PSYCHIATRIC MORBIDITY AND THE MENOPAUSE

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SUMMARY

A sample consisting of Menopausal, pre menopausal and post menopausal women in the age range of 36 to 50 years was studied using a two stage screening procedure for identifying and assessing psychiatric morbidity. The screening device, General Health questionnaire (GHQ) identified 21 of the 105 women studied as 'possible cases'. On further interviews using standard psychiatric interview (SPI) a higher proportion of menopausal women were found to be psychiatrically ill. The predominant symptoms in the Menopausal group was depression. Both menopausal women and women who had undergone hysterectomy (surgical menopause) received higher mean ratings on SPI. The inter-rater reliability of SPI was found to be high and was comparable to those reported by original authors.

Clinicians have long been interested in the impact of menopause on mental status. The possible association between the climacteric phase and depression has been much explored (Rosenthal, 1968 ; Winokur, 1973, 1975). In an earlier study (Indira and Murthy, 1980), it was found that a higher proportion of menopausal women seeking psychiatric help were given the diagnoses of affective disorders. This study examines the extent to which symptomatic manifestations of menopause are related to psychiatric morbidity.

MATERIAL AND METHOD

Sample : For the purpose of this study, women belonging to different physiological stages of the life cycle—pre menopausal, menopausal (or Peri-menopausal) and post menopausal were considered. A sample of 105 middle aged women in the age range of 36 to 50 years was selected from Gynaecology out patient clinics of General hospitals as well as from community in general. Efforts were made to represent different educational, occupational and economic levels and marital status. Women who were not in the age range specified by the study, or were pregnant, or were diagnosed as suffering from serious gynaecological or systemic disorders, were excluded from the sample. Menopausal status was determined on the basis of examination by the consulting Gynaecologist for the sample from the hospital and by detailed menstrual history for the sample from the community. The sample thus selected was grouped as menopausal (ML, N=35), Pre-menopausal (PM, N=35), Post menopausal—Natural (PN, N=22) and Post menopausal—surgical (PS, N=13). The criteria for such classification were those given by Vankeep and Kellerhals (1974).

Procedure : In recent morbidity researches, a two stage screening procedure has been considered desirable and economical. The first stage entails the selection of possible or "potential" cases by means of a rapid and easily administered screening test. At the second stage, these possible cases are interviewed in detail by psychiatrists to establish the presence or absence of a disorder and if possible, they are given a diagnosis. Similar procedure has been followed in this study.

All the 105 subjects contacted were given the 60 item version of General Health Questionnaire (G. H. Q.) of Goldberg (1972). Those scoring 12 and above were later interviewed in detail by mental health

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professionals using the standard psychiatric interview (S. P. I.) developed by Goldberg *et al.* (1970).

RESULTS

GHQ, as the first stage screening method, identified 21 women *i.e.* 20% of the sample as "possible or potential cases". The Mean GHQ scores of 'cases' was 22.55 ± 7.87 and that of 'normals' 3.21 ± 2.14. The difference was significant ($t = 8.02$, $p < .01$). Table I gives the result on GHQ of the sample in terms of Menopausal status and age group.

TABLE I—*Distribution of the sample on GHQ scores*

		Scores below 12	Scores above 12
Menopausal Status			
ML	..	24	11
PM	..	32	3
PN	..	19	3
PS	..	9	4
$X^2 = 7.21$			
Age (in yrs.)			
36—40	..	27	6
41—45	..	25	7
46—50	..	32	8
$X^2 = 0.14$			

Proportion of 'cases' was highest in the menopausal group and least in the pre-menopausal group. The difference between PM & ML group was significant ($X^2 = 5.71*$). Though PM group also differed from PS group, the difference did not reach the leavel of significance ($X^2 = 2.18$).

21 subjects identified as 'cases' were further interviewed by two psychiatrists and a senior clinical psychologist using the SPI. Three of the subjects refused to be interviewed. Table II gives the SPI ratings for the cases for reported symptoms

(RS), Manifest Abnormality (MA) and over all severity rating (SR) on SPI. ($SR = RS_i = 2MA_i$). The 18 women interviewed were seen on SPI as having considerable morbidity.

TABLE II—*The SPI ratings for 'cases'*

Groups	RS		MA		SR	
	Mean	S. D.	Mean	S. D.	Mean	S. D.
ML	16.73	5.29	9.82	2.90	36.36	12.79
PM	13.00	7.00	8.67	6.03	30.33	18.56
PN	15.67	5.50	8.00	6.08	31.67	17.20
PS	17.75	5.74	15.00	3.56	47.75	12.84
Total	16.24	5.39	10.38	4.75	37.00	47.31

The PS group received the highest ratings, while PM had the lowest on both reported and observed symptoms. However, none of the differences reached the level of significance, except the difference between PS and ML group on the MA score ($t = 2.43*$).

The mean ratings given by the raters for subjects were also found out. Highest rating was given for the symptom 'Depression' while symptoms—'Elated, Euphoric', 'Flattened, incongruous' and 'Thought disorders' received the lowest ratings. Table III gives the details.

For 15 of the cases, ratings made simultaneously by two interviewers were available for the inter rater reliability. Kappa and Weighted Kappa are considered to be suitable methods for finding out such reliability measures (Cohen, 1960, 1968 ; Fleiss *et al.*, 1969). These methods could not be used here due to the small sample size (Cicchetti, 1975). Hence product moment correlations were worked out. These values as well as the reliability values reported by Goldberg *et al.* (1970) are given

TABLE III—*Mean rating for each symptom of the SPI*

Reported Symptoms	ML	PM	PN	PS	Total
1. Somatic symptoms	2.55	1.33	2.33	3.00	2.42
2. Fatigue	2.00	1.66	2.33	2.75	2.14
3. Sleep disturbance	2.45	1.66	2.33	1.25	2.09
4. Irritability	2.00	1.00	2.00	1.25	1.71
5. Lack of concentration	1.36	1.33	0.67	2.00	1.38
6. Depression	2.54	2.00	2.33	3.00	2.52
7. Anxiety and worry	2.36	2.00	2.00	2.25	2.23
8. Phobias	0.81	0.33	0.33	0.25	0.57
9. Obsessions & Compulsions	0.26	1.00	0.00	0.50	0.38
10. Depersonalization	0.09	0.00	0.33	0.50	0.19
11. Slow, lack spontaneity	0.72	1.00	0.33	1.25	0.80
12. Suspicious, defensive	0.26	0.66	0.33	0.00	0.28
13. Histrionic	0.45	0.66	0.00	0.75	0.47
14. Depressed	2.36	2.33	2.33	3.00	2.47
15. Anxious, tense	2.18	1.66	1.66	2.50	2.09
16. Elated, Euphoric	0.00	0.00	0.00	0.25	0.05
17. Flattened, incongruous	0.00	0.00	0.00	0.25	0.05
18. Depressed in thought content	2.18	1.66	2.00	2.75	2.19
19. Excessive concern with bodily functions	1.54	0.66	1.00	2.75	1.57
20. Thought disorders	0.00	0.00	0.00	0.25	0.05
21. Hallucinations	0.00	0.00	0.33	0.25	0.09
22. Intellectual impairment.	0.09	0.00	0.33	0.25	0.14

in Table IV. As seen from the Tables, perfect agreement between raters is seen for five symptoms. The lowest agreement is for symptom—'Suspicious defensive'.

TABLE IV—*Inter rater reliability for each item of the SPI*

Item	Present Study	Goldberg's study	
	'r'	'r'	Weighted Kappa
Reported Symptoms :—			
Somatic symptoms	0.8675	0.787	0.6733
Fatigue	0.6901	0.805	0.7654
Sleep disturbance	0.9349	0.981	0.8013
Irritability	0.7043	0.841	0.6761
Lack of concentration	0.6745	0.861	0.6745
Depression	0.7209	0.914	0.8000
Anxiety and worry	0.7578	0.830	0.6699
Phobias	0.6142	0.789	0.7391
Obsessions & compulsions	0.7902	0.837	0.6696
Depersonalization	1.0000	0.870	0.7143
Manifest Abnormality :—			
Slow, lack spontaneity	0.8982	0.913	0.6000
Suspicious, defensive	0.5489	0.858*	0.7368*
Histrionic	0.8262	0.664*	0.4828*
Depressed	0.8179	0.902	0.6646
Anxious, tense	0.7702	0.773	0.6117
Elated, Euphoric	1.0000	0.981*	0.9362*
Flattened, incongruous	1.0000	0.804	0.7240
Depressed in thought content	0.8311	0.766	0.6501
Excessive concern with bodily functions	0.8853	0.829	0.7510
Thought Disorder	1.0000	0.832	0.7113
Hallucinations	1.0000	0.956	0.8789
Intellectual impairment	0.6504	0.874	0.7753

*Goldberg's main reliability study was carried out on 40 patients.

The items marked with * are based on only 20 patients·

DISCUSSION

The proportion of subjects identified as cases is highest in the ML group. In terms of age, there is an increase in the number of cases in the 41-45 age group. Incidentally, the mean age at menopause for this sample also falls in this age range. Apart from suffering from a large number of menopausal symptoms, menopausal women seem to be more often diagnosed as 'cases' than pre menopausal women. A noticeable trend was for the curve of morbidity to rise to its height in the ML group and drop slightly in the post menopausal group. This was much more pronounced in the PN groups while the PS group was almost similar to ML group.

If surgical menopausal cases are excluded, a psychiatrically ill women, who is also menopausal appears to experience more number of symptoms of greater intensity or severity and tends to manifest more abnormalities of mood, behaviour, perception and cognition than a pre menopausal and post menopausal woman (Table III).

The most common reported symptoms in this sample were—depression, somatic symptoms, anxiety and fatigue. Observed abnormalities were—depression, depressive thoughts, anxiety and excessive concern with bodily functions. Supporting the findings of an earlier study (Indira and Murthy, 1980), the predominant symptoms in menopausal women was depression. For the 10 menopausal 'cases' diagnoses given were : Involutional Depression (N=3), Reactive depression (N=3), Depression (N=1), other syndromes with depressive overlay (N=2). For only one case the diagnosis of Anxiety neurosis was given.

Ballinger (1977) in her study of women between 40 and 55 years found the predominant reported symptoms to be depression, anxiety, fatigue and irritability. The commonest observed symptoms were anxiety and depression of mood. Western researches find women to be more depressed than men. This difference is considered to be genuine and not an artifact (Weissman and Kerman, 1977). Several large scale surveys in India do not agree with such findings (Dube, 1964, 1969; Sethi and Gupta, 1970). However, in a recent survey, Nandi et al. (1980) report that depression is the commonest of psychiatric illnesses and women are the worst victims.

The proportion of 'cases' identified on GHQ is 20% and is higher than those reported by others using GHQ in large scale surveys with adolescents and adult samples in Bangalore (Chandrashekhar et al., 1980 ; Rao, 1978). But this figure is considerably lower than those reported by Ballinger (1975) who found 29% of a middle aged sample and 53% of the sample from gynaecology O. P. clinic to be psychiatric "cases". In Finland (Takala and Sievers, 1979) 21% of the middle aged people were identified as possible cases.

Compared to other Indian studies the proportion of psychiatric cases in this study may seem higher. This may be due to the fact that part of the sample was drawn from gynaecology O. P. clinics. A higher incidence of psychiatric illnesses in women attending such clinics has been reported (Ballinger 1977 ; Sainsbury, 1960). Munro (1969) found 10% of women in such O.P. clinics to be psychiatrically unwell and half of them were of menopausal age. In this sample 76.13% of women diagnosed as cases were drawn from hospitals and 23.8% of them were from the community sample. This raises the possibility of psychiatric disturbances playing a role in aggravating whatever gynaecological symptoms a woman might have, thus forcing her to seek help.

The inclusion of surgical menopausal women may be another factor in raising the morbidity rate. An excess of psychiatric morbidity in women undergoing hysterectomy and the impact of hysterectomy are

well documented (Baker, 1968 ; Richards, 1973; Wolf, 1970).

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