

Incidence of Depressive Symptoms in Users of the Oral Contraceptive

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SUMMARY Evidence is presented that the incidence of depression among users of oral contraceptives is no higher than that among matched controls not taking such medication. There is an association between high depression scores and high neuroticism scores, more marked in controls than takers. Intensity of depression is related more to age, personality and occupation than to the use of oral contraceptives. A higher proportion of users than of controls experience sexual satisfaction. Past takers include a large number of individuals with a high neuroticism score. The incidence of depressive symptoms in women increases with age. A higher proportion of housewives than of women going out to full-time work show depressive symptoms.

Introduction

Since the introduction of oral contraceptives to control the birth rate in underprivileged women in Puerto Rico, reported by Pincus and his colleagues (1958), this method of fertility control has been widely adopted in many countries.

Not long afterwards reports began to appear in the medical literature describing a variety of alleged side effects of oral contraceptives. Some of the physical side effects have been recognized and evaluated only in recent years, mainly in the Oral Contraception Study of the Royal College of General Practitioners (1974) and in the survey carried out by Vessey and his colleagues (1976).

There has been more controversy regarding possible psychological side effects. The most common is said to be depression, first mentioned by Wearing (1963) and Kaye (1963) and reported in 34 other papers but not confirmed, or contradicted, in 23 further papers. (A full list of these and other references can be obtained from the authors.)

Likewise the effect of oral contraceptives on libido, the loss of which may be associated with

depression is equally uncertain. Ten papers report loss of libido; 4 papers describe it as unchanged or equivocal; 3 report an increase of libido. Twenty papers which accept that depression occurs try to explain this in biochemical terms, mostly by blaming progestogenic compounds (e.g. Grant and Pryse-Davies, 1968; Lewis and Houghugi, 1969). On the other hand, oestrogenic preparations have been held responsible by Cullberg (1972). Waxman (1968) claims to have relieved depression by the administration of progesterone; Leeton (1973) holds that the oestrogen-progesterone balance is unimportant.

Many authors explain disturbances of mood and libido in psychological and psychiatric rather than biochemical terms (e.g. Zell and Crisp, 1964; Nilsson *et al*, 1967).

The majority of these papers deal with uncontrolled samples selected without defined criteria for measuring depression; some are frankly anecdotal. There is a tendency for earlier reports to be quoted uncritically by subsequent authors.

It is estimated that in Britain alone more than two million women are regular contraceptive

pill users. It seemed therefore important to establish whether we are faced with a large amount of avoidable suffering or whether the alarm has been sounded unnecessarily. This study of a group of women on the contraceptive pill was undertaken in an attempt to clarify the situation concerning the incidence of depression and loss of libido.

Method

This survey was carried out in the general practice of one of the authors (O.F.), which is situated in a predominantly working class area of South Yorkshire. All the women in this practice population who were taking an oral contraceptive were identified and matched for age with two groups of controls, past takers of the oral contraceptive and non-takers, i.e. those who had never used oral contraceptives. The technique of the Royal College of General Practitioners Oral Contraceptives Study (1974) was followed. The matching was carried out by identifying each patient on the contraceptive pill and working through the medical cards of the practice consecutively till we found the next woman patient within three years of the same age who was either not taking or had discontinued the pill; this patient was selected for the appropriate control group. The majority of patients were visited at home by non-professional interviewers who had been given brief guidance concerning the administration of the various questionnaires. Their main task was to ensure that the questionnaires were fully completed. The interviewers did not know whether they were dealing with takers or controls until the questionnaires had been completed.

Three questionnaires were used:

1. Information about the patient's current menstrual history, medical and psychiatric state, etc. (Appendix 1).
2. A depression rating scale modified from Watts (1977) (Appendix 2). This scale has been used by Watts and a number of other general practitioner colleagues as an aid in recording the changes on antidepressive medication.
3. Eysenck Personality Inventory (Form A) (Eysenck and Eysenck, 1963).

We have no evidence within the limits of this survey to establish the brand of oral contraceptive used by each taker, but it was known that virtually none used sequential or progesterone-only preparations. For practical purposes it can be assumed that only combined pills were used. Likewise it was not possible to authenticate the many reasons for discontinuance; they ranged from a desire to become pregnant to the breaking off of a relationship or advice from a neighbour. These could not have been reliably evaluated within the scope of this investigation. No attempt was made to ascertain the date of discontinuance, since such information could not be reliably obtained.

In trying to determine whether an individual was depressed, the group of symptoms upon which this decision was based presented a continuum from virtual absence to a preponderance. The various answers to the depression questionnaire were given weightings, and the total number of points was computed for each series of replies. For convenience these scores were aggregated into Not Depressed, Mildly Depressed, and Definitely Depressed; scores between 0 and 6 indicated virtual absence of depression, 7 to 12 indicated mild depressive symptoms, and 13 and over the presence of depressive illness. A similar procedure was adopted for neuroticism with the Eysenck Personality Inventory (EPI).

Results

A total of 686 women were included in the survey. This comprised 335 women currently taking the contraceptive pill, 172 who had previously taken such a pill and 179 who had never been on such medication. (Table I).

The age distribution of the three groups was comparable; there was a slightly higher representation of older patients in the non-taker group, but the difference in the three groups was not significant ($\chi^2 = 7.31$; $P < 0.2$).

Table II compares the depression scores of the three groups of subjects included in the survey. It can be seen that the takers did not have a higher incidence of depression than matched controls. The non-takers scored very similarly to the takers, but the past takers had a higher incidence of depression. In view of the

TABLE I
Ages of women taking and not taking oral contraceptives

Age (years)	Takers		Past takers		Non-takers	
	No.	%	No.	%	No.	%
Under 20	30	9.0	11	6.4	20	11.2
20-29	206	61.5	111	64.5	99	55.3
30-39	92	27.5	44	25.6	51	28.5
40 plus	7	2.1	6	3.5	9	5.0
Total	335	100.1	172	100.0	179	100.0

TABLE II
Depression scores of takers, past takers and non-takers of oral contraceptives

Depression score	Takers		Past takers		Non-takers	
	No.	%	No.	%	No.	%
0-3	127	38	38	22	62	35
4-6	102	30	49	28	50	28
7-9	55	16	41	24	36	20
10-12	30	9	21	12	21	12
13-25, depressive illness	21	6	23	13	10	6
	335		172		179	

well-known mood changes that occur during the menstrual cycle, attention was paid to the phase of the cycle in which the interview took place. It was found that the incidence of scores falling into the Definitely Depressed category was about equal in each phase in both takers and non-takers. None of the three groups showed any increase in the depression score during the premenstrual stage. (Table III).

Table IV examines the relationship of depression scores and age of respondents. All groups showed an increase in depressive symptoms with increasing age. The slight preponderance of older ages in the non-takers may have been responsible for the higher incidence of depression scores in this group.

Since it was suspected that the level of neuroticism might have some influence on the individuals attitude to the oral contraceptive, the three groups of subjects were compared on the EPI.

Figure 1 shows that, while the takers and non-takers were similar in the percentages achieving the various neuroticism scores, the past takers (middle columns, P) had a smaller percentage with low neuroticism scores, but higher percentages with scores above 11.

The question of personality in relation to depressive symptoms was examined by comparing neuroticism scores with the score on the depression scale. It is noteworthy that, while the extraversion scores did not appear to differ markedly in the three groups of individuals, there was a marked disproportion of individuals with high neuroticism scores associated with high depression scores among the non-takers, and even more so amongst the past takers, compared with the takers. This is shown in Table V.

There is one particular feature of the depression score which it was thought important to examine separately. This was the answer to the

TABLE III
Depression scores during phases of menstrual cycle in takers, past takers and non-takers of oral contraceptives

<i>Takers</i>				
Depression score	1st week %	2nd week %	3rd week %	4th week %
0-6	67	69	71	68
7-12	26	25	20	30
13-25	7	6	9	2
<i>Past takers</i>				
	%	%	%	%
0-6	43	54	57	53
7-12	35	31	30	44
13-25	22	14	13	3
<i>Non-takers</i>				
	%	%	%	%
0-6	67	64	56	74
7-12	33	25	39	21
13-25	0	11	6	5

question about libido. It was found that 20 per cent and 22 per cent respectively of takers and non-takers reported diminished libido. The proportion of past takers was somewhat higher at 29 per cent, though the difference was not found to be satisfactorily significant ($\chi^2 = 5.3$; $P < 0.05$).

It was considered that parity might have some bearing on the incidence of depression; the results can be seen in Table VI. This demonstrates that depressive symptoms were less marked in the childless and became more pronounced with an increase in the number of children, particularly in the past takers. This is not entirely a question of an older age group, because although the non-takers had the highest proportion of individuals over the age of 40 it was the past takers group which had the highest incidence of depressive scores; thus 37 per cent of the past takers with one or more children showed depressive scores over 13 while only 19 per cent of the non-takers and 18 per cent of the takers scored in this category.

It became apparent during the study that while depression seemed not to be related to the use of oral contraceptives there did appear to be

TABLE IV
Numbers of takers and others by age group reporting depressive symptoms

Depression score	Less than 20 years			20-29 years		
	Takers	Past takers	Non-takers	Takers	Past takers	Non-takers
0-6	20	6	13	143	56	64
7-12	9	4	6	52	42	34
13-25	1	1	2	11	13	0
Total	30	11	21	206	111	98
	30-39 years			40+ years		
0-6	63	23	32	2	2	5
7-12	22	12	17	3	4	1
13-25	8	9	2	1	0	3
Total	93	44	51	6	6	9

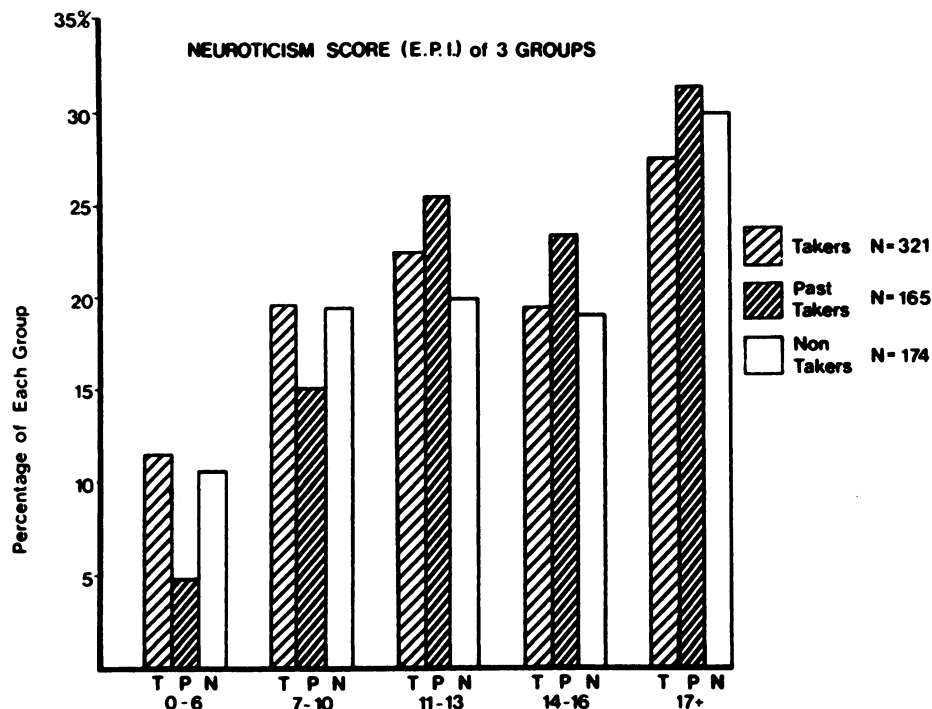


FIG 1.—Neuroticism score EPI.

a positive relationship between the depression score and the proportion of time the individual was tied to the house, particularly if there were young children to be looked after. A further group of questions was therefore asked concerning this aspect of the individual's life. Figure 2 shows that there was a higher proportion of full-time housewives among the past-takers; this was to be expected, since many of these would have stopped taking the pill in order to have children. There was little difference in the proportions of full-time housewives and people working outside the home in the other two groups, takers and non-takers.

Figure 3 shows that the full-time housewives had a higher incidence of depressive symptoms than those women who went out to work. These results were statistically significant ($\chi^2 = 11.0$ and $P < 0.05$).

Discussion

If the relationship of depression and oral contraception is to be assessed rationally,

degrees of depression must be defined and measured. A baseline of depression must be established for any particular group under observation. Variation of intensity of depressive symptoms is related to personal and social factors, both in takers and non-takers. As Tables II, III, V and VI show, there is a spectrum of depressive symptoms and of neuroticism in any given population. To state that oral contraceptive takers are more or less depressed than non-takers is meaningless unless matched groups are compared. For this reason much previously published work is of doubtful value and has resulted in contradictory findings.

We have found no evidence to support the view that oral contraceptive takers as a group are more depressed than non-takers; the former show slightly lower depression scores (Table II). This applies whether the subjects are matched for phase of menstrual cycle (Table III), age (Table IV), parity (Table VI) or occupational status (Figure 2). These findings agree with

TABLE V
Neuroticism score (N) in relation to depression scores

		<i>Takers</i>			
		Low N score 0-6	Intermediate N score 7-13	High N score 14+	Total
No depression	Score 0-6	34	155	28	217
Mildly depressed	Score 7-12	1	33	20	54
Definitely depressed	Score 13-25	0	10	40	50
Total		35	198	88	321
		<i>Past takers</i>			
No depression	Score 0-6	6	45	33	84
Mildly depressed	Score 7-12	0	15	22	37
Definitely depressed	Score 13-25	1	7	36	44
Total		7	67	91	165
		<i>Non-takers</i>			
No depression	Score 0-6	16	30	15	61
Mildly depressed	Score 7-12	3	34	46	83
Definitely depressed	Score 13-25	0	5	25	30
Total		19	69	86	174

those of Goldzieher *et al* (1971a, 1971b) and Kutner and Brown (1972).

A surprising number of depressive symptoms were present in both takers and controls. Brown, in his observation of working class women in South London, also noted this (Brown *et al*, 1975), as did Richman (1976). There is a definite pattern in the distribution of depressive symptoms. We found an increase of depression with increasing age, and this applied to all groups but was more marked in the controls.

It was observed that neuroticism (as measured by the EPI) and depressive symptoms often presented together. Indeed, this confirmed clinical experience that depressive symptoms appear more readily in association with neurotic personalities. This is well illustrated in Table V, where it will be seen that there was little link

between higher depression scores and high N scores in oral contraceptive takers, but marked association in controls, thus suggesting that their high depression scores were a function of their high N scores.

This association of high N scores with high depression scores was most marked in past takers, thus supporting the view that neurotic women produce more symptoms and presumably blame them on the pill and therefore cease to use it. This accords well with the 'scapegoat effect' quoted by Bakker and Dightman (1966).

It has been observed by one of the authors (O.F.) that of all the patients seen in his general practice who present with explicit or covert depressive symptoms not one will attribute them to a specific cause, even in the presence of trauma which might be obvious to laymen.

TABLE VI
Number of women without or with children in each
contraceptive group who reported depression

Takers			
Depression score	No children	1-3 children	4+ children
0-6	55	163	10
7-12	18	62	6
13-25	3	16	2
Total	76	241	18
Past takers			
Depression score	No children	1-3 children	4+ children
0-6	22	59	6
7-12	8	50	4
13-25	2	18	3
Total	32	127	13
Non-takers			
Depression score	No children	1-3 children	4+ children
0-6	38	69	6
7-12	13	41	2
13-25	0	9	1
Total	51	119	9

The only cause ever mentioned, in the experience of the author, is 'the pill'.

The 'scapegoat effect' of pill-related depression is an affliction not only of pill users

but also of pill prescribers, who readily attribute any psychogenic symptoms to the pill, thus avoiding the need to explore their real causation. Instead, various oral contraceptive preparations are tried in turn, or discontinuance of oral contraception is advised. Anxiety and depression in these cases will be relieved by this action only if the cause was fear of serious side effects such as thrombosis which might have been engendered by the publicity given to such mishaps.

The finding that oral contraceptive takers showed more sexual interest than non-users is not surprising. This group contained strongly motivated women who used oral contraceptives to help them in leading a fulfilled sex life, and others who found that their fear of pregnancy was removed by this medication. Both could be expected to answer the question positively. On the other hand, it may be said that one of the reasons why past takers discontinued taking the pill was because they were aware of this side effect on libido, and this was the reason why they ceased to use it. Noting the tendency to high neuroticism scores among these individuals, it is difficult to know whether this was a true organic effect on the libido or whether it was brought about by anxiety over widely publicized possible side effects. It is remarkable that these subjects showed diminished sexual interest even after discontinuance of oral contraception.

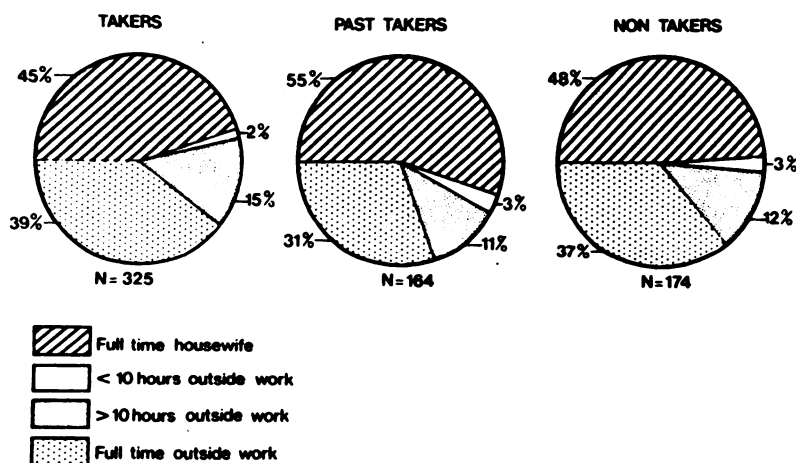


FIG 2.—Hours of work outside home for three groups.

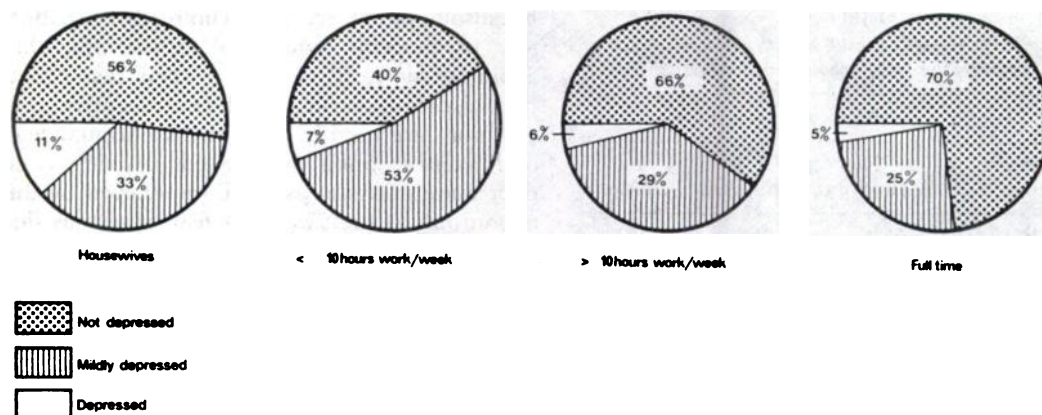


FIG 3.—Depression scores in relation to hours of work outside the home.

Negandhi (1976) observed that the loss of libido in oral contraceptive users was more common in housewives than in women going out to work. This observation is in line with our findings (Figure 3). The careful study by Brown *et al* (1975) found a greater prevalence of psychiatric disturbance in working class women, particularly in those with children at home.

Many factors influencing the presence or absence of depressive symptoms in a normal population have been described; they range from such life events as early maternal deprivation to the lack of a supportive personal relationship later in life. We have measured depressive symptoms only in a limited number of situations. Incidence and intensity of depression were found to vary with age, phase of the menstrual cycle, parity and work situation. Whatever the background, in none of the carefully matched groups was the use of oral contraceptives associated with an increase of depressive symptoms.

Acknowledgements

This project was funded by a research grant from the Sheffield Regional Hospital Board, now the Trent Regional Health Authority. Our thanks are also due to Messrs Schering Chemicals Ltd for an additional grant.

We also wish to express our gratitude to the team of 14 ladies who administered the questionnaires so conscientiously, for the painstaking processing of the data by Mrs D. Swift, and to Mrs C. Goldberg for advice on the presentation of the data. We are indebted to Dr C. A. H. Watts for permission to use and modify his depression rating scale.

References

- BAKKER, C. B. & DIGHTMAN, C. R. (1966) Side effects of oral contraceptives. *Obstetrics and Gynaecology*, **28**, 373-9.
- BROWN, G. W., BHROLCHAIN, M. N. & HARRIS, T. (1975) Social class and psychiatric disturbance among women in an urban population. *Sociology*, **9**, 225-54.
- CULLBERG, J. (1972) Mood changes and menstrual symptoms with different progestagen/estrogen combinations. *Acta Psychiatrica Scandinavica*, Suppl. 236.
- EYSENCK, H. J. & EYSENCK, S. B. G. (1963) *Eysenck Personality Inventory*. London: University of London Press.
- GOLDZIEHER, J. W., MOSES, L. E., AVERKIN, E., SCHEEL, C. & TABER, B. Z. (1971a) A placebo-controlled double-blind crossover investigation of the side effects attributed to oral contraceptives. *Fertility and Sterility*, **22**, 609-23.
- GOLDZIEHER, J. W., MOSES, L. E., AVERKIN, E., SCHEEL, C. & TABER, B. Z. (1971b) Nervousness and depression attributed to oral contraceptives: a double-blind, placebo-controlled study. *American Journal of Obstetrics and Gynaecology*, **111**, 1013-20.
- GRANT, E. C. G. & PRYSE-DAVIES, J. (1968) Effect of oral contraceptives of depressive mood changes and on endometrial monoamine oxidase and phosphates. *British Medical Journal*, *iii*, 777-80.
- KAYE, M. B. (1963) Oral contraceptives and depression. *Journal of the American Medical Association*, **522**, 186.
- KUTNER, J. S. & BROWN, W. L. (1972) Types of oral contraceptives, depression, and premenstrual symptoms. *Journal of Nervous and Mental Disease*, **155**, 153-62.
- LEETON, J. (1973) The relationship of oral contraception to depressive symptoms. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, **13**, 115-20.
- LEWIS, A. & HOGHUGI, M. (1969) An evaluation of depression as a side effect of oral contraceptives. *British Journal of Psychiatry*, **115**, 697-701.
- NEGANDHI, D. B. (1976) The pill—and your job. *Doctor*, 14 October, p 18.

NILSSON, A., JACOBSON, L. & INGEMANSON, C. A. (1967) Side-effects of an oral contraceptive with particular attention to mental symptoms and sexual adaptation. *Acta Obstetrica Gynaecologica Scandinavica*, **46**, 537-56.

PINCUS, E., ROCK, J., GARCIA, C.-R., RICE-WRAY, E., PANIAGUA, M. & RODRIGUEZ, I. (1958) Fertility control with oral medication. *American Journal of Obstetrics and Gynaecology*, **75**(2), 1333-46.

RICHMAN, N. (1976) Depression in mothers of pre-school children. *Journal of Child Psychology and Psychiatry*, **17**, 75-8.

ROYAL COLLEGE OF GENERAL PRACTITIONERS (1974) *Oral Contraceptives and Health*. London: Pitman Medical.

VESSEY, M., DOLL, R., PETO, R., JOHNSON, B. & WIGGINS, P. (1976) A long-term follow-up study of women using different methods of contraception: an interim report. *Journal of Biosocial Science*, **8**, 373-427.

WAXMAN, D. (1968) Mood and the pill. *British Medical Journal*, *iv*, 188.

WATTS, C. A. H. (1977) Personal communication.

WEARING, M. P. (1963) The use of norethindrone (2 mg) with mestranol (0.1 mg) in fertility control. *Canadian Medical Association Journal*, **89**, 239-41.

ZELL, J. R. & CRISP, W. E. (1964) A psychiatric evaluation of the use of oral contraceptives. *Obstetrics and Gynaecology*, **23**, 657-61.

Are you on any treatment at present?
If so what?

Do you suffer from any disability or handicap. Please specify.

Have you had any serious illness?
Have you been in hospital?
Have you had any nervous illness?

APPENDIX 2

DEPRESSION RATING SCALE

(MODIFIED FROM WATTS)

Please read the statements in each group, and put a tick against the one which comes nearest to how you feel. In this part of the paper there should only be ONE tick for each group of questions.

- Group 1 (Tick one statement)
- a. I feel very low and miserable (2)*
 - b. I am fine (0)
 - c. I feel really down (2)
 - d. I feel on top of the world (0)
 - e. I feel utterly wretched (2)
 - f. I feel below par (1)
 - g. I am fairly well (1)

- Group 2 (Tick one statement)
- a. Things are going well are present (0)
 - b. I think that things will be all right (0)
 - c. The future looks black for me (2)
 - d. I have every confidence in the future (0)
 - e. I am dissatisfied with everything (1)
 - f. I feel hopeless (2)
 - g. I am feeling rather discouraged (1)

- Group 3 (Tick one statement)
- a. I feel tired all the time (2)
 - b. I am bursting with energy at present (0)
 - c. I have lost my usual drive (1)
 - d. Some days I feel all right, and other days I am worn out (1)
 - e. I feel rather less energetic than I would wish (1)
 - f. I have my usual amount of energy (0)
 - g. I feel utterly exhausted (2)

- Group 4 (Tick one statement)
- a. Work is rather difficult for me at present (1)
 - b. I haven't the interest or energy to do a thing (2)
 - c. I can work about as well as most people (0)
 - d. I can only potter about at home (1)
 - e. I am on top of my job (0)
 - f. I can do the work of two people (0)
 - g. I can work, but only with real effort (2)

* Score (not included on questionnaire for patient).

Confidential APPENDIX 1

It will help us to understand how you are feeling if you will choose from the statements set out below which ones apply to you today.

THIS DOCUMENT IS COMPLETELY CONFIDENTIAL

Please tick the appropriate boxes and number

- Single Date of last menstrual period?
- Married When are you expecting your next period?
- Widowed next period?
- Divorced/separated Do you always know when your next period is expected?
- Number of children
- Number of miscarriages
- Number of termination of pregnancy
- Have you been sterilized?
- Are you using the Contraceptive Pill?
If not, have you ever used it?
- Are you using any method of contraception? If so which?
- Have you any worries in life sufficient to make you frequently depressed or upset?
- Are these worries: Domestic
Financial
Due to death of a relative or friend
Others (specify)

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- | | | | |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Group 5</i>
(Tick one statement)</p> | <p>a. I sometimes cry when I am by myself (2)
 b. I wish I could cry, but I feel beyond tears (2)
 c. I find myself crying all day (2)
 d. Although I have my worries, I am never close to tears (0)
 e. I feel perfectly well (0)
 f. I keep bursting into tears (2)
 g. I could cry if I gave way (1)</p> | <p><i>Group 9</i>
(Tick one statement)</p> | <p>a. I have no powers of concentration (2)
 b. I can concentrate on what I am doing (0)
 c. My concentration is not what it used to be (1)</p> |
| <p><i>Group 6</i>
(Tick one statement)</p> | <p>a. Sometimes I show my anger (0)
 b. I often feel annoyed with people and things (0)
 c. I get on reasonably well with people (0)
 d. I feel intensely irritable and upset all the time (1)
 e. I feel I have to get away from everyone (2)
 f. I get on fine with everyone (0)
 g. I keep on losing my temper very easily (1)</p> | <p><i>Group 10</i>
(Tick one statement)</p> | <p>a. My feelings do not vary very much during the day (0)
 b. I feel at my best when I get up and worse later in the day (1)
 c. I feel bad in the mornings and better as the day goes on (2)
 d. I feel terrible all day long (2)
 e. I feel better at some times of the day than others but I cannot say when (1)</p> |
| <p><i>Group 7</i>
(Tick one statement)</p> | <p>a. Nothing worries me (0)
 b. I get quite worked up at times (1)
 c. I feel more tense than is usually the case (1)
 d. I feel constantly terrified (1)
 e. I do not worry more than most people (0)
 f. Most of the time I feel all right, but at times I panic (1)
 g. I feel tensed up and on edge all the time (1)</p> | <p><i>Group 11</i>
(Tick one statement)</p> | <p>a. I wake many times during the night (1)
 b. I find that I am sleeping more than I do normally (1)
 c. I can hardly sleep at all (1)
 d. I sleep well (0)
 e. I can sleep for a few hours and then I am awake for the rest of the night (2)
 f. I find it hard to get to sleep (1)</p> |
| <p><i>Group 8</i>
(Tick one statement)</p> | <p>a. I tend to forget things more than I did (1)
 b. My memory is as good as usual (0)
 c. I seem to have no memory at all these days (2)</p> | <p><i>Group 12</i>
(Tick one statement)</p> | <p>a. I eat normally but I do not enjoy food (1)
 b. I eat less than usual (2)
 c. My appetite has not changed (0)
 d. I have been eating more than usual (1)
 e. I am completely off my food (2)</p> |
| | | <p><i>Group 13</i>
(Tick one statement)</p> | <p>a. Nowadays I have no interest in sex (2)
 b. I am more interested in sexual relations than I was a few months ago (0)
 c. I seem to be losing interest in sex (1)
 d. I enjoy a normal sex life (0)</p> |

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