i) Discuss the aetiologies of schizophrenia

Schizophrenia is a mental disorder which includes symptoms such as the blunting of emotions, hallucinations and hearing voices, symptoms which cause a major disturbance to the sufferer’s life. There are many possible explanations for schizophrenia, but there are two main types of aetiologies; physiological and psychological.

The physiological explanations state that schizophrenia is a genetic illness, that it is passed down from parents to children and also runs in the families. This can be measured in twin studies and adoption studies. If monozygotic twins who share 100% of their genes are more similar than dizygotic twins who share 50% of their genes, this suggests that the similarity is down to their genetics. The concordance rate is the number of times the other twin has schizophrenia the same as the first twin. Joseph calculated that the pooled data for all schizophrenia twin studies shows a concordance rate for monozygotic twins was 40.4% and 7.4% for dizygotic twins. The lifetime risk of developing schizophrenia in the general population is 1%, so therefore above this must be due to factors other than chance.

One way to overcome the issues of shared genes and the environment is to look at concordance rates between adopted children and their birth families. If the children have a high concordance rate with their birth families as opposed to their adopted families, it would suggest a genetic bias, whereas if they have more in common with their adopted families, it would be due to environment.

Tienna et al studied 164 adoptees whose biological mothers had been diagnosed with schizophrenia, and found that 11 also had received the diagnoses of schizophrenia, compared with just 4 of the 197 control adoptees who were born to non schizophrenia mothers. This would suggest a genetic bias. However, an additional finding is that the children who are at a high genetic risk tend to do well if their adopted family provide a supportive environment, better than those who didn’t have a genetic risk but were brought up in poor environment, suggesting that the environment and genes work together.

Joseph pointed out that the major issue with twin studies is that monozygotic twins are treated more similarly, encountered more similar environments and are more likely to be treated as ‘the twins’ rather than two individuals, more so than dizygotic twins. As a result, there is reason to believe that the differences in concordance rates between monozygotic and dizygotic twins reflect nothing more than the environmental differences in distinguishing the two types of twin. Also, there is something special about twins, making it dangerous to draw conclusions from them to a generalise it about others. However, Gottesman points out that the concordance rates for identical twins reared apart are still the same as for identical twins reared together, suggesting that it is the environment. Although it should be noted that often when identical twins are reared apart they are often with one of their birth families and often still have contact with each other and their birth parents therefore it can be difficult to completely clarify the genes and environment issue.

The psychological explanations do not have as much weight behind them as the physiological explanations, for example the theories of Freud. Freud believed that schizophrenia emerged due to two processes; regression to a pre-ego stage and attempts to re-establish ego control. Harsh experiences such as having uncaring parents, leads to regression as an ego defence. He saw schizophrenia as an infantile state, with some symptoms such as delusions of self importance, reflecting this primitive conditions. Fantasies become confused with reality as the ego tries to get control.

However, there is no research evidence to support Freud’s ideas, except subsequent psychoanalysts have calmed that disordered family patterns are the cause of this disorder. For example, Fromm-Reichmann described ‘schizophrenogenic’ mothers of families who are rejecting, overprotecting and dominant, and act as important contributory influences in the development of schizophrenia.

Another major factor that has been associated with a higher risk of schizophrenic episodes is the occurrence of stressful life events. These are specific stresses, such as the death of a close relative or the breakup of a relationship. A study by Brown and Birley studied people who had experienced schizophrenia. If they had a subsequent attack it was found that they reported twice as many stressful life events compared with a healthy control group. However, not all evidence supports the role of life events. For example, Van Os et al reported no link between life event and the onset of schizophrenia. Patients were equally likely to have had a major life event or not in the three months prior to the onset of their illness. In fact, those patients who had experienced a major life event went onto have a lower likelihood of relapse.