

## Monthly birth rates in residual and paranoid schizophrenic patients

R. Bottlender, H.J. Möller

Department of Psychiatry, Ludwig Maximilians University, Nussbaumstrasse 7, D-80336 Munich, Germany

(Received 4 November 1999; final version 1 December 1999; accepted 17 February 2000)

To The Editors: In the September 1998 edition of the American Journal of Psychiatry, Kirkpatrick et al. published the article entitled 'Summer birth and the deficit syndrome of schizophrenia,' in which the association between month of birth and deficit syndromes in schizophrenic patients was analyzed on the basis of three different studies [1]. The conclusion drawn from these analyses was that schizophrenic patients with deficit syndromes were more often born in June or July than schizophrenic patients with no deficit syndromes. This finding is interesting since it provides further evidence that the etiopathophysiology in schizophrenic patients with deficit syndromes is different from that in schizophrenic patients with no deficit syndromes. In view of this finding, we analyzed our own database of schizophrenic inpatients. Since it can be assumed that most patients with a residual type of schizophrenia (ICD-9 = 295.6,  $N$  [total sample] = 504,  $N$  [female] = 275,  $N$  [male] = 229) would also fulfill the criteria for a deficit syndrome, we analyzed the month of birth of all patients having that diagnosis who were admitted to our hospital between the years 1980 and 1992. As controls we selected a group of patients from the same period with the diagnosis of a paranoid type of schizophrenia (ICD-9 = 295.3,  $N$  [total sample] = 1546,  $N$  [female] = 882,  $N$  [male] = 664). The analyses were performed for each total sample of patients and for each gender (figure 1). Although the findings indicate that the percentage of patients with a residual type of schizophrenia born in June is higher than that of patients with a paranoid type of schizophrenia, differences between both groups of patients were not statistically significant  $\chi^2$  statistics, two-tailed  $P$ -value. This was also true for

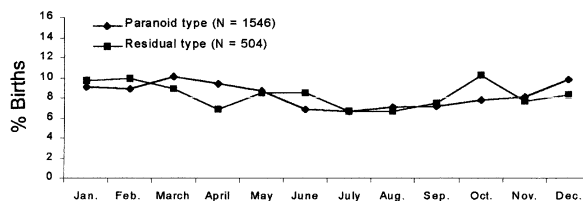


Figure 1. Month of birth in residual and paranoid schizophrenic patients.

analyses regarding male and female patients. The only significant difference was a higher birthrate of female patients with a residual type of schizophrenia in October ( $\chi^2 = 6.871$ ,  $df = 1$ ,  $P = 0,009$ , two-tailed). The findings of the present analysis are in line with the findings by Dollfus et al., who also found no significant differences in the monthly birthrates between deficit and non-deficit schizophrenic patients [2]. In conclusion, our findings and those of Dollfus et al. on a much larger sample of patients than in the studies reported by Kirkpatrick et al. do not support the hypothesis that schizophrenic patients with deficit syndromes are more often born in summer than other schizophrenic patients.

### REFERENCES

- 1 Kirkpatrick B, Ram R, Amador XF, Buchanan RW, Mc Glas-han T, Tohen M, et al. Summer birth and the deficit syndrome of schizophrenia. Am J Psychiatry 1998 ; 155 : 1221-6.
- 2 Dollfus S, Brazo P, Langlois S, Gourevitch D, Dassa D, Besse F, et al. Month of birth in deficit and non-deficit schizophrenic patients. Eur Psychiatry 1999 ; 14 : 349-51.