

LIFE EVENTS PRECEDING FIRST ONSET SCHIZOPHRENIA AND SCHIZOPHRENIFORM DISORDERS

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SUMMARY

This study aims to describe the frequency and characteristics of life events in the months immediately prior to illness in first episode schizophrenia and schizophreniform disorders. Patients that fitted the DSM III-R criteria for first episode schizophrenia and schizophreniform disorders were matched with controls and administered the Paykel Interview for Recent Life Events. 30 patients with schizophreniform illness, 14 with schizophrenia and 44 controls were obtained. The results showed that all the patients had significantly more life events in the month preceding the onset of illness; with patients with schizophreniform illness having more events with severe or moderate impact and more undesirable events as compared to controls. Patients with schizophrenia had significantly more exit events. In conclusion, this study supports the hypothesis that stressors in the form of life events are more important in schizophreniform illness as compared to schizophrenic illness.

Keywords: life events, schizophrenia, schizophreniform disorders

INTRODUCTION

There is considerable evidence that life event stressors contribute towards the development of mental disorders (Zubin et al, 1977). Although it has been frequently stated in the scientific literature that schizophrenia and its symptoms can occur following stressful live events (Norman et al, 1993), conflicting results from earlier studies have generally indicated that the evidence for such a relationship is weak (Rabkin, 1980). Studies with improved methodologies have been designed to clarify this issue. Lately among them there have been attempts to date the onset of symptoms carefully enough so as not to include events that might have been brought about by early symptoms of schizophrenic breakdown and to include as relevant only events outside the subject's control.

Life events in other psychiatric disorders such as depression have been implicated as predisposing or formation factors but in schizophrenia the primary role has been reported to be to "trigger" acute episodes of the disorder.

The aim of this study was to determine whether life events were more frequent a month immediately prior to onset of illness in first episode schizophrenic and schizophreniform disorder as compared to controls.

METHODOLOGY

All patients admitted to the Kuala Lumpur General Hospital, referred or seen at the Psychiatric Clinic for first onset schizophreniform and schizophrenic disorders from 15.12.92 to 31.5.93 (5 1/2 months) were included in the study. The controls consisted of relatives accompanying patients at the Physician's Clinic, National University of Malaysia who were matched for age and socio-economic status. Only one relative per medical patient was interviewed and they comprised of those who best matched the case. Consent (written or verbal) for the study was taken from relatives of patients or patients who were able to give consent. Consent was also taken from controls.

A thorough physical examination was done on each patient to rule out organic illness. Patients were then subjected to baseline investigations. Urine for cannabis and thyroid status (T_3 , T_4) and skull x-ray were done to further rule out possibility of organic illness. The Diagnostic and Statistical Manual of Mental disorder (third edition, revised [A.P.A 1987]) or DSM III-R checklist was used to determine whether patients fulfilled the diagnosis of schizophrenia or schizophreniform disorder. Patients were included in the study only if the prodrome of illness and the manifestations of the illness were within one year from the time seen by the author. Dating of onset of illness was made to within a one week period. Patients were excluded from

the study when the onset was uncertain and could not be dated to the above period. Demographic data such as age, sex, race, marital status, education level and social class were taken. There was no age limit specified. Both sexes were included in the study. Marital status was categorised into married, unmarried and widowed. Life events for the period of 6 months prior to onset of illness were noted from patients and informants.

The Interview for recent life events Paykel et al (1983) was chosen for this study and permission obtained for its usage. This instrument was used for the study as the area of coverage was adequate, the number of events were not redundant and basically were commonly occurring events. There was also room for extra events to be quoted. There was no specific training required for its administration. The time used for each interview was about 30 minutes to an hour depending on the number of life events elicited. There was no requirement for another party to validate the findings. Once an event was present, detailed probing was done to ascertain the circumstances of the event. Three main factors were looked into: 1. Independence of events; 2. Objective negative impact and 3. Month of occurrence.

If more than 2 life events took place during the 6 months period only the 2 most severe events would be considered. Emphasis was given to life events occurring in the month immediately prior to illness. There were 191 new patients initially diagnosed by the psychiatric medical officers as having Schizophrenia or Schizophreniform Disorders admitted to the Psychiatric Wards or seen at the Psychiatric Clinic between 15.12.92 to 31.5.93. Out of these new patients, 44 (23%) fulfilled the criteria to enter the study.

RESULTS

DEMOGRAPHIC DATA

The demographic comparison is as shown in the Table 1 below. T-test showed no significant difference between the age for the patients and controls.

LIFE EVENTS: PATIENT VS CONTROLS

As compared to controls, patients had:

1. significantly more undesirable events ($p < 0.05$);
2. significantly more exit events ($P < 0.05$) with exit events per patient being 1.48 and per control 0.95;
3. significantly more events with severe, marked or moderate negative impact ($p < 0.05$);
4. significantly more life events in the month immediately preceding the onset of illness ($p < 0.05$) with significant increase in number of patients with events categorised as severe, marked or of moderate negative impact in that month.

LIFE EVENTS: SCHIZOPHRENIFORM VS SCHIZOPHRENIA VS CONTROLS

Patients were re-classified as into schizophrenia (14) and schizophreniform (30). The latter has significantly more undesirable exit events with severe, marked or moderate impact when compared to controls ($p < 0.05$) and schizophrenia ($p < 0.005$). Patients with schizophrenia had significantly higher exit events as compared to schizophrenia and controls ($p = 0.04$).

Table 1. Demographic data

	Patients (n=44)	Controls (n=44)
Age		
Range	14 - 59	15 - 55
Mean (overall) *	26.52	26.54
for males *	25.60	24.92
for females *	28.50	28.88
Sex		
Males	30(68.18)	26(59.09)
Females	14(31.82)	18(40.91)
Race		
Malay	22(50.00)	26(59.09)
Chinese	17(38.64)	15(34.09)
Indian	3(6.82)	5(11.37)
Others	2(4.54)	2(4.54)
Marital Status		
Ever Married	7(15.91)	11(25.00)
Single	37(84.09)	33(75.00)
Social Class		
V	30(68.18)	30(68.18)
IV	8(18.18)	8(18.18)
III	5(11.36)	5(11.36)
II	0(0.00)	0(0.00)
I	1(2.28)	1(2.28)

% in brackets

* t-test shows no significant difference

DISCUSSION

The mean age for female patients (28.5 years) was slightly higher than for male patients (25.6 years), the difference being about 3 years. In this study 85% of the patients were from social class 4 or 5. Some patients were still schooling and their social class was taken as that of their parents. The ratio of male to female was about 2:1. One reason could be that more males were affected at a younger age and another being that the younger age male patients tended to be more violent and so were brought to the hospital more often and earlier than female patients.

Patients had significantly more life events in the month immediately preceding onset of illness (Table 5). When comparisons were made for the other months, no significant findings was noted. The results are comparable with studies of Brown & Birley (1968) and that of Day (1981), although the methods were different. In these two studies described, the study period were divided into four 3-week periods. In this study the 6 month study period was divided into six one-month periods and Paykel's Interview for Recent Life Events was used to assess life events. From this study it can be seen that the patients had more life events with severe, marked or moderate negative impact as compared to controls. These were the more "negative" events. There was no significant difference when events that had mild or no negative impact were compared between patients and controls. These constituted the more "positive events" and it seemed that "positive events" were

equally experienced in both groups. Patients had more exit events when compared to controls which is similar to findings by Schwartz et al (1977) and Canton et al (1985), but Jacobs and Myers (1976) however did not find any significant difference between patients and schizophrenics in terms of entrance or exit events. No difference was found for the desirable events, which is similar to what is described in previous studies (Jacobs & Myers, 1976). Patients had significantly more undesirable events as compared to controls. This result is comparable to studies by Jacob & Myers (1976); Schwartz & Myers (1977); Canton & Fraccon (1985). Events categorised as having severe, marked and moderate negative impact were also significantly higher in the month immediately preceding the onset of illness. The average number of events per person in this study was 1.48 for the patient group and 0.95 for the control group. The mean number of events per patient varied across various studies, 0.88-3.20 for patients and 0.83-2.10 for controls. No significant findings were found when life events concerning usual areas of activity was considered in this study. Again in this area wide variations were seen across studies although most studies showed that the areas mostly involved in schizophrenia were the social and familial areas. However other studies showed different results. Canton & Fraccon (1985) for example showed that life events concerning work, health, social and family relationship were higher in schizophrenics. Jacobs and Myers (1976) found that life events relating to relocation, familial and legal aspects were higher in schizophrenics. Schwartz & Myers (1977) found schizophrenics experienced significantly more events in interpersonal, health, work, legal and community crisis areas of activity. In this study, life events relating to work, illnesses and death in family members were higher in schizophrenics.

Using DSM III-R the sample group was differentiated into schizophrenia and schizophreniform disorder. The patient group had significantly more undesirable and exit events, which were categorised as of severe, marked or moderate negative impact, as compared to controls. Interestingly, the schizophreniform disorder group was the group with significantly more such events when the patient group was subdivided and analysed separately as schizophrenia and schizophreniform. One possibility was that the number of patients with schizophrenia was too small (ie 14 patients). Another possible explanation was that schizophrenic patients had relatively longer period of illness and therefore had problems recalling events and there might be cognitive difficulty associated with longer illness. The maximum time frame of recall of patients with schizophrenia was 1.5 years prior to interview. A study that was similar to the present study and differentiated schizophrenia from schizophreniform disorder was that of Chung et al (1986). The authors noted that threatening life events were significantly related to the onset of schizophreniform disorder but not to schizophrenia. However the results of this study was based on only 15 patients with schizophrenia and 9 patients with schizophreniform disorder. When events were categorised into desirable events, there was no significant difference noted among patients with schizophrenia, schizophreniform disorder and controls. The schizophrenia group had significantly higher

exit events as compared to controls. Previous studies had shown that schizophrenics had more exit events than controls but did not differentiate schizophreniform disorder from schizophrenia. We do not know what proportion of the schizophreniform subjects become schizophrenic after six months since this was an cross-sectional study, and at this point it may not be useful to separate the schizophreniform disorder out of the total patient sample.

Relapsing schizophrenics were not included in the study as there were too many confounding variables that had to be dealt with. These include factors like expressed emotions which influences relapse, social support which is difficult to quantify and the influence of drug treatment on relapse.

CONCLUSION

This study shows that all the patients had significantly more life events in the month immediately preceding the onset of illness, with schizophreniform patients having significantly more events with severe, or moderate impact. The schizophreniform group also had significantly more undesirable events, while patients with schizophrenia had significantly more exit events. This study has attempted to distinguish between schizophrenia and schizophreniform disorders and controls, in terms of preceding life events. However, the small number of schizophrenic patients and the uncertainty about the long term diagnosis in the schizophreniform group should be considered.

It is concluded here that the study of life events alone is insufficient to determine the aetiological factors in schizophrenic illness. Other factors such as vulnerability, social support, treatment and expressed emotion contribute to the complexity of illness formation or relapse. To address this issue prospective studies that look into the severity of symptoms are indicated and the best control subjects are patients themselves.

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