

GENDER DIFFERENCES IN SYMPTOMS AND COURSE OF SCHIZOPHRENIA

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This paper deals with gender differences in symptom pattern, course and disability in a cohort of 76 patients who were completely and prospectively followed up for a period of ten years. Both at inclusion and follow up, males had more of nuclear syndrome, but largely the differences were not statistically significant. Disability was more in the males, especially in the area of occupational functioning. The paper discusses gender based research in the Indian context.

Key words: schizophrenia, long term follow up, gender differences, symptomatology, course.

INTRODUCTION

Research interest in gender based issues has burgeoned in the last two decades. In schizophrenia, this has been primarily in the areas of phenomenology, age of onset and biological indicators. The most consistent findings have been a higher mean age at onset and first hospitalization for women suffering from schizophrenia, varying expression of symptomatology, lesser rehospitalizations and better outcome in Women (Hafner, 1987; Seeman, 1982; Angermeyer, 1989; Goldstein et al, 1990; Salokangas, 1983). An earlier paper by the authors (Thara & Rajkumar, 1992) also reported a better outcome for women at the end of five years of follow up of the same sample.

A ten year follow-up of 90 first break schizophrenic patients who attended the psychiatry department of the Madras Medical College provided a rich data base to examine critically gender related issues pertaining to symptomatology, course and outcome and disability. Of the 90 patients included in the study, 76 could be completely followed up at the end of 10 years. This paper confines itself to the characteristics of these 76 patients at inclusion and follow up.

MATERIAL AND METHODS

The study was conducted at the Department of Psychiatry, Madras Medical College and Government General Hospital. Follow up for the first five years was funded by the Indian Council of Medical Research and for the next five by the Schizophrenia Research Foundation, Madras.

The Sample:

Ninety, first break, Feighner positive schizophrenic patients who attended the above facility from October 1981 to October 1982 as part of the multi-site study of "Factors affecting course

and outcome of schizophrenia" were included in the study (ICMR, 1988). The diagnosis was made using ICD-9; of these seventy six could be followed up at the end of ten years. Males numbered forty and females thirty six. It was essentially an urban sample hailing from middle and lower socio-economic groups. Most of them had completed schooling.

Method:

The research team consisted of a psychiatrist and a psychiatric social worker. All patients were administered the 9th edition of the Present State Examination (PSE; Wing, 1974) and the Psychiatric and Personal History Schedule (PPHS) which recorded historical and socio-demographic information. The clinical and treatment details were recorded every month using the interim Follow up Schedule, which was possible because drugs were issued for two weeks at a time only. The staff were trained in the use of these instruments (Verghese et al, 1985). At the end of every year, the PSE and PPHS were repeated. Inter-rater reliability exercises performed at the beginning of the study and at the end of every 10th case was 91%. Disability was assessed at the end of ten years using the Disability Assessment Schedule (WHO, 1980).

Nearly 60 clinical and socio-demographic details were compared between the genders. Some of the important ones were: age of onset, socio-economic level, marital status, educations, occupations, family history of mental illness, all PSE syndromes, pattern of course, and disability.

Analysis was done using SPSS-PC, version IV. Chi square or t tests were done for comparison of the variables between the sexes. Pattern of course over the ten year period was categorized into groups and compared using Chi square analysis. They are as follows:

1. Complete or near complete recovery without relapse or exacerbation of psychotic symptoms.

2. One or more relapses or exacerbations with or without marked personality change.

3. Continuous psychotic illness.

Disability scores in independent areas as well as the global disability scores were compared using the t test.

RESULTS

Gender differences at intake:

Age, education, marital status, age at onset, type of family, religion, family history of mental illness and socio-economic status did not differ in the two groups. This was also the finding at the five year follow up point (Thara & Rajkumar, 1992). Only five women worked in outside jobs, the rest being full time housewives or young unmarried girls living with their parents.

Table 1
PSE Syndromes at intake

Syndrome	Males		Females	
	Present No. %	Absent No. %	Present No. %	Absent No. %
Nuclear	31 (78)	9 (22)	20 (56)	16 (44)
Depression	28 (70)	12 (30)	23 (58)	13 (32)
Flat Affect	16 (40)	24 (60)	14 (35)	22 (55)
Auditory Hall	17 (43)	23 (57)	10 (28)	26 (72)
Del. Persecution	19 (48)	21 (52)	16 (44)	20 (56)
Sex, Fantastic				
Delusions	18 (45)	22 (55)	13 (33)	23 (57)
Slowness	17 (43)	23 (57)	10 (28)	26 (72)
Self Neglect	10 (25)	30 (75)	6 (17)	30 (83)

$p < 0.05$ on Chi square test

Males were a little more symptomatic with an increased frequency of occurrence of few PSE syndromes. As seen in Table 1 and Fig. 1, they had more of nuclear syndrome, auditory hallucinations, delusions of persecution, sexual and fantastic delusions, affective flattening, simple depression, slowness and self-neglect, but it was only the difference in nuclear syndrome which was statistically significant. Disability levels were not measured at intake.

Differences at 10th year:

While there was a fall in all PSE syndromes at the end of ten years, males had more of affective flattening, auditory hallucinations, delusions of persecution, slowness and self-neglect, though these

Table 2
PSE syndromes at 10 years

Syndrome	Males		Females	
	Present No. %	Absent No. %	Present No. %	Absent No. %
Flat Affect	6 (15)	34 (85)	2 (6)	34 (94)
Auditory Hall.	7 (18)	33 (82)	2 (6)	34 (94)
Del. Persecution	8 (20)	32 (80)	2 (6)	34 (94)
Slowness	6 (15)	34 (85)	1 (3)	35 (97)
Self Neglect	7 (18)	33 (82)	1 (3)	35 (97)

No significant difference on Chi square test

Table 3
Pattern of course

Pattern of course	Male		Female	
	No. %	No. %	No. %	No. %
Recovery	8 20.0	5 14.0		
Relapses	29 72.5	30 83.0		
Continuous illness	3 7.5	1 3.0		
Total	40 100.0	36 100.0		

No significant difference on Chi square test

Table 4
Disability scores

DAS items	Mean values		
	Men	Women	Significance
Social withdrawal	.20	.05	NS
Self care	.15	.02	NS
Household activities	.25	.08	NS
Marital affective	.08	.13	NS
Marital sexual	.09	.30	NS
Social contact	.15	.02	NS
Occupational role	.48	.09	$p < 0.02$
Interest in work	.61	.33	NS
Interest and information	.20	.14	NS
Global disability	.55	.25	$p < 0.01$

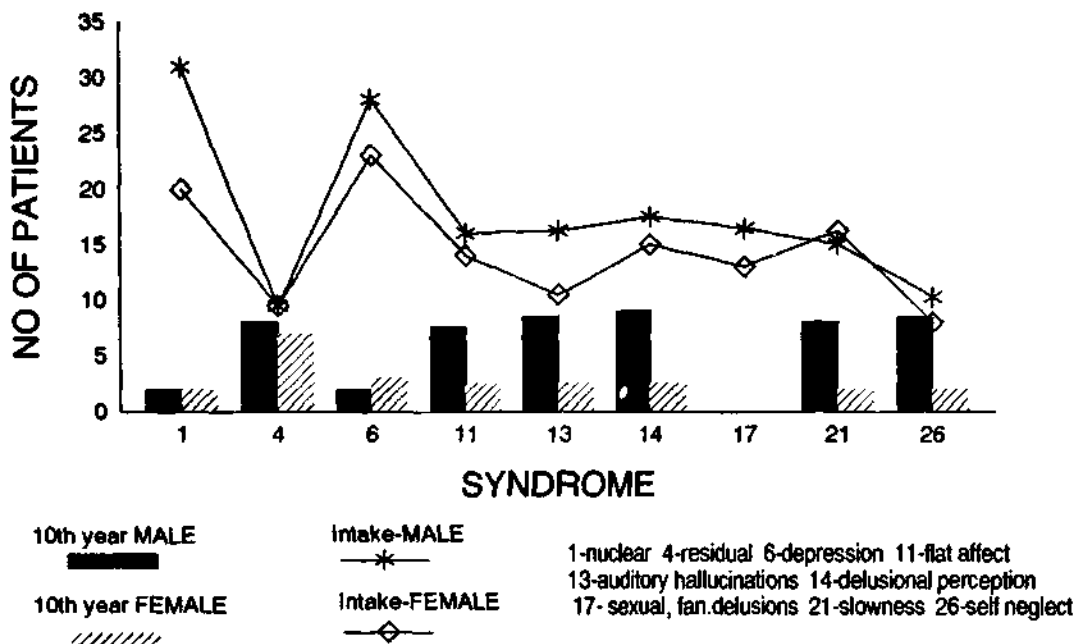
Two items were excluded due to insufficient data

differences did not reach statistical significance (Table 2). Ten males (25%) and five females (15%) were psychotic at the end of ten years, either being continuously ill or in state of relapse.

The pattern of course over ten years differed in the two sexes. While these differences did not reach statistical significance, women tended to have more

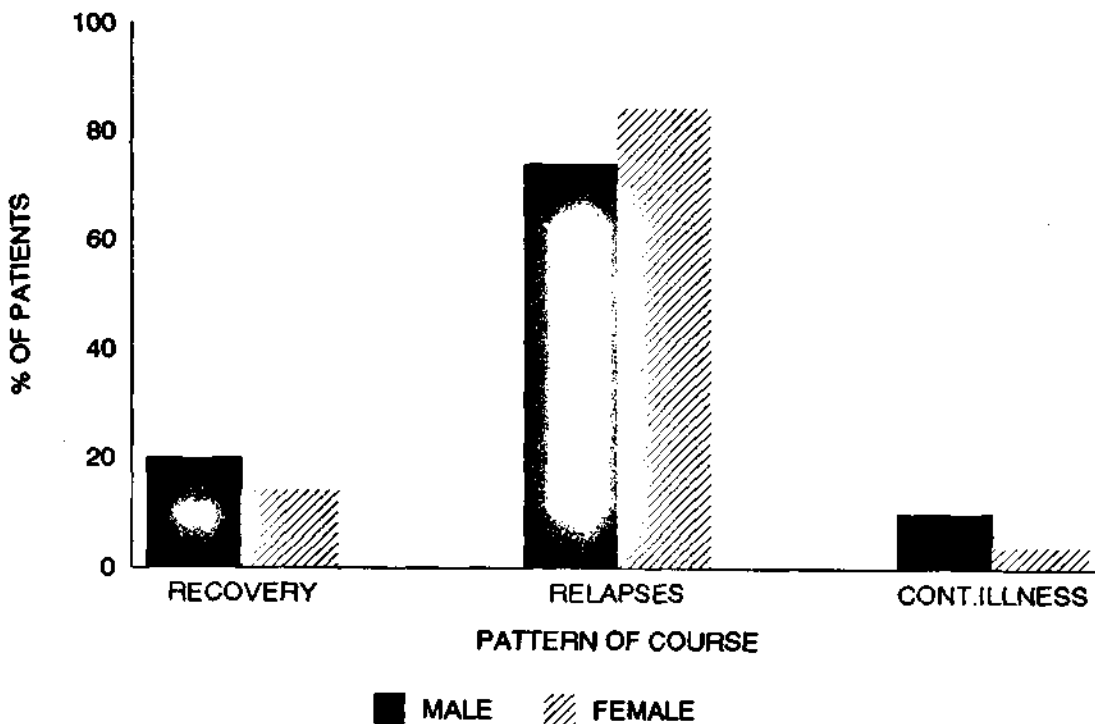
PSE SYNDROMES

Figure 1



PATTERN OF COURSE

Figure 2



GENDER DIFFERENCES IN SCHIZOPHRENIA

relapses, while more men had a continuous illness (Table 3). Males had higher disability scores only in occupational role performance and global disability (Table 4).

DISCUSSION

Despite the fact that this sample was not primarily meant to study gender differences, the almost equal distribution of males and females fulfilling similar criteria for inclusion makes it suitable for this kind of comparison. The two sexes did not differ in most of the socio-demographic characteristics. The important area of difference is the occupational profile, with almost all but five women being full time housewives. The men on the other had were either employed in full time or part time jobs or were unemployed. This difference has posed difficulties in measuring occupational functioning in the two groups, although all attempts have been made to independently record this. Most Indian researchers would have also experienced the difficulty in portraying the occupational/role functioning of young unmarried girls living with their families, since their role definitions are often ill defined and vary with the social class of their families.

A significant finding is the lack of association between age of onset and sex, which has been one of the most vigorously researched areas in gender based work. While almost all western studies have unequivocally found a later age of onset in women, studies from Ghana (Sikanartey & Eaton, 1984) and Southeast Asia (Tsoi & Cheng, 1979; Buhrich & Haq, 1980) reported a similar trend. A reversed pattern was reported from Philippines (Weiner & Marvit, 1977). The three center sample of the same study (Verghese et al, 1985) found no gender differences in age of onset. The latter finding has however to be seen in the light of selection factors in inclusion since the number of males (245) far exceeded the number of women (141).

As a measure of abundant caution, it would be good to bear in mind that many Indian studies may not have absolutely accurate age measurements, since a large section of the population tend to be more approximate than truly accurate as far as age estimation is concerned. This is specially true of a rural sample and a lower income group urban population. The final word on age of onset in India can be said only after a study which carefully eliminates even the slightest of errors in the recording of age is conducted.

At inclusion, more men had the nuclear syndrome of the PSE which signifies that they had more of thought disturbances. Literature on this subject has not been very consistent with some samples reporting females to be more symptomatic (Hambrecht et al, 1992) while others such as Hafner's sample of 392 first admission cases finding an astonishing similarity between the early symptom profiles of the two sexes (Hafner et al, 1991). Another study by the author on a larger sample also revealed men to have more of nuclear syndrome, auditory hallucinations, persecutory delusions and anergia (Thara, unpublished). It is clear from Fig. 1 that this increase in nuclear syndrome in males of this sample persists at the ten year follow up also. Affective flattening, auditory hallucinations, delusions of persecutions, slowness and self-neglect were seen more in men at year 10, but this did not reach statistical significance.

Women patients had marginally more scores on simple depression and delusions of reference. These differences in symptomatology are however not very striking as in the case of other studies in this area. Studies showing no sex differences in course and outcome prevail, but the percentage of studies finding a better course in females clearly exceeds that of studies reporting a better course in males. In this sample, more males were continuously ill, while women had more relapses. But these differences again did not reach the level of significance and one cannot draw definitive conclusions about outcome from this data. While the same sample revealed a better outcome in males in the five year follow-up (Thara & Rajkumar, 1992), this difference appears to have got obliterated during the next five years of follow up.

Male patients seem to be more disabled at the end of ten years. Lack of disability data at onset of the study unfortunately precludes a longitudinal comparison. Males were found to be more disabled in the area of occupational functioning as well as in global disability scores. As described earlier, most of the women were full time housewives, while there was a pressure on the men to act as the primary/secondary bread-winners. Under-employment or erratic employment coupled with under achievement could well act as threats to the social status of men in society. There is not much data available on gender difference in disability. In a study on 127 first onset schizophrenic patients from Western Europe, 77.6% of males had serious impaired work performance as against 48% of females. Social withdrawal and disturbed heterosexual role behavior were also found

more frequently in males. Higher occupational disability among men in this sample could therefore be a reflection of a greater pressure to achieve and perform in the occupational sphere of functioning.

There are certain limitations in this study which should necessitate the exercise of caution in the generalization of these findings. The sample is a predominantly outpatient sample and not primarily indicated for a comparison between the genders reflected in the differences perceived in occupational status. The latter difference would however hold true for any comparison of this sort in the Indian context, where most women are primarily housewives. However, the nature of the sample in all being first onset cases, the use of standardized instruments by trained raters, and the frequency as well as the fairly long period of follow up merit its suitability for research of this nature.

CONCLUSIONS

It has been widely recognized that a systematic scrutiny of schizophrenia in all respects could provide important clues to pathogenetic factors or mechanisms and management in the long term. This study of 40 and 36 first onset males and females respectively has revealed more of nuclear syndrome in males at inclusion and follow up, while other differences are not very significant. Age at onset and pattern of rehospitalizations did not differ in the two sexes. Males fared more poorly in occupational functioning and were more disabled after ten years.

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