Clinical symptoms and global function study of outpatient schizophrenia at King Chulalongkorn Memorial Hospital, Thai Red Cross Society

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Objective : *To study clinical symptoms and global function of outpatient schizophrenia in order to evaluate, treatment, risk management and to improve the quality of the services.*

Setting : *King Chulalongkorn Memorial Hospital, Thai Red Cross Society*

Design : *Descriptive study*

Subject : *Twenty-four outpatient schizophrenias. There were 12 males and 12 females.*

Methods : *Assessment of clinical symptoms in randomly follow-up schizophrenia by Brief Psychiatric Rating Scale (BPRS) and assessment function by Global Assessment of Functioning Scale (GAF). The relation between BPRS scale and GAF scale had been observed.*

Result : *The mean age and duration of treatment were 40.3 ± 9.9, 11.9 ± 8.0 years. The common symptoms of the subject samples were hallucination, tension, depression, guilt and anxiety. Suicidality was the lower score symptom. The average BPRS and GAF score were 54.4 ± 9.7, 75.7 ± 11.6. 6 patients had BPRS score less than 48 and 18 patients had BPRS score more than 48. The GAF score of each group were 80.7 ± 6.4 and*

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74.3 ± 12.3 which are not statistically different. The BPRS score in married patients had difference statistically significance compared with single or divorce group (49.0 ± 3.2, 55.6 ± 10.4 P=0.030) and the level of education more than 12 year group did not have BPRS score difference statistically compared with the level education less than 12 years (55.3 ± 6.0, 54.3 ± 11.0 p=0.82).

Conclusion : *This study demonstrates that schizophrenias treated at the outpatient service had very mild to mild symptoms. hallucination, depression, guilt and anxiety were common presentations. Suicidality was uncommon but should be aware of to minimize the risk of the patient . 75 % of samples showed the minimum impairment of their function. Statistically, patients with lower BPRS score did not have better GAF scale. The married schizophrenia had the symptoms less than not married. The educational level did not affect the symptoms.*

Keywords : *Schizophrenia, Brief psychiatric rating scale, Global Assessment of Functioning Scale, Symptom , Function, BPRS, GAF.*

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เดชา ลลิตอนันต์พงศ์. การศึกษาลักษณะ อาการทางคลินิกและหน้าที่โดยรวมในผู้ป่วยนอกโรคจิตเภท ในโรงพยาบาลจุฬาลงกรณ์ สภากาชาดไทย. จุฬาลงกรณ์เวชสาร 2548 ส.ค; 49(8): 447 - 57

วัตถุประสงค์ : *ศึกษาลักษณะอาการทางคลินิกในผู้ป่วยนอก โรคจิตเภท ที่ได้รับการรักษาในโรงพยาบาลจุฬาลงกรณ์ เพื่อใช้ในการประเมินผู้ป่วย การวางแผนการรักษา การดูแล ความเสี่ยง และการพัฒนาคุณภาพการให้บริการ*

ชนิดของการวิจัย : *การวิจัยเชิงพรรณนา*

สถานที่ทำการศึกษา : *คลินิกผู้ป่วยนอก ฝ่ายจิตเวชศาสตร์ โรคพยาบาลจุฬาลงกรณ์*

วิธีการศึกษา : *ทำการศึกษาในผู้ป่วยนอก โรคจิตเภท จำนวน 24 รายโดยสุ่ม ผู้ป่วยจะได้ประเมินอาการของโรค และผลการรักษาของโรคด้วยแบบทดสอบ Brief psychiatric rating scale (BPRS) และประเมินความสามารถทางสังคม และอาชีพด้วยแบบทดสอบ Global Assessment of Functioning Scale (GAF) และศึกษาความสัมพันธ์ระหว่างคะแนน BPRS กับคะแนน GAF*

ผลการศึกษา : *อายุเฉลี่ย และ ระยะเวลาเฉลี่ยที่ได้รับการรักษา คือ 40.3 $\pm$ 9.9, 11.9 $\pm$ 8.0 ปี อาการที่พบบ่อยในผู้ป่วยกลุ่มนี้ คือ หูแว่ว (hallucination), ตึงเครียด (tension), ซึมเศร้า (depression), รู้สึกผิด (guilt) และวิตกกังวล (anxiety), คะแนนของอาการความคิดฆ่าตัวตาย (suicidality) ค่อนข้างต่ำ ค่าเฉลี่ยคะแนน BPRS และ GAF คือ 54.4 $\pm$ 9.7, 75.7 $\pm$ 11.6 ผู้ป่วย 6 รายมีค่าคะแนน BPRS น้อยกว่า 48 และผู้ป่วย 18 รายมีค่าคะแนน BPRS มากกว่า 48 คะแนน GAF ของแต่ละกลุ่มคือ 80.7 $\pm$ 6.4 และ 74.3 $\pm$ 12.3 ซึ่งไม่มีความแตกต่างกันอย่างมีนัยสำคัญทางสถิติ ผู้ป่วยที่แต่งงานแล้วจะมีค่าคะแนน BPRS แตกต่างกับกลุ่มที่โสด หรือหย่า หม้าย อย่างมีนัยสำคัญทางสถิติ (49.0 $\pm$ 3.2, 55.6 $\pm$ 10.4 P=0.030) และในกลุ่มระดับการศึกษาสูงกว่า 12 ปี มีค่าคะแนน BPRS ไม่แตกต่างกับกลุ่มระดับการศึกษาน้อยกว่า12 ปี อย่างมีนัยสำคัญทางสถิติ (55.3 $\pm$ 6.0, 54.3 $\pm$ 11.0 p=0.82)*

สรุป : *การศึกษานี้ แสดงให้เห็นว่าผู้ป่วยนอกโรคจิตเภทที่ได้รับการรักษา จะมีอาการของโรคค่อนข้างน้อยถึงน้อยมาก อาการหูแว่ว (Hallucination) ซึมเศร้า (depress) ความรู้สึกผิด (guilt) และความกังวล (anxiety) เป็นลักษณะอาการที่พบบ่อย ความคิดฆ่าตัวตาย (suicidality) เป็นกลุ่มอาการที่ควรตระหนักเพื่อที่จะดูแลเรื่องความเสี่ยงของผู้ป่วย ผู้ป่วยร้อยละ 75 เสียหน้าที่การงานค่อนข้างน้อย ผู้ป่วยอาการของโรครุนแรงน้อย (คะแนน BPRS ต่ำ) ไม่จำเป็นต้องมีความสามารถทางหน้าที่สูง (คะแนน GAF สูง) ผู้ป่วยที่มีครอบครัวแล้ว จะมีอาการป่วยน้อยกว่า และระดับการศึกษาที่สูง ไม่มีผลต่อระดับอาการเจ็บป่วย*

คำสำคัญ : *โรคจิตเภท, ลักษณะอาการทางคลินิก, หน้าที่, การประเมิน, อาการ, ผลการรักษา*

Schizophrenia is a mental illness which is diverse in nature and covers a broad range of cognitive, emotional and behavioral disorders, characterized by progressive decline of the patient's functioning and relationship with the outside world.

The Department of Psychiatry, King Chulalongkorn Memorial Hospital, the Thai Red Cross Society had 28,000 people who attended the outpatient services in 2003. The five most common diagnoses were schizophrenia, anxiety disorder, depressive disorder, bipolar disorder, adjustment disorder and dementia. Schizophrenia was the most common diagnosis as shown in figure 1.[1]

According to the deteriorating course of schizophrenia, it was necessary for the clinician to monitor the target symptoms, control the patient risk such as violence or suicide and set rehabilitation programs for the patient and the family.

The Brief Psychiatric Rating Scale (BPRS) is a 16-item scale with nine general symptom items, five positive-symptom items, and two negative-symptom items. Completed by the physician, each item is scored on a seven-point severity scale (the higher the number, the more severe the symptom), resulting in a range of possible scores from 16 to 112. The average patient with schizophrenia who enters the clinical trial typically scores 33. This is a useful instrument to assess and monitor clinical symptoms of schizophrenia.[2]

Global Assessment of Functioning Scale (GAF) allows the clinician to assess the patient's psychological, social and occupational functioning on a continuum extending from superior mental health, with optimal social and occupational performance to profound mental impairment whereas social and occupational functioning is precluded. The range of scale scores from 0 to 100.[3]

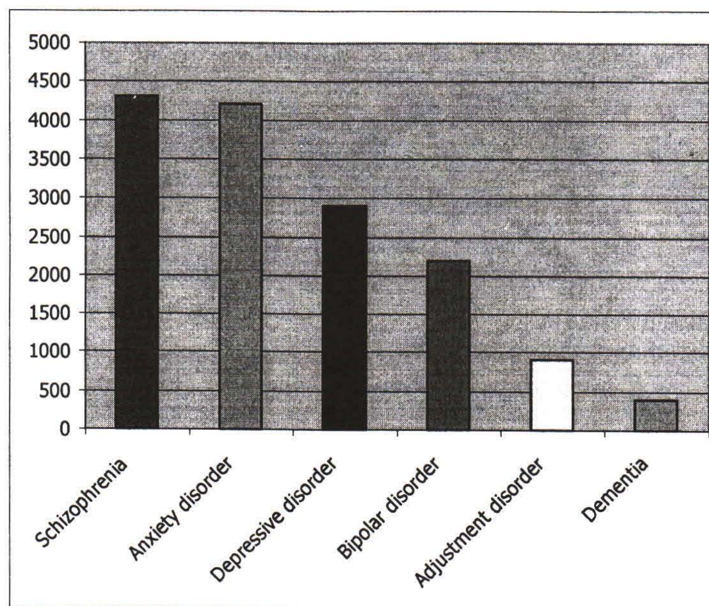

Figure 1. The five most common diagnoses at the Outpatient Service, Department of Psychiatry, King Chulalongkorn Memorial Hospital Jan-Dec 2003.

Material and Methods

Patient Selection

Male and female patients who were older than 15 and fit in with the DSM-IV criteria for schizophrenia [4] were recruited into this study.

Method

The subjects were follow - up cases which were diagnosed as schizophrenia during their regular outpatient visits. They were randomly recruited, and requested to have their symptoms and clinical feature evaluated using BPRS. GAF scale was used to evaluate social and occupational functions of the patients, rated by the same psychiatrist. The association between BPRS and GAF was evaluate statistically with SPSS program. Student t-test was used to compare BPRS scale of variables. The test was taken to be significant when $p < 0.05$.

Table 1. Characteristic of the studied population.

	Number	Percent
Gender		
Male	12	50.0
Female	12	50.0
Marital status		
Single or Divorce	20	83.3
Married	4	16.7
Education (Years)		
<= 6 years	6	25.0
6 – 12 years	12	50.0
> 12 years	6	25.0
Age group		
15-30	4	16.7
31-45	12	50.0
46-60	8	33.3
More than 61	0	
Duration of illness	11.9 ± 8.0	
Mean age	40.3 ± 9.9	

Inclusion criteria and Exclusion criteria

The diagnosis of schizophrenia and the age of more than 15 were the criteria for recruitment . The subjects who had co-morbidity like major depressive disorder, other psychotic disorder, psychotic disorder due to general medical condition and dementia were exclude from the study.

Results

The characteristics of 24 schizophrenia patients in this study are summarized in Table 1. There were 12 males (50 %) and 12 females (50 %). The mean age was 40.3 ± 9.9 years. Their durations of illness were 11.9 ± 8.0 years. Table 2 demonstrates the result of BPRS scale of the patients. The high score symptoms were hallucination, tension, depression, guilt and anxiety. Mannerisms and posturing, suicidality and elated mood were the lower score symptoms. Table 3 and Fig. 2 demonstrate the BPRS score of schizophrenic samples. Mean BPRS score of these samples was 54.4 ± 9.7.

Table 4 and Fig. 3 show the GAF scores of these patients ranged from 59 – 91 which had the mean score at 75.3 ± 12.9. Table 5 shows the relationship between BPRS score and GAF scale of patients. In this study, 6 patients had BPRS score less than 48 ; 18 schizophrenias haved BPRS score more than 48. The GAF score of each group was 80.7 ± 6.4 and 74.3 ± 12.3.

Table 2. The result of The Brief Psychiatric Rating Scale (BPRS) and GAF scale.

Items	Symptoms	Mean Score	SD
1	Somatic concern	2.7	0.9
2	Anxiety	2.8	0.8
3	Depression	2.8	1.1
4	Suicidality	1.2	0.5
5	Guilt	2.8	1.2
6	Hostility	2.2	0.7
7	Elated Mood	1.2	0.4
8	Grandiosity	2.3	0.7
9	Suspiciousness	2.4	0.9
10	Hallucinations	2.9	1.3
11	Unusual thought content	2.5	0.9
12	Bizarre behaviour	2.0	0.3
13	Self-neglect	2.1	0.4
14	Disorientation	1.8	0.4
15	Conceptual disorganisation	2.0	0.3
16	Blunted affect	2.3	0.7
17	Emotional withdrawal	2.2	0.6
18	Motor retardation	2.2	0.7
19	Tension	2.9	0.8
20	Uncooperativeness	2.4	1.1
21	Excitement	2.5	0.8
22	Distractibility	2.6	0.8
23	Motor hyperactivity	2.6	0.9
24	Mannerisms and posturing	1.0	0.2
	Mean total score and SD	54.4	9.7

Table 3. The BPRS score of schizophrenic samples.

BPRS score	Cases	Percent
16 – 31	1	4.2
32 – 47	4	16.7
48 – 59	11	45.8
60 – 75	8	33.3
Mean BPRS	54.5 ± 9.8	

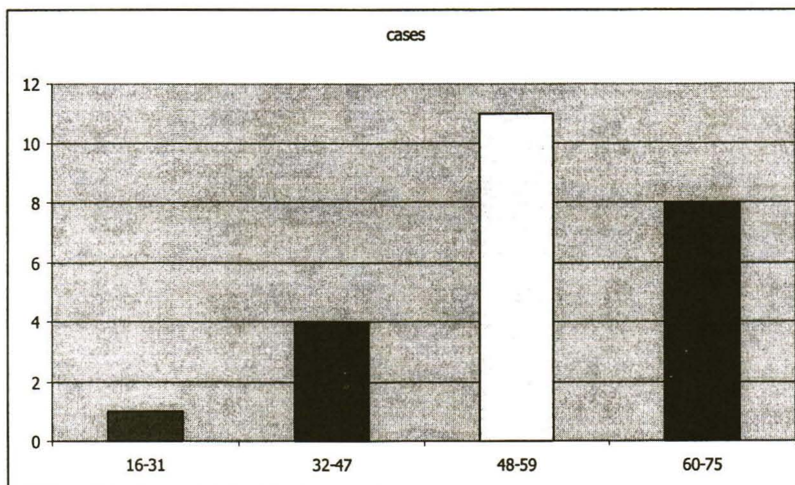

Figure 2. The BPRS score of schizophrenic samples.

Table 4. The result of GAF score.

51-60 (Moderate difficult function)	4 (16.7 %)
61-70 (Mild difficult function)	2 (8.3 %)
71-80 (Slight impairment)	8 (33.3 %)
81-90 (Good function)	6 (25.0 %)
91-100 (Superior function)	4 (16.7 %)
Mean GAF	75.7 $\pm$ 11.6

Table 5. BPRS score GAF scale.

BPRS score	N	Mean GAF	SD	P-Value
Less than 48	6	80.7	6.4	0.192
More than 48	18	74.3	12.3	

Table 6. The relation between marital status and mean BPRS.

Marital status	N	Mean BPRS	SD	P -Value
Single or divorced	20	55.6	10.4	0.030*
Married	4	49.0	3.2	

Table 7. The relation between education level (years) and mean BPRS.

Year	N	Mean BPRS	SD	P- value
<= 12	18	54.3	11.0	0.826
> 12	6	55.3	6.0	

Table 6 demonstrate the relationship between marital status and mean BPRS score. There was 20 cases of single or divorced group which had mean BPRS 55.6 $\pm$ 10.4 compared with 49.0 $\pm$ 3.2 in married group. This result has difference statistically significant (p=0.030).

The relation between education lever and mean BPRS was shown in table 7. There was no statistically significant difference between education less than 12 years and more than 12 years.

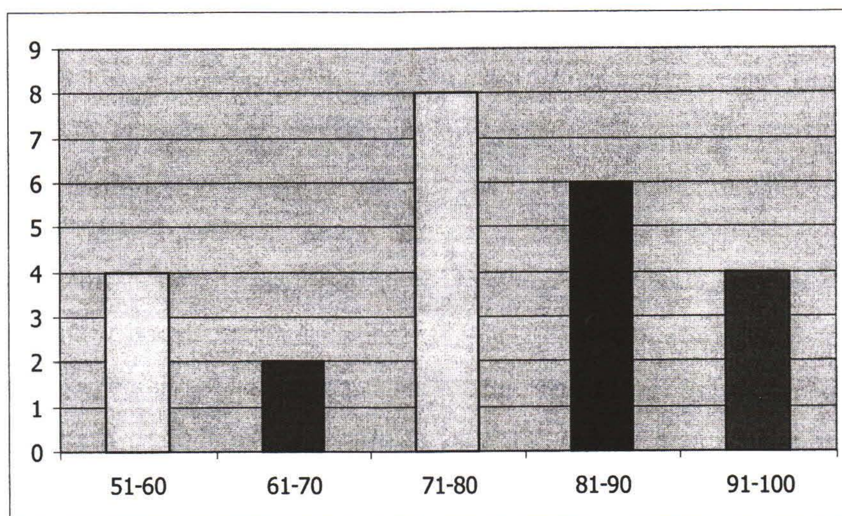

Figure 3. The result of GAF score.

Discussion

The characteristics of these samples were consistent with the nature of chronic schizophrenia. The mean age of these samples were 40.3 ± 9.9 years and the duration of illness were 11.9 ± 8.0 years. Nearly two - thirds of schizophrenia-spectrum disorders seeking outpatient treatment were younger than 45. However, younger persons used significantly more crisis/emergency department services than did those aged 45 and older. [5] Most of the cohort study of long-term course of schizophrenia had multiple relapses with or without complete remission. [6] **Psychiatric symptoms**: This study reveals very mild to mild symptoms of schizophrenia (BPRS between 48 – 72). The common symptoms were hallucination, tension, depression, guilt and anxiety. Mannerisms and posturing, suicidality and elated mood were of lower scores. Hallucinations are common in patients with schizophrenia. Patients with hallucination need close monitoring because they are more likely to harm themselves under hallucination commands. [7]

Depression, guilt and suicidality should be considered as risk factors of the patient. Even this study demonstrated a low suicidality score of the patients. The risk of suicide attempt in patients with major psychiatric disorders did not differ from non-attempters on psychotic symptoms, but they presented with more severe depression and anxiety. [8] One study of depression and suicide in schizophrenic patients reported that 22.4 % of the schizophrenic patient showed severe depressive symptoms that met the criteria for the diagnosis of a major depressive episode and committed suicide during the acute phase of the illness. [9]

Tension may be a predicting factor for the risk of violence. [10] A 25-year study of homicide risk in schizophrenia demonstrated that schizophrenia had homicide risk about two times in men and six times in women especially with co-morbid alcohol abuse/ dependence. [11] Recent study showed the evidence of long-term treatment with atypical neuroleptic may have some advantage in reducing the risk of violence. [12]

Family support was the prognosis for cast for schizophrenic patients. The better support such as married patients had the lower symptoms than single or divorce group that shown in this study. The appropriate role of spouse should be future study.

Function : As shown at the GAF score, chronic schizophrenias in this sampling showed that 75 % of the patients have the GAF score above 71 (minimal impairment). Comparing 6 patients who had BPRS score less than 48 (very mild symptoms) to 18 schizophrenias who have BPRS score higher than 48 (mild symptoms), it is found that the GAF score of each group were 80.7 ± 6.4 and 74.3 ± 12.3 which were not statistically different. This finding means that the very mild symptom group did not have better global function than the group of mild symptom.

Data from various national surveys show that a schizophrenia has an employment rate of about two-thirds of the general population. More than one third of the people with serious mental illness also work, and many hold positions of high-status. [13] Schizophrenia who had lower education had lower income and their work was less adequate. [14] However this paper demonstrate the same level of symptoms between higher education group (education years more than 12) and under education group (less than 12 years). The severity of the symptoms did not depend on education level.

For chronic schizophrenic patients, the services should especially focus on the training of their social skills and psychoeducational approaches. [15] The prognosis of schizophrenia could potentially be improved by reducing the duration of untreated psychosis. [16] Psychosocial interventions and models of quality of life in schizophrenia are based on the attempt to increases their psychosocial function which is related to improvement in subjective experiences, such as self-esteem and satisfaction in life. [17] To improve patients' quality of life and the mental health of caregivers in both services, it is important to ameliorate severe symptoms associated with schizophrenia. [18] Awareness of the initial prodromal symptoms in schizophrenia such as social, occupational, and affective dysfunction was useful in detecting new patients. [19] For chronic schizophrenic patients, the service should be especially focused on the training of their social skills and psycho educational approaches. [20]

Treatment strategies for schizophrenia should aim to reduce mortality and morbidity, and to improve the quality of life of the individuals diagnosed with this disorder through a comprehensive and holistic management program that comprises case management, judicious use of anti-psychotics, and various psychosocial interventions.

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