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MENTAL HEALTH AND AGEING IN INDIA[1]

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This communication deals with certain aspects of psychiatry of the ageing population of the Indian sub-continent. The report is based on the material drawn from "Geropsychiatric clinic" Institute of Psychiatry, Govt. Rajaji Hospital & Madurai Medical College, Madurai which has been functioning under the supervision of the author from 1976. It is proposed to touch upon demography, prevalence, socio-cultural aspects of ageing in India. The clinic material will be presented under the headings—general data and some observations on depressive illness concerning its symptomatology in relation to age, suicide behaviour and genetics. Finally suggestions will be made for further research.

DEMOGRAPHY

The number of the elderly people has been increasing steadily all over the world through the 20th century. For example, in the United States of America, the increase of those over 65 since 1900 has been 2½ times. Their percentage has risen from 4 in 1900 to 10 in 1977. In England, those over 65 now forming four times the number in 1900 constitute 14% (6.6 millions) of the population. 8.6% of the population in Canada are over 65 as per 1976 census (Pitt, 1980). Many of the western countries fall under the definition of the "aged population." In India, geriatric psychiatry is not yet a major priority mental health problem. Those aged 60 and over contribute to 6% of the country's population representing approximately one-half of the figure for the developed parts of the world (Table 1).

TABLE 1—*India—Population Structure*—1971 *Census*

Age group (in years)	% of total population
0-14	42.0
15-19	8.7
20-24	7.9
25-29	7.4
30-39	12.6
40-49	9.3
50-59	6.1
60 and above	6

The India's census of 1911 reveals 27.5 million people over the age of 50 and in 1971 the figure rose to 65 millions—an increase of 2½ times in 60 years, approximately the same rate as for the above sixties in the United Kingdom. From 24 years in 1900, the mean life expectancy has increased to 42 years in 1960s the mean life expecnancy has increased to 42 in 1960s and 53 in 1971. The Table 2 shows the life expectancy at different ages for both sex.

TABLE 2—*Life expectancy at various ages*

Age	1941-50		1951-60		1961-70	
	Male	Female	Male	Female	Male	Female
40	20.5	21.1	22.1	22.4	24.7	24.7
50	14.9	16.2	16.5	17.5	18.3	18.9
60	10.1	11.3	11.8	13.0	13.0	13.4

India several years ago, a country of young population presently is passing through the stage of "mature population" and perhaps in years to come will find

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herself as "the aged population" in the company of the advanced countries. More people are now surviving to the age beyond 60 owing to the improved health care, nutrition and other advances that have contributed in no small way to efficient medical measures.

PREVALENCE

The exact figure of the elderly in the community that needs psychiatric care is difficult to ascertain. Williamson *et al.* (1964) reported that the general practitioners were unaware of 60% of cases of neurosis 76% of depression and 87% of the moderately demented in their practices. Kay *et al.* (1964) have pointed out that "medical services deal only with the visible point of the iceberg of mental disorders." A Danish study (Juel Nielson, 1965) showed within a year 2% of the population aged 60 and over contacted the medical institution for mental illness but only 0.5% of these got in touch with any psychiatric institution. Epidemiological studies in the West have indicated a total prevalence rate of psychiatric morbidity in old age ranging from 20% to 45%. Post (1959) has suggested that 11% of the aged population is in need of some care. The most reliable figure of the prevalence rate of all forms of psychosis seems to vary from 6% to 8% and approximately 1% of these requires admission into psychiatric institution (Juel Nielson, 1975). In general field studies of the prevalence of mental disorders in India, the figure for elderly range from 22.34 (Dube, 1970), to 333 (Nandi *et al.*, 1975) and 350 per thousand (Ramachandran *et al.*, 1979). Basing on hospital attendances in Madurai, Venkoba Rao *et al.* (1972) reported that those over 50 contributed to 9.5% and those above sixty to 2.3% of the total attendance. This agrees with the report of Lin (1953) and also W.H.O. communication (1959). A similar trend is noticeable from a Bangalore study (Anantharaman, 1975). Table 3 shows the number of patients attending the author's Geropsychiatric Clinic.

TABLE 3—*Number attending Geropsychiatric Clinic*

Year	Total	Aged 60 and above	Percentage
1976	1915	32	1.60
1977	1985	49	2.45
1978	2625	67	2.30
1979	2907	79	2.60

The age structure of the patient population in the out-patient as well as in-patients at the Institute is offered in the Tables 4 and 5. The bulk is contributed by the group 15-29 and 30-44 in that order and those above 60 form nearly 1.6% to 2.6% (out-patient—Table 4) and 1.2 to 1.6% (in-patients—Table 5).

TABLE 4—*Age structure* (out-patient)

Year	Total	Age-group (in yrs.)									
		Below 14		15-29		30-44		45-59		Above 60	
	N	N	%	N	%	N	%	N	%	N	%
1976	1985	200	10.0	1032	52.0	533	27.0	188	9.4	32	1.6
1977	2067	153	8.1	1092	57.5	554	29.2	218	11.5	49	2.5
1978	2625	223	8.5	1352	52.0	725	27.9	258	10.0	67	2.4
1979	2905	116	4.0	1582	51.5	913	31.4	311	10.7	85	2.5

TABLE 5—*Age structure* (in-patient)

Year	Total N	Age Group (in yrs.)									
		Below 14		15-29		30-44		45-59		Above 60	
		N	%	N	%	N	%	N	%	N	%
1976	432	6	1.4	187	43.4	194	45.1	37	8.6	8	1.6
1977	429	16	3.8	201	47.8	167	39.7	38	9.0	7	1.6
1978	482	13	2.6	288	57.6	161	32.2	13	2.6	7	1.4
1979	500	9	1.8	282	56.4	167	33.4	36	7.2	6	1.2

Admission rates to a group of mental hospitals in the United Kingdom for first attack of manic depression and involutional melancholia were highest in men between 55 and 65. In general practice with mild cases included, maximal first manifestation occurred earlier in women around 45 and in men five years earlier (Norris, 1959 ; Watts, 1956).

SOCIOCULTURAL FACTORS

Ageing in Indian culture, though a disability, does not carry the connotation of becoming a "useless mouth to be fed." To grow old gracefully is stressed as much in Indian culture as in others. This is attained by involvement in social work, casting off family responsibilities and a retreat to a quiet life by the older citizens. To the aged are assigned the two last stages of life among the four described from ancient times, the so-called *Varnashramas*—the student, the householder, the ascetic and the forest dweller. All are to pass through these stages. An attitude of reverence and regard for the aged is looked upon as a virtue. The elders are given a fairly high rank in the family hierarchy and their blessings and decisions on important matters are frequently sought. Hence, they do not feel excluded from the family and the social stream of life. The cultural value system enjoins the individual to repay the debt to his parents. There is in the Indian philosophical system an elaborate theory of *rina* and the one that applies to the obligations towards parents is called *Pitra rina*. From these moral premises stems the concept of family care of the elderly. Nevertheless, Kautilya, the ancient Law Giver of India stated that it was obligatory for the State to care for the older members of its community (Prasad and Majumdar, 1960). Joint and extended family patterns though fast disappearing make possible the care of the aged within the family and in the community.

Findings of Indian workers (Venkoba Rao *et al.*, 1972) have lent support to the study by Townsend (1964) that the elderly do retain contact with the younger generation in many countries. In India one bears that "at long last I am old" ; but in advanced countries it is an apologetic tone : "unfortunately I am old." "Old age is something tremendously active at the level of thought and spiritual output which is why it has always been considered in India a guide for the individual and population" (Sannangelantomio, 1972). However, migration of younger members to the neighbouring cities and other parts of the country or abroad for employment and rising cost of living without parallel increase in resources and economic base and an earlier retirement age in some areas in the Government service at 55 to 60 years, a corrosion of values, emergence of nuclear family type of living with the stress on individuality have contributed to counter some of the favourable socio-cultural factors in India. These are bound to affect adversely the aged in the country in the decades to come.

THE PRESENT STUDY

General data :

Two hundred and twenty-seven patients attending the geropsychiatric clinic formed the material for the study (from 1976 to 1979). These formed between 1.6% to 2.6% of the total attendances in the psychiatric clinic as mentioned earlier. There is a male dominance the ratio being (3 : 1) (*Male : 172 ; Female : 55*). Among the psychiatric diagnoses organic brain syndrome and affective disorders were common with the latter leading a little over the former. The features of paraphrenia the so-called "elderly aunt" of schizophrenia were consistent with those reported in literature. They formed nearly 11% of the material. There is a discrepancy reported in literature in the incidence of paraphrenia in the community and hospital admissions. For example, Williamson (1964) in Edinburgh found two cases among the 200 cases, while Kay, *et al.* (1964) could not detect any case in their well known New Castle study. However, Gibson (1961) found 10 cases admitted among a series of 100 cases over 60 into the hospitals in the New Castle area. Similarly Fish (1960) found 41 cases among 264 elderly patients.

The Table 6 offers the diagnostic categories :

TABLE 6

Diagnosis N=227	N	%	
Organic Brain Syndrome			
Acute O.B.S.	35	15.4	
			34.3
Chronic O.B.S.	43	18.9	
Affective Disorders			
Mania	40	17.7	
			39.9
Depression (B.P.,U.P.)	50	22.2	
Schizophrenic type			
Paranoid reaction, Paraphrenia, etc.,	23	11.0	
Neurosis	21	9.2	26.8
Nil psychiatry	15	6.6	

Nearly half of the material belonged to socio-economic class III and the next largest being class IV. The lowest figure of 3.9% was from class I.

The following Table 7 offers the detail :

TABLE 7—*Socio-economic status* (N=227)

	N	%
Class I	9	3.9
Class II	18	7.8
Class III	165	46.2
Class IV	65	28.5
Class V	30	13.5

The analysis of the type of the family indicated that 52% came from extended family, 38 from joint family while 10 were from nuclear family. A study of social isolation indicated that 12%, i.e. 27 individuals suffered social isolation while the rest did not. An assessment of material contribution of the individual to the family or living as a dependent indicated that they were equally distributed in both the categories (dependent 50.2% on contributing ones to 49.8%). A study of attitude of the spouses indicated that a positive accepting attitude was found in 84%, a neutral attitude in 10 and rejecting attitude in 6%.

Physical handicaps and illnesses were encountered in 54% of the series and they included impaired hearing and vision, hypertension, diabetes mellitus, pseudobulbar palsy, Parkinsonism, ischemic heart disease and hernia ; 46% in the series were free from physical illnesses. Organically ill patients tended to show more physical handicaps. Dementia was predominantly seen over 75 years of age while affective illnesses common in the 60s. While there was a male dominance in the affectively ill, the sex distribution was equal in the organic brain syndrome. Bereavement preceded affective illness in 46% of the cases while it was not evident in the demented. There were 5 non-suicidal deaths, three suffering from brain syndrome and dying from cerebrovascular accident,

one paraphrenic from cerebrovascular accident and one a depressive from starvation. There were no cases of drug addiction starting after the age 60, but nevertheless quite a number of patients were regular users of drugs prescribed in the clinic the ones with so called "chronic medicamentation syndrome".

Observations on Depression :

"Depression" ruins the lives of the old people and kills a few either through suicide or possibly through 'turning the faces to the wall' (Pitt, 1980). That recurrences and chronicity are common after the age of forty has been observed in earlier studies from Madurai (Venkoba Rao and Nammalvar, 1977). Affective disorders constitute as much as organic brain syndromes though a little higher. Unipolar depressions were commoner than the bipolar. A few depressives presented with "pseudodementia" with memory changes but responded to the antidepressant measures.

Symptomatology—Age and Symptoms:

It has been pointed out that there is in general a repetition or replication of clinical features in recurrent depression (Post, 1968). Tait *et al.* (1957) using the appendix from Aubrey Lewis' monograph on 'Depression' compared the symptomatology of depression in patients below the age of 40 with those above 40. To a statistically insignificant extent agitation alone was commoner in elder and retardation in younger patients. Self reproach was equally distributed. Surprisingly hypochondriasis was commoner in the younger depressives in their series. Nevertheless presence of hypochondriasis has been found to be around 63.6% by De Alarcon (1964) in the elderly.

In the present series a comparison was made of the sympatomatology of 45 patients whose depression starts first after the age of 60 (Group A) with the symptomatology of 45 younger depressives aged below 40 (Group B). The Group B subjects were unipolar depressives with an average of 3.12 episodes. Amongst those in Group A 34 had only one episode while others had 2 or more episodes the average being 1.38 episodes. It is likely that some of the single episode depressives may cross over to become bipolar by developing manic episodes, though such an occurrence is of low frequency. However, for the present they are included in the unipolar group. In two-thirds of them a period of more than 3 years has elapsed since the onset of the episode which reduces the chances of a manic episode setting in.

All these 90 (Group A & B) patients were examined in the Institute of Psychiatry during their episodes and in no instance symptomatology was collected in a retrospective way. Use was made of the items (40 in number) from WHO standardised assessment schedule for depressed patients. Table 8 shows the relative frequency of the different symptoms in old age depressives (Group A) and younger depressives (Group B) Comparison was made by Chi square analysis.

TABLE 8

Symptoms (WHO)	Group A N=45	Group B N=45	X^2	'p'
1. Sadness, Depressed mood.	42	44	1.05	NS
2. Joylessness Inability to enoy.	23	41	17.52	.001
3. Hopelessness	24	37	8.6	.005
4. Anxiety or Tension	27	38	6.07	.01
5. Aggression	5	18	9.87	.005
6. Irritability	23	27	0.72	NS
7. Lack of Energy	30	42	10.0	.005
8. Disruption of social functioning	16	39	24.77	.001
9. Desire to be alone	13	29	11.43	.001
10. Retardation of thought	13	40	33.43	.001
11. Indecisiveness	5	40	55.45	.001
12. Lack of confidence	9	23	20.23	.001
13. Loss of Interest	21	37	12.4	.001
14. Loss of ability to concentrate	21	37	12.41	.001

TABLE 8—(*Contd.*)

15.	Early awakening	24	24	0	NS
16.	Inability to fall asleep	26	33	2.41	NS
17.	Fitfull restless sleep	19	19	0	NS
18.	Hypersomnia	3	9	3.46	NS
19.	Lack of appetite	21	32	5.55	.02
20.	Change of body weight	8	36	34.86	.001
21.	Constipation	15	22	2.42	NS
22.	Feeling of pressure	4	12	4.86	.05
23.	Other somatic symptoms and signs.	32	38	2.31	NS
24.	Other psychological symptoms	12	28	11.51	.001
25.	Decrease of libido	2	29	35.85	.001
26.	Change of perception of time	6	33	32.98	.001
27.	Suicidal ideas	30	33	.48	NS
28.	Guilt feelings + Ideas of self reproach	7	11	.99	NS
29.	Ideas of inadequacy, insufficiency. worthlessness	18	34	11.65	.001
30.	Hypochondriasis	16	32	11.45	.001
31.	Ideas of Impoverishment	10	20	5.0	.05
32.	Ideas of reference and persecution	6	9	.72	NS
33.	Other delusions	4	5	.12	NS
34.	Disorders of perception	5	6	.10	NS
35.	Psychomotor retardation	15	35	18.0	.001
36.	Psychomotor restlessness	24	14	4.55	.05
37.	Mood worse in the morning	7	18	6.70	.01
38.	Mood worse in the evening	3	13	7.60	.01
39.	Physical disease or infirmity	16	6	6.01	.02
40.	Subjective loss of memory	15	38	24.27	.001

Joylessness, hopelessness, anxiety or tension, aggression, lack of energy, disruption of social functioning, desire to be left alone, retardation of thoughts, undecisiveness, lack of self confidence, loss of interests, lack of ability to concentrate lack of appetite, change of body weight, decrease of libido, change of perception of time, ideas of insufficiency, diurnal variation in moods hypochondriasis, psychomotor retardation, subjective loss of memory, all these were more in those depressives in whom the illness started below 40 years. No significant difference was noticed in respect of other symptoms like sadness or depressed mood, irritability, sleep disturbances, somatic symptomatology, suicidal ideas, feeling of guilt and self reproach, ideas of self accusations, persecution and other delusions and disorder of perception, physical disability and infirmity. It is interesting to note that ideas of guilt and self reproach are definitely less in both the groups while ideas of suicide are of some high frequency in both groups. The perception of time sense was distorted more amongst the youngsters than in elderly. Most interesting is the incidence of hypochondriacal symptoms which contrary to expectation were more predominant in the youngsters than the older ones. The common symptoms in the elderly depressives were in the order of frequency of occurrence, sadness, depressed mood (93.3%) somatic symptoms and signs (71.1%), suicidal ideas (66.6%) lack of energy (66.6%), Anxiety or tension (60%) inability to fall asleep (57.7%), early awakeness (53.3%) psychomotor restlessness (53.3%) Hopelessness (53.3%), Irritability (51.1%) and joylessness and inability to enjoy (51.1%).

On the whole the depressive symptomatology in elderly tended to be less colourful than in youngsters. The difference in symptomatology between these two groups however lies only in its frequency and their assortment in the patient population.

It is hypothesised that differential distribution of symptoms in the two samples is attributable to the age itself though ageing by itself comprises several variables. The older individual has less to look forward and have a shrinking milieu. His own anticipations as well as the expectation of others regarding his active functioning

are likely to be limited. On the other hand younger individual has years before him and has a wider milieu. His aspirations and anticipations are higher and he is expected to play an active role in the different spheres of life. It is of interest to note that the symptoms which are most marked in these younger depressives pertain to these two aspects of activity and social functioning. These symptoms like disruption of social functioning psychomotor retardation, retardation of thinking, indecisiveness, subjective loss of memory are for more frequent in youngsters, while more basic symptoms of depressions like sadness, depressed mood, suicidal ideas and sleep disturbances are of more or less equal frequency in both groups. No significant difference in somatic symptomatology were found except for the tendency for anorexia loss of weight in younger depressives. The more or less acute setting in of various somatic dysfunctions, in the prime of life may be responsible for the increased frequency of hypochondriacal preoccupations in youngsters. It is natural that older people rarely complain of decreased libido, while younger depressives often do. The distortion of perception of time which is reported more frequently by younger patients, also could be a function of age, since they would be more oriented towards future and set a higher premium on the value of time. Thus depressive symptomatology in elderly appear more bland while variety marks the younger depressives and it is possible to attribute this difference to some extent to the age factor itself. This explanation however does not exclude other variables for example genetic factors which need a detailed analysis. It will be of course interesting to study the depressive symptomatology at different ages in the same individual thereby demonstrating the effect of ageing on symptomatology using the patient as his own control.

Work on these lines will be reported later. The present data seem to agree with the report of Post (1972) "Every depressive attack is an individual affair. It is not infrequently characterised by different symptom complexes at different times during the life of the same person. On each separate occasion, the illness should be regarded as an individual affair ...multifactorily compounded..."

Suicide Behaviour in the elderly :

The suicide in the aged has social and cultural characteristics which will form the subject of a forthcoming paper. However, a brief note is not out of place. Suicide prevention clinic has been functioning for the last 8 years in the author's department, Rajaji Hospital, Madurai. During the three year period 1978—80 there were 29 suicide attempters aged over 60 amongst the total of 4246 of all ages. Out of these 29, six proved fatal. The ratio of attempters and completers is thus definitely higher among those aged 60 and above than in younger people. This indicates more attempts in elderly end in fatality than in the younger age group. Interestingly among the 45 depressives reported in the early part of this paper no one attempted or completed suicide. Those that attended Suicide Prevention Clinic in the Author's department were seen in the resuscitation ward. This highlights the point that aged potential suicide are not in contact with psychiatrist. However, Shuleman (1978) points out a close association between suicide, parasuicide and depression in old people. Sendbeuler *et al.* (1977) found a low incidence of attempted suicide in old people in Ottawa. The National figure for India varies from 6 to 8.3 per 100,000. Though suicidal ideas occur, the completion of suicide is prevented owing to suicide counters peculiar to the culture namely social, economic, religious, moral, family that have been discussed elsewhere by Venkoba Rao (1978) and Venkoba Rao and Nammalvar (1979). Suicide is predominantly an adolescent phenomenon in India.

Genetic aspects :

There appears to be a consensus that depressions that start in late life have a poor genetic component. There is an inverse proportion between the age of onset of depression and the occurrence of illness in the first degree relatives. This matter, however, has not met with full confirmation. Using age itself as a factor and dichotomising at 50th year some authors have found a lower genetic risk in their late depression material. Exceptions to this are the pub lication of Stensted (1952) and Woodruff *et al.* (1954). Stenstedt found no support for the dichotomy at the age of 50.

Woodruff and others were not able to show any difference in the age of onset of depression between those with and with those without a positive family history. No differentiation in morbid risks between the siblings of the early and late onset cases was found in their study. A view was put forth to the effect that a "late depression" in itself is a separate genetically determined disorder. If this were so the relatives of such probands should suffer their first attack at later ages. This was found to be so by Hopkinson (1964) and Chesser (1965). The recent view while not supporting the genetic difference between the unipolar and bipolar depressions seems to uphold 'threshold of liability' for illness. The depressions in the elders are heterogenous and genetic factors may not contribute more than 50% to their genesis (Kay 1959). In the present study 45 depressives (unipolar) probands had 368 first degree relatives, out of whom 11 (2.98%) had psychiatric morbidity. This is less than the figure reported for depressives in general. Of these 11, only 4 suffered from depressions, others being schizophrenics (4), Alcoholic (1) and suicide (2). All the 4 depressives were unipolar. In three of them first episode of depression occurred after 50 (out of 123 FDRs above 50) and at 30 in one. Further work on this is warranted to determine the risks in the first degree relatives of late depressive. The age distribution of first degree relative is indicated in Table 9.

TABLE 9

Age Range	FDRS N=368
15—20	17
21—30	96
31—40	77
41—50	55
51—60	62
61 and above	61

The question of occurrence of depressions in those who live byeond 50 cannot be considered at present since it needs a longer follow up.

CONCLUSIONS AND SUGGESSIONS

What was described by Kraepelin as the darkest chapter in the text book of Psychiatry presents today a changed picture. Many of the functional disorders have come to be delineated and are treatable like depression, paraphrenia and neurotic illnesses, acute confusional state, to mention a few. Nevertheless, degenerative diseases pose a major problem despite some recent advances in the understanding of these conditions. Modern technological and medical advances have enabled persons to reach a late age. This has served to add years to one's life. We have still far to go to add life to one's years, namely to improve the quality as against the quantity. The developing countries where increasing numbers are reaching 60s alongside the population explosion will have to draw from the experiments in the West to test whether the methods could be employed in their own sociocultural setting.

The magnitude of the psychiatric problems of the aged both in the clinics and community and the inter-relationship between psychosocial factors and the onset and the course of illness need to be ascert-

tained. Psychosocial factors include family with its numerical composition and emotional tone and support, social class, social isolation, poverty and life events. Material on these points are available from the West. For example, Kay, *et al.* (1964) have demonstrated that social class coes not paly any important role in psychiatric referals. It was also demonstrated that elderly patients caused the most severe burden to the family (Grad & Sainsbury, 1968). These older patients staying with children had a higher referral rate than those staying with the spouses. These may not apply to India. Social isolation is an important point in the causation of disorders of the mentally ill. Although completed suicide and suicidal behaviour are adolescent phenomena in India, with the raising numbers of the aged and with their increasing psychiatric problems the study of suicide behaviour in the elderly becomes imperative. The Western Studies have shown a lack of relationship between poverty and mental illness. The fact of becoming poor appears to be far more important than being born poor in the genesis of mental illness. The former group has a higher psychiatric morbidity than the latter. This aspect is particularly relevant for India, especially among the elderly who by all standards form the poorer sections of the population. The short-term and long-term effects on the family due to the care of the elderly at home need to be assessed to offer proper services.

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