds/Bedford Mean	SD
Age group					
18–34	243	1.13	1.32	10.85	2.27
35–54	161	1.28	1.62	10.78	2.81
55+	89	0.94	1.20	10.07	2.72
P		0.19		0.04	
Marital status					
Single	111	1.16	1.42	10.96	2.54
Married	308	1.10	1.37	10.53	2.39
Other	74	1.30	1.57	10.93	3.13
P		0.57		0.20	
Social class					
Middle	305	1.09	1.39	10.57	2.36
Working	183	1.20	1.40	10.84	2.73
P		0.42		0.24	
Unemployment of spouse					
No Spouse	166	1.23	1.54	11.01	2.87
Spouse Employed	303	1.09	1.33	10.48	2.35
Spouse Unemployed	24	1.25	1.42	11.13	2.56
P		0.56		0.07	
Contacts with friends					
5 or less	61	1.28	1.53	10.70	2.72
6–15	101	1.23	1.46	11.25	2.90
16–30	150	1.05	1.43	10.59	2.56
More than 30	181	1.13	1.33	10.45	2.23
P		0.67		0.08	
Contacts with relatives					
None	126	1.02	1.38	10.63	2.88
1–5	200	1.29	1.46	10.88	2.43
6 or more	167	1.07	1.37	10.51	2.43
P		0.15		0.37	
Living alone					
Alone	61	1.41	1.77	11.16	3.09
Children only	12	1.50	1.51	10.38	2.29
Adults	420	1.10	1.35	10.63	2.47
P		0.18		0.28	

without (a) the vulnerability factors described by Brown & Harris and (b) those suggested from other studies. Moreover, (c) different diagnostic groups differ on measures of self-esteem.

3. (a) Among sub-groups of the population known to differ in the prevalence of cases, there are differences in self-esteem. (b) If such differences are detected, they can be explained by the different proportions of cases in the various sub-groups.

Criteria for rejection

In determining the appropriate criteria by which these hypotheses were to be rejected, we bore the following points in mind:

(a) Both measures of self-evaluation should be given equal weight, since we had no theoretical reason for preferring one to the other.

(b) In the total sample, the two measures were found to correlate +0.69 (see below).

TABLE IIa (cases)
Lack of self-esteem for Brown's vulnerability factors

	No.	Rosenberg Mean	SD	Foulds/Bedford Mean	SD
Confidant					
Spouse or cohabitee	25	2.24	1.69	13.54	2.97
Conf. (not spouse) seen at least weekly	32	2.41	1.98	12.81	2.76
Conf. (not spouse) rarely seen	5	4.00	1.58	15.20	2.59
No confidant	16	2.62	1.59	13.06	3.19
P		0.25	0.39*	0.36	0.55*
Separation from parents before 11					
No childhood separation	58	2.52	1.86	13.28	2.74
Known sep. from father only	10	2.50	1.72	13.18	3.34
Sep. from both (one before 11)	6	1.83	1.47	11.83	3.60
Known sep. from mother or both	4	3.25	2.06	15.25	2.99
P		0.69	0.40*	0.35	0.16*
Children under 14					
0	41	2.20	1.78	12.88	3.05
1	17	2.47	2.00	13.06	3.03
2	13	2.62	1.66	13.54	2.70
3 or more	7	4.14	0.90	15.43	1.27
P		0.07	0.01*	0.19	0.04*
Employment					
Employed	42	2.19	1.71	12.70	2.81
Unemployed	36	2.86	1.87	13.92	2.95
P		0.10		0.06	

*Where two P-values are reported, the first refers to a comparison between means of all categories in the left hand column. To comply as closely as possible with definitions stated by Brown & Harris (1978) some of these categories must be combined. For the second P-value, indicated with an asterisk, the categories marked with a vertical line in the left margin have been combined to give a single mean.

TABLE IIb (cases)
Lack of self-esteem for social and demographic factors other than Brown's

	No.	Rosenberg Mean	SD	Foulds/Bedford Mean	SD
Age group					
18–34	38	2.97	1.85	13.63	2.76
35–54	31	2.19	1.70	13.19	3.02
55+	9	1.56	1.51	12.00	3.16
P		0.05		0.29	
Marital status					
Single	9	2.56	2.13	12.78	2.99
Married	40	2.32	1.86	13.32	2.83
Other	29	2.72	1.67	13.31	3.11
P		0.66		0.88	
Social class					
Middle	29	1.72	1.81	12.52	3.18
Working	46	2.89	1.68	13.64	2.74
P		0.01		0.11	
Unemployment of spouse					
No Spouse	30	2.37	1.71	12.67	2.98
Spouse Employed	42	2.26	1.77	13.26	2.84
Spouse Unemployed	6	4.83	0.75	16.17	1.33
P		0.00		0.02	
Contacts with friends					
5 or less	28	2.79	1.77	14.00	2.98
6–15	13	2.92	2.14	13.15	3.41
16–30	24	2.25	1.78	12.75	2.86
More than 30	13	1.92	1.55	12.71	2.33
P		0.37		0.39	
Contacts with relatives					
None	15	2.67	1.84	13.73	3.26
1–5	36	2.50	1.83	13.08	2.74
6 or more	27	2.14	1.82	13.21	3.04
P		0.91		0.77	
Living alone					
Alone	10	2.40	1.84	12.80	2.66
Children only	8	2.87	1.36	13.75	2.55
Adults	60	2.47	1.87	13.26	3.03
P		0.82		0.79	

(c) A large number of comparisons were to be carried out, with the corresponding risk of some spurious findings.

We accordingly decided upon the rather stringent criterion of requiring that in any comparison between groups, the observed differences should be beyond the 0.05 (two-tail) level of significance on *both* scales before a result was accepted as warranting the rejection of the null hypotheses. The effects of introducing some relaxation to this rule are given in the discussion. Statistical testing was based throughout on analysis of variance.

Results

Normals

Table Ia shows for *non-cases* the scores obtained on the self-esteem scales by respondents distinguished according to the four vulnerability factors proposed by Brown & Harris. Two—early separation from parents and lack of a close confidant—showed statistically significant differences in the predicted direction on both measures. Hypothesis 1(a) was therefore supported for these

variables, but not for the others. For number of young children the differences were in the predicted direction, but were not statistically significant.

Table 1(b) gives analogous data for seven other putative 'vulnerability' factors: none of these was associated with significant differences on both measures, and hypothesis 1(b) must therefore be rejected. The Foulds scale showed significant differences by age, increasing self-confidence being associated with increasing years: this too was a marginal finding.

Cases

Table II refers to all *cases* identified in the survey, without regard to diagnosis. The cases consistently showed major differences from the non-cases on both measures of self-esteem; these shifts were large, statistically very highly significant, and were demonstrable within virtually every one of the many sub-groups defined in the study, as can be seen by comparing Table IIa and IIb with Ia and Ib. In other words, cases had higher scores, (reflecting lower self-esteem) than non-cases when adjusted for age, social class, marital status, or the other variables already discussed.

However, the issue is not whether cases have lower self-esteem (as would be expected), but how the measures of self-esteem might vary among the cases, when these were classified according to the variables already listed (Tables IIa, IIb).

Two variables reflected significant differences on both self-esteem measures—cases with three or more young children in the home, or with an unemployed spouse, had particularly low scores. The former finding was as predicted by hypothesis 2(a), the latter by 2(b): for the rest,

the hypotheses were not supported, although differences were also found by social class for the Rosenberg scale, working-class cases having lower self-esteem.

Data concerning Hypothesis 2(c) on the specific diagnostic groups will be considered later.

Socially defined groups

The third Table concerns groups of respondents defined solely in social or demographic terms: the defining variables are those previously used, and set out again. The data on means and standard deviations (which can be calculated from Tables I and II) have been omitted, and instead we show two P values in each cell. The first refers to the results of a simple one-way analysis of variance across the subgroups; the second to analysis of variance after making allowance for the differing proportions of cases contained within each sub-group. For example, in the top left-hand corner the entry refers to confidant ratings and how these affected the means on the Rosenberg Scale. Three groups of women were defined, as in the previous Tables: (i) Those who had a spouse or cohabitee as confidant, (ii) those whose main confidant was not the spouse, but who was seen at least weekly, and (iii) those with no confidant or who had a confidant who was not the husband and who was rarely seen. Analysis of variance showed that these groups differed significantly beyond the $P = 0.00$ level. However, it was also known that the three subgroups contained differing proportions of cases, ranging from 11% in sub group (i) to 16% in sub-group (iii). Adjusting for these differences affected the significance of the difference between groups to $P = 0.01$: this value is, of course, still sufficient to enable us to reject the null

TABLE III
P-values from a two-way analysis of variance with adjustments for prevalence of cases (with collapsed categories)

| | Rosenberg | | | Foulds | | |
	Unadjusted	Adjusted	Interaction	Unadjusted	Adjusted	Interaction
Confidant	<0.01	0.01	0.87	0.01	0.02	0.30
Separation from parent	0.01	0.01	0.91	0.01	0.01	0.59
Children under 14	<0.01	<0.01	0.05	0.01	0.03	0.15
Employment	0.01	0.10	0.14	0.09	0.55	0.05
Age	0.06	0.13	0.02	0.01	0.01	0.66
Marital status	0.03	0.37	0.87	0.05	0.31	0.59
Social class	<0.01	0.05	<0.01	<0.01	0.08	0.19
Unemployment of spouse	0.03	0.07	<0.01	0.02	0.04	0.02
Contact with friends	0.02	0.33	0.43	<0.01	0.06	0.41
Contact with relatives	0.15	0.23	0.65	0.46	0.51	0.54
Living alone	0.04	0.20	0.78	0.27	0.49	0.45

TABLE IV

Line ratings of anxiety (LA) depression (LD) and self-esteem scores for normals and diagnostic groups

| | N* | Mean scores | | | |
		Rosenberg	Foulds	LA	LD
Normals	495	1.14	10.68	5.35	4.05
General anxiety and panic disorders	19	2.06	12.63	9.26	5.79
Intermittent depression and other personality disorders	10	2.50	13.30	6.50	5.20
Minor depressive disorders	10	1.50	12.70	9.67	5.00
Major depressive disorders	39	3.03	13.79	9.90	8.64

*Slight discrepancies between scales because of missing values.

hypothesis at the conventional levels of significance. More commonly however, adjustment in the manner described rendered the result non-significant. Indeed, of the 17 significant differences found on one or other scale, eight ceased to be so (at the 0.05 level) after adjustment. Of the remaining nine, three showed mutually corroborative results, in the sense of positive findings emerging on both scales as stipulated for earlier analyses; these were the confidant ratings, early separation from mother, and having many young children at home.

*Mood ratings and psychiatric diagnosis**

*To be classified as a 'case', respondents had to meet the defining criteria for the four weeks prior to interview, as described in the Methods section. A diagnosis was then applied, but was based on all the symptoms reported over the preceding six months, using RDC criteria. The 78 cases of Table IV excluded one who met the PSE but not RDC criteria.

Table IV shows the findings for both self-esteem measures and for the visual analogue self-rating scales for anxiety and depression, in respect of normals and of three groups of cases classified by broad RDC diagnosis. All the cases, irrespective of diagnosis, showed marked elevation of (low) self-esteem scales, as well as raised anxiety and depression scores. On the self-esteem measures, it was the major depressive disorders which showed maximal deviations, and the anxiety states and minor or intermittent depressive disorders, though clearly differing from normals, did not differ very much from each other. We conclude that there is some degree of specificity, in that self-esteem is most markedly impaired in the group of major depressive illnesses, and to this extent hypothesis 2(c) is supported. However, cases diagnosed as anxiety

states also showed appreciable lowering of self-esteem, as compared with normals.

These findings prompt the question as to how far altered mood, of anxiety or of depression, might be correlated with changes in self-esteem, irrespective of diagnosis. In the *whole sample*, the two self-esteem scales were highly correlated (r = 0.69), and the anxiety and depression scales moderately so (r = 0.43): both these measures of mood correlated with each self-esteem scale at approximately 0.30 to 0.35. On these data, ignoring diagnosis, the anxiety rating was as closely associated with self-disparagement as was depression, though both effects were modest.

We have further examined these correlations by looking at the matrix obtained from the sample of cases only. The results were complex, and sometimes paradoxical, but there was no reason from this more disturbed group to doubt the preponderant effect of depressive mood on the self-concept.

Discussion

In their review of the self-esteem literature, Wells & Marwell (1976) could list some 460 references to empirical studies solely concerned with issues of definition and measurement, and the number has certainly increased since then. As they point out, no particular usage of the term 'self-esteem' can be considered definitive in the present state of knowledge and, though most approaches to its measurement can be faulted on technical grounds, there is no single strategy which is demonstrably to be preferred. The two instruments we have used appear to be among the best of their kind, and to span what is commonly understood by self-esteem, though of course, that concept could be much elaborated.

Recently, several workers have commented that it is the presence of negative evaluations (including endorsement of negatively worded items in the Rosenberg Scale) that is linked with vulnerability to depression, rather than the absence of positive self-evaluation (such as the positively worded items on that scale) (Brown & Bifulco, 1985; Warr & Jackson, 1983). Brown (1984), in a prospective study of working-class mothers in Islington, found that his new-onset cases had shown significantly more *negative* self-evaluation, when assessed before the onset of illness, but they did not show less *positive* self-evaluation. Preliminary analysis of our own data lent some support to this idea. Lack of a confidant, maternal separation, and number of children at home were all significantly associated with a scale of negatively worded items on the Rosenberg, whilst a similar scale of positively worded items showed no such link. The Foulds/Bedford Scale showed the same differential effect for positive and negative items, but only for lack of a confidant. It

may well be that the links we have demonstrated between self-appraisal and other measures can be accounted for by the negatively worded items in the scales used to measure self-esteem. Thus, the conclusions we have reached may be made more specific in the future, but it seems preferable at this point to present the results using the scales in their standard form.

It is already abundantly established that illness—particularly depressive disorders—and low self-esteem are linked. Hence, our principal interest in this study has been the non-cases—though there are aspects of the cases which certainly merit attention. Of the various ways of reviewing the assembled data, the simplest might be to commence with consideration of the total data set, as analysed in Table III.

Three variables emerge as being of most general interest. These are: (i) the confidant assessment, (ii) separation from mother before the age of 11, and (iii) having three or more children under 14 at home. All three have a demonstrable link with impaired self-esteem for the sample as a whole. This holds even after allowing for the percentage of cases within each of the relevant sub-groups, while no interaction term meets our criterion of $P < 0.05$ on both Rosenberg and Foulds scales. For confidant status and early separation from mother, the association is separately demonstrable at conventional levels of significance within the non-cases. Cases show the same general (though non-significant) trend, despite the numbers available for testing becoming very small within some of the subgroups. We conclude that confidant status and early separation predict to self-esteem measures both for cases and non-cases.

However, it is possible that the possession of a good confidant or experiences of maternal loss might affect self-esteem because they influence mood, rather than operating on the self-concept directly; and chronic low grade anxiety or depression, short of clinical illness, might affect self-esteem in such a way as to produce just the pattern of results we have observed. Similarly, depression can alienate potential confidants (Coyne, 1976), which is the reciprocal process to the one usually discussed (e.g. by Henderson *et al*, 1981). We therefore carried out a further analysis in which only the non-cases were considered, and in which the visual analogue line ratings for anxiety and depression were separately controlled in an analysis of covariance, with self-esteem as the dependent variable. After adjusting for anxiety and depression, the association between self-esteem and either confidant or early separation remained significant. The

general conclusion remains that the changes in self-esteem which we have described are neither a consequence of illness nor of more subtle mood changes.

Having three small children at home was also found to be an important correlate with impaired self-esteem, but here the details are quite different. Although for the group as a whole there is a highly significant association with low self-esteem, and evidence for interaction reaches the 5% level on only one variable, it can be seen from Tables I and II that the effect among the non-cases is very weak, while it is clearly evident among the cases, despite the small numbers in the subgroups. Adjustment for covariance in anxiety and depression ratings showed that the effect among cases could not be explained by differences in symptom severity. This might suggest that the presence of small children has little effect on the self-esteem of healthy women but is significant once they have developed a diagnosable illness. It would be unwise to press interpretation much further with the data presently available. However, the findings are compatible with the view that having several small children at home may act more as a long-term difficulty conducing directly to a depressive reaction, than as a factor producing vulnerability to other stresses. Clearly, more focussed studies are required.

A different pattern was obtained when the sample was classified according to the presence or absence of an unemployed spouse. No effect was found for this variable for the sample as a whole, after adjusting for percentage of cases in the two groups, and among the non-cases there was no evidence that having an unemployed husband was relevant to the self-esteem of the women. However, among the cases, a very marked effect was evident despite the small numbers in some of the sub-groups, and we noted a significant interaction term, emphasising the difference between the two groups. Thus, we could reasonably speculate that having an unemployed husband has no particular effect upon a woman's self-concept while she remains in psychological health, but that if and when she becomes ill, it is likely that her self-esteem will collapse to an even greater extent than those women who may be equally depressed but in a different family environment. There is little doubt that unemployed *men* do feel personally unworthy and useless. It could be that their wives sustain a normal sense of self-worth for a time but that if, for any reason, they are precipitated into an illness episode, particularly of a depressive character, they too acquire this heightened sense of worthlessness. There may be many other social contexts, which we have not been

able to explore in this study, in which a similar process might occur, with a latent but pre-formed self-evaluation waiting to be 'lit up' or activated by the onset of a mood change. However, self-esteem changes associated with unemployment of the spouse appear to operate through quite a different mechanism from the other variables we have been considering.

The most clear-cut result concerning psychiatric diagnosis in relation to self-esteem is that major depressive disorder is associated with a marked impairment of self-regard (Table IV), but that Table also suggests the possibility that the role of anxiety has hitherto not been adequately studied. Cases with anxiety states and allied diagnoses had similar disturbances of mood (either anxiety or depression) to those diagnosed as having minor depressive disorders, and generally showed similar impairment of their self-esteem. The inter-relationships between anxiety, depression, and self-esteem were complex, with different matrices of correlations emerging for different groups of subjects.

Nevertheless, in the sample as a whole, self-esteem correlates at about the same level with anxiety as with depression. These issues should be explored further, bearing in mind the possibility that the impairment of self-esteem associated with anxiety may be qualitatively different from that associated with depression. The former may perhaps reflect a judgement of impaired performance, especially in social situations, and the latter a more general negative view of the self and the world.

The cutting point between cases and non-cases in Tables I and II was set to include all diagnoses in the former group and this definition was more inclusive than that used by Brown et al (see Dean et al, 1983). We therefore considered the consequences of using a more conservative definition for the 'cases', with the corrolary that the 'normals' would then contain more individuals with minor degrees of psychopathology. However, the repeat analysis of Tables Ia and IIa, defining as cases only those with major depressive disorders (n = 39), led to conclusions which differed little from those of original analysis, with one exception. Among the 'normals', having three or more children under 14 at home was now significantly linked with low self-esteem on the Rosenberg Scale (P < 0.01) and marginally so on the Foulds-Bedford Scale (P = 0.056). (The difference in self-esteem previously noted for the cases in Table IIa was no longer significant, probably because we now had only four women with young children among the cases). We interpret the new findings as indicating that low self-esteem in association with having many children at home can only be demon-

strated among women who are already unwell and do not constitute a 'vulnerability' factor.

No simple summary can be offered of the causal connection between the variables we have studied: it seems clear that different patterns of results are obtained for different groups and for different processes. For example, the connection between low self-esteem and early loss of mother, though demonstrable for the whole sample, is generated chiefly by the 'non-cases', while the association between low self-esteem and the unemployment of the spouse is confined to the cases. Thus, different groups of women show different correlates; also, being bereaved early in life is a childhood experience, while the marital stresses of unemployment are by definition confined to adult status. Such differences may be of considerable importance, but clearly require to be verified by replicated studies before a detailed interpretation can usefully be attempted.

However, it is clear that our findings are not compatible with a simplistic view that the self-esteem of women in the community can be understood merely as a consequence of depressive illness or even of depressive mood. Notwithstanding that the most powerful determinant of self-esteem identified in this study is depressive illness, and that the clinical literature points to major improvement in self-esteem with remission of illness, the statistical analyses which control as tightly as possible for altered mood still leave significant differences between various sub-groups in our sample.

It is also the case that the associations we have demonstrated may sometimes permit alternative interpretations. For example, even leaving aside the influence of mood, it is possible that having a close confidant enhances self-esteem, but also that those who seriously lack self-esteem will have difficulty in retaining a confidant. Some of these problems may be reduced by a prospective study, on a selected group from the same sample, which we hope to report shortly.

Acknowledgement

Appendix

The self-esteem scales

1. The Rosenberg Self-Esteem Scale is more accurately termed a measure of low self-esteem. According to its author, a high score "means that the individual lacks respect for himself, considers himself unworthy,

inadequate or otherwise seriously deficient as a person". A low score indicates that the individual feels him or herself to be "a person of worth", but not necessarily superior to others. The scale comprises ten questions, each answered on a four-point array, which is subsequently collapsed to a dichotomy when scoring; these questions are said to constitute a Guttman Scale, on the basis of which certain items should be grouped in a specified manner, so as to provide a final scale of six scalar items. We followed these procedures exactly.

On the other hand, we modified the wording of the items in order to maximise the likelihood that the self-esteem measure would indicate vulnerability to depression rather than manifesting merely the short-term effect of depression present at the time of assessment. The words "most of my life..." were placed before each of the statements so that, for example, "I feel that I have a number of good qualities" was replaced by "Most of my life I have felt that I have a number of good qualities". This wording was consistent with that of the second scale described below, which had been devised with the same end in view.

In the original report, Rosenberg quoted a reproducibility of 0.9 and a scalability of 0.7. In the present sample, scalability was less satisfactory (0.37), but its alpha coefficient of reliability was 0.69. The respondent's score was taken as the sum of the six scalar items, a high score indicating low self-esteem.

2. The Foulds Bedford Lack of Self-Confidence Scale comprised six items from the Personality Deviance Scale (Bedford & Foulds 1978), derived from the Hostility-Direction of Hostility questionnaire (Caine *et al*, 1967). Foulds (1976) combined these six items with another six, intended to measure over-dependency, into a single index of self-critical attitude or Intropunitiveness. All 12 items were included in the interview, but by the time we came to analyse the results, further evidence had been acquired suggesting that the two components of Intro-punitiveness were linked in different ways to depression and to the Rosenberg scale. We therefore used the Lack of Self-Confidence scale only. Subjects were required to respond on a four-point scale, and the discrimination between all four points was retained in scoring. Previous studies had shown satisfactory reliability coefficients (alpha = 0.76 in a similar Scottish population).

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