



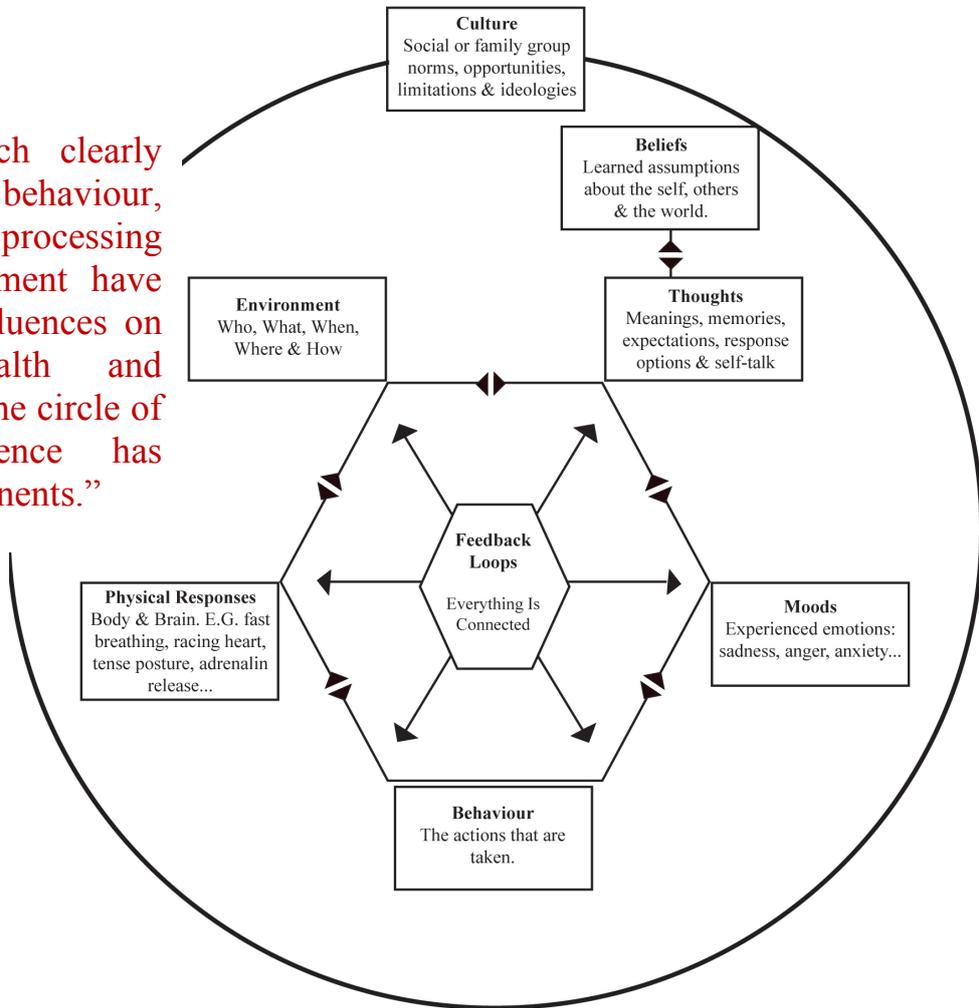
Understanding The Role of Biology

The body and the brain are crucial determinants of health and wellbeing. They are our instruments for processing information about the world and responding to it.

These instruments are just part of the complex system involved in the human experience of mental health and unwellness.

Misinformation and myths about the role of biology and genetics in causing mental disorder abound. Studies suggest that if people view biology as more of a factor than it is in causing mental disorder, they tend to have decreased hope and optimism and reduced recovery rates.

“The research clearly shows that behaviour, information processing and environment have powerful influences on mental health and wellbeing. The circle of our experience has many components.”



These are all things people can affect varying amounts of change upon.

Making changes to one area within the sphere of experience can have powerful flow-on effects across the whole. For example changing beliefs, choosing new behaviour, soothing physical responses or stabilising the environment can each improve overall mental-health experiences.

In the interests of keeping a balanced view, it is important to know that...

→ The brain functions in relationship to the input it gets.

Just like a photograph tends to tell you more about what the camera was facing than the camera itself, brain function often speaks more to what an individual is facing in the world than the state of their brain. Changing the input, typically changes the brain function.

→ A 2008 meta-analysis published in the American Journal of Psychiatry found that there was no genetic contribution to schizophrenia beyond what you would expect by chance.

→ Genes don't operate in isolation anyway.

Research in the field of epi-genetics has found that experience is required to activate genetic predispositions. We can't change what genes we inherit, but we can change a lot about what we experience in our environments.

→ The biological correlates of anxiety and other mood disorders mimic those associated with prolonged stress and distress. Neurological studies have shown that the brain differences previously associated with schizophrenia are the same as those that are associated with experiencing trauma.

→ Environment changes biology.

Very early behavioural research showed that dogs placed in a situation where it is impossible to respond, exhibit the physiological and behavioural symptoms of anxiety disorders. Sleep deprivation can trigger symptoms of psychosis. Access to resources influences the nutrition you get; nutritional deficiencies can lead to anxiety, irritability, poor concentration and depression.

→ If you are lacking in resilience factors, every-day stressors can be transformed into traumas:

They demand more of your personal resources to cope with them.

→ Behaviours and thoughts change brain function.

If you sing, you alter your CO₂ level and become elated. If you smile, neurotransmitters are released. If you think about upcoming threats, your body and brain prepare for danger.

→ Some forms of learned coping behaviour are common across most diagnostic categories.

There is strong evidence to suggest that the use of avoidance and suppression as a means of coping has powerful physiological and psychological effects that increase negative emotions and the intensity with which they are experienced.

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