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Vulnerability Factors and Depression in Women

By ALEC ROY

SUMMARY A matched controlled study of 84 depressed women confirms the findings of Brown et al, that loss of mother before 11, three or more children at home under 14 years of age, lack of a confiding marital relationship and lack of employment may be vulnerability factors predisposing to depression in working-class women.

Brown, Bhrolchain and Harris (1975) and Brown, Harris and Copeland (1977) 'identified four vulnerability factors, that is factors which increase chances of developing a psychiatric disorder in the presence of an event or difficulty, but which have no effect in their absence. They are: loss of mother before the age of 11; presence at home of three or more children aged less than 14; lack of a confiding relationship with a husband; and lack of full or part-time employment. The first three are more common in the working class and between them largely explain the class difference in incidence of psychiatric disorder'.

This is the hypothesis tested here.

Subjects and Method

From July 1976 to September 1977 a consecutive series of white women, 18 to 65 years of age whose doctors' referral letter mentioned depression were assessed as out-patients twice a week at the Maudsley Hospital. From January to September 1977 consecutive referrals of white women seen at Dulwich Hospital either as in-patients or in the psychiatric clinic were assessed.

Those diagnosed as suffering from depressive neurosis (300.4, *A Glossary of Mental Disorders*, 1968) of at least one month's duration were included in the study. Those patients with co-existing disorders or illness such as homosexuality, drug or alcohol dependence and organic brain disease or other physical illness were excluded from the study. During the fourteen months of the study 84 women with depressive neurosis were seen.

All the subjects completed the General Health Questionnaire (30 item version, Goldberg, 1972) and the Wakefield self-assessment of depression inventory (Snaith *et al*, 1971). During a psychiatric interview the Hamilton rating scale (Hamilton, 1960) was completed.

All the subjects were matched for age (within five years), marital status and social class with the next woman admitted to a gynaecological unit with no past history of depression (diagnosed by a psychiatrist) and with no current psychiatric disorder; eight women who were admitted for investigation of infertility were matched with the next depressed childless married woman. The General Health Questionnaire (30-item version) was given to detect psychiatric disorder in conjunction with a short psychiatric symptom interview to detect false positive and negative scores. The method of determining social class was that reported by Brown *et al* (1977). Their division of Goldthorpe and Hope's (1974) classification of occupations into middle and working class was also used.

All subjects were asked about age, marital status, ages of children at home, own level of education, own, husband's and father's occupation, first degree relatives and history of psychiatric disorder (diagnosed by a psychiatrist), and about:

(1) Loss of parent before 17 through (a) death, (b) parents' separation, and (c) separation from a parent for more than one year.

(2) Loss of sibling by death while the subject was under 17.

Those subjects who had full or part-time employment at the onset of depression but who subsequently gave up employment were recorded as being employed (at onset).

From March 1977 all married subjects and controls were also assessed as to their marriage (Quinton *et al*, 1976). In this study ratings from 1–3 were grouped together as 'good' marriage and ratings from 4–6 as 'poor' marriage. The rating evaluated the state of the marriage before the onset of the depression and if a recent marital discord in a previously 'good' marriage had led to depression the marital rating recorded was that of a 'good' marriage. In many subjects an informant, often the husband, was also separately interviewed.

At the end of the study a reliability study of the marital interview ratings was done on ten psychiatric patients with a psychiatric colleague who, using the rating guidelines, rated independently at the end of each interview.

In the statistical analysis Fisher's exact test and the Chi-square test with Yates' correction were used.

Results

For the whole group of depressed women the range of duration of the depression was from one month to two years. Table I shows that the Dulwich patients were older than those seen at the Maudsley but that otherwise the groups were very similar for marital status, mean duration and symptom scores. The mean score of the control group on the General Health Questionnaire was 1.8.

Several depressed women had a 'poor' marriage and yet were able to confide in their husbands. There was only one subject with a 'good' marriage who also claimed that she was unable to confide in her husband. The number of marriages assessed (Table II) are smaller than the number of married patients given in Table I as marital assessments commenced after the start of the study. Amongst the 50 working-class depressed women statistically significant differences, when compared with their controls, were found for all four vulnerability factors amongst the 33 patients seen at the Maudsley Hospital but only for poor, non-confiding

TABLE I

Marital status, age, duration of depression and symptom scores of subjects (Mean scores)

	Maudsley		Dulwich		Total	
	Working class (N = 33)	Middle class (N = 23)	Working class (N = 17)	Middle class (N = 11)	Working class (N = 50)	Middle class (N = 34)
Married (or cohabiting)	25	15	16	8	41	23
Single	4	6	0	2	4	8
Divorced	4	2	1	1	5	3
Age in years	34.2	30.8	39.4	43	35.9	34.7
Duration of depression in months	5.7	8.5	7.5	5.6	6.2	7.9
Goldberg	15.9	20.0	23.1	23.0	18.0	20.8
Wakefield	24.3	23.3	25.5	24.8	24.7	23.6
Hamilton	16.5	14.3	14.0	14.5	15.6	14.4

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marriage and unemployment amongst the 17 seen at Dulwich Hospital. Fisher's exact test and the Chi-squared test with Yates' correction were used to examine inter-relationships between the vulnerability factors found here for the working-class women. This was done separately for both the patient groups seen at the Maudsley and Dulwich Hospitals and also for the total group. No statistically significant relationships were found between the four variables.

Forty-one of the subjects had a past history of psychiatric contact and treatment. In 34 (40.5 per cent) this was for depression and 47.1 per cent of these had a loss before 17. Amongst the whole group of 84 patients 41.7 per cent had a loss before 17. Only one of the controls had a past history of psychiatric contact. Table III shows only the statistically significant findings in relation to loss. The total number of depressed women with separation before 17 from mother

TABLE II

Vulnerability factors and family history of depression

	Working class			Middle class		
	Depression (N = 50)	Controls (N = 50)	Significance	Depression (N = 34)	Controls (N = 34)	Significance
Any loss before 17	28	17	P <0.05	11	7	NS
Poor marriage	20/32	0/32	P <0.001	8/16	0/16	P <0.001
Non-confiding	14/32	0/32	P <0.001	4/16	0/16	P <0.05
Three children under fourteen years	9	2	P <0.05	2	4	NS
Unemployed	29	10	P <0.001	4	8	NS
Family history of depression (in first degree relatives)	11	6	NS	13	5	P <0.05

TABLE III

Data about loss

		Working class (N = 50)			Middle class (N = 34)			Total (N = 84)		
		De-pressed	Con-trol	Signi-ficance	De-pressed	Con-trol	Signi-ficance	De-pressed	Con-trol	Signi-ficance
Father	Separation 0-17	15	11	NS	10	3	P<0.05	25	14	P<0.05
Mother	Separation 0-10	10	3	P<0.05	4	0	NS	14	3	P<0.001
	Separation 0-17	12	5	NS	5	1	NS	17	6	P<0.05
	Any Loss 0-10	12	7	NS	4	0	NS	16	7	P<0.05
	Any Loss 0-17	17	9	NS	5	1	NS	22	10	P<0.05
Either Parent	Separation 0-10	16	9	NS	9	3	NS	25	12	P<0.05
	Separation 0-17	21	12	P<0.05	10	4	NS	31	16	P<0.001

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or father is 42 but the number with a separation from either parent is only 31 as 11 depressed women had had separation from both mother and father.

In the reliability study of the marital interview, agreement was reached in nine of the ten cases about both the judgement as to whether or not the woman was normally able to confide in her husband and whether the rating before onset was within the 'good' or 'poor' marriage range. Agreement about the exact rating between 1 to 6, within one rating, was achieved in eight of the ten assessments. (Neither psychiatrist had any training with the interview or its rating.)

Discussion

Twenty of the 28 depressed women seen at Dulwich Hospital, a general hospital, were admitted following a drug overdosage. They suffered from depression, which was subsequently treated, and not just from transient situational disturbances (*Glossary* 307.0). The remaining 8 were referred to the out-patient clinic and had no physical disorder and included a depressed wife of a patient and a self-referred member of staff.

In respect to past loss in depression Brown *et al* (1977) comment that 'it is, of course, important to exclude depressed women from the comparison group, and the failure of previous research to do this is probably one reason for the many negative results'. In this study women with either a past history of depression (diagnosed by a psychiatrist) or a current minor psychiatric disorder on the day of admission were excluded from the control group.

The General Health Questionnaire is a screening instrument for both conspicuous and hidden psychiatric disorder (Goldberg and Blackwell, 1970; and Johnstone and Goldberg, 1976). Ballinger (1977) using the 60-item version found that 53 per cent of 217 women between 40 and 55 years of age newly referred to the gynaecological out-patient clinic in Dundee were identified as possible psychiatric cases. In the present study amongst the women newly admitted to the gyaecological unit the percentage of excluded possible psychiatric cases was even higher.

The majority of the psychiatrically normal control patients were admitted for routine minor investigations or operative procedures. Referral factors may be a possible source of bias in the control group. Thirty-four of the 84 women were admitted for sterilization and include women limiting their family to less than three children. However, other referral factors may account for the fact that five of the six control women with three or more children under 14 years were amongst those admitted for sterilization.

The study by Brown *et al* (1975) was a community study. In the present study the subjects and controls were not drawn from the community but were hospital attenders. The percentages with any loss of mother or father before 17 years of age bear comparison with those found by Brown *et al* (1977) amongst both 114 depressed hospital patients and 382 'normal' general population women (excluding cases). In this study 13.0 per cent of the depressed women had any loss of mother before 17 (14.0 per cent amongst Brown *et als*' patients) compared with 5.9 per cent of the controls (8.1 per cent in Brown *et als*' study). In the present study 29.7 per cent of the depressed women had any loss of father before 17 (21.1 per cent amongst Brown *et als*' patients) compared with 16.6 per cent of the controls (16.5 per cent in Brown *et als*' study).

This independent hospital study confirms Brown *et al's* (1975 and 1977) community findings that loss of mother before 11 years of age, three or more children under 14 at home, a lack of a confiding marital relationship and a lack of full- or part-time employment are associated with depressive neurosis in working-class women. It also reports that depression in middle-class women is associated with separation from father before 17 and lack of a confiding marital relationship.

Personality factors may contribute to these vulnerability factors, particularly in relation to marital harmony and employment. These four factors may not be specific to depression but also apply to other psychiatric disorders. These points are the focus of a current study.

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