

FIVE-YEAR ANALYSIS OF PATIENTS DISCHARGED FROM BEIJING ANDING HOSPITAL

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SUMMARY

Statistical analysis and vertical comparison patients discharged from Beijing Anding Hospital during 1991-1995 were performed to learn the trends and changes in disease patterns of psychiatric disorders. The demographic data, psychiatric diagnoses and treatment outcome were surveyed and analyzed. Psychiatric patients hospitalized in Beijing Anding Hospital were found to have the features of younger age and shorter course of illness. Vertical comparison showed the trend of increasing female patients, altered roles of inducing factors e.g. marriage, occupation etc. Schizophrenia remained to be the most common psychiatric disorder. Affective disorders and psychopathy caused by psychodynamic agents were increasing. Haloperidol were used most frequently in pharmacotherapy.

Key words: psychiatric disorder, discharged inpatient, statistical analysis, Chinese

AIM

To study the changing trends in patients' psychiatric conditions and causative factors of psychiatric disorders.

METHODOLOGY

All psychiatric patients discharged from Beijing Anding Hospital from January 1, 1991 to December 31, 1995 were studied. The annual number of patients discharged from 1991 to 1995 was 2411, 2184, 2209, 2502 and 2490 respectively, amounting to a total of 11796. Data regarding demographic data, history of psychiatric illness, family history, findings of psychiatric examinations, diagnosis, treatments and their effects were collected yearly and statistical analysis and comparison were conducted.

NUMBER OF TIME DISCHARGED

60.23% (7115/11796) of patients were discharged for the first time while 19.10% (2253) were discharged for the second times. 20.85% (2428) had more than two discharges.

COURSE OF ILLNESS

29.66% (3499/11796) were acute cases with the course less than one year. 25.29% (2983) were chronic case with the course lasted for 1-5 years. 16.76% (1977) had a course of 6-10 years and 28.29% (3337) over 10 years.

SEX

Among the patients discharged, 6288 cases were male and 5508 were female. The distribution of various diagnoses by sex is shown in Table 1. The overall male to female ratio in the five years was 1.14:1, the figure changed from 1.33:1 in 1991 to 1.02:1 in 1995. Such change corresponds to a statistically significant difference ($\chi^2=20.04$ and $P<0.001$). There were 546 beds for male patients with annual turnover rate of 2.44 patients and 401 beds for female patients with annual turnover rate of 3.17

patients indicating a shorter stay of female patients in the hospital.

Table 1. The distribution of psychiatric diagnoses by sex

<i>Psychiatric disorders</i>	<i>Male (%)</i>	<i>Female(%)</i>
<i>Caused by Psychoactive substances</i>	686 (85.75)	114 (14.25)
<i>Schizophrenia</i>	3797 (52.00)	3505 (48.00)
<i>Neurosis</i>	189 (32.98)	384 (67.02)
<i>Affective disorders</i>	802 (49.57)	816 (50.43)

AGE

Among the sample, 8.63%(1018) of all patients were younger than 20, 58.82%(6938) from 21- 40, 27.31% (3221) from 41-60 and 5.52% (619) were over 60.

As to their age of onset, 27.09% (3195) were before 20, 39.87% (4704) from 21-30, 26.79% (3160) from 31-50 and 6.25% (737) from 51-60.

Therefore, about 40% of patients were young patients of age below 30 and two-thirds of them had their onset of illness before the age of 30. Within the age group of 51-60, the figure dropped from 12.78% in 1991 to 9.86% in 1995 and the corresponding figure for the group over 60 dropped from 5.93% in 1991 to 4.90% in 1995, thus indicating absence of an aging tendency. Proportion of patients with their first occurrence rate between 31- 40 were 17.17%, 18.73%, 19.26% and 20.76% from 1991 to 1995 respectively.

MARITAL STATUS

36.34% (4287) of discharged patients were unmarried, 56.43% (6656) were married while 5.73% (676) were separated/divorced and 1.50% (117) were widow(er)s. From 1991 to 1995, percentage of the married for the 5 years were: 59.02%, 55.68%, 54.55%, 56.91% and

55.72% from 1991 to 1995 respectively. Percentage for the divorced or separated were: 4.19%, 5.04%, 6.88%, 6.20% and 6.34% respectively.

From 1991 to 1995, the number of unmarried patients has increased by 2% and that of married patients has decreased by 4% although married patients still constituted half of the total. The number of divorced patients has also increased by 2% from 1991 to 1995.

OCCUPATION

From 1991 to 1995, there was a trend of decrease for labour worker and for farmers from 51.06% to 41.37% and from 8.09% to 5.34% respectively but an increase for office workers from 18.54% to 21.85%, students from 4.48% to 6.51%, unemployed patients from 10.86% to 15.74% and retired patients from 3.44% to 4.62%.

GENETIC FACTORS

22.16% (2614) among the 11796 patients have got family history of the same disorder. Among the 7300 discharged patients with schizophrenia, 13.67% (1728) have got family history of the same disorder. Whereas for Affective Disorders, the corresponding figure is 28.24% (475/1618).

ETIOLOGICAL FACTORS

Of the 11796 patients, 46.86% (5528) patients have got identifiable etiological factors compared with those without such factors which constitute 53.14%.

Among these etiological factors, marital and family events ranked the first taking 18.26% (2134), followed by events related with occupation and study (1348, 11.43%). The third was interpersonal relationship (1089, 9.23%), then organic disorders (506, 4.29%), male performance of body fitness exercises (257, 2.18%) and social political factors (174, 1.48%).

Events related to occupation and study showed a trend of increase by 2% from 1991 to 1995 (16%, 11.30%, 11.27%, 12.07% and 12.24% respectively) while other factors also showed a trend slight increase except the political and economical factors which decreased from 1.74% in 1991 to 1.33% in 1995. The proportion for interpersonal relationship from 1991-1995 were 7.84%, 10.71%, 9.23%, 10.36% and 7.87% respectively.

GEOGRAPHICAL ORIGIN

34.47% (4066) of the patients came from the urban area of Beijing, 38.71% (4566) from the suburb and 15.79% (1863) from outside Beijing, 11.01% (1301) from the remote rural areas of Beijing.

DISEASE ENTITIES

Psychiatric diagnoses were classified according to the CCMD-2-R psychiatric disorder classification into 7 categories: schizophrenia (60%), affective disorders (15%), psychiatric disorders caused by psychoactive agents (9%), psychiatric disorders caused by organic or physical diseases (6%), neurosis and psychogenic disorders (4%), childhood psychiatric disorders and mental retardation (1%), and other mental disorders (5%).

PREDOMINANT SYMPTOMS

Prominent symptoms were listed according to their frequency of occurrence in Table 2. It was noticed that the predominant symptoms of depression, anxiety, tension, apprehension and mania had increased by 2%.

Table 2. Predominant symptoms

Predominant symptoms	No. of patients	%
<i>Delusion</i>	1351	25.76%
<i>Hallucination</i>	837	15.96%
<i>thought disturbance</i>	739	14.09%
<i>Elation</i>	625	11.92%
<i>Depression</i>	310	5.91%
<i>Anxiety</i>	298	5.68%
<i>Neurasthenic syndrome</i>	253	4.82%
<i>Mania:</i>	233	4.25%
<i>Tension and apprehension</i>	181	3.45%
<i>Sensorium disturbance & idiot</i>	178	3.39%
<i>drug and alcohol addiction:</i>	109	2.08%
<i>suicide and self injury</i>	100	1.91%
<i>Psychopathic personality</i>	40	0.78%
Total	5244	100 %

MAJOR TREATMENTS

The 5 antipsychotic medications (including injections) listed by percentage of total frequency of administration included: haloperidol (26.53%, 3431/12932); chlorpromazine (26.19%, 3387/12932); perphenazine (20.90%, 2703/12932); clozapine (16%, 2069/12932) and sulpiride (10.38%, 1342/12932).

The annual figures for haloperidol figure from 1991-1995 were 24.31%, 24.96%, 27.36%, 29.01% and 26.84% respectively. Those for clozapine were 11.93%, 15.31%, 16.59%, 16.06% and 16.27% respectively.

The percentage list of drugs for mania and depression was as follows: lithium carbonate (43.33%, 919/2121); amitriptyline (21.59%, 458/2121); Doxepin (13.53%, 287/2121); chlorpromazine (11.69%, 248/2121) and carbamazepine (9.86%, 209/2121).

Electro-convulsive therapy was still used in some cases (235 cases out of the total).

OUTCOME OF TREATMENT

47.55% (5609) of the 11796 patients were considered as cured, with 18.93% (2233) as obviously improved, 28.03% (3306) improved, 5.10% (602) not effective and 0.39% (46) dead. These figures were steady over the 5 years period.

DISCUSSION

Useful information from this statistical analysis has served to shed lights on the promotion of healthcare quality and management of psychiatric disorders and this is indeed the objective of this paper.

Indeed, the average annual turnover rate of Beijing Anding Hospital is about three times per bed, indicating a heavy clinical workload. Patients admitted were predom-

antly brought to the hospital by the free choice of their family members. Regarding regional distribution, they mainly came from the urban and suburban areas of Beijing while some came from outside Beijing and other countries.

Anding Hospital differed from other psychiatric hospitals in the characteristics of patients it admitted. Its patients were younger, having earlier onset of illness and having shorter course of illness (Gao et al, 1994; Ren et al, 1997).

Comparing longitudinally, the number of male patients hospitalized was declining while that of female patients was increasing. There might be several reasons. Firstly, as suggested by many researchers (Shen, 1995), along with the changing epidemiological pattern and fast social development, many physiological as well as psychological differences between men and women have emerged. The different role played by women in the family and social communication has brought to them greater stress and higher demand for ability to solve problems and to adapt to the environment. Consequently, the incidence of psychiatric disorders among women rose. Secondly, the enhancement in women's social status, economic status and health education facilitated the access of women to medical facilities, leading to the increase in number of female in both in-patient and outpatient services. Lastly, a shorter stay of female patients in the hospital also contributed to the higher female ratio. All these findings point to the need for greater attention to the factors related to psychiatric disorders in women.

The change in marital status of patients was different with that of Shanghai Psychological Medical Center (Ren et al, 1997). The trend of change in patients' occupational was consistent with the overall trend in the community at large. One point which draws particular attention of the medical sector and social awareness was the increase in number of students.

The absence of identifiable psychosocial etiological factors in over a half among all the patients indicates that attention should be paid to the biological factors in the study of etiological factors of psychiatric disorders.

SYMPTOMS AND DIAGNOSES

The predominance of the symptoms of delusion, hallucination, thought disturbance and elation in this sample could be explained by the severity of patients who entailed hospitalization (Lu et al, 1992). Meanwhile, the increase in depression, anxiety, tension, apprehension and mania might be due to a simultaneous increase of affective disorders. The fact that symptoms of elation, suicide, self-injury, sensorium disturbance and idiot constituted 3-4% reflected the degree of difficulties for our inpatient management.

Because of the effort put on supervision by senior doctor in Beijing Anding Hospital, the accuracy of diagnosis has been upheld and the diagnosis made was based on ICD-10 and CCMD-2-R standards. Special wards for the aged, children and drug dependent were in place while the number of beds for Schizophrenia dropped. This might be why the number of patients with schizophrenia dropped from 74.17% in 1985 to 61.90% in 1995 though it was

still the most common one. The increase in affective disorders might indicate a elevated incidence possibly caused by psychodynamic agents within the changing of social environment.

TREATMENT AND OUTCOME

Regarding pharmacotherapy, one of the reasons for haloperidol to be the most commonly used medication (Hu et al, 1990; Zhao et al, 1994) might be due to presence of its preparations from oral to injection which provided wider choice for the patients. It is noteworthy that clozapine, with increasing usage for both acute and chronic patients, ranked the fourth as its side effects had affected the doctors' choice. In fact, only some major medications were used in Beijing Anding Hospital. The regimen normally contains one antipsychiatric agent with agents for anxiety and depression as supplement. Lithium carbonate was most commonly used for affective disorders because the presence of the well developed technique for measuring its the blood level has provided instant and reliable information for doctors to individualize the administration and prevent emergence of significant side effects. It has served to drive away the previous hesitance of clinicians. Amitriptyline was used the most for the treatment of depression though many new agents had been manufactured locally and abroad.

For outcome of treatment, the proportion of "cured" patients had declined in these years reaching a figure similar to that rate of 47.83% in 1985 and so had the "not effective: cases while the rate for "improved" and "obviously improved" cases had risen. Such improvement was probably related to the predominance of schizophrenia among these group of patients. Another reason was, in conjunction with the improvement in the economic and family conditions, patients and their family members preferred to return home when the disorder improved. It has facilitated the re-integration into the normal social and family life as well as the participation of patient's family in the treatment and rehabilitation of the patient.

The emphasis and direction of research into psychiatric care should be adjusted along with the changes of biological, psychological and social patterns. In addition to medical and nursing services, we have introduced psychological and social workers, occupation- recreational therapists to provide comprehensive medical care. Efforts were put on psychological nursing care and treatment, treatment through cultural or recreational, theatrical activities and sports in addition to biological treatment. Owing to improvement of hospital facilities, patients could resume their ability in social communication, activities of daily living and recognition of their illnesses. At the same time, the relationship between patients and medical staff was improved and patient could increasingly count on medical treatments. Despite absence of significant changes in conventional hospital outcome parameters, patients have shown better psychiatric prognosis which in turn could have indicated the improvement in quality of psychiatric care.

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