EPIGENETICS

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Epigenetics is a relatively new area of study that explains how our genes are expressed or turned "off and on" by our reaction to stress and our environment.

We inherit genes from our parents, grandparents, and ancestors. Our gene expression comes from our environment, and the level of stress we experience in our lives. Thus, our reaction to our environment can change the physiology of our body. We know that high stress levels over time can lead to disease(s). If certain diseases such as cancer run in our family, we are genetically predisposed or at risk for developing it. However, if we live a healthy lifestyle with minimal stress, our chances of developing cancer decreases. Our thoughts, beliefs, emotions, behaviors, and stress levels affect our gene expression. If these thoughts, beliefs, and emotions are subconscious, they still affect our behaviors and stress levels. Unresolved feelings, such as anger can lead to high reactivity and stress when triggered by circumstances. For example, road rage can trigger anger and elevated stress reactions for individuals who have unresolved anger. When our body is exposed to high levels of stress over time, we increase our chances for developing diseases.

Our subconscious mind consist of memories from our past, typically before age seven. Prior to this age, we lacked the ability to think objectively and make sense of our environment. We observed interactions in our world, but we did not understand or know how to interpret our observations. When interactions didn't feel right, we might have felt scared or confused, but we couldn't make sense of our experiences. As children, we are in survival mode trying to make the adults happy in order to minimize negative consequences in our lives. We used defense mechanisms to survive, such as denial or projection. For example, if our mother yelled at us, we might blame ourselves or someone else for putting her in a bad mood. We needed to believe that our parents are good, safe, and responsible individuals because we counted on them to meet our needs. It would be very painful and scary, if they were not safe and reliable people. It would shake our sense of security. Defense mechanisms help us to survive situations that we cannot control or change.

Early life experiences play a role in the development of mental health issues, as well as medical problems in adulthood. The Center for Disease Control (CDC) has a study that describes adverse childhood experiences (ACEs) in an individual's family home and social environment prior to age 18. The adverse childhood experiences (ACEs) include the following problems in family of origin: mental illness, addictions, domestic violence, incarceration of a family member, divorce, abuse (physical, sexual, and emotional) and neglect (physical and emotional). The higher the amount and degree of adverse childhood experiences (ACEs), the more at risk the individual is for developing mental health issues and medical problems later in life.

Authority figures (parents, teachers, and other adults) play influential roles in shaping our worldview, along with our culture and community. As previously mentioned, our environment and experiences change the expression of our genes. Therefore, the genes we inherit from our parents, grandparents, and ancestors may or may not place us at risk for the development of diseases and mental health problems. It depends on the expression of our genes that respond or react to our environment, experiences, and stress levels.

For example, let say we have a plant and we propagated it and obtain two cuttings off the main plant. Then we place each cutting in separate pots with soil. With one of the pots, we make sure to water, fertilize, and move it when the outside temperature is too hot or too cold. With the other plant, we leave it alone and hopefully it gets enough sunlight and rainwater. We all know that the plant that receives consistent care has a higher survival rate. The same is true for human beings. Our environment, including diet, lifestyle, and stress levels all influence our genetic expression, which affects our overall health, survival, and level of functioning.

> ***The good news about epigenetics is the reverse is true, as well. For example, when we heal psychological symptoms and change our lifestyle, we reduce the risk for mental health issues and/or medical diseases. In mental health counseling, thoughts and beliefs about childhood experiences can be addressed and viewed from our current adult perspective. We learn to heal old critical thoughts and messages, including toxic shame (See: Understanding Shame article). As adults, we do not have to live in survival mode. We can choose who we want to interact with and define our adult relationships with others. We have options and resources. We are now able to meet our own needs. We can create fair, loving, trusting, and stable relationships in our adult lives.***

Old narratives can be amended and replaced with a new realistic and objective views about our childhood experiences. For example, if we were shamed for speaking up and disagreeing with the adults when we were children, we might have been told that we were troublemakers, obnoxious, rebellious, etc. Looking back, we may come to realize that we were really quiet, shy, and complicit most of the time. However as children, it is easy to buy into the messages about ourselves because we may have heard them over and over, and we believed and trusted the adults. As adults, we can determine whether or not old childhood narratives and messages were true, or not. Thus, we create our own story of our past experiences, and replace it with rational and realistic beliefs about ourselves. When this occurs, we learn to trust our judgment. We feel more empowered, develop positive coping skills, and create heathier relationships. This can lead to a healthier family environment in our immediate family, and less adverse childhood experiences for our children. Therefore, we begin to break the generational cycle of family dysfunction. This corresponds to fewer mental health problems and a longer lifespan for ourselves, children, and grandchildren.