Debbie Spicer 4th November

Describe, evaluate and comment upon the many explanations of schizophrenia.

Schizophrenia is a very serious condition the symptoms typically include problems with attention, thinking social relationships, motivation and emotion. People that suffer from schizophrenia generally have confused thoughts and often suffer from delusions, in which they attach great personal significance to external things. Schizophrenics usually suffer from hallucinations which mostly involve hearing voices.

There are two main approaches to the causes of schizophrenia, the biological explanation and the psychological explanation.

The biological approach suggests that people get schizophrenia because of a specific gene. This gene can either be inherited or can mutate. To prove this twins are studied on as identical twins will have exactly the same genes as each other. Gottesman (1991) summarised about forty studies of twins. He concluded that the concordance rate of a monozygotic (MZ) twin (identical twin) getting schizophrenia is 48% if the other twin has schizophrenia. In dizygotic (DZ) twins (non identical twins) the concordance rate of one twin getting schizophrenia is 17% if the other twin has it. Rosenthal studied quadruplets which were all identical to each other. They all developed schizophrenia at some stage in their lives, they were known as the Genain (dreadful genes) quadruplets. The quadruplets had a dreadful and aberrant childhood which may account for their development of schizophrenia.

In the twins studies the concordance rate is not 100% which it should be if developing schizophrenia was solely down to genetics this means that there must be environmental input. The twins have all grown up in the same environment and they would have had a similar upbringing, this could explain the higher concordance rate especially as twins are treated in the same way. Identical twins are treated even more alike than identical twins and this may suggest why the concordance rate for identical twins is higher than the concordance rate for non-identical twins.

Families with parents that have schizophrenia were also studied by Gottesmann (1991). He found that if both parents have schizophrenia than there is a concordance rate of 46% of their children developing schizophrenia. If only one parent has schizophrenia the concordance rate is 16% and if a sibling has schizophrenia the concordance rate is 8%. This study does show that schizophrenia does run in families especially when the results are compared to the 1% of someone being picked at random who has schizophrenia. This means that the development of schizophrenia has something to do with the genes that you inherit.

Tienari (1991) studied adopted children whose parents had schizophrenia. He found that there was a 10.3% chance of the child developing if they had a schizophrenic parent. Adopted children that didn't have a schizophrenic parent had a 1.1% chance of developing schizophrenia. These studies show that there is a genetic factor in the cause of schizophrenia as the adopted children would not have experienced the same environmental factors as their parents.

Genetic factors may lead to differences in the brain chemistry, so that it may be the brain chemistry that is the immediate causal factor.
There has been various evidence that dopamine plays a role in schizophrenia and neurolptic drugs reduce the symptoms of schizophrenia as they block dopamine. Phenothiazines are neurolptic drugs that block dopamine at the synapse. These drugs have a effect on more positive things like delusions and hallucinations than negative symptoms such as apathy and immobility.
The drug L-dopa, increases dopamine levels can produce many of the symptoms of schizophrenia. (Davidson et al 1982).
Barlow and Durand (1995) pointed out some problems with the dopamine hypothesis. Neuroleptic drugs block dopamine fairly rapidly but the symptoms of schizophrenia only become reduced days or weeks after the drug is taken. There is also a fairly new drug called Clozapine, which is more affective than the neuroleptics but it blocks dopamine activity less than them. This shows that it is not just dopamine that causes the symptoms as Clozapine also blocks serotonin.
Phal, Swayze and Anderson (1990) found abnormally large lateral ventricle in the brains of schizophrenics. In identical twins where only one twin had schizophrenia, the twin with schizophrenia had more enlarged ventricles and reduced hypothalamus than the twin without schizophrenia.
Buchsbaum et al. (1990) used PET scans and found that schizophrenics had lower metabolic rates than people without schizophrenics.
These studies can not show that brain abnormalities are linked with genetic factors and the clear differences in brain structure of identical twins where only one of them suffered from schizophrenia suggests that there are environmental factors that effect the development of schizophrenia. It is also unsure whether these differences are a cause or an effect of schizophrenia as it could be the largened lateral ventricles that cause schizophrenia.

In the psychodynamic approach Freud argues that schizophrenics are driven by strong sexual impulses, which explains why it develops in late

adolescence. Other theories prefer to emphasise the role of aggression in schizophrenics. Freud suggested that schizophrenics have regressed to a state of primary narcissism (or great self interest) which occurs early in the oral stage. Schizophrenics experience a loss of contact with reality because their ego is no longer functioning properly.
This approach is limited as it is not supported by much evidence, it suggests that adult schizophrenics resemble infants and in most cases this is not entirely true.
The behavioural approach is that schizophrenia is the result of learning that escape to an inner world is rewarding. People that have been labelled with schizophrenia continue to act in way that confirms their label. Bizarre behaviour is rewarded with attention and sympathy which becomes more and more exaggerated.
The success of token therapy supports this theory as schizophrenics learn how to do normal things when they are rewarded. This approach ignores genetic factors and trivialises that schizophrenia is a very serious disorder and people that have it are not behaving in some way just because they get attention or a reward.
Schizophrenia is also determined by social and environmental factors as well as genetic factors. Some theorists have argued that there are abnormal and inadequate patterns of communication in the families of schizophrenics. Bateson et al. (1956) put forward a double blind theory where schizophrenia is a learned response to mutually exclusive demands being made on a child. For example a mother will tell her child that she loves him, but in a tone of voice that does not indicate love. This theory does explain the confused thinking that a schizophrenic experiences.
Family relations may be an effect of schizophrenia and not a cause. Studies of families with schizophrenics in them are usually done after the disease has occurred so the behaviour of the family would be altered by the stress of having an ill child. Family abnormalities may be a reasonable response to an unusual child. Expressed emotions in families is linked with poor recovery, which could be because it causes a relapse or the suffers are in a poor psychological shape and more likely to provoke expressed emotion from their family members.
Mednick and Schulsinger (1968) studied people between the ages of 15 and 25 who had a schizophrenic mother. They were more likely to d evelop the negative symptoms of schizophrenia if there had been pregnancy and birth complications, and more likely to develop the positive symptoms if there was instability within the family.
Social factors are emphasised by the social causation hypothesis which was designed to explain why schizophrenics tend to belong to the lower

class. It states that people in the lower class have more stressful lives and this makes them more vulnerable to schizophrenia. Day et al. found that schizophrenics tended to have experienced a high number of stressful life events in the few weeks before they developed schizophrenia. Although it could be the developing schizophrenia which causes a reduced social status, this is explained by the social drift hypothesis.

There is clear evidence that there is some genetic link of developing schizophrenia but all the studies show that this is not the only factor that causes it. People that have got schizophrenics in their families may be genetically vulnerable to schizophrenia which i s triggered by an environmental factor. This is a combination of both biological and psychological models and it is called the diathesis-stress model.