Pastoral Counselling Considerations of Biopsychological Theories of Personality in Understanding Chronic Anxiety

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Abstract- ***Personality is a multidimensional construct shaped by biological, psychological, and social processes, influencing how individuals experience and respond to life challenges. Biopsychological theories of personality emphasise the role of the nervous system, neurotransmitters, and genetic predispositions in shaping thought, emotion, and behaviour. These insights are critical for understanding chronic anxiety, a prevalent mental health concern marked by persistent fear, tension, and impaired daily functioning. Anxiety disorders, including generalised anxiety disorder, panic disorder, social anxiety disorder, obsessive-compulsive disorder, and post-traumatic stress disorder, demonstrate the complex interplay of biological vulnerabilities and environmental stressors. Advances in neuroscience, such as electroencephalography (EEG), functional magnetic resonance imaging (fMRI), positron emission tomography (PET), and optical imaging, have highlighted the neurological foundations of anxiety. In contrast, interventions such as biofeedback offer practical strategies for symptom regulation. For pastoral counselling, recognising the biopsychological dimensions of chronic anxiety is essential. Too often, anxiety within faith contexts is misinterpreted as weak faith or moral failure. By integrating scientific understanding with spiritual care, pastoral counsellors can reduce stigma, affirm the biological reality of anxiety, and offer holistic support. This includes validating medical treatment, incorporating prayer and scripture-based practices, and guiding individuals toward resilience through therapeutic and spiritual means. Ultimately, the convergence of biopsychology and pastoral counselling fosters a comprehensive model of care that honours the human brain's complexity while affirming the person's spiritual wholeness.***

Keywords: Biopsychology, Personality, Chronic Anxiety, Pastoral Counselling, Neuroscience

I. INTRODUCTION

Personality is a multifaceted concept with no single agreed definition in psychology. Broadly, it refers to the distinctive set of characteristics that shape beliefs, motivations, emotions, behaviours, and interactions with the environment. Personality also encompasses enduring patterns of thought and behaviour that develop across the life span, influencing worldview, self-perception, and attitudes. The word itself derives from the Latin persona, meaning mask, which in the ancient world was used to project traits of a character (Best Masters in Psychology, 2017). Because of its complexity, no single theory explains personality fully. Instead, various approaches, trait, type, psychoanalytic, behaviourist, humanistic, and biopsychological theories, highlight different dimensions of personality (Module-IV: Self and Personality, n.d).

Anxiety disorders illustrate the close relationship between personality and mental health. The human brain is central to their origins and maintenance, with biological factors contributing significantly to their manifestation (Jacofsky, Santos, Khemlani-Patel, & Neziroglu, 1997). Anxiety disorders cause distress, fear, and unease, often without an obvious cause, and if untreated, reduce both productivity and quality of life (Brain Resource Center, 2018). Typically, anxiety follows a cycle of intrusive thoughts, physiological arousal, heightened worry, and escalating stress. This fight-or-flight response is often disproportionate to any real threat, leaving the individual overwhelmed. Though influenced by environmental, genetic, and experiential factors, a common feature is the persistent need for control (DeName, 2018).

Biopsychology, which studies how the brain, neurotransmitters, and biological processes influence thought, emotion, and behaviour, offers valuable perspectives for understanding predispositions to chronic anxiety. For pastoral counselling, these insights are particularly important. Many individuals who experience anxiety seek help not only from medical or psychological professionals but also within faith communities. Pastoral counsellors,

therefore, benefit from integrating biopsychological knowledge with spiritual and relational care.

This paper explores biopsychological theories of personality and their contribution to understanding chronic anxiety. It further considers how pastoral counsellors may draw upon these insights to offer care that addresses both psychological complexity and spiritual depth.

Overview of Biopsychological Theories of Personality

Biopsychology, also known as biological psychology, behavioural neuroscience, or psychobiology, explores the relationship between biology and behaviour. It examines how the brain, neurotransmitters, and other aspects of human biology influence thoughts, emotions, and actions. By emphasising the interaction between biological processes, cognition, and emotion, this perspective offers valuable insights into personality development and psychological disorders (Cherry, 2018).

Central to biopsychology is the role of the nervous system. The cerebral cortex regulates higher functions such as cognition, sensation, motor skills, and emotion, while neurotransmitters facilitate communication between neurons. For instance, dopamine supports movement and learning, and imbalances are associated with conditions such as schizophrenia or Parkinson's disease (Cherry, 2018). Such findings illustrate how biological factors contribute to behaviour and personality traits. For pastoral counsellors, an awareness of these influences is vital, as it prevents simplistic interpretations of mental distress as purely spiritual weakness.

The biopsychological perspective also considers how genetic influences, brain injuries, and degenerative diseases shape behaviour. For example, aggression may be studied not only as a social or moral concern but also as a result of neural trauma or inherited predispositions. This framework underscores that behaviour arises from the interplay of internal biology and external context. Such understanding will help a pastoral counsellor to recognise that certain destructive behaviours may stem from neurological or genetic vulnerabilities, calling for compassionate guidance alongside prayer and support.

One influential model within this field is Gray's theory of the Behavioural Inhibition System (BIS) and Behavioural Activation System (BAS). The BIS predicts an individual's sensitivity to anxiety-related cues, while the BAS reflects a person's tendency to pursue rewards and goals. Research shows that neuroticism correlates positively with BIS activity and negatively with BAS activity, suggesting that personality predispositions are biologically grounded. Dysregulation in these systems has been linked to mood instability, such as in bipolar disorder, where heightened BAS sensitivity may trigger manic or depressive episodes (Zissersona & Palfaia, 2007). Pastoral counsellors who are aware of such predispositions may approach counselees struggling with mood swings more patiently, framing their condition not only in moral or spiritual categories but also in light of underlying biological processes.

By identifying biological patterns that predispose individuals to certain moods or anxieties, biopsychological theories deepen one's understanding of personality. For pastoral counsellors, such insights affirm that chronic anxiety is not merely a sign of weak faith but is often rooted in complex biological and psychological factors. This awareness fosters compassionate, holistic care that integrates spiritual guidance with respect for scientific knowledge.

Chronic Anxiety and the Human Person

Anxiety refers to a state of heightened apprehension experienced in the face of threat, danger, or stress. Typical reactions include discomfort, unease, and tension, often arising from adverse life events such as job loss, relationship breakdown, serious illness, major accidents, or bereavement and many other life challenges. In such contexts, anxiety is a natural and usually short-lived response. Concern arises, however, when anxiety becomes persistent and develops into chronic anxiety.

Chronic anxiety, commonly classified under anxiety disorders, encompasses a group of conditions marked by persistent fear, heightened tension, and discomfort. Diagnosis is generally made when anxiety becomes so severe that it interferes significantly with daily functioning (Australian Government Department of Health and Ageing, n.d.). Anxiety disorders are the most prevalent form of mental illness and are often accompanied by physical

symptoms including palpitations, breathlessness, trembling, nausea, dizziness, abdominal distress, and a sense of impending doom. If left untreated, they can profoundly impair cognition, mood, and behaviour, leading to sustained distress and reduced quality of life (Australian Government Department of Health and Ageing, n.d.).

Although distinct from anxiety, Major Depressive Disorder frequently overlaps with it. This disorder is characterised by persistently depressed mood or diminished capacity for pleasure, alongside at least five of the following: significant changes in appetite or weight, sleep disturbances, psychomotor agitation or retardation, fatigue, feelings of worthlessness or guilt, impaired concentration, reduced memory, and recurrent thoughts of death. Symptoms must persist for a minimum of two weeks, and episodes often recur across the lifespan (Maina, Mauri, & Rossi, 2016). Its frequent association with anxiety highlights the importance of considering co-morbid conditions in understanding chronic anxiety.

Anxiety disorders are typified by excessive fear, disproportionate responses to stimuli, and behavioural alterations such as avoidance, anticipatory worry, and heightened distress. While such disorders frequently coexist, they differ in the specific situations, objects, or thoughts that trigger anxious responses. Careful diagnostic assessment is therefore necessary to distinguish between them (DSM-5, 2013). Chronic anxiety can be any of the below ones:

Generalised Anxiety Disorder (GAD): Persistent, uncontrollable worry about everyday concerns such as health or finances, accompanied by restlessness, irritability, muscle tension, concentration problems, and sleep disturbance lasting at least six months (Anxiety and Depression Association of America, n.d.). This condition is often described as “free-floating anxiety” because the worry is not limited to one situation or object. Individuals with GAD frequently report feeling on edge, anticipating problems even in relatively safe contexts. Over time, the chronic tension associated with GAD can impair physical health and significantly reduce overall functioning.

Panic Disorder (PD): Recurrent, unexpected panic attacks marked by trembling, sweating, chest pain, shortness of breath, rapid heartbeat, and overwhelming fear. The unpredictability of these episodes often leads to avoidance behaviours and lifestyle restrictions (Anxiety and Depression Association of America, n.d.). Because the attacks occur suddenly and without obvious triggers, individuals often develop anticipatory anxiety, fearing when the next episode will occur. This can result in agoraphobia, where a person avoids public places or situations perceived as unsafe. The fear of fear itself becomes a debilitating cycle.

Social Anxiety Disorder (SAD): Intense fear of social situations involving potential embarrassment or negative evaluation, resulting in avoidance, anticipatory worry, heightened self-consciousness, and physical symptoms such as sweating, nausea, or trembling (Heeren & McNally, 2016). The anxiety is disproportionate to the situation and persists despite awareness that the fear may be irrational. SAD frequently interferes with education, employment, and relationships, as sufferers may avoid public speaking, group interactions, or even casual social contact.

Obsessive-Compulsive Disorder (OCD): Repetitive intrusive thoughts (obsessions) and ritualised behaviours (compulsions), such as repeated checking or excessive cleaning. Although compulsions temporarily reduce distress, they reinforce the anxiety cycle (Foster, 2016). Obsessions are typically intrusive and distressing, while compulsions are intended to neutralise the anxiety but provide only short-term relief. Over time, the compulsive rituals can become highly time-consuming and severely interfere with normal life routines.

Post-Traumatic Stress Disorder (PTSD): Following severe trauma, PTSD involves intrusive memories, nightmares, and persistent fear that continues long after the event, often disrupting functioning for months or years (Anxiety and Depression Association of America, n.d.). Individuals may also experience emotional numbing, hypervigilance, and exaggerated startle responses. Triggers such as sounds, smells, or images reminiscent of the trauma can provoke intense distress, making recovery challenging without professional intervention.

The causes of anxiety disorders are multifaceted, encompassing biological, psychological, and environmental influences. Because of this complexity, a comprehensive understanding of chronic anxiety requires an integrated

biopsychological perspective. Pastoral counselling involving this viewpoint is essential in addressing the human person holistically, acknowledging the interplay of body, mind, and spirit in both the origins and management of anxiety.

Pastoral Counsellor Considerations of Biopsychological Insights

Psychiatric conditions such as depression and anxiety disorders are increasingly recognised as rooted in the brain. Advances in neuroscience have identified specific brain regions associated with these conditions. For example, post-traumatic stress disorder (PTSD) involves excessive activity in the amygdala, which processes fear, alongside reduced activity in parts of the frontal lobes (Gillihan, 2016). In pastoral counselling, such findings should highlight the biological reality of anxiety and encourage approaches that avoid reducing the condition to a lack of faith or personal weakness (Koenig, 2012).

The brain is a complex organ composed of neurons, glia, microglia, and vascular tissues. Studies of brain structure and function provide insight into mechanisms underlying emotion, sleep, and cognition, and inform pathways for addressing conditions such as depression, chronic anxiety, autism, Alzheimer's disease, and Parkinson's disease. In recent decades, brain imaging and electrophysiological techniques have proved particularly effective in this regard (Zhu, Xia, Wang, Si, & Gong, 2017). These include patch-clamp recording, electroencephalography (EEG), functional magnetic resonance imaging (fMRI), positron emission tomography (PET), and optical imaging. Each method contributes to the understanding of chronic anxiety and carries potential implications for pastoral care.

Electroencephalography (EEG): An electroencephalogram records the brain's electrical activity by means of electrodes placed on the scalp. The resulting wave-like patterns represent different rhythms of brain activity. Abnormalities in these patterns are linked with conditions such as epilepsy and anxiety disorders. In chronic anxiety, studies often reveal excessive high-frequency beta activity, indicating heightened arousal and vigilance (Blocka, 2017). Such objective measures assist clinicians in tailoring treatment and monitoring progress. From a pastoral perspective, recognition of these findings affirms that anxiety reflects real neurological processes rather than merely spiritual deficiency. This understanding may help reduce stigma within faith communities and encourages pastoral responses that affirm the legitimacy of medical treatment while also providing spiritual resources such as prayer and scriptural encouragement (Koenig, 2012).

Pastoral counsellor awareness of such diagnostic tools helps to emphasise that anxiety and related conditions have tangible neurological bases. This knowledge reduces stigma within faith communities, enabling pastors to reassure congregants that anxiety is not simply a spiritual failing but a condition involving real biological processes. Pastoral support may therefore include affirming the legitimacy of medical treatment while offering spiritual resources such as prayer and scriptural encouragement (Koenig, 2012).

Functional Magnetic Resonance Imaging (fMRI): MRI is a medical imaging technique that uses magnetic fields and radio frequency pulses to generate detailed images of internal organs and tissues. Unlike X-rays, MRI avoids ionising radiation, making it safe for repeated use. fMRI builds on this by measuring dynamic changes in blood flow in response to neural activity, using what is called the blood-oxygen-level-dependent (BOLD) signal. When a particular brain region becomes active, such as the amygdala during fear responses, blood flow increases, and this is captured as a signal of brain activation. These techniques are not only diagnostic but also informative for psychological research. For example, fMRI studies have shown hyperactivity in the amygdala in people with PTSD and altered connectivity between the prefrontal cortex and limbic regions in those with anxiety disorders. This explains why such individuals struggle to regulate fear responses or suppress intrusive thoughts (Gulf Bend Center, 1995; Radiation Therapy for Brain Cancer, 2018). MRI and fMRI have therefore become indispensable for mapping the biological signatures of psychological conditions.

Although the technicalities may be beyond the scope of pastoral practice, counsellors can benefit from recognising that fMRI and MRI provide visible evidence of what sufferers report subjectively. This validation prevents spiritualising anxiety as a matter of weak faith and promotes a holistic care model

where prayer, pastoral guidance, and medical interventions complement each other (Irsay, Ciortea, Popa, Iliescu, & Ciubean, 2024). Awareness of these findings enables pastoral counsellors to appreciate that chronic anxiety often reflects impaired neurological regulation rather than a failure of willpower or faith. This perspective encourages more compassionate engagement with individuals who struggle to manage intrusive fears, affirming the importance of both therapeutic intervention and spiritual support.

Positron Emission Tomography (PET): PET imaging measures metabolic activity in the brain by tracing the distribution of radioactive markers. These tracers bind to glucose or oxygen molecules, allowing clinicians to observe which areas of the brain consume more energy during specific mental tasks. Because neuronal activity requires both oxygen and glucose, PET provides a detailed picture of brain metabolism. This has proven highly valuable in identifying how anxiety and depression alter brain function. For example, PET can reveal underactivity in the prefrontal cortex or overactivity in the limbic system. It has also been used to assess the likely success of antidepressant or anti-anxiety medications before treatment begins, saving patients from prolonged trial-and-error approaches (Kennedy, Javanmard, & Vaccarino, 1997; Society of Nuclear Medicine and Molecular Imaging, 2018). By providing predictive insights, PET helps bridge neuroscience and personalised care, offering hope for earlier and more effective interventions.

Understanding the biochemical dimension of anxiety disorders allows pastoral counsellors to recognise the role of neurochemistry in shaping behaviour and mood. Such knowledge can reduce stigma and foster acceptance of medical interventions, while also guiding the provision of spiritual care that addresses feelings of guilt or inadequacy often associated with chronic anxiety (Swinton, 2007).

Biofeedback: Biofeedback therapy is a method that allows individuals to gain control over involuntary physiological processes. Using sensors placed on the skin, biofeedback devices measure responses such as heart rate, muscle tension, skin temperature, and brain activity. This information is fed back to the individual in real time, through visual graphs, sounds, or signals, so they can learn to regulate their body's stress responses consciously. For those with anxiety, biofeedback is transformative because it turns an invisible, overwhelming experience into something visible and manageable. Patients learn relaxation techniques, breathing control, and muscle release strategies that directly reduce symptoms such as trembling, racing heart, and hyperventilation. Over time, these skills help the individual build resilience, reduce reliance on medication, and experience empowerment in managing anxiety (DeName, 2018). Among all biopsychological approaches, biofeedback stands out not only for its therapeutic impact but also for its accessibility as a training tool for self-regulation.

Pastoral counselling, including biofeedback, opens a pathway for integrating Christian spiritual practices. Techniques such as controlled breathing, mindfulness, and relaxation can be paired with prayer, meditation on Scripture, or contemplative silence. This not only regulates the body but also deepens awareness of God's presence, offering both physiological calm and spiritual renewal (Ratanasiripong & Tsai, 2020). In this way, pastoral care provides holistic support that nurtures both the body and the soul.

Optical imaging: Optical imaging techniques employ light to measure brain activity, offering high temporal resolution of neural processes. Though less widely used than fMRI or PET, optical imaging has been valuable in identifying how stress and anxiety affect cerebral blood flow and cortical responses. These methods are particularly useful in studying real-time brain dynamics under conditions of heightened emotional arousal (Boas & Franceschini, 2009). The use of optical imaging underscores the intricate relationship between brain physiology and emotional states. For pastoral counsellors, such insights provide a foundation for integrating respect for scientific advances with pastoral care that reassures individuals of God's concern for the whole person, body, mind, and spirit.

II. CONCLUSION

Biological psychologists are committed to measuring biological, physiological, or genetic variables in an attempt to relate them to psychological or behavioural outcomes. Since all behaviour is ultimately mediated by the central nervous system, they seek to understand how the brain functions in order to explain patterns of behaviour.

Biopsychological theories, supported by powerful brain-scanning techniques such as EEG, MRI, fMRI, and PET, offer crucial insights into the mechanisms underlying chronic anxiety and related conditions. These tools have already relieved many individuals of burdens that could have shortened their lives prematurely by enabling earlier diagnosis and more targeted treatment. Of all these measures, biofeedback has shown particular therapeutic promise, providing not just diagnostic clarity but practical means for individuals to manage their symptoms and regain control of their lives. Unlike scanning technologies that primarily reveal dysfunctions, biofeedback equips patients with strategies for healing and ongoing resilience.

For the pastoral counsellor, these biopsychological insights must not remain purely clinical. They call for a holistic model of care that integrates biological understanding with spiritual nurture. Pastoral care involves reducing stigma by affirming that anxiety is not merely a spiritual weakness but a condition with biological roots. It also includes supporting congregants in prayer, encouraging the use of contemplative practices alongside medical interventions, and guiding them towards professional help when necessary. Just as biofeedback trains the body to respond calmly, Christian practices such as meditation on Scripture, breath prayer, and communal support train the spirit to rest in God's peace.

Thus, the convergence of biopsychological science and pastoral care creates a richer framework for understanding and addressing chronic anxiety, honouring both the complexity of the human brain and the wholeness of the human person made in the image of God.

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