Christianity and Co-Occurring Disorders

A Literature Review

Presented to

The Faculty of the Adler Graduate School

In Partial Fulfillment of the Requirement for

The Degree of Master of Arts in

Adlerian Counseling and Psychotherapy

By

Denise M. Rickenbach

Chair: Dr. Ruth Buelow
Reader: Dr. Jared Bostrom

May 31, 2018
Abstract

Since the ancient era, the Christian church has had an erratic relationship with those who are struggling with co-occurring disorders. At times the afflicted have been met with empathy and care and other times they have been literally demonized and scorned. Currently, there are findings in the field of genetics and neurology that are helping researchers better understand the biological underpinnings of addiction and mental health. The study of epigenetics and the reward center of the brain are yielding significant physiological reasons behind the symptoms of several disorders that have been difficult to understand. These findings may be helpful to build empathy in the Christian community towards individuals suffering with co-occurring disorders. 

*Keywords:* Christianity, addiction, mental illness, epigenetics, reward center
Acknowledgments

I would like to acknowledge my husband, Joe Rickenbach, for his patience, support, and encouragement as I pursued my education. His belief in my ability to take on the challenges of this venture were an incredible source of strength for me. I would also like to acknowledge Dr. Ruth Buelow for her encouragement and valuable feedback throughout the writing process. Finally, I would like to thank Dr. Jared Bostrom for serving as reader and providing additional comments on this topic.
Dedication

I would like to dedicate this work to my fellow Christians who suffer with mental illness or addiction or love someone who does. May this discussion provide some relief from the sting of judgment they may have experienced.
Table of Contents

Abstract ........................................................................................................................................ 3
Acknowledgments ......................................................................................................................... 4
Dedication ..................................................................................................................................... 5

Mental Illness ................................................................................................................................ 9
The Ancient World ......................................................................................................................... 9
The Christian Era ........................................................................................................................... 12
The Medieval Period ..................................................................................................................... 14
Colonial America .......................................................................................................................... 17
  Cotton Mather (1663-1728). ........................................................................................................ 18
  Benjamin Rush (1746-1813) ....................................................................................................... 19
  Dorthea Dix (1802-1887) ........................................................................................................... 19
  Anton Boisen (1876-1965) ......................................................................................................... 21
  Karl Menninger (1893-1990). .................................................................................................... 22
Modern Day ................................................................................................................................... 23

Substance Use Disorders .............................................................................................................. 25
Choice vs Disease ........................................................................................................................ 27
The Reward Center ....................................................................................................................... 29
Learning and Memory .................................................................................................................. 30
  Dopamine, glutamate, and addiction .......................................................................................... 31
  Stress ......................................................................................................................................... 35
  Cravings and choice .................................................................................................................. 37

Generational Curses and Epigenetics .......................................................................................... 39
Biblical Theology ......................................................................................................................... 39
Epigenetics .................................................................................................................................... 41
  Dutch hunger winter .................................................................................................................. 43
  Adverse childhood experiences study ....................................................................................... 45
Future Direction ............................................................................................................................ 46

Discussion ..................................................................................................................................... 47
Adlerian Considerations ............................................................................................................... 47
  Discouragement ....................................................................................................................... 48
Christianity and Co-Occurring Disorders

The Substance Abuse and Mental Health Services Administration (SAMHSA, 2017) asserted that in 2016 nearly 20% of adults in the United States had any mental illness (AMI) in the past year and over 4% had a serious mental illness (SMI) in the past year. Additionally, the number of adults reporting AMI or SMI has remained stable since 2010; however, the number of adolescents with AMI or SMI have increased since data was collected in both 2008 and 2014. Furthermore, approximately 8 million adults in the United States had co-occurring SMI and a substance use disorder (SUD) in 2016 with half of these individuals receiving care for only one of the conditions and one-third receiving care for neither condition. These numbers point to a trend in the general population which is seen among Christian church attendees as well.

Recent studies conducted by Lifeway Research (2014) and Pew Research Center (2014) showed that the majority of both Christians and Americans in general reported that religious practices were an important component in their lives. However, the majority of individuals also reported that they believed church could do more to speak out about mental illness and reduce stigma for those with a mental health diagnosis. Additionally, it was not uncommon for study participants to report they had left the church due to negative reactions regarding their mental illness.

This essay will discuss the long history between the church, medical professionals, and individuals with co-occurring disorders. Additionally, this essay will consider current findings in brain science and genetics to provide insight to unseen physiological process that are partially responsible for the development of co-occurring disorders. Understanding the physiological underpinnings of mental health and addiction problems may build empathy in the Christian community towards suffering individuals.
It is helpful in a discussion of co-occurring disorders to understand the terminology. The Substance Abuse and Mental Health Services Administration (2005) explained that individuals said to have co-occurring disorders have at least one disorder relating to alcohol or other chemical use as well as one or more other mental disorders as outlined in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association, 2013). Because Substance Use Disorders (SUDs) are included with other disorders in the DSM-5, the term mental illness will be used in this discussion when referring to any mental health diagnosis unless specifically noted. Mad and insane, words no longer acceptable in contemporary professional language, are among the terms found in historical literature and will be used in that context when necessary.

**Mental Illness**

**The Ancient World**

According to Scull (2015), the Old Testament of the Bible, recording events of the 11th century before Christ’s birth, chronicles the earliest Biblical descriptions of mental illness. The first book of Samuel details how Saul disobeyed God who then struck Saul with madness (1 Samuel 15-31 New International Version). For the remainder of his reign Saul experienced depression, paranoia, debilitating fear, had fits of rage, and was homicidal. It is clear from these passages that the Hebrew people believed Saul’s madness came at the hand of God. The Old Testament prophets, some of the most influential men of their time, seem to be plagued by insanity. Isaiah, Jeremiah, Elijah, and Ezekiel hallucinated, were catatonic, heard voices that gave strange instructions, and exhibited behavior ranging from mildly eccentric to completely deranged (Isaiah 20, Jeremiah 13, 1 Kings 19, & Ezekiel 1-4). A noteworthy anecdote is recorded in the book of Daniel. A prideful Nebuchadnezzar is cursed with madness and
banished to the wilderness where he eats grass like an ox, grows what are described as eagles’
feathers, and sports fingernails that resemble the claws of a bird (Daniel 4: 28-33).

In a divinely ordered world where the vagaries of nature, the misfortunes of the polity
and the perils of daily life were invested with religious or supernatural meaning, the
transformations madness wrought upon the sane were readily attributed to divine
displeasure, to the casting of spells or possession by evil spirits. (Scull, 2015, p. 20)

The book of Mark informs us that, during his ministry, Jesus cast seven demons out of
one of his followers, Mary Magdalene (Mark 16:9). Another account describes Jesus casting a
legion of demons out of a man who had broken his chains and was roaming a graveyard sending
the demons into a herd of pigs (Matthew 8:30-32). The New Testament records that after
Christ’s crucifixion his disciples continued the practice as they worked to spread the good news

According to Scull (2015), ancient Greek literature of the 9th century BC reveal that
individuals believed a divine being was responsible for human madness. Supernatural origins of
mental anguish were commonly promoted; the gods were never hesitant to involve themselves
with human affairs. Furthermore, these myths were so influential that thousands of years later
Sigmund Freud, the Austrian founder of psychoanalysis, referenced a tragic Greek king when he
used the name Oedipus complex to describe psychological trauma. Likewise, the origin of the
English word panic comes from the Greek panikon referencing the god Pan who was infamous
for spreading terror.

Again, in the 8th century BC, madness was considered a condition with religious or
supernatural origins. Evidence of attributing madness to the supernatural is found abundantly in
the popular literature of the era. Scull (2015) noted that the Greek poet Homer is famous for
writing the epic poems *The Iliad* and *The Odyssey*. These works, some of the oldest remaining works of Western literature, were riddled with madness. In *The Odyssey*, Athena drove Penelope’s pursuers to raving madmen as they gather for a feast (Homer, trans. 1997). Amidst violent conflict, soldiers behave wildly and rant as though they have been overcome by demons. *The Iliad* portrayed Diomedes, Patroclus, Hector, and Achilles as descending into lunacy in the middle of battle (Homer, trans. 1998).

Scull (2015) noted that both commoners and the elite were drawn to Greek mythology because it communicated, to some extent, how Greek citizens conceptualized the experience of madness. Furthermore, historical evidence reveals that the Greeks viewed attacks of madness as having supernatural origins. Additionally, when insanity is seen as a randomly occurring event, its horrors increase. Myths assured the Greek community that those experiencing madness had angered gods or demons.

Finally, in the 5th century BC, ideas regarding the origins of madness underwent a transformation. Lawlor (2012) explained that the Greek Hippocratic school introduced contemporary methods of conceptualizing mental illness by considering natural causes for emotional turmoil instead of supernatural. Although these scholars dismissed religious theories that explained mental illness, they still agreed that the gods played a role in other of man’s affairs. For the first time, Hippocrates and his contemporaries were systematically writing down medical ideas. Their goal was “to provide a wholly naturalistic account of diseases of all types, resisting the temptation to call upon the divine or the demonic as explanatory factors” (Scull, 2015, p. 27). These writings, known as the Hippocratic corpus, became influential in Greece and later throughout the entire Roman Empire. These texts asserted that “the body was a system of interrelated elements that were in constant interaction with its environment” and compose of four
basic elements: blood, phlegm, yellow bile, and black bile (Scull, 2015, p. 28). Lawlor (2012) contended that *melancholia*, the ancient term for depression, was caused by an excess of black bile leading the sufferer to experience unwarranted sadness and fear. The greater the imbalance the more significant the symptoms of melancholia. Scull (2015) asserted that physicians believed these elements were affected by the environment, diet, exercise, sleep patterns, and emotional states. Imbalances in these elements contributed to both physical and mental health problems.

The revolutions in medicine led to the first dispute between the clergy and physicians. Scull (2015) explained that Greece was known for its medicine temples and as the Hippocratics began proclaiming physiological causes for illness the priests and physicians engaged in a fierce dispute, especially with regard to madness. Furthermore, temple priests insisted on connecting symptoms of insanity to angry deities and physicians openly mocked them.

**The Christian Era**

Lawlor (2012) asserted that the introduction of Christianity brought with it a renewed interest in exploring the spiritual nature of madness. Scull (2015) noted that in the years after Christ’s death and resurrection, the early Church was established and Christianity spread throughout the eastern Mediterranean countryside. Furthermore, following the example of Jesus, Christian missionaries used exorcism and healing of the possessed as evidence of Christ’s power over the unseen adversaries faced by humankind. In this way, the idea of demon possession and spiritual healing became well-established. Scull (2015) explained that rulers and peasants alike again embraced the belief that invisible demonic forces wreaked chaos and trouble in the world. Additionally, Biblical accounts set precedent for evil forces causing madness and the insane converged, or were dragged to temples of healing. Lawlor (2012) explained that the Egyptian
desert monks began experiencing low moods characterized by boredom and general misery. This feeling of melancholy was seen through a distinct Christian lens as the battle against the temptations of the world, fleshly desires, and the pressure to earn the impossible: a soul without blemish.

It was also during this time that the early Church began to follow Christ’s role-model of caring for the sick and infirm. Kinzie (2000) explained that caring for the ill became a primary focus of the Christian Church. Attitudes toward those in need were transformed; church leaders were charged caring for the afflicted. Prayer, fasting, the laying on of hands, the sign of the cross, and exorcism were used as part of Christian healing rituals. The Christian community offered a unique contribution to medical care as they were the first to provide organized community care to themselves and others.

According to Kinzie (2000), St. Augustine, a philosopher and early church leader, began exploring theological ideas that would greatly influence Christian doctrine. Augustine taught that humankind was incurably blemished and needed to atone for sins. He also asserted that men were especially vulnerable to sexual sins because of the beguiling nature of women. According to Kinzie (2000), this doctrine would later influence Freudian psychology. The battle of ideas regarding the etiology and treatment of disease, both mental and physical, waged on between Hippocratics and theologians for nearly five centuries until the fall of the Roman Empire in 476 AD.

Little is known about what befell the multitudes between 600 AD and 1200 AD. Wasson (2015) noted that there are many theories explaining why the mighty city of Rome became vulnerable to being overthrown. Reasons notwithstanding, in the 5th century AD, German barbarians took advantage of weaknesses in the Roman government and conquered the city.
Scull (2015) explained that vast amounts of knowledge were lost during the fall of the Western Roman Empire when records, artwork, and architecture were destroyed. The greatest amount of literacy was retained in monasteries and churches with an emphasis on theology. The records of the Hippocratic’s scientific medical advances were lost which had significant negative impact on the understanding and treatment of the insane. Wasson (2015) asserted that the fall of Rome marked the end of the ancient world and ushered in the Middle Ages.

**The Medieval Period**

Despite the turmoil of the medieval period, Christianity spread quickly. Scull (2105) noted that believers successfully proselytized tribal communities; the conversion of a chief or other leader was followed by group conversion. A central feature of evangelism was the use of miracles to exhibit the power of the Christian God, again including exorcism and miraculous physical healing. Lawlor (2012) explained that demonologists were often consulted to determine whether an individual’s melancholy was biological in nature or the result of demonic influence. Christian evangelists would destroy pagan centers of worship to show the powerlessness of the sacred objects.

Scull (2015) maintained that as Catholicism spread, martyrs and saints from the early period of Christian persecution were reestablished as being uniquely powerful in performing healings and other miracles. The bones of the saints were used in ceremonies to exorcise demons and healing rituals were held in their tombs. During the medieval period, vast numbers of the physically disabled, the insane, and the sick sought comfort and healing at the shrines of the saints. According to Scull (2015) it was common practice for the hysterical and the emotionally distraught to remain on the church grounds for days or weeks awaiting their healing, often disrupting services with screaming and wailing. Rituals at the tombs of martyrs who had
been beheaded were favored by those seeking relief from mental distress. St. Dymphna was particularly popular with those suffering from madness.

Scull (2015) noted that family members would bring their afflicted loved ones to the church where her remains were housed in a chapel in the city of Gheel. The mentally tormented family members were chained by their ankles for eighteen days while priests performed exorcism rituals. If the exorcism was unsuccessful, the insane were sent to live with a family in the village. This practice of sending mentally ill people into the homes of villagers resulted in a strange city of lunatics who were supported by donations from the family members of the mad.

The emphasis on a spiritual origin of insanity continued from the Middle Ages to the Reformation. Scull (2015) stated that the casting out of demons were dramatic occurrences, a battle between good and evil with a powerful God freeing a screaming victim from the forces of evil. Images of these exorcisms were the subjects of sculptures and paintings that adorned the walls of churches and basilicas.

Scull (2015) noted that a unique element of medieval culture was the rise of religious dramas known as mystery and miracle plays. These productions told biblical stories and were performed in churches to teach moral principles to commoners. The plays depicted Christ’s persecution, Adam and Eve’s original sin, and the final judgement. Insanity and possession were frequent themes, warning the congregation of the consequences of engaging in sinful practices and allowing Satan to enter the offender resulting in madness.

People of the medieval period believed illness, both physical and mental, were the result of the fall. Scull (2015) noted that when Adam and Eve ate from the forbidden tree they were cast from the Garden of Eden and plunged into decay, depravity, and chaos. Illness was seen as punishment for those who disobeyed God’s commands, affliction they deserved, and a warning
of what may be in store for them for eternity if they did not take heed. In the 9th century AD, Rabanus Maurus Magnentius, the archbishop of Mainz wrote that illnesses were caused by vice, fevers were an outward representation of burning human appetites, and scabbed flesh signified a mind that was consumed with lust.

The Renaissance Period

The Western world entered the Renaissance period continuing to believe there were evil forces behind every affliction. Kinzie (2000) asserted that it is widely understood that *Malleus Maleficarum* (the Witches’ Hammer), a 1487 publication authored by two Dominican monks, led to severe cruelty toward the mentally ill. This book detailed how to identify witches and a fusion of witchcraft, insanity, and heresy was in place. The church was given the authority to oversee the treatment of afflicted individuals. The practice of authorizing the clergy to manage the mentally ill became part of the inquisition. Afflicted individuals were identified as witches and “probably many thousands of mentally ill were burned at the stake or tortured to death” (Kinzie, 2000, p. 14).

Challenges regarding the treatment of the mad began to change in the 16th century during the time of the Protestant Reformation. Scull (2015) asserted that although Reformation Protestants believed that supernatural forces were responsible for insanity, they did not embrace the Catholic practice of exorcism. Reformed Protestant leaders opted instead for extended periods of prayer and fasting and when these practices successfully brought relief and restored the sufferer’s sanity it was heralded as evidence of the truth of Biblical teachings.

Mainstream Christianity embraced this outlook over the following centuries. Scull (2015) noted that during the 18th century John Wesley and George Whitefield, founders of the Methodist denomination and leaders of evangelical revivals, attracted a great number of
followers. Wesley promoted his bestselling book, *Primitive Physick*, which asserted the importance of humoral balance for optimal health. He was even more fervent in his efforts to minister to those who were troubled emotionally. Wesley preached that mental turmoil held deep spiritual significance as the manifestations of the mad were examples of the consequence of sinful choices and a warning about the horrors of eternal damnation. He was a proponent of *demonomania*, a belief that demonic oppression and possession were a logical explanation for mental torment and prescribed prayer and fasting as the remedy for relief. English ruling classes held disdain for the frenzied worship of evangelical and believed that attending revivals contributed to mental illness. The aristocracy embraced the sensible and composed religious practices which more closely aligned them with the natural philosophers and medical doctors.

**Colonial America**

It was during the Renaissance Era that Western Europe began to colonize the globe. The *New World Encyclopedia* (2015) explained that the settlers had diverse motivations for moving to North America; among them was religious freedom. When Martin Luther sparked the Protestant Reformation in 1517 AD, Christianity lost the unity they experienced under the Roman Catholic Church. Multiple new religious sects were formed and faced persecution by governmental authorities. In the mid-seventeenth century, to escape oppression at the orders of Charles I, nearly 20,000 Puritans left England and established numerous colonies (*New World Encyclopedia*, 2015).

Because the majority of those settling in northeastern North America were Christians, Christian values were established as socially normative. The *New World Encyclopedia* (2015) noted that in many of the first settlements individuals were required to belong to a particular faith. According to Vacek (2015), American Christians were attentive to human suffering, but
still harbored the belief that mental illness had spiritual origins. A pattern of neglect toward the insane continued, but there were four notable exceptions to the rule. Cotton Mather, Benjamin Rush, Dorthea Dix, and Karl Menninger were prominent Protestant Christians who advocated for changes in the treatment of the mentally ill.

**Cotton Mather (1663-1728).** Cotton Mather was a Boston born, eighteenth century, Puritan minister. Vacek (2015) noted that he had a keen passion about the natural world that coupled with his theological training formed his interest in medicine. Having suffered the loss of thirteen of his fifteen children as well as his first two wives, Mather was no stranger to grief and suffering. It was because of his Christian faith that he “investigated health and disease to understand better God’s good creation. Mental illness proved part of that exploration” (Vacek, 2015, p. 8).

Vacek (2015) noted that Mather was a prolific writer and his subjects included theology, law, philosophy, and medicine. One of his final works, *The Angel of Bethesda*, was published after his death and was considered the only exhaustive medical commentary in the colonial period. Furthermore, Mather viewed all matters through a spiritual lens and his medical advice was always interspersed with claims regarding the sovereignty of God and His healing powers.

Vacek (2015) explained that, like his European forefathers, Mather’s theological beliefs about insanity included claims it originated from a combination of original and personal sin, worry regarding the state of the person’s soul, and the assumption of supernatural underpinnings. Additionally, Mather embodied a unique combination of scientist and theologian. He was one of the greatest advocates for inoculations and other groundbreaking medical advances yet he was one of the central figures of the Salem witch trials. Ultimately, it was during the colonial era that
“Americans attributed mental maladies to a combination of supernatural, moral, and medical causes” (Vacek, 2015, p. 10).

**Benjamin Rush (1746-1813).** According to Vacek (2015), Benjamin Rush was a Revolutionary-era physician whose Christian faith inspired him to undertake numerous endeavors to ease human suffering including improving the treatment of the mentally ill. He served at the first hospital and was a professor at one America’s first medical schools. Rush did not enter the medical profession to specialize in mental illness, but it became a primary focus and formed his medical legacy. Unlike Mather, who had described original and personal sin as underscoring mental illness, Rush focused on biological and physical explanations for madness. He asserted that physicians, not clergy, had the expertise to treat the mentally ill. The professionalization of medicine during the Age of Enlightenment “unseated clergy as the foremost intellectual experts on matters of health and healing, and that change diminished church authority over physical and mental disease” (Vacek, 2015, p. 29). Rush taught and practiced medicine inspired by his Christian faith, but he approached mental illness as a disease in need of treatment, not a sin in need of repentance. Vacek (2015) noted that by the nineteenth century faith Christian leaders and parishioners were reluctant to join the medical community in recognizing biological factors for mental illness, but assertions like those of Mather did not carry the sway they once held.

**Dorthea Dix (1802-1887).** Scull (2015) touted Dorthea Dix as “the remarkable moral entrepreneur” as she set out to reform the treatment of the mentally ill during the early nineteenth century (p. 196). According to Vacek (2015), Dix recounted an experience that would change the trajectory of her life’s work. She overheard two men condemning the wretched conditions at the county jail, an institution that lodged both felons and the mentally ill. Gollaher (1995) noted
that Dix had been sensing God telling her she was spending time on “improvement of her mind at the expense of her heart” while neglecting family, friends, and her fellow man (p. 126). She began teaching Sunday school classes to incarcerated women as well as touring hundreds of poorhouses, prisons, institutions, and family homes documenting evidence on America’s appalling treatment of the mentally ill. Scull (2015) noted that Dix found insane persons in closets, cages, locked in cellars, and housed in sheds.

Vacek (2015) explained that during this era, the Protestant movement began to move its focus from providing care for family members and neighbors to caring for the ailing and destitute as well. Dix pioneered the movement by using her own dedication and the compassion of fellow Christians to obtain the funding necessary to establish mental institutions. She found support for her work from clergymen who compared compassionate institutional treatment of the mentally ill with how Christ ministered to the madmen in scripture.

According to Scull (2105), Dix traveled to Europe to convalesce after experiencing a period of her own mental instability. Here she observed England’s efforts to “overhaul the treatment of madness” at the York Retreat, an asylum formed by a group of Quakers (Vacek, 2015, p. 70). Dix returned to America in 1837 renewed both physically and mentally and began her public campaign for asylum reform.

Vacek (2015) noted that Dix began her advocacy by presenting her thirty-page Memorial to the Legislature of Massachusetts to government leaders and demanding a response. She befriended physicians and institute superintendents creating a tight-knit community of like-minded people and formed the Association of Medical Superintendents of American Institutions for the Insane. Over the next four decades alienists, doctors who treated the mentally ill, debated about the origins of madness and Christian theology was at the root of the most hotly contested
theories. While most doctors maintained that there was a unity between the mind and the soul, scientific advances led many to reconsider their beliefs.

Vacek (2015) explained that a growing number of alienists promoted a somatic conception of mental illness. These alienists asserted that different parts of the brain were responsible for behavioral and cognitive traits and that madness was a symptom of a disruption in the brain. “Somatic conceptions of illness also helped practitioners fend off demonological and superstitious definitions of insanity” (Vacek, 2015, p. 77). Scull (2015) asserted that Dix was indefatigable and “again and again she brought politicians to heel, and forced them somehow to embrace her recommendations” (p. 198).

Anton Boisen (1876-1965). Leas (n.d.), former history manager for Association for Clinical Pastoral Education, explained that Anton Boisen founded the pastoral education movement. He was the first clergyman to supervise undergraduates in what is today known as Clinical Pastoral Education. According to Vacek (2015), Boisen was a Presbyterian minister who felt called to minister to those with mental illness after experiencing a psychotic break and being diagnosed with schizophrenia. Boisen (1960) described mental illness as a “little-known country,” a place that few Americans ever frequented and fewer still understood (p. 80). In the midst of his illness, he perceived that he had “broken an opening in the wall which separated medicine and religion” (Boisen, 1960, p. 95).

Vacek (2015) noted that Boisen spent the remainder of his life, using insight he gained as both patient and pastor, to challenge medical and Protestant mindsets toward mental illness. He advocated that the clergy reassume some of the responsibility for the care of the mentally ill that had been abdicated to physicians over the previous decades. He found that neither medical or
theological systems were doing an effective job treating those with mental illness. Boisen believed combining concepts from both fields would yield answers.

Leas (n. d.) noted that Boisen joined forces with Dr. Richard Cabot, MD, at the time one of America’s leading physicians. Together they began teaching graduate theological students to conceptualize mental health problems using the clinical case method of learning. Boisen also created a comprehensive manual which students used as a tool to create a systematic assessment of the patient’s psychological and spiritual condition. Vacek (2015) asserted that Boisen’s work influenced the religious leaders of his time to reclaim their rightly position in the care of mental illness. Furthermore, Boisen called for the clergy to join with medical professionals to provide the spiritual and physical care necessary to treat patients holistically.

**Karl Menninger (1893-1990).** Vacek (2015) asserted that Dr. Karl Menninger, one of the most well-respected American psychiatrists of the twentieth century, took up the charge to bring additional changes in the spiritual treatment of those with mental illness. Science in Context (2006) noted that Menninger grew up in a profoundly religious and supportive environment. It was in this atmosphere that his parents impressed upon their three sons the importance of a strong work ethic and service to others. Vacek (2015) explained that Menninger never felt it necessary to separate the practice of medicine and religion. He was a devout Christian, but he received public respect in the medical field for his training and experience as a physician.

Menninger (1990) noted that Menninger received his doctorate in medicine from Harvard, specializing in neurology. He then studied psychiatry at the Boston Psychopathic Hospital where his calling to serve those with mental illness was ignited. He returned to his
home in Topeka, Kansas where he and his father founded the now world-renowned Menninger Clinic.

Menninger was a prolific writer and his essays regularly expressed a message of hope for the destitute and the mentally ill. Scull (2015) asserted that the American army respected the Menninger’s work and during WWII they entrusted their servicemen to their clinic for psychoanalytic services upon returning from combat. Menninger (1990) explained that Menninger devoted himself to social justice concerns highlighting problems of the Native Americans, prisoners, children and the mentally ill. Furthermore, Menninger undertook the responsibility of rehabilitating Kansas’s mental hospitals; reforming institutions that were “snake-pits” into “state-of-the-art” facilities (Menninger, 1990, p. 435).

**Modern Day**

The mid-twentieth century brought sweeping changes in the mental health field. The efforts were focused on remedying the wretched conditions that could still be found in the majority of mental institutions. Mechanic and Rochefort (1990) noted that in 1963 President John F. Kennedy introduced a national community mental health program which was eventually enacted as the Community Mental Health Centers. The goal was to reduce the number of patients in custodial care in order to provide the best care for those who remained. Twelve years later more than 60% of patients had been mainstreamed back into the community for care.

Mechanic (2007) explained that in 1980, in an effort to address continuing problems with mental health care, President Jimmy Carter established a commission resulting in the Mental Health Systems Act. Frank and Glied (2007) asserted that Ronald Reagan repealed Carter’s act and consolidated mental health programs into a block grant for states to make decisions on how to best care for their mentally ill. Glied and Frank (2016) noted that learning from the past fifty
years of mental health care and new provisions under the 2010 Affordable Care Act, health care professionals are considering innovative ways to care for the mentally ill in their own homes.

Despite these changes more remains to be done. Glied and Frank (2016) asserted that treating individuals with mental illness burden the nation with tremendous financial and human resources. Furthermore, the U. S. spent over $350 billion treating individuals with mental illnesses in 2010, a level of funding that many find insufficient. Finally, policy makers continue to explore ways to provide “coordinated and integrated care for the complex needs of people with mental illness” (Glied & Frank, 2016, p. 554). As the government attempts to improve the treatment for individuals with mental illnesses it is time for those in the Christian community to do the same.

According to Rogers, Stanford, and Garland (2012), as a result of deinstitutionalization many patients with severe and persistent mental illnesses are returning home after brief hospitalizations, leaving family members to bear the burden of their care. These researchers found that nearly 30% of Protestant church members reported having family members struggling with depression or other serious emotional problems. Lifeway Research (2014) conducted a study to determine the prevalence of mental illness in Protestant congregations. Nearly 10% of Protestant, adult study participants had been diagnosed with severe depression, bipolar disorder, or schizophrenia. Koenig (2009) noted that individuals from various walks of life, age groups, racial groups, and many nations report that spiritual engagement helps them to better cope with anxiety, depression, suicidality, stress and substance abuse. Likewise, the Pew Research Center (2014) found that nearly 80% of individuals polled stated that “having religion in one’s life” was somewhat to very important (para. 1).
Unfortunately, many churches are not meeting the needs of members who struggle with mental illness. Lifeway Research (2014) asserted that although approximately half of individuals with acute mental illness agree their church has been supportive, nearly 25% report that the response of people in their church toward their mental illness caused them to break ties with a church or fail to find a church to attend. Additionally, nearly two-thirds of family members living with someone with a serious mental health diagnosis believed churches should do more in talking about mental illness openly to reduce the stigma associated with those disorders. Sadly, half of the pastors interviewed reported never giving sermons on the topic of acute mental illness and 40% conceded they are hesitant to get involved with those diagnosed with acute mental illnesses because previous experiences with these individuals taxed time and resources. Understanding advances in brain science, specifically the fields of epigenetics and the reward center, may build empathy in the Christian community toward those suffering from co-occurring substance use and mental health and disorders.

**Substance Use Disorders**

The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association, 2013) described substance use disorder (SUD) as “a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues using the substance despite significant substance use related problems” (p. 483). These problems are outlined by 11 criteria including: using more of a substance over a greater amount of time than intended, the desire to reduce substance use with failed attempts at regulation, substance use interferes with the ability to perform important life tasks, and withdrawal when there is substance decline in an individual after a period of heavy use. Additionally, the substance use disorder is
diagnosed on a continuum of mild, moderate, or severe depending on the number of criteria the patient endorses.

One criteria of an SUD that confounds both individuals with the disorder as well as their loved ones is continued substance use despite negative consequences. Mate´ (2010) defined addiction as “any behavior, substance-related or not, in which a person feels compelled to persist, regardless of its negative impact on his life and the lives of others” (p. 224). Lander, Howsare, and Byrne (2013) explained that individuals with SUDs spend a significant amount of time obtaining, using, and recovering from the effects of substances. As a result, individuals with SUDs may lose employment, have children removed from their homes, and face problems when their impaired decision-making leads to risky behaviors that have legal or health consequences.

The Institute for Addiction Study’s ([IAS], 2010) documentary *Pleasure Unwoven*, asserted that the symptoms of addiction tend to be socially unacceptable in nature and individuals with SUDs are often viewed as morally flawed. Schomerus, Matschinger, and Angermeyer (2006) noted that there is greater stigma attached to addiction than other physical and mental illnesses. Boysen and Vogel (2008) contended that this phenomenon can be explained by attribution theory. Attribution theory supposes that individuals attempt to understand behaviors by attributing intention to the behaviors. In the example of SUDs, beliefs about the origin and management of addiction infers that addicted individuals are responsible for having a substance use disorder. Switzer and Boysen (2009) explained that physical illnesses are most often viewed as not under the patient’s control while many mental illnesses are perceived as controllable and individuals are held responsible for the symptoms. Furthermore, attributing responsibility for mental illness leads to negative attitudes and reactions toward individuals with
a substance use and mental health diagnosis than toward those with a physical illness. For example, individuals with cancer are not typically punished or viewed with disdain, however such responses to addiction are commonplace.

**Choice vs Disease**

It should not be surprising that the public has trouble understanding the complexities of an SUD diagnosis because there is still some debate among addiction specialists. The National Institute on Drug Abuse (NIDA; 2016) defined addiction as “a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences” and it is categorized as a brain disease because drugs change the brain’s structure and function (p. 1). Engel (2012) noted that throughout history diseases were marked by physical changes or alterations in function, emotions, or behavior that is deemed distressing and unwanted. The scientific community “readily fostered the notion of the body as a machine, of disease as the consequence of breakdown of the machine, and of the doctor’s task as repair of the machine” (Engel, 2012, p. 382).

In the case of addiction as disease, the breakdown of the machine occurs in the brain. The IAS (2010) documentary asserted that just as all humans with a femur are at risk for a broken leg, all humans with a brain are susceptible to becoming addicted to substances. Some individuals are born with brains that are more prone to developing SUDs. The NIDA (2014) noted that 40%-60% of an individual’s susceptibility to addiction can be attributed to genetic factors. Additionally, the earlier a person is introduced to substances the more likely they are to develop an SUD (Lynskey et al., 2003). Current research is directed at understanding how brain systems are affected by addictive substances.
Volkow and Li (2004) explained that recent brain imaging studies reveal that the addictive substances cause disruptions to the area of the brain responsible for self-regulation. Furthermore, prolonged drug use brings about long-lasting changes in the brain that undermine free choice. Ultimately, the choice to experiment with drugs or alcohol is voluntary, but when an addiction evolves, the ability to control behavior is “markedly disrupted” (Volkow & Li, 2004, p. 963). The IAS (2010) summarized that addiction is a stress induced defect of the mid-brain and frontal cortex; the unwanted behaviors associated with addiction are symptoms of the disease.

Other addiction specialists do not endorse addiction as a disease. Heyman (2013), a Harvard experimental psychologist who supervised animal research on the role of dopamine in reward for a pharmaceutical company, asserted that it is not logical to conceptualize addictive behaviors as the compulsive response of a diseased brain because the majority of individuals who meet the criteria for an SUD discontinue use by the age of 30 without treatment. Furthermore, addicted individuals who stop using substances cite legal concerns, relationship problems, and financial hardships as the motivating factors that led to abstinence. Therefore, “the correlates of quitting are the correlates of choice not compulsion” (Heyman, 2013, p. 1).

Heather and Segal (2013) argued that portraying the behavior of the person with the addiction as being wholly outside of choice seems very improbable to both professionals and laypersons. These researchers asserted that there are certainly restraints on choice that are better explained by the historical philosophical problem of *akrasia*. Heather and Segal (2013) noted that *akrasia* is an Aristotelian term that present-day philosophers refer to as ‘weakness of will’ and St. Paul summed it up well in his words to the Romans: “I do not understand what I do. For what I want to do I do not do, but what I hate I do” (Romans 7:15). Several verses later Paul
explained that this experience is part of having a sinful nature. Foddy (2010) asserted that there is a component in compulsive behaviors that, at this time, is outside of scientific explanation.

Although some questions of choice remain unanswered, the advances in brain science have led prominent experts to endorse the brain disease model. The U.S. Department of Health and Human Services (2016) released the Surgeon General’s report on alcohol, drugs and health which asserted “addiction is a chronic neurological disorder” and recent neurological advances have given a better understanding as to “how substance use affects brain chemistry and the capacity for self-control” (p. 1). The American Society of Addiction Medicine (ASAM) (2011) defined addiction as “a primary, chronic disease of brain, reward, motivation, memory and related circuitry…characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one’s behaviors and interpersonal relationships, and a dysfunctional emotional response (para. 1-2). A brief discussion of recent advances in neuroscience may be helpful.

The Reward Center

Brain researchers discovered that different areas of the brain are responsible for specific tasks. Olds and Milner (1954) conducted ground-breaking research in the mid-twentieth century that located the reward center of the brain in rats. Researchers placed electrodes at various areas in the brains of rats and placed the animals in operant conditioning chambers. The rats were able to electrically stimulate the area of the brain where the electrodes were implanted. Olds and Milner (1954) found that when the current was turned on, rats would press a bar to stimulate the septal area of the brain at a rate of up to 742 times per hour indicating this as a significant area of the brain responsible for pleasurable feelings. Mate´ (2010) explained that over the last six decades researches found there are three brain regions associated with addiction: the opioid
apparatus, the ventral tegmental apparatus (VTA), and the nucleus accumbens (NA). These regions are located in the mid-brain and feelings of euphoria and desire specifically act on the VTA. Von der Goltz and Kiefer (2009) noted that addiction is currently understood as a learning and memory disorder of the brain’s reward center.

Learning and Memory

Understanding how the brain works to control behavior is helpful when considering addiction. Mate´ (2010) noted that the brain is made up of billions of neurons and trillions of glia cells that together with brain circuits produce millions of firing sequences every second. The “higher in the brain we ascend physically, the more recent are the brain centers in evolutionary development and the more complex their functions” (Mate´, 2010, p. 176). Mate´ (2010) explained that the brain stem controls automatic functions such as heart rate and blood pressure, the mid-brain contain the circuits that process emotions, and the upper brain is the cortex which is responsible for executive function. “As a human being matures, higher brain systems come to exert some control over the lower ones” (Mate´, 2010, p. 176).

Jennings (2012) offered the following example regarding the mid-brain: newborn babies respond to signals of hunger with loud cries in the middle of the night. Infants do not consider whether their cries will stress an already fatigued mother or attempt self-regulation techniques to wait to eat until morning. However, as children learn to speak and gain empathy they are able to override the emotional response to hunger and use the executive function of the PFC to weigh their options for obtaining food. The IAS (2010) documentary noted that in addition to being in control of executive function the PFC is the brain region that is understood to be responsible for personality expression, establishing attachment to care-givers, negotiating social interactions, and making moral distinctions.
Simply stated, the primary responsibility of the PFC is to consider the consequences of choices. Mate’ (2010) asserted that it is in this area of the brain that “emotionally driven impulses to act are evaluated and either given permission to go ahead—or if necessary—inhibited” (p. 176). LeDoux (1996) argued that the PFC does not so much generate an appropriate response, but rather it restrains an inappropriate behavior. Schwartz (2002) noted that the primary role of the PFC is to consider the possible responses to a situation, inhibit those that are unsuitable, and permit one to proceed. It is this communication between the mid-brain and the PFC that becomes compromised in individuals with an SUD. Von der Goltz and Kiefer (2009) asserted that the neurotransmitters dopamine and glutamate play a significant role in this process.

**Dopamine, glutamate, and addiction.** Researchers at Harvard University (2011) explained that the brain records all pleasurable experiences in the same way whether the experiences are derived from sexual activity, monetary gain, a delicious meal, or an addictive substance. Hyman (2005) asserted that, despite costs and risks, humans were required to have intercourse and obtain resources like food, shelter, and companionship in order to survive. The NIDA (2014) noted that “dopamine is a neurotransmitter present in regions of the brain that regulate movement, emotion, motivation, and feelings of pleasure (p. 17). Essentially, when individuals participate in pleasurable activities dopamine is released in the pleasure center of the brain.

Volkow and Li (2004) asserted that dopamine has repeatedly been associated with the “reinforcing effects of most drugs of abuse” (p. 964). Additionally, the reinforcing effects of addictive substances are attributed to the drug’s ability to exceed the intensity and duration of rapid dopamine surges in the NA compared to natural reinforcers like sex or food. Wise (2002)
noted that addictive substances are able to raise NA dopamine levels 3-5 times higher than any naturally occurring reward. Goodwin, Browne, and Rockloff (2015) explained that video games, pornography, psychoactive drugs, and processed foods high in sodium, sugar, and fat act as *supernormal stimulus* and are apt to be “overconsumed” (p. 1).

Goodwin, Browne, and Rockloff (2015) indicated that organisms, including humans, gravitate toward stimuli that yield the greatest reward for their efforts. This means that “neurological reward mechanisms evolved to promote adaptive behavior by reinforcing stimuli that send signals of promoting fitness, such as providing nutrients or reproductive opportunities (Goodwin, Browne, & Rockloff, 2015, p. 1). Furthermore, the tendency to prefer stimuli that provide the greatest rewards is not problematic in natural settings because supernormal stimuli are uncommon, but problems arise when counterfeit and exaggerated options exist. Ward (2013) contended that modern day stimuli are “hijacking” ancient biological brain processes and creating unnatural pleasurable experiences (p. 341).

Von der Goltz and Kiefer (2009) asserted that addictive behaviors are primarily learned in “phylogenetically old brain systems involving the mesolimbic reward systems” (p. 184). Everitt and Robbins (2005) explained that this learning has its roots in “Pavlovian conditioning”, also known as *classical conditioning* (p. 1481). These researchers explained that a conditioned response is triggered as part of a two-step process. First, the consistent rewarding feelings obtained by using addictive substances increase the chances of repeated use. Next, previously neutral environmental stimuli become conditioned stimuli; sounds, smells, sights, and people become associated with drug use. The process of classical conditioning explains why addicted individuals can experience extreme physical and psychological cravings for substances if they are exposed to a stimulus associated with their use. In the same way that the sound of a bell
triggered salivation for Pavlov’s dogs, the conditioned stimuli trigger drug cravings in individuals with SUDs.

According to Volkow and Li (2004), dopamine is not only responsible for feelings of pleasure, it is directly related to both the “prediction of reward and salience” (p. 964). Von der Goltz and Kiefer (2009) asserted that dopamine plays a critical role in reward-related learning which, in turn, impacts the evolution of addiction. Caplin and Dean (2008) explained that neurons release dopamine “in proportion to the difference between the predicted reward and the experienced reward of a particular event” (p. 663). Hyman (2007) noted that dopamine is released when a reward is unfamiliar, “better than expected”, or unpredicted in a particular situation (p. 3). Furthermore, when everything goes as expected there is nothing new to learn, no new experiences to connect to pleasure; therefore, no increased dopamine release. Addictive substances significantly raise dopamine levels in the pleasure center of the brain and always send a “better than expected” signal (Hyman, 2007, p. 3).

To help understand the “better than expected” concept, the IAS (2010) documentary used the example of a gumball machine. People learn that when they place a coin in a gumball machine and turn the knob the machine dispenses one gumball. When, on occasion, the machine distributes two gumballs the brain releases a higher level of dopamine than usual to signal that the reward was better than expected. If one gumball is dispensed, no additional dopamine is released; if no gumball is dispensed less dopamine than usual is released. Notably, this dopamine activity is occurring before the individual tastes the gumball.

Hyman (2007) noted that because addictive substances raise dopamine levels so drastically beyond any natural rewards, drugs become “overvalued compared with all other goals” (p. 3). Sensible goals like going to work, caring for children, and even obeying the law
are no longer priorities. Additionally, normal features of cognitive control decrease; even if the
addicted person wants to stop using, stress and learned environmental cues produce strong drug
cravings that are remarkably difficult to restrain.

In addition to better than expected learning, dopamine contributes to a component of
learning called salience. Salient is “standing out conspicuously…of notable significance”
(Salient, n.d.). Koob and Volkow (2010) explained that addictive substances usurp brain
systems that evolved to direct organisms to stimuli with salience for survival. Hyman (2005)
noted that dopamine release shapes an organism’s ability to both predict and act to obtain
rewarding stimuli. Furthermore, drugs increase dopamine levels more reliably in higher
quantities for longer periods of time than naturally occurring stimuli; this results in “profound
overlearning” and a shift from drug-liking to drug-wanting (Hyman, 2005, p. 1416).

An additional component of the dopamine hypothesis of addiction learning involves the
neurotransmitter, glutamate. Von der Goltz and Keifer (2009) noted that glutamate works
together with dopamine in a learning process that contributes to creating a memory. Hyman
(2005) explained that the “associative interaction” between glutamate and dopamine brings
together detailed sensory and action sequences in the environment that send cues, reminding
addicted individuals that drugs are pleasurable and may be presently available. Von der Goltz
and Keifer asserted that there is a “substance induced plasticity in glutamatergic neurons of the
PFC and its projections to the NA” that is associated with an addicted persons compulsion to
take drugs and is thought to contribute to relapse. Volkow and Li (2004) contended that these
interactions between neurotransmitters “contribute to the abnormal function of brain circuits”
and this disruption of normal function is linked to compulsive behavior (p. 965).
The IAS (2010) documentary gave the following example of how the neural interactions between dopamine and glutamate enables the brain to recognize and learn those things in the environment that are necessary for survival. Dopamine signals “this is important” and glutamate says “okay, I’ll remember.” Dopamine says “hey, I really want this” and glutamate says “Fine, go and get it.” This intricate system was designed to work for food, sex, and other things necessary for survival, but addictive substances flood the system and “ravages the brain’s delicate physiology” (IAS, 2010). It is the breakdown in this system that leads researchers to question whether individuals with SUDs are able to choose to abstain from using drugs.

**Stress.** Addictive substances and drug cues are two factors known to be associated with the development of an SUD; the third is stress. Mate´ (2010) noted that organisms launch a physiological response when they are exposed to excessive psychological or physical demands. For example, cortisol and adrenaline are released in a torrent of hormonal changes that are the brain’s attempt to “maintain internal biological chemical stability or homeostasis” (Mate´, p. 205). Furthermore, early stress creates a lower set point for children’s internal stress system and these individuals become stressed more easily than is typical throughout their lives. Pihl and Stewart (2013) explained that early stress can increase vulnerability to the effects of drugs and to the development of an SUD.

In addition to leaving individuals vulnerable to addiction, stress affects neurochemical systems that also contribute to the phenomenon of relapse. The IAS (2010) documentary used the example of body temperature which has a set-point of 98.6 and during an infection the body readjusts its set-point resulting in a fever. Likewise, the brain maintains a reward balance around an individual’s natural hedonic set-point. Koob (2013) explained that there are two brain
systems with prominent roles in regulating the hedonic set-point: corticotropin-releasing factor (CRF) and dynorphin.

Koob (2013) noted that as drug dependence and withdrawal patterns develop, “brain anti-reward systems, such as CRF and dynorphin, are recruited in the extended amygdala” (p. 11). The recruitment of CRF and dynorphin is described as an “opponent process” as it appears to be the brain’s strategy to counter the dramatic release of dopamine caused by drug use and is thought to begin early in the development of an addiction (Koob, 2013, p. 4). Additionally, these processes are hypothesized to be a significant source of the negatively reinforcing aspect of addiction learning. This is because drug use effectively combats the negative emotional state associated with withdrawal symptoms and therefore increases the probability of continued drug taking. Finally, these changes do not ultimately result in the brain achieving homeostasis of the brain’s reward/stress system, but in allostasis, a more pervasive lowering of the brain’s ability to register pleasurable feelings.

According to Koob (2010), CRF is a neuropeptide that has a significant role in “coordinating the stress response of the body by mediating hormonal, autonomic, and behavioral responses to stressors” and chronic drug use dysregulates the system (p. 4). Koob and Volkow (2010) noted that CRF is released in the extended amygdala in an effort to surmount the chronic presence of the perturbing drug and restore normal balance despite the presence of the addictive substance. Furthermore, the release of CRF produces the negative experiences associated with withdrawal symptoms. Koob (2013) described some of these symptoms as agitation, headache, nausea, insomnia, depression, despair, and loss of interest for natural rewards.

Another neuropeptide responsible for the negative effects of drug withdrawal is dynorphin. Koob and Volkow (2010) explained that dynorphin is increased in the NA in
response to dopamine surges resulting in decreased “dopaminergic function” (p. 223).

Bruijnzeel (2009) noted that the release of dynorphin inhibits dopamine release in the NA and causes a negative mood state in humans. Furthermore, it is thought this action by dynorphin may serve to protect the brain from the “neurotoxic effects of high dopamine levels induced by drug taking” (p. 127). Additionally, when individuals discontinue chronic drug use the anti-reward neuroadaptations remain leaving them with negative emotional states and putting them at further risk for relapse as cravings for the drug persist.

**Cravings and choice.** Kalivas and Volkow (2005) underscored that the neuroadaptations which occur in the reward system of the brain bring about intense drug cravings in addicted individuals, leaving them with a diminished ability to choose abstinence. Furthermore, the brain processes responsible for activating goal-directed behavior is substantial; however, the mechanisms of how the system “chooses” between options is less clear (Kalivas & Volkow, 2005, p. 1405). Morse (2000) used the following example: a man who slips on a hike and hangs on to the edge of a cliff by his fingertips will most likely come to the end of his strength and fall. Those who advocate for diminished choice assert that the compulsive desires, or cravings, of the addict are the equivalent of the effect of gravity and the limits of physical strength. The cravings are too demanding to be outlasted.

Morse (2000), however, noted a flaw in this analogy. Imagine that a maniac wielding a gun follows an addicted person and threatens to shoot her if she seeks or takes drugs. Assuming the addicted person wants to live as much as the aforementioned hiker, she is unlikely to succumb to her desire to use drugs. However, if the same gun-toting individual threatens the hiker hanging from the cliff the hiker will fall every time, demonstrating the concept that an addicted person has a greater capacity for choice than do individuals in more dire circumstances.
In contrast, Morse (2000) asserted that an addicted person’s substance use is action and not an uncontrollable mechanism; therefore, it is better to conceptualize a person with an addiction using substances as someone who is behaving “under duress” (p. 32).

Morse (2000) explained that, in legal terms, duress occurs when an individual is coerced to commit a criminal offense by the threat of death or serious bodily harm and a “person of reasonable firmness would have been unable to resist” (p. 32). Kalivas and Volkow (2005) noted that the drug-induced neuroadaptations occurring in the reward and stress centers of the brain result in cravings. Furthermore, cravings are experienced as needing something necessary for survival, even more than food and safety; therefore, the addicted individual is under duress. These researchers did not comment on the legal aspect regarding a “person of reasonable firmness” (Morse, 2000, p. 32). However, they do describe the drug-induced neuroadaptations as dysregulated systems so it may be inferred that addicted individuals are infirm when they experience cravings. Finally, Morse (2000) asserted that the analogy used to illustrate that craving is duress is to consider cravings as an “internal gun to the head” demanding that the addict obtain and use addictive substances (p. 34).

While there is still not consensus among the experts regarding some aspects of the addiction process, there is significant and well-established evidence that important brain processes are undergoing significant, dysfunctional neuroadaptations. Additionally, these changes in normal brain function present significant challenges for individuals with SUDs to follow treatment interventions that are the integral to the recovery process. Finally, individuals facing these challenges should receive empathetic and respectful treatment even when their behaviors result in difficult consequences.
Generational Curses and Epigenetics

Biblical Theology

There are a few verses in the Old Testament which are mentioned in discussions on the subject of generational curses: “you shall not bow down to them or worship them: for I, the Lord your God, am a jealous God, punishing the children for the sin of the parents to the third and fourth generation of those who hate me,” (Exodus 20:5), “…Yet he does not leave the guilty unpunished; he punishes the children and their children for the sin of the parents to the third and fourth generation” (Exodus 34:7), and “…Yet he does not leave the guilty unpunished; he punishes the children for the sin of the parents to the third and fourth generation” (Numbers 14:18).

Christian denominations vary in the way they interpret these passages on God’s punishment. Adams (2015) asserted that negative patterns like addiction, depression, promiscuity, and abuse continue through generations of family members as the consequence of sins committed against God by forefathers. Furthermore, the explanation for this phenomenon is “not genetics neither is it psychological; it’s spiritual… the consequences of your forefather’s sins have now become a thorn in your flesh” (p. xi).

Sudduth (2013) noted that like inherited physical traits such as eye color and height, there are “spiritual traits” like divorce, perversion, and anger that can be passed from one generation to the next (para. 3). These spiritual traits are the equivalent of generational curses and Christ’s “blood must be applied to break the curse (Sudduth, 2013, para. 25). Sudduth (2013) explained that to apply the blood individuals must confess their own sins as well as the sins of their forefathers then “renounce the curses and break them” (para. 31).
Other theologians offer differing interpretations. Reddin (1999) asserted that the generational curse interpretation of the previously mentioned scriptures is faulty. Furthermore, negative patterns of behavior like anger, promiscuity, and perversion are “works of the flesh” and God gives individuals the power to refrain from engaging in those activities (Reddin, 1999, p. 1). Finally, the tendency for behaviors to continue from one generation to the next is due to parental influence. Reddin (1999) noted that it is hard to overemphasize the power of parental modeling. For example, parents can establish a loving and supportive home environment or the home can be characterized by turmoil and anxiety.

Focus on the Family (2012) explained that there is a theological and a practical way to interpret the scriptures referencing generational punishment. The theological issue is addressed by the Apostle Paul when he explained that sin and death are a corporate problem in that “sin entered the world through one man, and in this way death came to all people because all sinned” (Romans 5:12). Furthermore, generations extend far beyond one’s great-great grandparents back to the first parent, Adam. Focus on the Family (2012) noted that Christ surrendered to death on the Cross therefore “through the obedience of the one man the many will be made righteous” (Romans 5:19).

From a practical point of view, the tendency toward specific negative behavior patterns can be passed from one generation to another like any other human trait. Focus on the Family (2012) explained that these traits may become “ingrained in the psychological legacy of certain families”, but should be understood as the consequence of wrong behavior instead of a curse (Focus on the Family, 2012, para. 7). Negative patterns of behavior that have been addressed in Scripture may be better explained by a new field of brain science called epigenetics.
Epigenetics

Carey (2012) explained that many people regard DNA as a template, like a factory mold that manufactures car parts. Molten metal is poured into a mold and as long as nothing goes wrong during the process the part is formed as it was designed. That, however, is not an accurate analogy. Occasionally there is a disruption in the genetic process, for example in the case of Down syndrome where there is extra genetic material on the 21st chromosome in the nucleus of a cell (National Down Syndrome Society, 2018). Carey (2012) asserted that most often genetic alterations are the result of environmental influences and DNA can be better compared to a movie script than a template.

Carey (2012) offered the following example. In 1936 George Cukor directed a film version of *Romeo and Juliet* starring Leslie Howard and Norma Shearer. In 1996 Baz Luhrmann directed Leonardo DiCaprio and Claire Danes in another movie version of the play. Both directors used Shakespeare’s script, but released adaptations which were markedly different. The directors each started with the same original material, but made significantly different adaptations. An environmental factor (the director) affected the final product in much the same way environmental factors alter gene expression.

Launer (2016) noted that epigenetics can be defined as “the study of changes in organisms brought about by modification of gene expression, rather than by alteration of the genetic code” (p. 183). Before discussing epigenetics, one must first understand genetics. Merriam-Webster (2017) defined genetics as “a branch of biology that deals with the heredity and variation of organisms.” Wong, Mill and Fernandes (2011) explained that “the sequence of nucleotides comprising an individual’s genome” (the genetic material of an organism) “is identical across all cells in the body and remains unchanged from the moment of conception.
onwards” (p. 481). These nucleotide bases make up an individual’s deoxyribonucleic acid (DNA). The sequence of the nucleotides does not change; however, operationally the genome is not fixed. Every cell has the same DNA sequence, but “each has its own unique phenotype characterized by a specific pattern of gene expression that is in a constant state of flux” (Wong, Mill, & Fernandes, 2011, p. 481).

The Personal Genetics Education Project (2016) noted that individuals have a genotype which is a complete heritable genetic identity and a phenotype which are their actual physical characteristics including height, eye color, disease history, behavior, and disposition. The phenotype is influenced by both genetic factors and environmental factors. This fluctuating gene expression is what is known as epigenetics.

Wong, Mill and Fernandes (2011) explained that ‘epigenetics’, which literally means ‘above genetics’, is a term that was coined in the middle of the 20th century by the British biologist, Conrad Waddington. Epigenetics refers to a second layer of data that sits above the DNA sequence and controls a number of gene functions including when and where genes are turned on or off. Gene expression is regulated when there are chemical modifications to DNA and histone proteins. For instance, DNA methylation is a type of chemical modification and “has been shown to vary as a function of nutritional, chemical, physical and even psychosocial factors (e.g. stress exposure)” (Wong, Mill, & Fernandes, 2011, p. 483). Carey (2012) asserted that epigenetics is the “chemical modifications surrounding and attaching to our genetic material that change the ways genes are switched on or off, but don’t alter the genes themselves. The Dutch Hunger Winter Three case studies can be used as examples to explain the process of epigenetics.
**Dutch hunger winter.** The Dutch Hunger Winter of 1944-1945 was one of the appalling events of World War II. Scholte, van den Berg, and Lindeboom (2012) explained that in November 1944, toward the end of World War II, German troops occupied western Europe. In response to a railroad strike by Allied forces, the Nazi regime initiated a blockade that restricted food transports resulting in a devastating drop in food supplies for the Dutch population. Carey (2012) noted the Dutch famine lasted from December 1944 until April 1955 and at the peak of the famine the citizens were consuming between 300 and 500 calories per day. Furthermore, desperate to quell hunger pangs, people reported eating tulip bulbs and grass and 20,000 died of starvation.

Brown and Susser (2008) noted that Dutch Hunger Winter is an example of a natural experiment which usually occur as the result of historical events. Furthermore, historical events provide researchers with an exposed population and an unexposed population which serve as a control group for various studies. The studies conducted on the victims of the Dutch Hunger Winter revealed that the stress related to prenatal nutrition resulted in numerous health outcomes for the affected infant including birthweight and obesity, schizophrenia, and addiction.

**Birthweight and obesity.** Carey (2012) asserted that one of the first features studied was the effect the famine had on the birth weights of the starving mother’s infant. If the mother were eating normally at the time of conception, and malnourished only at the end of her pregnancy, her baby was likely to be small. Furthermore, if the mother was undernourished at the time of conception but had returned to a healthy caloric intake by the end of her pregnancy, she would most likely give birth to a normal sized baby.

Carey (2012) explained that these findings were not particularly surprising as babies are expected to grow most during the last trimester. However, epidemiologists followed these
infants for decades and found that babies born small remained small throughout their lives and had lower obesity rates than the rest of the population. Furthermore, the normal-weight infants conceived by nutritionally deficient mothers had higher obesity rates than the general population and significantly more other health problems. Carey (2012) noted that it is not only the prenatal exposure that is important, but the timing of the event that is significant; prenatal events occurring during the first trimester can have lifelong repercussions.

**Schizophrenia.** In addition to birth weight, the prenatal survivors of the Dutch Hunger Winter experienced increased mental health problems compared to the general population. Xu et al. (2009) noted that schizophrenia is a complicated psychiatric disorder currently viewed as a neurodevelopmental disorder with environmental factors influencing its evolution. Furthermore, prenatal malnutrition is believed to be one of those environmental factors. Michels (2003) asserted that the infants exposed to prenatal malnutrition have twice the risk of developing schizophrenia later in life. Additionally, infants conceived at the height of the famine are three times more likely to be diagnosed with schizophrenia than those conceived before or after the famine. Like schizophrenia, SUDs are more prevalent in individuals exposed to prenatal nutritional deficiency.

**Addiction.** Researchers studied adult survivors of prenatal malnutrition from the Dutch Hunger Winter who were in their 60s and receiving substance use treatment. Franzek, Sprangeers, Janssens, van Duijn, and van de Wetering (2007) asserted that individuals exposed to gestational malnutrition during the first trimester were significantly more likely to seek substance use treatment at some point in their life than individuals in the control group. Additionally, there were no significant differences between odds of exposure to gestational malnutrition during the second and third trimesters and substance use treatment between patients
and controls. Finally, these findings support the view that the first trimester is critical in the
development of important neurological systems.

**Adverse childhood experiences study.** The Dutch Hunger Winter population provided
researchers with a population to study the effects of prenatal stress in infant development, but
researchers have been examining how childhood stress affects development as well. The
Adverse Childhood Experiences (ACE) Study sought to understand “the relationship of health
risk behaviors and disease to the breadth of exposure” to dysfunction and abuse during childhood
(Felitti, 1989, p. 245). Felitti et al. (1998) mailed a questionnaire regarding childhood
experiences to over 13,000 Kaiser Health Plan members who received medical care at a San
Diego health care clinic from August- November of 1995 and January-March of 1996 with a
70.5% response rate of 9,508.

Felitti (1998) explained that the questionnaire assessed three categories of abuse:
psychological abuse, physical abuse, and contact sexual abuse. Furthermore, two questions
assessed if the respondent had been verbally abused or intimidated by threat of violence. Two
questions assessed if the subject had ever been pushed, shoved, or struck so hard there were
marks or injuries. Four questions assessed if the respondent had been touched sexually, been
asked to touch another authority figure sexually, or have any authority figure attempt to or
actually engage in a sexual act with them. Two questions assessed if any family members were
alcoholics or used illegal substances. Two questions assessed if there was any mental illness or
suicidality among family members. Four questions assessed if the respondent witnessed
violence against their mother or stepmother. Finally, one question assessed the criminality of
household members.
According to Felitti (1998), researchers evaluated risk factors and disease conditions that are associated with the most prominent causes of illness and death in the United States. The risk factors considered were suicide attempts, nicotine use, illicit drug use, illicit drug use by caretakers, morbid obesity, sedentary lifestyle, depressed mood, alcoholism, history of sexually transmitted diseases, and having greater than 50 lifetime sexual partners. Diseases conditions assessed were history of heart disease, cancer, stroke, emphysema, chronic bronchitis, diabetes, hepatitis, and skeletal fractures.

The results of the ACEs study were sobering. Felitti (1998) noted that there was a “strong dose response relationship” between the extent of exposure to household dysfunction and abuse during childhood and numerous risk factors for a few of the chief causes of death in adults (p. 251). Furthermore, conditions such as heart disease, cirrhosis, chronic lung disease, broken bones, and cancer showed a “graded relationship to the breadth of childhood exposures” (p. 251). Snyder (1984) explained that a dose-response relationship describes the changes in an organism caused by varying levels of exposure to a stressor. Essentially, adverse childhood events are seen to have a causal and compounding relationship to serious diseases. Launer (2016) explained that adverse childhood experiences are examples of environmental interactions mediating gene expression in the form of disease explained by epigenetics.

Future Direction

Historically, the Christian Church’s response towards mental health and substance use problems should be met with mixed reviews. At times those suffering with mentally illness were met with compassion and understanding and at other times they were blamed, judged, and cast aside. Thankfully, there are influential voices urging the Christian community lead the charge for fundamental changes.
Murashko (2014) noted that Rick Warren, the prominent pastor of Saddleback Church in California, spoke out after he lost his son, Matthew, to suicide in 2013. The following year, Saddleback Church held its first annual conference called The Gathering on Mental Health and the Church with its mission to “remove the stigma of mental illness” (para. 7). Saddleback Church (2018) started a monthly support group to be a “place for anyone living with mental illness, family members, volunteers, and anyone who has a passion to journey with others toward hope” (Description, para. 1). Additionally, Saddleback Church provides support group starter kits as a way to support other churches as they endeavor to care for mentally ill loved ones.

Simpson (2013), in her book *Troubled Minds: Mental Illness and the Church’s Mission*, outlined the experiences of her family’s experience with severe and persistent mental illness (SPMI). Simpson (2013) noted that her father was pastoring a church when her mother began showing symptoms of schizophrenia and was eventually diagnosed with the disorder. It was during this time that Simpson’s family began to understand the challenges of loving a family member with a SPMI as well as how those individuals can be caricaturized and stigmatized. Simpson (2013) challenged the church to take steps toward practical discipleship for all who desire to follow Christ whose ministry was an example of caring for the ill and marginalized in society.

**Discussion**

**Adlerian Considerations**

While it is important to examine neuroscience and genetics when attempting to understand the complexities of mental health disorders, it is useful to consider some Adlerian concepts as well. Oberst and Stewart (2003) noted that Alfred Adler was born in Vienna in 1870 as the second of six children born to a corn trader and his wife. Adler suffered with childhood
ailments; specifically, a severe case of rickets which required that he be wrapped in bandages leaving him unable to interact with playmates. Additionally, Alfred’s younger brother died of diphtheria in his sleep when Alfred was four years old. Oberst and Stewart (2003) noted that these childhood experiences with serious physical ailments were what motivated Adler to become a doctor in the field of neurology.

Oberst and Stewart (2003) explained that while Adler was attending university lectures he became interested in philosophy and sociology. Furthermore, these interests brought Adler into the same circles as Sigmund Freud and Carl Jung. Griffith and Powers (2007) asserted that Freud, Jung, and Adler became known as the primary theorists of the field of “depth psychology” which sought to discover what beliefs were beneath the surface of individuals behaviors (p. xvi). Additionally, differences of opinion began to emerge between Freud and Adler’s theory on the motivator of human behavior.

Oberst and Stewart (2003) noted that Freud theorized that unconscious repressions of sexuality were responsible for most irrational behavior. According to Griffith and Powers (2007), Adler focused on the social framework of each individual and how the person manifests discouragement. Three Adlerian concepts that are especially relevant to individuals with co-occurring disorders are discouragement, the useless side of life, and family atmosphere.

**Discouragement.** Alfred Adler did not believe that individuals with dysfunctional patterns of behavior were disordered, but simply discouraged. Griffith and Powers (2007) explained that as individuals are willing, or have the courage, to meet the demands of life they will feel successful and worthy of respect. For example, if individuals find that a particular exercise is challenging they will engage in compensating behaviors as they strive for perfection (or excellence in today’s jargon).
Griffith and Powers (2007) asserted that individuals who are striving for perfection have an awareness that they are part of a community; a basic understanding that they are “one amongst the others as a social being” (p. 11). Oberst and Stewart (2003) noted that when children do not receive the love and support they need to meet the demands of life they become discouraged. Furthermore, when children are discouraged, *inferiority feelings* emerge and discouragement increases as the children compare themselves to others who are perceived as more skilled, accomplished, attractive, wealthy, or competent (p. 23).

Oberst and Stewart (2003) explained that as discouraged individuals are unable to meet their goals by striving for perfection, they begin to overcompensate by giving a “high degree of special attention” to part of themselves responsible for the failure to meet the goal (p. 4). Griffith and Powers (2007) noted that discouraged individuals have the same goal as the person with courage, which is to be successful and respected. However, the discouraged person fears being exposed as imperfect and resorts to behaviors on the *useless side of life* such as procrastination and evasive behaviors (p. 20). Ansbacher and Ansbacher (1964) asserted that neurosis “is the natural, logical development of an individual who is comparatively inactive, filled with a personal, egocentric striving for superiority, and is therefore retarded in the development of his social interest” (p. 241). Essentially, individuals considered mentally ill by to today’s standards are, from an Adlerian viewpoint, simply individuals who are distressed as they overcompensate for perceived shortcomings.

**Useless side of life.** An Adlerian concept relevant to individuals with mental health disorders and specifically to individuals with SUDs is that of the *useless side of life.* Oberst and Stewart (2003) asserted that when individuals overcompensate in an attempt to meet life’s challenges, instead of striving for perfection they begin “striving for power” (p. 26).
Furthermore, discouraged individuals are not content to be another’s equal, but strive to be superior to others. Anscher and Anscher (1964) noted that the striving for power begins in early childhood. Furthermore, instead of mustering courage and finding value as a member of society, the discouraged individual continually seeks an easier way to reduce feelings of inferiority.

Anscher and Anscher (1964) explained that there is only one reason that individuals resort to living on the useless side of life; they fear failure on the useful side. Oberst and Stewart (2003) asserted that “these ‘neurotic manoeuvres [sic]’ with which the individual evades his or her responsibility are not a conscious act…they are aspects of human psychology that develop tacitly and out of the persons understanding” (p. 27). Furthermore, individuals on the useless side of life seem to feel superior to others, at least for a while.

Oberst and Stewart (2003) offered the following example. A young boy who was pampered in his childhood believes he deserves to marry a woman who will be subservient and strive to please him. For the first years of marriage he attempts to exert power over her and insist that she conform to his expectations. As the newlywed focuses his efforts on himself while contributing nothing to his bride or the community his endeavors become useless. More important, his behavior will most likely lead to marital problems and “put his weak inner harmony in doubt” which is “the beginning of neurosis” (Oberst & Stewart, 2003, p. 26).

Anscher and Anscher (1964) asserted that individuals engaging in behaviors on the useless side of life have an unconscious goal of feeling superior at the expense of another. For example, the individual who is feeling inferior will use fear, anger, sadness, or guilt in an attempt to move from an inferior position to a superior position in a relationship. Oberst and Stewart
(2003) noted that the useless side of life behaviors are used as *safeguarding tendencies* which shield the individual from painful feelings of inferiority.

Oberst and Stewart (2003) explained that safeguarding behaviors typically appear in four ways: (1) distancing or avoiding challenges or obstacles, (2) hesitance or ambivalence toward responsibilities, (3) avoiding, bypassing, or getting distracted with the minutiae of challenging tasks, and (4) narrowly applying oneself to a duty leaving significant elements undone. Clark (1999) noted that the distancing stance may include behaviors such as fainting, hysteria, or indecision which leave individuals unable to act to resolve problems. Simultaneously, these individuals give the impression they remain “above the fray” and are superior to others who are busying themselves with trivial details of life (Clark, 1999, p. 77).

Clark (1999) described the hesitating attitude as one in which individuals indicate the desire to take on life’s tasks, but then highlight the obstacles that prevent them from persevering to find solutions. Adler (1996) explained that an individual employing insomnia as a hesitating behavior would claim that “If only I could sleep, I could be the first or among the first” (p. 360). Oberst and Stewart (2003) noted that individuals employ the hesitating attitude as a way to “safeguard their self-esteem” by evading obligations and being non-committal towards requests from others (p. 199). Ansbacher and Ansbacher (1964) asserted that for individuals employing the hesitating attitude, there “is a ‘yes’ that emphasizes the pressure of social interest, but this is invariable followed by a ‘but’ that possesses greater strength and prevents the necessary increase of social interest” (p. 157).

Adler (1996) explained that the third kind of behaviors employed by discouraged individuals is that they detour around the solution to an obstacle and retreat to a less important area of activity. Furthermore, the discouraged individual constructs a “countercompulsion” that
takes priority over social demands (p. 360). For example, an individual with obsessive compulsive disorder may engage in compulsive handwashing or rechecking appliances in an effort to delay finding solutions to problems.

Adler (1996) noted that the fourth safeguarding behavior, the narrowed path of approach, is the most complex and most fascinating. The individual utilizing this method does not fully commit to finding the solution to a problem; “he takes up only part of it and eliminates other parts, generally those which are the most pertinent” (Adler, 1996, p. 360). Clark (1999) explained that individuals who are engaging in the narrowed path of approach avoid more challenging pursuits because they wish to avoid failure. These discouraged individuals confine themselves to pursuits in which they can be reasonably sure of being successful even if it means that the tasks are far less challenging than those they are capable of completing.

**Family atmosphere.** The final Adlerian concept that is an important part of this discussion is that of family atmosphere. Because environmental factors are significant with regards to epigenetics, knowing the experiences that individuals encountered during childhood are crucial to understanding their behaviors. Dreikurs and Soltz (1992) noted that the first factor important to the development of children’s personalities is the family atmosphere. Furthermore, it is in the interactions with their parents that children practice being part of society at large. Oberst and Stewart (2003) explained that family atmosphere is the primary “feeling quality within a family” that is developed by family members and their interactions with one another.

Dreikurs and Soltz (1992) asserted that the caregivers demonstrate a specific attitude towards religion, race, values, and economics which establish social norms for the children in the home. For example, if caregivers display tolerance for individuals who have differing opinions the children will likely be tolerant of others as well. Alternatively, if caregivers act superior to
those who are less educated or economically disadvantaged their children may make similar judgements toward others. Finally, interactions between caregivers sets the example for the other relationships among family members.

Ansbacher and Ansbacher (1964) asserted that individuals raised in “overburdening childhood situations” may lead to children who develop a “faulty style of life” (p. 367). Furthermore, children who were overly stressed during the first four to five years of life undergo a mechanization of movements that remain below the child’s consciousness. Finally, these maladaptive ways of interacting with others will be enduring unless these individuals gain insight and challenge the meaning behind the behaviors.

Oberst and Stewart (2003) noted that rigid, abusive, neglectful, or authoritarian caregiving styles may result in a child who is anxious and uses “neurotic strategies” in an effort to find a place among family members (p. 124). Furthermore, the overburdened child may experience overwhelming discouragement and disruptive, attention-seeking behaviors may be seen as an effective way of standing out in a dysfunctional family. Clark (1999) asserted that individuals who develop profoundly faulty life styles are more likely to employ safeguarding behaviors in an effort to contend with life’s challenges.

It is possible that the impact of family atmosphere is another way to explain what was previously discussed as epigenetics and generational curses. The power of caregivers to model appropriate behavior as well as expose their children to environmental factors have significant influence over how their children will respond. It could be that the concepts of wasting behaviors and living on the useless side of life may be a way to understand why discouraged individuals employ dysfunctional behaviors and at present receive various mental health diagnoses.
Summary

The Christian church has a long and largely problematic history in terms of how it conceptualized and interacted with those suffering with mental illness. In a process marked with many stops and starts, Christians attempted to understand and care for those struggling with the symptoms of mental disorders. Among the most stigmatized are those addicted to alcohol and other substances. Research and advancements in neuroscience have brought a greater understanding of the underlying chemical processes that are being hijacked by addictive substances in the reward and learning centers of the brain. Additionally, advancements in the field of epigenetics have highlighted the ways in which environmental factors alter gene expression and contribute to the development of mental illness. Finally, a discussion of Adlerian concepts relevant to individuals with mental illness brought insight to how discouraged individuals use various compensating behaviors as they strive for perfection. A greater understanding of these unseen physiological and psychological processes may build empathy in the Christian community toward individuals with co-occurring disorders.
References


