Describe and evaluate aetiologies of unipolar depression including physiological and psychological explanations. (25 marks)

One physiological explanation is genetic vulnerability. This is where illnesses that affect mental functioning such as unipolar depression, a mood disorder, can be partially due to genetic influences. Genes code for proteins in our bodies, which determine our characteristics and physiology (e.g. neurotransmitter production and the nervous system), which in turn affect behaviour. The theory proposes that people inherit a predisposition to develop unipolar depression, although it is unlikely a single gene is responsible, it is thought to be 'polygenic'.

Identical (MZ) twins have the exact same genes, so if the theory of genetic vulnerability is correct, if one twin has the disorder so will the other. This is known as 100% concordance rate. Concordance rates are measured for monozygotic (MZ) and dizygotic (DZ) twins to check for a comparison between siblings. Dizygotic twins share roughly 50% of genetic material as opposed to monozygotic twins with 100% shared genetic material.

McGuffin et al. (1996), who sampled 214 pairs of twins where at least one was being treated for unipolar depression and found 46% concordance rate for MZ-twins as opposed to 20% for DZ twins. This research suggests genetics may play a role in the development of the disorder, but as there were no 100% concordance rates, genetics cannot be the singular cause. However, there was at least a moderate genetic influence, Kendler et al. (1995) looked at over 15,000 pairs of twins and concluded unipolar depression was ‘moderately heritable’. They found the influence was greater in women than men (49% to 29% respectively); showing environmental factors may also play an important role. It is likely that genes influence vulnerability to negative life events (e.g. death of a family member).

Wilhelm et al. (2010) provides solid support for the diathesis-stress model, which states that the way the environment interacts with genetic predispositions is the cause of mental illness. In a longitudinal study, 127 directors and managers were tested for the short-short serotonin transporter gene – which implies lesser serotonin production. They were then put into groups and over 25 years assessed for levels of depression and negative life events. It was found that those with the short-short gene were significantly more affected by negative life events than those without.

Another physiological explanation is the monoamine theory - monoamines are a group of neurotransmitters including adrenaline, noradrenaline, serotonin and dopamine. The theory suggests that a lack of these neurotransmitters causes unipolar depression as the necessary (and frequency of) messages aren’t being relayed. Neurotransmitters work by electrical impulses being sent along a neuron causing neurotransmitters to be released into the