

## Schizophrenia and the Cultural Revolution in China

Schizophrenia is a severe mental illness that affects around 1% of population in the world. Previous research has identified important causes of schizophrenia including certain genes as well as risk factors occurred at early life. However, few studies investigated the relation between adulthood exposures and development of schizophrenia.

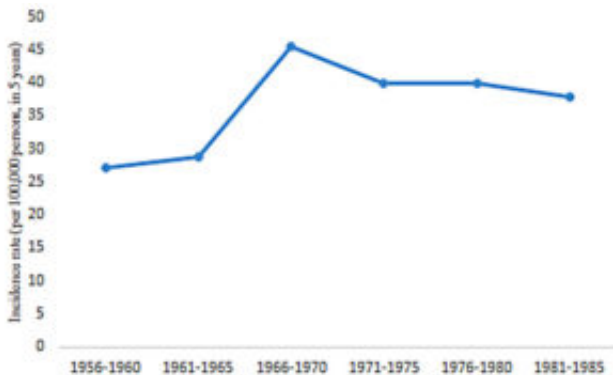


Fig. 1?Increased occurrence of schizophrenia during the Cultural Revolution period in China

In China, stories about adults who developed schizophrenia because of abusive experience during the Cultural Revolution period (1966-1976) had been widely spread. The Cultural Revolution was a violent mass movement launched in 1966 by Chinese leader who believed that the proletariat must do just the opposite in comparison to the bourgeoisie and the 'bourgeois elements' should be removed through violent revolutionary class struggle. Corresponding to this, the youth around the country formed paramilitary Red Guard Groups. The Red Guards publicly humiliated, abused and arbitrarily arrested senior officials and intellectuals since they were considered as 'bourgeois'. The most violent period of the Cultural Revolution lasted for three years from 1966 to 1969. Since 1969, some Chinese leader started to make efforts to control the social disaster. Nevertheless, the unorganized time did not end until 1976. In addition to the violent mass movement, around 20 million educated urban youth (pinyin: Zhi Qing) were arbitrarily sent to the mountainous areas or farming villages to "receive re-education from impoverished peasants" (Li, 1999).

In the current study, we estimate and compare the incidence that quantifies the rate of emergence of new schizophrenia cases before, during, and after the Cultural Revolution. Since no scientific data were documented during the chaotic period, we used several alternative data sources to estimate the incidence rates.

In order to calculate the incidence rates, we need estimate numbers of newly onset schizophrenia cases (numerator) and total Chinese population (denominator) in the years around the Cultural Revolution period.

Estimated number of Chinese population has been reported by The Population Division of the United Nations in 5-year intervals. According to the availability of the population data, incidence rates were calculated for 5-year time intervals including 1956-1960, 1961-1965, 1966-1970, 1971-1975, 1976-1980, and 1981-1985 that covers the time before, during and after the Cultural Revolution.

Number of people who newly developed schizophrenia was estimated by using data collected by the 1987 first China National Sample Survey on Disabilities. In this survey, around 1.9 million representative Chinese people were investigated, clinical psychiatrists diagnosed schizophrenia disability and recorded the onset year of the disability.

We recognized that some people with schizophrenia had deceased before 1987, hence were not recorded in the 1987 survey. To solve this problem, we estimated the number of deaths according to previous scientific reports on mortality rate of schizophrenia, and accounted it in the calculation of the incidence rates.

As illustrated in Figure 1, generally we found that the estimated incidence rate of schizophrenia was higher during the Cultural Revolution period than those before and after the period. The highest incidence rate was observed in 1966-1970, that was the most violent years of the Cultural Revolution period, and the second highest incidence was in 1971-1975 during the later period of the Cultural Revolution.

Our findings suggested that severe adverse life experience during adulthood may induce psychopathology of schizophrenia. We consider that the 'demand characteristics' of the life events experienced by people during the cultural revolution may encourage or induce the particular way of thinking characteristics of schizophrenia. Our study suggested that certain social risks occurred at adulthood may increase the risk of development of schizophrenia.

***Tianli Liu, Xiaoying Zheng***

*Institute of Population Research/WHO Collaborating Center on Reproductive Health and  
Population Science, Peking University, Beijing, P.R.China*

## **Publication**

[Cultural revolution and onset of schizophrenia in China.](#)

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