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USING AN ETHICS OF CARE TO RE-INTERPRET CONSENT IN THE
MANAGEMENT OF CARE FOR ADDICTION DISORDERS

A Dissertation

Submitted to the McAnulty School of Liberal Arts

Duquesne University

In partial fulfillment of the requirements for
the degree of Doctor of Philosophy

By

DiAnn C. Ecret

May 2018

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DiAnn C. Ecret

2018

USING AN ETHICS OF CARE TO RE-INTERPRET CONSENT IN THE
MANAGEMENT OF CARE FOR ADDICTION DISORDERS

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ABSTRACT

USING AN ETHICS OF CARE TO RE-INTERPRET CONSENT IN THE MANAGEMENT OF CARE FOR ADDICTION DISORDERS

By

DiAnn C. Ecret

May 2018

Dissertation supervised by Dr. Gerard Magill

Patients who suffer from the biological, genetic, epigenetic neurocognitive dysfunction and social sequela of substance use disorders and addiction require the empowering support from healthcare professionals; necessitating the need to utilize an ethics of care to re-interpret consent for the management of care for those who suffer from substance use disorders and addiction. The care of the ‘other’ should embrace a care paradigm that is relational and collaborative in order to eliminate constructs of stigma, moral weakness and individual blame, which isolates those who manifest the trajectory of harms associated with addiction pathology. Relational consent and an ethics of care seeks to enhance the relational decision making processes for those who experience the complications from this stress surfeit and executive cognitive functioning disorder. The re-interpretation of consent seeks to improve patient outcomes, improve quality of healthcare delivery and enhance human dignity for vulnerable populations.

DEDICATION

To my family, (past, present, and future) with all my love.

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Chapter. 1 Introduction

This dissertation's thesis asserts that the ethics-of-care should be used to re-interpret consent in the management of care for addiction disorders. The re-interpretation of consent for the management of addiction disorders is necessary, because the biological and scientific evidence supports pathophysiological alterations in neurological and cognitive functioning that illuminates impaired decisional capacity. This dissertation does not assert that the re-interpretation of consent is required more generally; but rather, that consent processes should be re-evaluated differently in regard to the neurological, biological and epigenetic cause of direct cognitive dysfunction as it relates to the nuances of addiction. By utilizing an ethics of care framework for those who suffer the trajectory of chronic and physiological addiction pathology it becomes necessary to utilize interventions that assist in the repair and restoration of physiological and neurobiological impairment.

The complexity of clarifying the terms of dependency, addiction, and substance abuse disorders is an ongoing inquiry in academic and scientific fields of study. Therefore, the utilization of the terms dependency and addiction, will be utilized throughout this dissertation text in harmony with the American Psychological Associations (APA)'s Diagnostic and Statistical Manual 5th Edition (DSM-V). According to the newest edition of the DSM-V, addiction is defined as a spectrum disorder that waxes and wanes as a chronically relapsing disorder that occurs in three stages, which include binge/ intoxication, withdrawal/ negative affect, and preoccupation/ anticipation; additionally, the DSM-V specifies that the chronically relapsing disorder meets the following criteria: compulsion to seek and take the drug, emergence

of negative states, which include dysphoria, anxiety, and irritability that invokes physiological or psychological withdrawal syndromes.¹ According to the APA, dependency is the first stage of addiction and it occurs when the person's drug seeking motivation is their dominant feature, as evidenced by: uncontrollable craving, an inability to stop using substance, onset of physiological anxiety, and persistence of symptoms over time.²

Implementing an ethics of care for those with addiction disorders, potentiate the repair and restoration of biological, neurological, physiological brain functioning that seeks to enhance the dignity for those who are predisposed to the vulnerability and the exceedingly harmful consequences associated with addiction. By implementing an ethics of care paradigm with the goal of improving neurological and biological, functioning through improved community, professional, family, and individual responsiveness needs, an alteration of genetic and biological predisposition is potentiated. It is through relationship, connection, and professional collaboration that a deconstruction of stigma can be actualized. Consequently, the trajectory of addiction science assuredly supports interventions that seek to improve and repair decisional capacity ability for those diagnosed with addiction, in order to decrease further neurological impairment and the sequela of increasing harms.

The significant correlation between the social, psychological, physiological, and the neurobiological dysfunction that is associated with the harmful alterations in long-term decision-making abilities with the prevalence of addiction disorders has grown exponentially; yet, the integration and application of the astounding discoveries that potentiate the improvement of care delivery for this stigmatized population is sluggishly and inconsistently being implemented in the holistic management of care for individuals. As a result, associated harms and disparities increasingly widen the marginalization of individuals, families, and entire generations across all

sociocultural and socio economic segments of society.³ The relevance of the current dissertation research is paramount, because adequate management of care paradigms for addiction and dependency has yet to produce the essential quality improvement outcomes that are so necessary for individuals, families, communities and societies at risk and for those who suffer from the harms associated with dysfunction.

An ethics of care framework seeks to potentiate a trajectory of care for the ‘other’ through constructs of connectedness and relational human interactions of care that seek to substantially decrease the staggeringly poor outcomes associated with the neurobiological, epigenetic, and social sequela of complications that plague the current addiction and dependency dysfunction conundrum.⁴ Rarely, if ever has the ‘ethics of care’ in its paradigmatic entirety been applied to potentiate the significant improvements necessary to narrow the divide, that increases the vulnerability and which contributes to the increasingly harmful trajectory associated with addiction disorders; the implications for reframing individual and autonomous decision making through collaborative, supportive and relational decision making process, becomes a vital component necessary to rectify the perceived moral blame associated with those diagnosed or labeled with ‘addiction or dependency.’⁵ Offering supportive humane connections through relationship, community, and shared decision making becomes paramount in the management of care for the ‘other’.

To examine how an ethics-of-care framework can re-interpret consent for those diagnosed with addiction disorders, the analysis considers the following components: the scientific nature of the neurobiological, genetic, and epigenetic influences of addiction; the historical components of societal responses to addiction. (Ch. 2); the relevance of utilizing an ethics of care framework (Ch. 3); the nuances of informed consent in addiction disorders (Ch.4);

the development of a relational paradigm of care for the amelioration of the management of care (Ch. 5); and implementing relational consent to improve quality outcomes of care for addiction disorders (Ch. 6).

The literature review for this dissertation begins with a thorough examination of the scientific evidence that acknowledges the heritability of biological and epigenetic influences that increase the risk for addiction and dependency. Additionally, this dissertation supports the call for a paradigmatic revision of consent through a care framework that examines the utilization of consent through shared decision-making when the sequela of neurological alterations caused by addiction further potentiate accelerations of physiological harms.⁶

Historical constructs that view addiction as a series of conscious actions and therefore supportive of individual moral failings are non-sustainable after systematic review of the neurological, biological, genetic and epigenetic evidence. Through the eradication of shame, blame, and stigma, a paradigm shift, which focuses on the facilitation of individual wellness, disease prevention, decrease in disease progression and empowerment of individuals, families and communities for improved understanding of management of care is potentiated for at risk populations; the vision for decreasing harms is actualized.⁷ The re-interpretation of consent has the potential to reverse this exponential trajectory of harms associated with the current crisis of addiction and dependency.

The evidence that supports the neurobiological, genetic and epigenetic influences that perpetuate addiction and dependency disorders through heritability and transgenerational biological factors through alteration in specific genetic expression can offer hope for healthy transformation through implantation of purposeful environmental interventions, which support prevention, wellness, healing.⁸ Recognition that our historical and social responses to the

management of addiction perpetuate a correlation/ or connection to isolation, suppression, marginalization and stigmatization has grave progression of consequences for those individuals and families with greatest biological and epigenetic risk of addiction and dependency dysfunction; reconstructing the construct of choice is necessary.⁹

By looking at the neurobiological and genetic nature of addiction the scientific evidence should be utilized to systematically uncover the genetic influences, specific phenotypes of addiction, evaluate the historical and social constructs of addiction, examine the legal and public health policy as it relates to addiction, examine the neurobiology of belief and how internal constructs of belief effects addiction management of care and influences the expression of impaired biological functionality.¹⁰ Care theories and neurological science uncovers the detrimental and destructive influences that previous historical and social constructs of care have elicited unjustly for those vulnerable; implementing an ethics of care to re-interpret consent is necessary in order to reconstruct paradigms of improved models of care for future generations.¹¹

Chapter three further evaluates the ethics of care framework by extrapolating the nuances of autonomy through the visualizing of autonomy through relationships; thus, recognizing the communal and relational nature of autonomy.¹² The additional recognition that autonomy is dependent on ‘the other;’ is paramount in placing the need for professional and relational responsiveness for individuals during vulnerability and impaired cognitive decision-making states is essential. An ethics of care applies the principles of human dignity by understanding that all persons, despite frailty and vulnerability require professional action and care when affected by physiological and neurobiological disease states.¹³ Professional responsibility, responsiveness, and wise action are necessary in implementing a management of care paradigm. Therefore, an ethics of care reveals how the incorporation of human values such as

connectedness, attentiveness, responsiveness, responsibility, competency, wisdom, empathy of the other and relational autonomy is at the core of relationships, communal living and social interactions within communities. The construct of care within relationships is a necessary consideration in order to actualized an increase human flourishing and decrease human vulnerability and frailty; an ethics of care brilliantly focuses on the empowerment of individuals through relationships versus escalated decline of disease states through constructs of neglect and blame.¹⁴

Marginalizing and isolating those with addiction disorders has not eliminated the progression of dysfunction; rather, research has suggested that the current political structure of criminalizing, marginalizing, and isolating those with dysfunction has exponentially perpetuated the epigenetic consequences of dependency for future generations. An ethics of care considers the particularity of the other, not in a hierarchical placement of worth, rules, and rights, but rather in a participatory and relational context where responsibility and connectedness are valued.¹⁵ An ethics of care recognizes that each person has intrinsic worth in society, an ethics of care places the value of disparate and vulnerable populations within the context of the same rights within culture and democracy as those who write the laws; it recognizes that in the pursuit of personal autonomy, human strength is achieved through relationships, remaining an essential element that builds strong supportive and productive societies.¹⁶

The re-interpretation of consent for patients who suffer with impaired decisional capacity due to the neurological dysfunction associated with dependency disorders is examined in chapter four. Therefore, chapter four examines the particularities of obtaining informed consent for patients diagnosed with addiction disorders and how the determination of individual autonomous decisional-capacity is problematic. Attempting to apply traditional processes of obtaining

informed consent and assessing decisional capacity, requires a close examination of the elements of informed consent and how addiction disorders restrict adequate adherence to those elements; the elements include, determining competency, maintaining voluntariness, ensuring adequate disclosure, assessing capacity of understanding complex disease processes and treatment interventions, determining one's capacity to assess risks and benefits of complex health information.¹⁷

Determining competency for consent for medical treatment for patients diagnosed with dependency disorders, addiction, and abnormal neurological functioning dysfunction from biological diseases such as Parkinson's Disease and Alzheimer's disease helps guide exciting new application of consent processes. As a result the nuances of substance abuse, dependency and addiction is analyzed by evaluating and considering how of the complexities of neurocognitive and neurological dysfunction impedes decisional capacity and places the person with neurocognitive impairment from addiction at an increased risk of continuous and escalating harms; it a professional requirement to recognize the manifestations of neurodegenerative deterioration during addiction and dependency dysfunction and to adequately recognize impaired decisional capacity with regards to implementing a holistic and ethical plan of care.¹⁸

Despite clear bioethical standards related to the standard requirements and elements of obtaining informed consent, current traditional processes perpetuate complications for those known to have neurobiological dysfunction; utilizing an ethics of care paradigm view to incorporate relational decision-making processes, through an expanded paradigm of self-determination and empowerment for the 'other' relational and partnership decision-making is evaluated in order to potentiates actualization or wholeness for individuals through constructs of care relationships, and through wellness initiatives that are supported by community and

healthcare treatment plans.¹⁹ Improved decision-making and management of care paradigms are essential in establishing the dignity of those with addiction and dependency dysfunction.

The nuances of informed consent for those with addiction disorders, is further examined by isolating the elements of altered consciousness that occurs in addiction; hence, deconstructing the historical model of addiction as rational choice through elements of application of ethics in neurological dysfunction effecting mental health.²⁰ The criteria for obtaining informed consent is carefully examined through the added protections of partnerships and relational interpretation of competency for consent; this relational interpretation of consent must carefully avoid paternalistic coercion and it must seek ways to improve competency, through careful application of shared decision-making models that implement partnerships and proxy decision-making supported guidelines that seek to improve the care outcome trajectory of the ‘other’ versus the radical neglect and oppression of the ‘other’ that currently isolates and disconnects those diagnosed with addiction. Revised management of care initiatives that embrace relational and shared decision-making could support optimal patient and societal benefit for generations.

Chapter five, justifies the support for the need of a relational paradigm of care by acknowledging the psychiatric and neuroimmune comorbidities of addiction and dependency, that predispose patients to unnecessary and unforeseen vulnerabilities; these vulnerabilities are frequently not freely chosen by those who suffer from the neurological and neurobiological abnormalities of addiction due to the neurological sequela of dysfunction. The necessity to restore and repair consciousness in order to re-obtain full decisional capacity becomes the treatment priority in order to alter the trajectory of disease, to decrease human suffering, and to empower personhood.

Additionally, chapter five formulates a paradigm of care that alters the management for those with dependency and addiction disorders by uncovering the statistical evidence that highlights the current stagnation of effective treatment plans by illuminating the barriers of current public policy, by identifying the complexities of disease trajectory, and uncovering the research that supports the epigenetic consequences of isolation, criminalization, labeling; the resulting loss of individual life can no longer be justified through the construct of choice; comorbidities, disease trajectory, complications from neurological dysfunction that can no longer be dismissed as solely an individual character disparagement.²¹

An ethics of care seeks to carefully consider and treat all comprehensive elements of dependency dysfunction in order to respond to the escalating comorbidities of addiction, which include a careful evaluation of the physiological aspects of dysfunction. Additional and careful evaluation of protein regulation that alters cellular expression, hormonal influences that modulate neuroimmune complications, neurotransmitters that potentiate psychiatric complications, exacerbations of concomitant disease states such as liver, pancreatic, and nutritional dysfunctions. The recognition and identification that the current treatment regime, has grave consequences within the current trajectory of care demands responsive action to eliminate the escalating and concomitant pathology of disease for individuals and communities.²²

Management of care within an ethics of care framework requires implementation of strategies that decrease suffering, decrease harms and decrease vulnerabilities associated with the neurobiological dysfunction, neuroimmune dysfunction, and cellular processes that exacerbate organ dysfunction and ultimately result in altered neuro cognitive states; the management of care shift must include innovative treatment modalities that include implementation of therapeutic plans that facilitate alterations in genetic expression, utilize pharmacogenomics that alter cellular

expression, implement appropriate immunotherapies, and neurological enhancement modalities through relational consent processes and paradigmatic treatment protocols that aim to restore individual outcomes of disease and alter stress response states that decrease heritability for future generations.²³

Cultivating compassionate and relational connections for individuals who suffer from the sequela of the chronicity of addiction requires improved understanding and application of etiology, physiological dysfunction progression and treatment modalities that enhance the extensive potential for neurological repair, restoration and reorganization by seeking treatment options that enhance neuroplasticity in order to decrease risk of comorbidities and poor outcomes; improving social determinants of health for this patient population necessitates implementation of relational consent process of care and shared decision making for the management of those vulnerable to addiction.²⁴ The literature review examines the relational paradigm of care framework by incorporating literature which compares and contrasts key elements of addiction and dependency management of care concerns such as consent and coercion, increasing vulnerabilities associated with increasing comorbidities of disease, and elements of care that seek to relieve suffering, marginalization, and disparate access of care that include breaking edge treatment modalities such as neuroenhancement, immunotherapies, manipulation.²⁵

Chapter six extensively examines and evaluates how implementing a relational consent processes in the management of care for those diagnosed with addiction disorders can relationally improve quality of care through responsive professional initiatives that decrease vulnerabilities for individuals, who are negatively affected by the present management of care paradigm; through shared decision making, deconstruction of stigma, implementation of

educational and preventative strategies, which implement revised social policies, examines the benefits of community and the structure of belonging.²⁶ An ethics of care can aim to transform the current consequences of exponential suffering toward healing for individuals and society through shifting the conversation and construct of care to connectedness and caring for the ‘overall’ whole of what it means to be an individual within community and social constructs. This conversation requires implementations of operational guidelines that construct restorative relationships through conversations of possibilities; rather than, focusing on limitations and faults, which ignore human potential and giftedness.²⁷

The new paradigm shift requires improving communication, implementing patient and family centered care paradigms, and developing strategies that improve innovative quality of care frameworks that are relational and community centered; this includes re-interpretation of a relational consent processes for the treatment of dependency disorders; applying revised and enhanced consent processes and identifying the need to skillfully implement reliable capacity assessment evaluation tools to determine decisional capacity for those who require treatment in order to prevent harms associated with the chronicity and exacerbations of neurologically impaired decision making in the treatment of dependency and addiction should become the new standard of care.²⁸

Implementing a shared decision-making capacity of care model attempts to integrate holistic life management skills, such as employment retention, establishment of stability in housing, strategies to support social connections, ensuring access to health care services as identified in the national outcomes measurements (NOM) project and improving understanding of services; assessing the quality of treatment for dependency and addiction dysfunction requires careful data collection of interventions in programs that aim to reintegrate patients continuously

with social and interactive community participation roles, while also seeking to decrease mortality and morbidity associated with the increase in consequences of dependency and substance misuse.²⁹ The complexity of such treatment goals require assistance from families and communities, and policies that acknowledge that individuals are strengthened through supportive social relationships; hence, enhancing the integrity of individuals through relational support and empowerment in order to decrease the deleterious consequences of the rise of addiction disorders becomes a community imperative, which is actualized by embracing a vision and promise of the possibility of human potential for all people.

The process of implementing a relational consent framework that potentiates an exponentially improved quality of care outcomes for patients, families, and communities by deconstructing the stigma conversation by implementing restorative processes that focus on human giftedness, transforming policy that invites possibility of health promotion, disease prevention, and incorporation of shared decision-making methodologies to enhance treatment outcomes, improve impaired consciousness and restore dignity to individuals and generations through dissemination of knowledge and implementation of relational care paradigms.³⁰

In summary, the re-interpretation of consent in the management of care for addiction and dependency dysfunction requires careful exploration. The benefits of implementing relational consent processes for the management of care for those who suffer from addiction and dependency requires the implementation of transformational treatment methods; albeit, the dignity of those who suffer from addiction cannot remain an individual's challenge but, rather a community, professional, and societal need. Utilizing an ethics of care to re-conceptualize autonomy through empowerment of relational autonomy and relational decision-making processes require a careful analysis and paradigm of care shift. The sequela of chronic

neurological and cognitive impairments associated with addiction disorders and how support through vulnerability can promote neurological and epigenetic repair and that supports physiological wellness and support. Vigilant implementation of a relational re-interpretation of consent processes must be attentively formulated for this vulnerable and marginalized population; incorporating public health collaborative frameworks of care are essential, in order to comprehensibly implement the call to action, which the institute of Medicines and the National Behavioral Health Quality Framework (NBHQF) care coordination improvement initiatives promote. Implementing an ethics of care must synergistically occur between providers of care to successfully improve outcomes of care between acute care systems, public health, while also assisting in successful transitions of care environments; this occurs by rigorous education programs in communities, cultures and societies in order to improve care for the vulnerable.

This complex endeavor requires a robust and sustainable implementation plan that truly seeks the improvement of systems of care, through coordination and facilitation of clear and concise public health initiatives that aim to place the health of individuals and the safety of communities first; policy development must adhere to standards of least restrictive means, including grass roots education initiatives, while also embracing strong multilevel prevention education strategies that simultaneously seek to decrease stigma and social isolation in order to embrace the possibility of enhancing the responsibility of many to promote the dignity of the vulnerable. Empowerment of the other is necessary not through isolation; but rather through relationship, connectedness, responsiveness, communication, education, discussion, solidarity, community and professional support that seeks to deconstruct the deleterious isolation of those susceptible to the perpetuation of individual, generational, and societal harms that dysfunction inflicts upon communities and populations.

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Chapter 2 Scientific Evidence and Social Response of Addiction Disorders

The conceptualization of addiction cannot be simplistically attributed to the reductionism of the biological sciences. The complexities associated with addiction disorders, must also consider the historical, cultural, and social aspects that contribute to the epigenetic influences of substance use disorders, addiction and dependency. This chapter will evaluate the objective neurobiological components of addiction disorders, while correlating the historical misconception perpetuated through the construct that addiction is simply an individual character flaw, isolated and independent of societal circumstances and culpability. The current and historical problems associated with substance misuse, dependency and addiction are monumental not only for individuals, but for families, communities, and society as a whole; the medical or disease model of addiction contributes substantially to the advancing knowledge of the deleterious physiological effects and neurocognitive dysfunction that is associated with the complexities and the trajectory of dysfunction.¹

The epigenetic influences of substance use disorders and addiction uncovers the connection of the cultural and social contributions of escalating risks and vulnerabilities by uncovering a broader understanding of substance use and misuse; a closer evaluation of the contributing factors that influence the ever increasing perpetuation of human devastation, physiological, psychological, and social dysfunction must evaluate all of the associated risks that result in individual harm, decreased health outcomes, increased health care costs, poor health management and ultimately the often times unspoken heritability devastation that affect individuals, families and future generations.²

Obtaining a universal definition for substance use disorder terminology, such as addiction continues to develop over time as evident by the historical changes in the American Psychiatric Association's updated use of definitions in the Diagnostic and Statistical Manual of Mental Health Disorders (DSM) related to substance abuse disorders terminology.³ The terminology of addiction has been used interchangeably and deleteriously with dependency terminology, resulting in poor management of care outcomes; therefore, the 2013, DSM-V manual terminology distinctions include softening the language of addiction, by describing chronic neurological changes associated with substance use in those who are vulnerable to the neurobiological and neurocircuitry adaptation mechanisms as a chronic relapsing disorder that results from disordered neuro-adaptive mechanisms versus the historical, simplistic, dismissive, and marginalizing implications of individual blame through negative constructs addiction that further marginalizes and isolates individuals.⁴

However, the usage of addiction terminology persists, despite the DSM-V changes. The terminology of substance use disorders and addiction continues to invoke negativity for individuals as blameworthy, even though current scientific conceptualization clearly identifies it as a 'maladaptive pattern of substance use' because of complex physiological and psychological responses to the biologically striving toward homeostasis functioning of the brain; as a result, manifestations and behavior for individuals include strong desires to use a substance, which begins as the impulse control disorder, that can progress through stages of increased tolerance of the drug effect or substance effect over time, with eventual cycle progression toward negative withdrawal symptoms once a substance is not available, leading to compulsive use, despite negative consequences.

Dependency, can occur independently in persons and is distinctly different than substance use disorders and addiction; dependency speaks toward the psychological withdrawal and/or physical withdrawal effects that occurs after a substance is no longer present. Addiction or substance use disorder, on the other hand, can cause distinct changes in the brain's neurocircuitry and functioning, even after detoxification and recovery states are established.⁵ Substance use disorders and addiction are considered as a chronic spectrum disorder that meet the following criteria: 1. Individual verbalizes consistent desire to decrease or discontinue use, without success. 2. The individual spends an extraordinary amount of time seeking, using and recovering from substance use. 3. Individuals daily routines revolve completely around the substance. 4. Individual craving is persistent and associated with allostatic changes in the individuals neurocircuitry alterations in the brains reward structures.⁶ Addiction's progression to compulsive use despite substantial physical, psychological or social 'reasons' to discontinue its use, becomes one of the problematic progression states.⁷ Therefore, addiction and dependency disorders should be viewed on a continuum that is associated with escalating effects of risk for chronic relapsing progression and harms.⁸

The global burden of addiction has been widely recognized by the World Health Organization (WHO). The WHO statistics in 2000 calculated more than a three percent mortality rate globally associated with alcohol consumption and a contributing four percent global disability rate related to the consequence of alcohol use alone.⁹ Additionally, the same report estimated the global percentage of deaths as a result of illicit and prescription drugs use, alcohol use and nicotine use collectively reported at 12.4 percent of of annual deaths in the year 2000, totaling more than 3.4 million loss of life throughout the world.¹⁰ According to the National Institute of Drug Abuse, the exponential increase in heroin and synthetic opioid overdose deaths

in the United States alone in 2016 was greater than 64,000 deaths, this number exceeds the total number of loss of human life during the entire Vietnam conflict; this exponential increase in overdose deaths has doubled in a ten year period from 2006 to 2016.¹¹ Additionally, the economic disadvantages of addictive behaviors have resulted in increased healthcare costs for individuals, organizations, and societies.¹²

Physiological and psychological manifestations commonly associated with substance use disorders and addiction are widely documented in the health literature and include prolonged risk for health care disabilities associated with excessive consumption. They include, but are not limited to increased incidence of trauma related injuries, psychiatric disorders, liver dysfunction, acute pancreatitis, cancer, cardiac disease, hypertension, multiple organ failure, which can include encephalopathy and substance induced brain damage.¹³ Current research recognizes that the physiological and psychological effects of alcohol addiction and illicit and prescription drug addiction contribute to, not only individual suffering, but toward familial and societal suffering globally; concurrently, the public health crisis associated with illicit and prescription drug use, misuse and addiction is rising in epidemic proportions in the United States and throughout the world.¹⁴

Decreasing harms by attempting to understand and disseminate the biomedical and neurobiological physiology that interplay with social constructs of vulnerability requires a close examination. For individuals and families who experience an increased risk for dependency and addiction, incorporating constructs of care that explain the associated neurobiological risks may help reverse the trajectory of sustaining generationally inherited traits, which will encourage the abandonment of practices that have statistically paralyzed the implementation of best practice interventions, increased risk for vulnerability and harms. Increasing the implementation of

interventions that decrease the predisposition to the deleterious consequence of dysfunction, disability, and coexisting comorbidities should be an essential element of societal care.

Additionally, reversing the trajectory of the harms associated with the marginalization, social stigmatization and discrimination for individuals who are diagnosed with addiction as an intrinsic sign of human weakness requires a sensitive investigation to uncover how social constructs have potentiated monumental harms. By implementing an epidemiologic approach to community assessment or by implementing a developmental model or retrospective and historical community health assessment, uncovering the essential improvement elements necessary to decrease vulnerability and alter the perpetuation of disparate health outcome becomes evident. By closely examining the critical public health concerns of addiction and examining the evolutionary development of negative social constructs, such as drunkenness, intemperance, and moral blame have monumental societal significance to potential alter poor management of care and resultant poor health outcomes.¹⁵

Unfortunately, the stigma and marginalization associated with addiction can be identified in early Christian writings of Saint Paul, Saint Augustine, and Saint Aquinas, where moral culpability or individual blame was placed on individual persons and entire families through the descriptive discourse that identified the ‘unknown’ through the language of sin, vice and intemperance; constructs of sin often times sought to ‘warn’ people from human vulnerability and harm; however, by identifying illnesses as moral failures, before science was able to uncover the physiological circumstances that predispose person’s to disease states perpetuated contemporary constructs that are associated with increasing vulnerability of individuals, families, and entire communities.¹⁶ The scientific evidence increasingly supports the neurobiological, genetic and epigenetic influences that perpetuate dependency and addictive disorders through

heritability and transgenerational biological factors that alter gene functioning, alter gene expression that are related to a vast range of internal and external psychological, physiological, and environmental influences.¹⁷

The historical and social responses toward substance use disorders and addiction closely responded to the horrific consequences of individuals through the lens of fear, which resulted in separating individuals from communities, through marginalization and stigmatization practices, which further perpetuates the biological complications and the epigenetic consequences of transgenerational harms for individuals and entire families who are predisposed to the intrinsic prevalence of biological heritability.¹⁸ The consequences of societal and environmental isolation for those with substance use disorders and addiction has fueled the current addiction epidemic by perpetuating the dysfunction as if individual responses were simply a matter of free will and choice, independent of societal intervention.¹⁹

2.1 Scientific Evidence

The physiological functioning of the human person is dependent on the environment in which it lives. Just as the cellular functioning of all biological creatures depend upon network chains of cellular collaboration through interrelated networks that regulate the synergistic functioning of the whole; the complexities of cellular functioning require a network of cellular communication, and inter-reliability on that cellular communications that facilitate precise functioning of cells that enable the complex and holistic functioning of the entire organism. Albeit, the surmounting evidence continues to uncover the importance of the interconnectedness between cells, which are necessary to ensure optimal functioning of neuro-circuitry, hormone secretion, and cytokine regulation, that facilitate homeostasis and precise organ functioning; cohesiveness of all individual elements become central constructs that rely on the

interdependency of vital organ functioning, wellness of persons, and collaborative wellness within constructs of communities. The formation of individual strivings, wellness, thoughts and actions, rely on behavioral and social constructs of relationships and ultimately individual responses to health are social responses that directly influence cellular, hormonal, and neurological functioning.²⁰ This interconnectedness between cellular functioning of deoxyribonucleic acid (DNA), ribonucleic acid RNA, and proteins greatly influences biological functioning, expression, and communication, which, directly influences the evolutionary survival of all organisms collectively; thus, greatly influencing the intrinsic biological and extrinsic environmental factors, during all stages of human development. Therefore, examining the crossroads between the neurobiology and the social constructs of substance use disorders and addiction disorders must incorporate a holistic framework of care that incorporates all elements of neurobiological repair, while promoting prevention strategies that decrease the risk of heritability by drastically altering the continuation of negative societal responses.

The complexity of clarifying the terms of substance use disorders and addiction is an ongoing task in the academic and scientific fields of study. Therefore, the utilization of the terms substance use disorder and addiction, will be utilized throughout this dissertation text in harmony with the American Psychological Associations (APA)'s Diagnostic and Statistical Manual 5th Edition (DSM-V). According to the newest edition of the DSM-V, addiction is defined as a spectrum disorder that waxes and wanes as a chronically relapsing disorder that occurs in three stages, which include binge/ intoxication, withdrawal/ negative affect, and preoccupation/ anticipation; additionally, the DSM-V specifies that the chronically relapsing disorder meets the following criteria: compulsion to seek and take the drug, emergence of negative states, which include dysphoria, anxiety, and irritability that invokes physiological or psychological

withdrawal syndromes.²¹ According to the APA, dependency is the first stage of addiction and it occurs when the person's drug seeking motivation is their dominant feature, as evidenced by: uncontrollable craving, an inability to stop using substance, onset of physiological anxiety, and persistence of symptoms over time.²² Dependency does not always progress to substance use disorder or addiction; this distinction is clear in the DSM-V's clarification of terms, clarification was necessary because providers of care were inaccurately labeling those who had developed dependence and therefore often times cruelly abruptly discontinuing interventions for medical management of care when manifestations of 'dependency' were identified.

Every organ within a living organism has specified cells that constitute the functional unit of that organ. The functional unit of the lungs are the alveoli, which systematically exchange oxygen and carbon dioxide through the alveolar capillary membrane in order to facilitate gas exchange and provide oxygenation to all other organs.²³ The functional unit of the kidneys are the nephrons, which systematically filter and reabsorb proteins, fluid, and electrolytes in order to eliminate waste products, maintain homeostasis and provide fluid volume regulation.²⁴ The functional unit of the brain is the neuron. Each neuron is made of a cell body, an axon, and dendrites; the cell body and the cell's nucleus help coordinate the activity of the neurons, the axon helps transmit messages to other neurons, much like a telephone wire communicator, and the dendrites are the 'receivers' of the transmitted messages sent through the axon.²⁵ Neurons must utilize chemical messengers called neurotransmitters in order to communicate with one-another effectively.²⁶

Neurons are clustered in the brain according to their specific functional needs and are grouped according to their functional roles, such as: learning, emotion, memory, muscle stimulation, sensory functioning, etc.²⁷ Additionally, neurotransmitters functioning occurs within

the neurons through binding sites that either inhibit or stimulate the brain's action potential; the brain and neurotransmitter activity are instrumental in regulating activity throughout the entire organism, by influencing functions such as breathing, digesting, concentrating, and contracting. All living organisms seek balance or homeostasis for optimal functioning; therefore, inhibitory and excitatory neurotransmitters normally seek to function for optimal organism functioning. Some inhibitory neurotransmitters include, gamma-aminobutyric acid (GABA) and serotonin; excitatory neurotransmitters include dopamine, epinephrine, norepinephrine and glutamate. The addiction cycle impairs normal functioning of neurotransmitter network functioning within numerous regions of the brain.²⁸

Before evaluating the abnormal brain functioning, which occurs in addiction, examining normal brain functioning in some commonly associated areas of the brain is necessary. The basal ganglia is located deep inside the brain and it helps to keep the body's movements coordinated, while also becoming influential in learning routine behaviors and forming habits; sub-regions of the basal ganglia are the nucleus accumbens and the dorsal striatum.²⁹ The nucleus accumbens influences a person's motivation and utilizes experiences of reward through activation of intrinsic reward mechanisms and the dorsal striatum influences the formation of habits, routine behaviors after activation of reward circuitry; activating the reward circuitry of the brain serves the purpose to 'link' pleasure with elements that increase species survival.³⁰ The extended amygdala is located beneath the basal ganglia and it regulates the brain's reaction to stress through functioning of the sympathetic nervous systems fight or flight response to negatively respond to environmental cues through invoking stress states expressed through uneasy emotions, such as anxiety and irritability; the extended amygdala interacts closely to the hypothalamus to activate the warning mechanism as a protection against potentially life

threatening environmental influences.³¹ The hypothalamus is the master endocrine gland, which controls hormone regulation through the hypothalamus-pituitary-axis (HPA); through this sophisticated biological functioning mechanism, the HPA communicates all intrinsic organ responses through the sympathetic and parasympathetic system functioning to seek organism homeostasis. And lastly, the prefrontal cortex is located in the front of the brain, directly over the eyes. The prefrontal cortex is responsible for the complex ability of humans to process elaborate and heterogeneous cognitive input that influences decision-making capabilities known as executive functioning.³² When increase stress states occur, due to hyper stimulation of the HPA and SNS, the ability of the pre-frontal cortex is greatly diminished and negative executive functioning persists.

Addiction pathology directly correlates with the three stages identified in the APA's DSM-V definitions, which include binge/ intoxication, withdrawal/ negative affect, and preoccupation/ anticipation.³³ In order to understand the neurobiology of addiction, a closer look at the three stages of the addiction cycle as they relate to the nuances of substance use, such as alcohol, opioids, and psychostimulants will be evaluated as they relate to the neurobiology of addiction, neurocognitive impairment, genetics and epigenetic influences. Scientific inquiry that evaluates and studies the anatomy, the physiology and pathology of the nervous system in addiction disorders establishes the interlinking multifaceted variables that identify the neurobiological factors associated with addiction; this discernment of science historically uncovers and dissects the neurobiological factors of addiction. Yet, the constituent elements are interrelated with the genetic, epigenetic, and social constructs that also influence dependency dysfunction and addiction.³⁴

a. Neurobiology of Addiction

As previously mentioned all biological life seeks to maintain homeostasis internally and externally in relationship to environmental and societal stimuli; during the exposure to addictive substance, homeostasis becomes unattainable, both intrinsically and extrinsically. As a result, allostasis and neuroadaptations occur intrinsically in an attempt for the brain to strive toward stability.³⁵ The precise components of the neurobiology of addiction include, but are not limited to, the neurological and neuro-circuitry pathway changes noted in the brain that potentiate progression of addiction dysfunction through reward-deficit disorders, stress surfeit disorders, negative emotional state dysfunctions and neuroadaptations that contribute to chemical neurotransmitter alterations in dopamine, glutamate, GABA corticotropin-releasing factor, and serotonin via both inhibitory or excitatory dysfunction.³⁶

Additionally, emotional states and behavioral regulation is dependent upon proper functioning of regions of the brain such as the basal ganglia, amygdala, the prefrontal cortex (PFC), the prefrontal-limbic-striatal circuit, the mesolimbic circuitry, and role of intracellular interactions with neurotransmitters and proteins; the effects of intracellular changes potentiate alterations in brain control as a result of genetic expression with single acute exposure of substances such as alcohol for some people with increased risk.³⁷ Each stage of the addiction process cycles in intensity and ultimately culminate in the pathology of addiction.³⁸

The basal ganglia is positioned deep in the brain and is generally thought to influence the smooth coordination of body movements; however, the basal ganglia is also responsible for learning of repetitive behaviors, which include the formation of habits.³⁹ The neurobiology of the binge/ intoxication stage of addiction includes the learning associated with substance use administration that then changes the reward circuitry functioning of the basal ganglia; the brain'

is no longer regulated by normal homeostasis functioning, but rather through processes that cause dysregulation through alterations in reward neurocircuitry pathways; the development of the allostatic state seeks stability through excess reward and stimulates the down regulation that results in the neuro-adaptive state that results from the external reward stimulation.⁴⁰

The alterations in neurocircuitry, occur initially in response to the drug induced increases that stimulate pleasure states in excessiveness, which are associated with the exogenous drug induced elevations in dopamine levels; consequently, anticipated rewards are established and learned as essential components of one's intrinsic need for survival. When the allostatic mechanisms caused by the drastic increases in exogenous dopamine levels occur in the basal ganglia, the reinforcing effects established through memory and learning quickly increase the anticipation reward pathways for substance seeking behavior; anticipation subsequently increases dopamine level responses in the basal ganglia's nucleus accumbens just by the memory of the sought after cues, which are associated with the positive reward itself.⁴¹ The basal ganglia's ventral striatum plays a major role in intrinsic impulse motivation that seeks to act upon this hedonistic striving for memorable pleasure.⁴²

However, normal hedonistic responses are stimulated as mechanisms of reward for food, water, and sex through reinforcing activation of the mesocorticolimbic dopamine and the nigrostriatal dopamine systems as a mechanism to potentiate learning for the essential response for species survival.⁴³ However, activation of the dopamine reward systems through administration of substances of abuse are unable to provide homeostasis for the organism, in fact, the pleasurable affects that originally exponentially increases dopamine release begins to dissipate; the perpetuation of the positive reward cycle associated with the binge/ intoxication stage of addiction, quickly shifts into a negative emotional state through activation of stress-

surfeit mechanisms that contribute to the withdrawal/ negative affect cycle stage of addiction through the complex allostatic dysregulation of the amygdala.⁴⁴

The neurobiology of the withdrawal/ negative affect stage of addiction marks the shift from positive reward reinforcement associated with the hedonistic pleasures associated with substance use toward the negative reinforcement of substance withdrawal and increased tolerance that account for the complexity of adverse emotional states, which include anxiety, discontentment, increased stress response, and hypersensitivity to emotional duress; this progression is directly associated with the allostatic down regulation of reward mechanisms, which are associated with the perpetuation of the dark side of addiction.⁴⁵ Additionally, the switch to negative reinforcement stage alters the primary impulse control disorder to a compulsive disorder state, as first described by Dr. Richard Solomon through the affective phenomena associated with the hedonistic contrast, or counteradaptation or opponent process.⁴⁶

The amygdala is located beneath the basal ganglia and is associated with the brains reaction to the withdrawal of substance and increased tolerance in the negative emotional state that is precipitated through the release of stress hormone and neurotransmitter release, interferes with normal neurocircuitry functioning.⁴⁷ The sympathetic nervous system (SNS)'s fight or flight response is initiated through the hypothalamus-pituitary-adrenal (HPA) axis-release of corticotropin-releasing hormone (CRH), which in turn activates the neuroadaptations interactions with nor-adrenaline (NA), which further activates the perpetuating cycle of CRF release and the pathological responses that occur during the withdrawal of substance use.⁴⁸ The activation of the physiological stress response processes in the absence of substance marks the beginning of compulsivity; compulsivity is associated in psychiatry as a person's innate impulse to perform an act, even when the act is irrational or against one's free will to perform the act. Compulsion

occurs in response to the neuroadaptations associated with the allostatic changes noted with substance use disorders and addiction by influencing the person's repetitive and continued behaviors, despite the adverse physiological and societal consequences.⁴⁹

The activation of the stress response directly correlates to the negative reward stage, while also consequently setting up future binge/ intoxication stages of substance use, continuing the cycle of use, abuse, withdrawal, and negative effects despite recognition that consequences of substance use results in negative rewards or harmful effects.⁵⁰ Additionally, the withdrawal/ negative affect stage of addiction is associated with elevated tolerance of substance, requiring a person to consume increasing amounts of substance to 'achieve' correlating hedonistic or pleasurable effect of drug; this cycle perpetuates exponentially an escalating desire or physiological craving despite increased consumption of substance and regardless of long periods of abstinence.

Withdrawal of substance and especially the acute withdrawal of substance increases the release of nor-adrenaline (NA) or nor-epinephrine (NE), increase dynorphine release, and increase corticotropin releasing factor, while also decreasing neuropeptide Y (NPY) or the brain's anti-stress system; the release of catecholamines, excessive cellular and increased organism excitation responses are associated with intracellular programming of stress responses activated by the intrinsic cellular reward memory deficit; cellular memory contributes to the cellular expression known as methylation of cellular programming that potentiates transgenerational stress states and affinity for substance use disorders for up to four generations according to heritability studies.⁵¹ Once the binge/intoxication, withdrawal/ negative affect stages takes hold, the neuroadaptations cycle through intense physiologic preoccupation/

anticipation/ craving stages that further sustain the neuroadaptation stronghold, exponentially increases risks that perpetuate addiction cellular cycles trans-generationally .

The neurobiology of the preoccupation/ anticipation stage links the construct of ‘craving’ with the executive functioning of the prefrontal cortex. The prefrontal cortex, is directly involved with memory, language, intelligence, emotional regulation, planning, inhibitory control of interferences, and factors associated with learning that constitute executive functioning.⁵² The functions of the prefrontal cortex additionally, include learning from experience and the ability to feel and express emotions such as empathy.⁵³ Dr. George F. Koob describes the executive functioning qualities of the prefrontal cortex within the framework of stimulating and inhibitory responses, that initiate the decisional ability through ‘go-responses,’ and ‘stop-responses’ through functions of memory retrieval, that include rules, values, and action response inhibitions.⁵⁴

The stimulating responses help people make decisions, plan, and set goals and the stop substance use or drug use stimulates increased activity in the prefrontal cortex by activating the release of glutamate to the nucleus accumbens.⁵⁵ Glutamate is the major excitatory neurotransmitter in the brain and it is associated with increases in drug seeking behavior when there is increased release from the prefrontal cortex; whereas, when studies that have blocked glutamate receptors in the prefrontal cortex prevention of drug seeking behavior was noted.⁵⁶ The stop function of the prefrontal cortex, inhibits the stimulation or ‘go’ processes that regulate stress responses, emotional responses and incentive salience.⁵⁷

Incentive Salience enables the activation of the brains reward system by associating certain stimuli with the use of substance; hence, recognizing the learned association with pleasurable feelings or ‘memories’ associated with substance use.⁵⁸ As a result, internal states

such as mood or emotions and external states such as people, place or things can trigger cues or desires for substances to persist, even after the direct effects of substance have diminished even into years of recovery or abstinence.⁵⁹ The most revolutionary scientific findings regarding the neurobiology of chronic diseases, such as addiction include the increased understanding of the relationship between genetic and epigenetic heritability of dysfunction; once, stigma is eliminated, and once adequate educational initiatives are implemented and disseminated to those at most risk, unprecedented human harms will discontinue from causing early death and subsequent biological harms.

b. Genetic Influences

Addiction disorders, along with most other chronic disease states, such as diabetes mellitus (DM), hypertension (HTN), and Alzheimer's disease are polygenetic in nature; meaning, that heritability does not depend upon one exact gene or one specific genetic code for the transmission of dysfunction, generation after generation.⁶⁰ However, increased heritability of substance use disorders and addiction were first investigated and recognized through patterned occurrences that were noted in longitudinal research methods that analyzed comparisons between monozygotic and dizygotic twins of alcoholic parents; monozygotic twins had an increased heritability of alcohol addiction, despite being raised in different environments.⁶¹ Present day research continues to find the genetic influences that predispose patients to addiction; they include genes that impact metabolism of various substances, genes that influence reward and reinforcement of substances, and they include looking at the transgenerational neurogenetic adaptation variants of single nucleotide polymorphisms (SNP)s.⁶²

SNP's are single base pair positions in deoxyribonucleic acid (DNA), where sequencing alternatives of (A, C, T, G) pairs are placed in 'different' sequencing positions; genetic studies

have indicated an association between SNP of the growth hormone secretagogue receptor (GHSR) and substantial alcohol use, several cannabinoid 1 (CNR1) gene in humans are indicated to susceptibility of alcohol dependence, gamma aminobutyric acid type A (GABA_A) and gamma-aminobutyric acid type A receptor alpha2 subunits (GABRG2) are associated with increased vulnerability to both alcohol and drug addiction associated dysfunction.⁶³ The polygenetic nature of disease states is difficult to specifically identify, because of the nature of how genes also respond to interactions with their social and environmental surroundings; encoding of genes is passed along from generation to generation, but the greatest promise of determining expression of this genetic encoding suggests development of resiliency over time versus rigidity of heritability.⁶⁴

The social awareness of the adverse effects of the disordered use of alcohol and its generational effects on families has been widely studied. Some sources report a staggering estimation of a forty to seventy percent increase in heritability of gene traits that predispose individual risk for acquiring a substance use disorder or addiction to alcohol.⁶⁵ Research that examined the genetic risk for substance use disorders and began to also examine additional genetic influences of increased heritability of alcoholism in adoption studies.⁶⁶ Information obtained from research revealed that sons of alcoholic fathers who were raised in non-alcoholic environments had a significantly increased risk for ‘becoming’ an alcoholic as the child grew to adulthood.⁶⁷ Additionally, monozygotic (MZ) twin adoption studies, or twins that have the same human leukocyte antigen (HLA), indicate a stronger correlation of alcoholism compared to dizygotic (DZ) twins, by more than thirty to forty percent.⁶⁸

Unfortunately, isolating the exact genetic component of substance use disorders, such as alcohol addiction has not successfully been accomplished. Recent genetic research findings

indicate that substance use disorders and addiction are more accurately described as ‘polygenetic disorders,’ meaning that multiple genes and influences ‘on’ genes effect predicted risk.⁶⁹ The investigation of genetic influences associated with alcohol use disorders and alcohol addiction isolated two broad groups of gene alleles. The two groups of alleles include ones that ‘impact alcohol metabolism’ and alleles that influence ‘reward, reinforcement, and cognitive effects of alcohol consumption.’⁷⁰ Additionally, neurogenic studies on alcohol abuse have revealed that neurogenetic adaptations are commonly associated with the complexities of behavior; scientists have replicated single nucleotide polymorphisms (SNP)s of inbred ‘alcohol preferred’ genetic strains in mice that parallel with the human genome.⁷¹ These neurogenetic adaptation models reveal significant findings that point toward the significance of the hypothesized transgenerational effects of genetic variants that are inherited. Transgenerational influences that potentiate ‘created genetic variants’ would increase alcohol abuse disorder and alcohol addiction risks in familial lineage; this understanding could greatly impact the management of care provided to populations with increased vulnerability risk related to heritability.⁷²

Genes that influence alcohol metabolism are claimed to be the most reliable indicator of alcohol use disorders.⁷³ Metabolic break down of alcohol occurs by the enzymes called alcohol dehydrogenase (ADH) and acetaldehyde dehydrogenase (ALDH2).⁷⁴ Three types of alleles, ADH1B*2, ADH1*3, and ADH1C*1 have been identified to protect against alcohol abuse and addiction, fetal alcohol syndrome, and birth defects related to alcohol consumption.⁷⁵ ADH1B*2 and ALDH2 *2 alleles are commonly found in East Asian populations and are not found, or uncommonly found in Caucasians of European descent. The protective properties associated with the ADH1B*2 alleles include increases in acetaldehyde accumulation in the blood that produce the deleterious manifestations of mild facial flushing, headaches, and more serious symptoms

such as cardiovascular collapse, and convulsions.⁷⁶ The inability to metabolize alcohol restricts consumption for some populations by initiating severe side effects associated with alcohol consumption and therefore decreasing long-term use, disability and addiction from increased consumption.⁷⁷

The interesting correlation is that Caucasian populations of European descent who are predisposed to alcohol abuse disorder and alcohol addiction do not carry the ADLH1B*2 or ALDH2*2 alleles. Populations who inherit the protective gene allele combinations also experience ‘faster’ alcohol or substance elimination, thus further decreasing the adverse metabolic effects that are experienced by populations of European descent.⁷⁸ Additional genes such as ADH4 and ADH4-7 are also associated with increased risk of alcohol use disorder and addiction, both of these genes are commonly found in Europeans and Americans of European descent.⁷⁹

Gene Alleles that influence ‘reward, reinforcement, and cognitive effects’ of alcohol are even more complex than the genes that influence metabolism. The latest research that examined the human genome project identified almost 1,500 genes that are associated with the phenomenon of substance abuse and addiction.⁸⁰ There is also an interesting correlation between the neurobiological stress response states, as they are associated with the ‘withdrawal/ negative affect cycle of substance use disorders and addiction; these gene studies are traced to elements of stress and craving with the SNP corticotrophin-releasing hormone binding protein (CRH-BP) gene in stress induced recurrence of substance abuse.⁸¹

Through advances in technology, scientists are identifying genes that influence neurotransmission or inhibit neurotransmission by analyzing complex polygenetic influences of heritable allele combinations.⁸² The implications for practice includes advancing comprehension

of risk that can potentiate avoidance of behaviors or lead to improved understanding of predisposing substance use and addiction traits.⁸³ Additionally, the need to further evaluate the possibility that individual subjective responses to drugs of abuse may have a genetic predisposition related to psychiatric or neurobiological hyper-excitatory disorders or inhibitory disorders such as depression or anxiety, must also be considered.⁸⁴ Genetic predisposition to alterations in drug effects are known to predict future substance abuse or disinterest. Advances in recognizing the genetic influences on substance use disorders and addiction could help identify which polygenetic allele combinations could potentiate risk for individuals and families; identification of allele combinations could provide high-risk populations with the vital information that could significantly improve health outcomes for families and future generations in order to decrease risks for harms.

c. Epigenetic Influences

Epigenetics is the exciting science that evaluates how the environment and social relationships interact with biological DNA coding and responses to human lives; in the study of epigenetics we begin to unravel the mystery of how generational responses to stress, illness, and wellness influence heritability and familial lineage of suffering or flourishing. Epigenetics seeks to understand the functioning of those interactions of genes within the environmental and social constructs of relationships without changing individual DNA structures. Through epigenetic expression of heritability traces of suffering, struggle and hardships are effected from generation to generation; this is perhaps the single most essential element of understanding the complexity of dependency, substance use, and addiction as it relates to heritability of those traits.⁸⁵ It was originally thought that the heritability of genetic DNA structure was the single most component necessary in understanding the heritability of disease; however, further advances in science

reveal discovery that the epigenetic, changes in gene expression are also inherited from one generation to the next. This epigenetic inheritance progression helps to uncover how individual experiences potentiate heritability through the development of epigenetic tags; epigenetic tags can activate or silence genetic expression through processes such as methylation for as many as three to four futuristic generations.⁸⁶

The genetic expression that can be altered by environmental stimuli, such as carcinogenic exposure, physiological disease states, nutritional deficits, stress, and environmental toxins can be identified via targeted technological interpretation advances recognized in candidate gene association studies via genetic markers; gene association studies and genetic marker findings show alterations in chromatin remodeling, DNA methylation, phosphorylation and dephosphorylation of proteins are recognized as cellular processes that can contribute to the environmental and social/ or epigenetic influences of substance use and addiction disorders.⁸⁷ Understanding the physiological processes that increase the risk of heritability for addiction has the ability to alter the crippling effects of potentiation of decreased human flourishing often associated with dependency, substance use and addiction disorders; historically social constructs of thought about addiction disorders, places an unsupported stigma or blame on individuals that are classified as weakness and sin. However, the scientific, neurobiological, genetic, and epigenetic evidence indicates, that cellular vulnerability of individuals and societies are perpetuating disease related harms, just by simply isolating and ostracizing those with substance abuse disorders and addiction through constructs of marginalization and criminalization.

The physiological and neurobiological constructs of disease, the supportive genetic and epigenetic connections that link the causative impact of environmental and sociological stressors to direct pathophysiological changes within persons has great potential to change the way

substance use and addiction disorders are socially constructed and managed. The biological and cellular sequela of the hormonal response to stress states is controlled by the functioning of the hypothalamus-pituitary-adrenal axis (HPA) axis, which is part of the neuroendocrine response to a perceived threat to safety; the interesting component of the physiological stress responses is how the intrinsic cellular response is directly correlated to DNA and mechanisms of cellular expression.⁸⁸ This means that cellular regulation during stress is not equal from person to person, or from generation to generation; the HPA axis potential influences hypersensitivity to cellular dysregulation states that predispose pathological responses that potentially become leading factors for substance use and abuse, but it additionally plays a significant role in increased anxiety like behavior states during withdrawal of substance use.⁸⁹

The emerging field of epigenetics began its public descriptive debut in 2010, when *Time Magazine* announced the marvels of how environments and human choices through behaviors influenced the epigenome and genetic coding of the human species.⁹⁰ The epigenome became known as ‘the level above the gene’ that controls cell fate; this gene expression is determined by environment, nutrition, stress, and other altering factors.⁹¹ The inquiry that seeks to investigate the relationship between genetic and environmental factors has been philosophically investigated for centuries; actualization of concept application can now descriptively and objectively emerge. Present science is beginning to understand the relational causes of genetic influences and its intense interconnection with social and environmental influences; it is becoming evident within the study of epigenetics that the daunting task to fully ‘map’ the intricate relationships between genetic and epigenetic controls influencing the expression and silencing of complex cellular interactions such as human behavior will require continued investigative research.

However, the scientific research is becoming increasingly clear that biochemical determinants are associated with organism development and that alterations in central nervous system (CNS) functioning are highly affected by experience, genetics, and environmental factors.⁹² The complex interactions between experience, environment, and genetic factors are clearly interrelational in nature, confirming that the chemical reactions that activate and deactivate cellular responses are part of our heritability patterns. The scientific discoveries that are occurring in epigenetics are initiating the development of new therapeutic health interventions that seek to manipulate cellular responses in order to promote health and wellness in chronic disease management states, including substance use disorders, addiction, cancer, mental health disorders, and neurodegenerative disease.⁹³

The biochemical regulating functions in substance abuse disorders and addiction that modify the gene without altering deoxyribonucleic Acid (DNA) sequencing include the epigenetic mechanisms known as ‘DNA Methylation, histone modification, noncoding Ribonucleic Acid (RNA), and other chemical alterations of DNA molecules.’⁹⁴ The environmental influences from alcohol consumption show chromatin remodeling, histone deacetylations, and DNA methylation in sustained and chronic use.⁹⁵ Cytosine 5-methylation is the gold standard of epigenetics because it specifically regulates gene transcription.⁹⁶ Regulating gene function is called transcription and over periods of persistent change such as with administration of alcohol or persistent CNS stimulation such as stress, significant and lasting change can occur to gene expression.⁹⁷ In disorders that are associated with increased stress response and sustained sympathetic nervous system (SNS) stimulation, such as depression, post-traumatic stress disorder, and addiction disorders additional cellular changes are noted to occur through protein histone modifications, DNA methylation, and nucleotide sequencing alterations;

these alterations have been found to indicate significant changes of cellular expression that result in significant damage to human nervous system functioning.⁹⁸

Rodent studies have revealed unquestionable linkage to heritable epigenetic influences when endogenously administered alcohol is given to individual mice; similar modifications are recorded in consecutive generations. The epigenetic modifications correlate to the hypothalamus-pituitary-axis stress response mechanisms that potentiate sustained SNS responses, increased ‘ethanol drinking preferences in rodents activate the stress response and cellular changes.’⁹⁹ Additionally, the epigenetic changes to chromatin are noted with the administration of chronic dosing of benzyl alcohol in mice, which causes an induced ‘tolerance’ of the substance and ‘remodeling of cellular memory by’ transcription.¹⁰⁰ This discovery actualizes the experiential components of the previously thought to be ‘subjective criteria’ of substance abuse disorders and diagnostic guidelines. The epigenetic changes that influences behavior in patients diagnosed with substance use disorders and addiction objectively document personal thoughts, moods, and experiences.

The scientific discoveries of epigenetics potentiate improved management of care for those diagnosed with substance use and addiction disorders. The inability to isolate specific genes becomes less significant with the realization that epigenetic gene expression can provide perhaps a clearer potential in the development of new pharmacological, pharmacodynamics potentially influencing genetic modifications; understanding the pathophysiology of disease potentiates benefits of treatment intervention modifications that positively influence epigenetic changes that enhance cellular functioning and may alter the damaging effects of acetylation, remodeling, or methylation processes through purposeful and therapeutic manipulation of

epigenetic processes that seek to decrease the deleterious effects of prescription narcotic use, illicit substance use, alcohol consumption over time and for future generations.¹⁰¹

Unfortunately, transgenerational stigma often impacts not only individuals, but entire families and communities who are socially labeled or isolated, because of social constructs of deviance; generational blame is perpetuated through social perception that addiction is a defect of moral character and that decline in moral value is passed from generation to generation. Transgenerational epigenetic inheritance is proven to occur in plants, fungi, and mammals.¹⁰² Current transgenerational epigenetic inheritance research has also proven that epimutations in the human DNA occurs by multifactorial causes of impaired gene expression in cancer, metabolic disorders, neurological disorders, and mental health dysfunction.¹⁰³ Yet, the transgenerational epigenetic inheritance as it relates to substance use disorders and addiction is not a strongly understood correlation within recognizing, that risk for genetic heritability of substance use disorders and addiction meet the same rigorous scientific certitude as other transgenerational epigenetic disorders; because of negative perception. However, the polygenetic influences associated with substance use disorders, such as alcohol dependence have been well documented. However, correlating and scientifically ‘proving’ the association of the ‘inherited’ influences of gene expression and genetic imprinting due to environmental manipulations on the central nervous system’s functions as it relates to DNA expression is ‘becoming’ an expanded frontier of scientific discovery as it relates to improved understanding of mental illness and addiction disorders.¹⁰⁴

Not all genes are ‘functioning’ at all times. One of the processes that silence gene expression is DNA methylation. DNA methylation has a distinct role in substance abuse and addiction, because it ‘shows’ a chemical ‘mark,’ which takes place near ‘promoter regions of

genes;’ the correlation related to methylation near promoter regions of genes determines the degree of chemical modifications that ‘promote’ or ‘silence’ gene expression. The DNA methylation function in normal gene expression is an essential element of maintaining cellular homeostasis. However, abnormal DNA methylation can cause disordered cell ‘fate’ determination, such as in hypermethylation and tumor suppression.¹⁰⁵ DNA methylation can be influenced by environmental influences such as diet, chemicals, alcohol and illicit drug abuse.¹⁰⁶ DNA methylation has been found to be an important element of genetic imprinting for X-chromosome inactivation, and silencing of gene expression in cancer studies through hypermethylation, and similarly, the activation of abnormal silencing also occurs in regional promoter sites called CpG islands in substance abuse.¹⁰⁷ The sad truth is that hypermethylation commonly found in tumor gene suppression in cancer cells does not ‘carry’ the same social stigma implications that are associated with hypermethylation or silencing of gene expression in cells associated with substance abuse and addiction disorders.

It was previously hypothesized that genetic expression could not be heritably transmitted from generation to generation; however, transgenerational elements of learned behavioral and environmental associations are indeed evolutionarily passed from one generation to another. This transference has been difficult to trace, but complex elements of classic genetic heredity along with the predisposition to sustained stress can drastically affect family response or expression of the hyperactivity of catecholamine and neurotransmitter response to potentially harmful environmental stimuli. Increased understanding of genetic mapping, neuroepigenetic changes to adult central nervous system response, and inbred genetic strains of increased nicotine, alcohol, and illicit drug use such as opioid heritability began with the study of mice; the prolonged opioid and ethanol exposure was studied extensively in 1959.¹⁰⁸ As a result, implications from the

research studies have continued to develop. Consequently, in 2002 research initiatives sought to parallel mice and human genome mapping in an attempt to compare DNA methylation, gene expression, and ‘lasting’ heritable consequences in developing risk for substance abuse disorders.¹⁰⁹ Because of the noted consequences related to changes in behavioral and societal isolation in the mice, application of human discrimination, as it related to the inbred breeding of rodents helped collect data that supports that both genetic and epigenetic transgenerational data collection is relevant in identifying significance of increased generational risk for substance abuse that includes heritability of responses.¹¹⁰ Transgenerational familial risk for substance abuse and addiction is also associated with pre-existing or increased development of conditions such as depression, anxiety, panic disorders, that can lead to suicide, chronic liver failure, hypertension, hyperlipidemia, and cancers.¹¹¹ It is evident that the genetic and epigenetic phenomenon of substance use disorders and addiction can be heritability transmitted from one generation to another; however, the replication of specific heritability of epigenetic factors continues to require further analysis to assist in the cumulative power to target prevention strategies, implementation of treatment modalities to decrease the deleterious consequences of abhorrent methylation and genetic expression that increases individual and generational risk.

2.2 Social Stigma of Addiction

Stigma is a construct of belief that identifies individuals or groups of individuals with socially contemptuous qualities; stigma is sociologically associated with exploitable components of isolation and discrimination; the social stigma of addiction considers substance abuse and addiction as a rational choice, as individual weakness to the vulnerability of pleasure seeking vice, and therefore demanding moral and social culpability. Stigma has its evolutionary routes in culture by labeling individuals as being different; therefore, justifying their removal from the

community.¹¹² Excluding and isolating those who exhibit undesirable behaviors and characteristics within social structures has a rich historicity; the development of such practices are responses to physical and emotional differences, fear of social disruptions, and fear of harms to others within the community because of the potential for disease transmission.¹¹³

Stigmatization also occurs within societal structures when people are perceived as different or potentially harmful to the group. Stigmatization is projected toward another person when they are considered morally weak and vulnerable to sin and wrong doing, which greatly increases individual stress, perpetuates a negative self-worth and ruins one's personal identity and reputation.¹¹⁴ Additionally, social constructs of stigma are associated through the lens of the linguistics that describe individual character flaw and sin. Historically, conditions such as leprosy, infectious wounds that did not heal, organ and systemic infection states were perceived disdainfully for the persons who were afflicted, in fear that the physical condition would also harm others. This philosophical approach to illness states subjected increased vulnerability for individuals because of fear and 'unknowing'; applying constructs of sin and blame for unknown circumstances, invoked escalating images of fear, isolation, and stigmatization for those afflicted with disease states. Therefore, practices of isolation, and separation from social groups began invoking dehumanizing qualities of personhood to those who were afflicted, ill, or suffering.¹¹⁵

Stigma abhorrently, devalues the intrinsic dignity of a human person. The devaluing, or the deconstruction of human worth, places negative labeling or scaring upon those with substance use disorders and addiction as a disorder inflicted by choice due to character flaws, which are fully controlled by or within a person; however, isolation, labeling, and dehumanizing individuals potentiates the acceleration of vulnerability within social groups. Separation and alienation of persons outside of community greatly contributes to power imbalances, exploits the

labeled, and perpetuates the neurobiological stress for those at risk for the transgenerational harms with a single exposure to substance despite genetic risk of heritability in combination to the negative effects of societal culpability to entire family lineages, which increases potential suffering for many generations.¹¹⁶

Social stigma is closely associated with discrimination, social salience, perceived negative characteristics, labeling, and status loss; historical treatment for those who have substance use disorders and addiction has cultural and historical significance because it portrays the associated stigma that has inflicted millions of persons throughout the world.¹¹⁷ The ‘War on Drugs’ further exacerbated the justification for stigma by declaring moral culpability that projected disdainful reproach toward those diagnosed with substance abuse disorders and addiction, further spoiling personal identity and marginalizing populations who were routinely associated with illegal drugs, illicit drug use and addiction.¹¹⁸ Perhaps, one of the most poignant contribution of stigmatization toward one another is the creation of fear directed toward one-another; fear is a natural part of human living and it occurs whenever one’s safety is threatened or perceived to ‘be’ threatened.¹¹⁹

The ‘War on Drugs’ inflicted fear in the American people, it inflicted fear of individuals who did not use drugs and it inflicted fear in those who already had substance abuse problems. Fear was inflicted in people who ‘use’ drugs, because, now they were unable to publically ask for help for fear of incarceration; the current criminalization of persons as a result of illicit substance use continues to isolate communities, perpetuating barriers that impede social responses to care, and often times accelerates the perception that there is ‘nowhere’ to turn for help. Public health initiatives, acute care education initiatives, public policy and community outreach should seek to promote policy formation that eliminates fear and stigmatization.

The human tendency to protect oneself and other members of one's community has evolutionary characteristic roots, which seek species preservation. The 'War on Drugs' was initiated as a moral imperative with the overarching goal to stop the continued use of addictive substances that causes physiological harm to individuals and populations; hence, its intention was to avoid the enormous consequences associated with the harm of drug use. Unfortunately, by inflicting fear and strong emotions of negativity to individuals, the War on Drugs' invoked upon the heartstrings of American citizens resulted with development of deep, personal, and moral convictions that substance use disorders and addiction was an of absolute moral wrong doing and completely preventable through responsible action of individuals versus public policy implementation.¹²⁰

Escalation of fear as a result of the effects of drug use within communities also have historical impact on perception of increased crime in communities, escalation of compulsive behavior to escalate violence and death. The 'War on Drugs' criminology approach to substance use disorders and addiction incorrectly constructs the moral view of blame, versus the understanding and knowledge that substance use alters normal and intrinsic neurobiological, genetic, and epigenetic reward pathways through neurocircuitry mechanisms not previously understood; applying the relevance of deontological ethics, virtue/ vice ethics, and consequentialism, unknowingly and harmfully influenced the loss of millions of lives.¹²¹

The narrow view that blames and stigmatization individuals through this moral viewpoint increases elements of fear and further isolates members of the community from adequately developing policies and treatment interventions that could help eradicate the exponential crisis of substance use disorder and the transgenerational progression of severe and devastating harms.¹²² Consequently, inflicting fear, marginalization, and stigmatization does not decrease the

perpetuation of substance use disorders; nor did fear and marginalization ever decrease the transmission of communicable diseases, decrease the development of mental illnesses, cancers, skin disorders or any other associated human vulnerability states.

During a European study that sought to objectify the elements of stigmatization of persons who were diagnosed with alcohol substance use disorders, lay population opinion surveys were assessed to evaluate the perception regarding the ‘believability’ of substance use disorders or addiction as an authentic disease state; participants ranked strong emotions such as irritation and anger as a common response to the repulsiveness of substance use disorders and addiction.¹²³ Across all populations, study participants were unable to disassociate the pervasiveness of individual blame projected onto the addict and they reported, that they had a strong desire to ‘create’ a significant social distance from those who suffered with substance abuse disorder and addiction.¹²⁴ Victim blaming is also a common response of healthcare providers to individual patients during acute substance withdrawal complications, chronic health related to substance use or mental health consequences; the study significantly identified that it is difficult for the general populations to understand that genetic factors, environmental factors, and societal factors all interplay as causative agents or causal responsibility of the complex nature of substance use disorders.¹²⁵

Advanced education is necessary in distributing knowledge to healthcare providers and to the public that ‘victim blaming’ is not an effective way to decrease the deleterious effects of health and social consequences associated with substance use disorders and addiction. Additionally, recognizing that environmental influences, laws, and fear can also further discriminate, stigmatized and isolate vulnerable populations from acquiring the help that they need is essential.¹²⁶ Education should be disseminated to the public, so that societal influences

that further impair recovery, or prevent identification of health determinants of diseases, including comorbidities of disease will not be ignored.¹²⁷ To individually blame people versus impact of community systems and societal constructs of relationship deters the implementation of public health interventions that can seek to improve lives and remove vulnerability of harms.¹²⁸ An ethics of care requires implementation of a substance use disorder and addiction management of care framework that publically helps the stigmatized and acts in assistance by provide hope for the disenfranchised, and the marginalized.¹²⁹ It envisions empowering children, families, and generations through education initiatives related to genetic predisposition risks and the epigenetic influences that decrease substance use disorders, by decreasing vulnerability, isolation and stigmatization and recognizing that addiction management of care supports realistic options for relational and community participation toward a comprehensive societal health wellness plan for everyone, despite risk through the deconstruction of the myth that substance abuse and addiction is influenced solely as a disorder of rational choice .¹³⁰

a. Addiction as a Rational Choice

In an attempt to prevent the deleterious physical and social effects of illicit drug use and substance use disorders, governmental law attempted to remove the autonomous rights of individual citizens to legally consume drugs such as heroin and cocaine; although legal permission is granted for the usage of nicotine and alcohol, it is questionable whether those who have a substance use disorder or are have physiological addiction to substances truly have the capacity to freely choose usage.¹³¹ The very definitions that classify substance use disorders, clearly indicates that some persons do not implicitly have person control to ‘stop’ the pathophysiological processes of addiction. Within the past few decades, recent laws have lifted strict prohibition of marijuana in states such as Nebraska, Alaska, and Colorado; many other

states also permit medical marijuana use. The process that decriminalized use of marijuana is an initiative sought to decrease the escalating costs of incarcerations and to permit autonomous rights of individuals for recreationally consumption of select drugs.¹³²

Additionally, Douglas Husak as a proponent of individual ability to autonomously decide whether or not personally one would ‘like’ to consume certain drugs for recreational pleasure agrees with developing social utility contracts that seeks to restrict the unlimited use of certain drug consumption, but openly providing an option, while setting restrictions on consumption in order to prevent harm to society.¹³³ According to the Report of the Global Commission of Drug Policy on the War on Drugs, decriminalization of marijuana or cannabis does not increase cannabis consumption, crime, or societal harm.¹³⁴ Additionally according to the report, most people who consume drugs are not amoral citizens; therefore, it was seen as unrealistic for societies to treat all substance users and producers of drugs as criminal masterminds.¹³⁵ Therefore, a comprehensive analysis of public health principles would be necessary in evaluating if the rights, which include individual autonomy within a universal framework of regulation should necessarily restrict global permissibility of free and autonomous consumption of drugs, despite ‘knowing’ the risk of the cyclic chronicity of harms that alters neurological functioning.¹³⁶

Substance use and addiction is often associated with the ‘perception that the ‘ability of individuals who desire or ‘will’ the cessation of substance use, once substance use is initiated is problematic for those with substance use disorders and addiction. The person often times verbalizes the desire to ‘stop’ but autonomously has difficulty, understanding the cravings and negative emotions that propel continued use; this dichotomy of self was described in ancient Greek and Biblical writings with the inordinate consumption of alcohol for some people.¹³⁷ This

dichotomy or tension between the will and the self, identifies neurobiological mechanisms that describe the alterations within neurological pathways, which fuels the dichotomy between will and action; the neurobiological traits hijack neurological reward pathways, coercing the will to use despite explicit expression of distress.¹³⁸

The American Psychiatric Association (APA) and the American Society of Addiction Medicine (ASAM) identify dependency as the first stage of addiction that adheres to the following criteria: A.) Uncontrollable craving and inability to stop using substance; B.) Onset of physiological anxiety for substance; C.) Symptoms persist over time and reoccur over time for substance; D.) Substance abuse, addiction and dependency require long-term management of care, and like other chronic disease states, substance use disorder, addiction, and dependency is never cured.¹³⁹ Dependency, substance use disorders and addiction are classified as chronic spectrum disorders or conditions, which are considered a primary disease of the brain that impairs memory, executive cognitive functioning, and reward neurocircuitry.¹⁴⁰ If substance use disorders and addiction are freely chosen and societal constructs of addiction is to perpetuate, how is it that social policy and social constructs of blame, can completely reject the diagnostic criteria that explicitly expresses the disorder as a primary disease state that impairs memory, impairs neurological functioning through disruption of executive pre-frontal cortex cognitive functioning and therefore impairs neurocircuitry.

Unfortunately, since the recognition of the scientific community's specific criteria for dependency, substance use disorders and addiction as processes of known neurological impairment states of impaired-rationality processes, the cultural and societal constructs of addiction continue to perpetuate the global perception that substance use disorders and addiction remain individually blameworthy as if authentic decision-making processes were intact; the very

idea that purposeful and normal executive decisional functioning occurs through the autonomous ability to independently and consciously act freely, even though the devastating biological reward circuitry malfunctioning is evident through allostatic brain pathology, incorrectly labels and marginalizes millions of people, contributing to the exponential rise in poor management of care for those with dysfunction.¹⁴¹ The socially abhorrent opioid epidemic clearly illustrates the gross neglect of our social response to the epidemic.

Recognizing that the essential components of conscious decision-making include the proper functioning of neurological pathways of cognition that do not impede decisional-capacity is increasingly evident. In an attempt to further accelerate management of care initiatives, this dissertation asserts to illuminate the parallel that substance use disorders and addiction criteria meet as a neurocognitive dysfunction. Alterations in cognitive neurological dysfunction is identified by the American Psychiatric Association (APA) as neurocognitive dysfunction that occurs in specific or regional domains of the brain that alter the brain's functioning; substance use disorders and addiction pathology identifies dominant changes in the brain's basal ganglia, extended amygdala, and the prefrontal cortex, through alterations in neurocircuitry.¹⁴² Conscious decision-making requires capacity to make autonomous choices, while being able to decipher the pros and cons of the trajectory of particular decisions; yet, those who succumb to the physiological trajectory of substance use disorders and addiction often verbalize consistent desire to cease usage of substance, without the capacity to do so.¹⁴³

Determining decisional competency in healthcare requires providers of care to assess the cognitive functioning of individual patients; this task becomes particularly challenging when patients are diagnosed with substance use disorders and addiction and exhibit correlating manifestations of neurodegenerative and neuropsychological disease processes; because of

elements of stigmatization and oversight the overshadowing of believing that the person willfully brings harm to self through consumption of substances are grossly overlooked. The scientific evidence recognizes that individual competency fluctuations and inconsistent cognitive abilities maintain unpredictable variability in decision-making for those with substance use disorders and addiction; yet, application of sliding scale decisional capacity assessments for those with substance use disorders and addiction is rarely, if ever identified, examined, or applied.¹⁴⁴

The ability to make rational choices requires the ability to execute proper executive functioning pathways dependent upon homeostasis of neurobiological functioning through coordinated neurocircuitry pathways from the regions of the brain including the prefrontal cortex, amygdala and basal ganglia.¹⁴⁵ The progression from homeostasis to the neuro-adaptive allostasis states within substance abuse and addiction dysfunction is extensively discussed in the neuroscience of addiction and substance abuse through the complex processes of neurochemical dysregulation noted within the brain; the brain's ability to normally regulate stress and reward circuitry mechanisms is greatly impaired for those with substance use disorders and addiction. Therefore, insisting that antiquated and inaccurate social constructs of 'free will' and rational choice in substance use and addiction states is unwarranted; to continue viewing decisional states as rational and freely chosen, as implemented in the criminal models of culpability, further comprises the reality that addiction meets the criteria of neurocognitive impairment and therefore, cannot justify that actions are a direct result of a person's free will or free choice.¹⁴⁶

Substance use disorders and addiction, predispose individuals to the divergent ability to respond and choose against preferential actions through cue triggered environmental stimuli that result in systemic errors of brain responsiveness, and oppositional behavior as a result of

opponent cue induced motivational processes.¹⁴⁷ Additionally, compulsivity perpetuates unintentionality; research indicates that similar patterns occur with systemic errors of habituation influencing semi-automatic responses, for people that increase the risk for poorly forecasted short-term outcomes even in normal habitual actions..¹⁴⁸ A ‘hedonistic forecasting mechanism’ theory founded within the study of economics, articulates how mechanisms of behavior occur for individuals in relationship to past experiences and similarly experienced situations; additional neurotransmitter dysregulation alters motivational behavior.¹⁴⁹

An example of non-substance abuse induced ‘poor forecasting responses’ due to one’s habitual behavior responses include the brain’s patterns or actions that disregard the ‘knowledge’ of which side of the road a person is driving on when driving a car in the United States, versus the United Kingdom; drivers, while on opposite ‘sides’ of the road, will seemingly choose an action in an attempt to avoid harms, while reacting as though they are on the opposite, more habitually familiar side of the road, despite ‘knowing’ and ‘understanding’ that they are driving on the opposite side of the road. The theory, articulates that people will consistently and inaccurately assess risks from oncoming traffic, in response to habituated and reactionary functioning of past driving experiences, despite knowing that the opponent action results in risk when facing oncoming traffic; reacting from past experiences of driving ‘hijack’ one’s response.¹⁵⁰ Opponent motivational processes of addiction and habitual reactionary mechanisms associated with the dysregulation of substance use disorder and addiction increases vulnerability of harms to those affected by the neurobiological attempts to restore homeostasis; reduction of these harms requires the reconceptualization of addiction as moral weakness and moral culpability. It is truly an illusionary and unfounded presupposition regarding those affected by substance use disorder and addiction

b. Addiction as Weakness and Vulnerability

Although monumental scientific discoveries indicate that substance use disorders and addiction disorders are physiologically associated with neurological brain pathology and altered functioning as evidenced by chemical dysfunction, neurotransmission dysfunction, and neurocircuitry dysfunction, the commonly held perception that addiction is a construct that strongly presupposes an individual is solely blamed for wrongdoing because of intrinsic character flaws as evidenced by their personal failures and circumstances, places this population at an exponential risk for harm and vulnerability.¹⁵¹ The concept of social stigma related to excessive substance use and misuse has been significantly associated with the moral model theory that labels individuals culpable for the dysfunction. This theory compares virtue and vice associated with individual will and action that correlates discourse semantics through associated alcohol consumption terms, such as wretchedness, vice, or pagan trademarks, which only serves to further increase individual harms through societal disconnection and discrimination.¹⁵²

Semantic descriptions that closely correlate all human actions in terms related to virtue and vice are referenced in the Gospels of Mathew, Mark, Luke, John, and the Pauline Letters within the New Testament.¹⁵³ Original Christian writings can be translated from Greek words or phrases through English interpretations that include; drunkenness, debauchery, drunkard, drunken, given to strong drink, drunken dissipation, or drunken nausea.¹⁵⁴ The historical translations become significant, as concepts develop to include acceptable or unacceptable norms of socially ethical behavior. The social ethics of behavior include concepts regarding 'extreme good,' love of neighbor, and rightly ordered actions versus extreme 'bad' causing societal harms associated with wretchedness of individuals have strong moral consequences.¹⁵⁵ Associated societal norms correlated societal goods by eliminating perceived causes of conflict through

discrimination of or removal of potential harms, this included discrimination of persons inflicted with disease, infectious disease states, and mental health disorders.

Public perception of substance use disorders still hold a dominant ‘individual blame’ ‘construct’ or conceptualization; hence, causing a societal tension in relation to the genetic and disease model perspectives. Common public opinion blames individuals for addiction without accepting social or genetic recognition of the progression of the disease state, which also contributes to increasing vulnerability.¹⁵⁶ Social stigma associated with substance use disorders and addiction remains a prominent perspective in contemporary American Culture. Vulnerability by continuing practices that promote stigma, include disqualifying people as ‘whole’ or devaluing members as unacceptable members of the community; people who are stigmatized for substance use disorders and addiction continue to be socially excluded, labeled or marked as abhorrently different and dangerous, and therefore experience social power imbalances and health disparities that exponentially increase vulnerability.¹⁵⁷

Current research clearly indicates that substance use disorders and addiction are not perceived as a ‘mental health conditions’ or ‘physiological dysfunction’ by individuals within society, which is specified by the World Health Organization (WHO) and DSM-V’s categorization of substance use disorders is a chronic health condition; public opinion regarding individuals who are diagnosed with substance use disorders and addiction are still assigned moral blame, considered weak willed and held directly responsibility for their condition. Substance use disorders are socially stigmatized against, being labeled as an abhorrent condition, socially disruptive, and requiring punishment. Individuals diagnosed with substance use disorders are stereotyped as being unpredictable and dangerous, therefore they are socially distanced and rejected; individuals and families remain hidden in fear of rejection and

criminalization. Public policy continues to allow for dominant organizational and structural discrimination against those diagnosed with dysfunction.¹⁵⁸

Dysfunctional use of substance was associated with drinking to insensibility; the temperance movement sought prohibition and complete ‘abstinence of drink as opposed to marginalization of family members.’¹⁵⁹ The paradoxical Christian association of ‘sin’ soon began to be associated with even moderate uses of alcohol. The ‘concept’ of ‘wrong doing’ and weakness continues in contemporary moral and ethical constructs of alcohol and illicit substance misuse. The early Christian traditions have shaped legal systems and policy development, assigning blame on those who are in legally contempt of the social mandate, through social culpable standards; however, legal culpability has been translated into absolute discrimination. It is time to apply a renewed cultural understanding of substance use disorders such as alcohol, prescription pill epidemic, and illicit drug misuse; it is time to decrease vulnerabilities by seeking the implementation of interventions that seek to restore the intrinsic dignity of those stigmatized by restrictive and demeaning philosophical views.

The moral model examines the nature of addiction by incorporating a philosophy that presupposes that individuals voluntarily choose addiction through individual fault, moral weakness and culpability.¹⁶⁰ This concept was formulated because the decision to drink or not to drink begins was thought to be a conscious decision to consume excessively, despite harm to self and others. However, current neuroscience clearly documents that certain individuals due to genetic influences are vulnerable to severe physiological consequences. In early Christian thought, drunkenness is perceived as a desire that overpowers individuals or overpowers the will; its historical relevance is noteworthy because of the social influences of thought that continue to mold the conceptual theory of dependency remains strongly recognized as weakness in present

times.¹⁶¹ The increasing evidence that supports the medical model of substance abuse disorder and alcohol use disorders as relevant disease states, summons the need for the development of a new moral model for addiction management; the old model, which assigns blame and culpability, no longer has objective findings to support the relevance for further scientific validation.

Therefore, a new moral model must carefully be implemented to counter the negative consequences and vulnerability of disease, the increased social discrimination, marginalization, and the suffering that resulted in social disparities, decreased access to healthcare coverage, legal criminalization and social exclusion only served to increase transgenerational vulnerability and harms.¹⁶² Hence, the new moral model must influence a new paradigm of care for those restricted by neurobiological disease states. The moral model should encourage implementation of reflective and forgiving paradigms of care that empower wellness for those who suffer from substance use disorders and addiction; in this capacity, the new moral model may enhance the disease model of addiction by embracing the imperfections of the biological plights of the human condition that define all human vulnerability.¹⁶³

Consequently, the moral tradition contributes to the vulnerability of human nature by explaining the tensions of dependency through thought, will, and action.¹⁶⁴ Genetic, epigenetic, and transgenerational scientific discoveries may further help explain and uncover the evidence that supports the elements of substance use disorders that simultaneously occur because of genetic predispositions, which actualize the division of self and will.¹⁶⁵ Unveiling the contributory causes of substance use disorders and addiction through genetics, epigenetics, and transgenerational contributions of disease may help provide improved paradigms of policy

development and improved access to effective medical interventions that obliterate moral blame, empower recovery, and enhance societal support.

Societal responsibility should recognize that participatory social and environmental influences that have increased vulnerability for those with increased risk, by culturally promoting substance use, such as alcohol and prescription drug use within community structures, while governments, and public policy continue to ‘blame’ individuals almost exclusively without carefully examining the elements of interrelationality and social responsibilities of collective participation of vulnerability. An acceptable and responsible societal framework of substance use disorders and addiction management of care should seek to discontinue personal blame and stigma that persists for those who suffer the physical and societal consequences of substance use disorders. It is no longer acceptable to isolate persons who are negatively affected by abnormal consumption responses.¹⁶⁶ The vulnerability associated with current substance use disorders and addiction requires a closer examination within the bioethical discourse.

Vulnerability of persons with substance use disorders and addiction meet the elements of vulnerability, meaning that they have been exposed to both internal and external stressors that presuppose threats to internal biological functioning and perpetuate external threats of exclusion and isolation, despite decreasing ability to care for self; additionally, persons with substance use disorders and addiction experience a decreased ability to cope with both internal and external stressors, as demonstrated with decreasing resiliency and chronic progression of dysfunction, when left to individual devices.¹⁶⁷ Therefore, recognizing that substance use disorder and addiction increase vulnerability for individuals through the acknowledgement that the dysfunction violates almost every component that strengthens human connection and individual actualization through relationships with supportive and relational community constructs of care.

Peter Block, brilliantly writes about the opposite of vulnerability, which increases strengths of individuals within community, when he writes about the elements of the abundant community and the structure of belonging; by describing the strength of restorative communities, which focus on the gifts of individuals, embraces the power of possibilities in relationship, believes in the power of language as valuable discourse with one another, and seeks the transformative power for individuals within community that provides the hope of individuals and individuals collectively through relationships.¹⁶⁸ Human vulnerability need not be regarded as a negative experience, when vulnerability promotes and motivates human responsiveness, and actions that include reciprocal care of the other, collaboration and connectedness.¹⁶⁹

c. Moral and Social Culpability

The political, social, and religious viewpoints have historically shaped the language of culpability of substance use disorders and addiction in present day perspectives.¹⁷⁰ Application of semantics that assign sin and moral culpability, assert the need of punitive societal consequences, which declares a war on drugs; this philosophical approach places a clear blame and culpability on the individuals as if the person with substance use disorder and addiction were a fully functioning moral agents. However, the person with substance use disorder and addiction dysfunction distinctly do not meet the qualifications, which are necessary to meet a comprehensive and rational moral agent.¹⁷¹

Moral agency requires a person's ability to reason, an ability to use past experiences as a guide in decision-making, and the moral agent must have the ability to freely choose actions, while being able to know the long term consequences of their actions; the continuum from dependency, to substance use disorders and addiction greatly impairs neurological executive functioning ability and sustains volitional disability.¹⁷² Volitional disability, means that the

person is unable to freely choose or resolve a problem; substance use disorders and addiction disempowers the agent from freely resolving circumstances alone, the agent needs relational support. Placing unfounded culpability and perpetual blaming of individuals upholds the seemingly never ending cycle of social isolation and disconnectedness that predisposes continuous human vulnerability within the cycle of addiction; substance use disorders and addiction remain perhaps one of the final disease state associated with polygenetic, pathophysiological, and psychological destruction, which is still considered to be a sin. As a consequence, life expectancy in the United States decreased significantly as a result of unnecessary opioid overdose deaths as noted in the 2016 statistic report results. More human life was lost in one calendar year, then during the entire US Vietnam conflict; yet management of care for this vulnerable population continues to stigmatize and label the individual as sinful and thus worthy of physiological harm, dysfunction and death, versus implementation of compassionate action that aims to end human suffering through components of care and connection.¹⁷³

The philosophical perspective of drunkenness and gluttony as it is identified in the New and Old Testament writings and references, describes such actions as sinful, because the actions separates one's relationship from self, others, and God; interestingly enough, the moral snap shot of culpability, requires an in-depth analysis of one's intentions and circumstances, as they precipitate one's actions.¹⁷⁴ It is never the intention of an individual to become paralyzed by the sequential dysfunction of addiction; no one ever claims, "I want to be thrown into the cyclic dysfunction of addiction and harms in my life." Populations that are at most risk for dependency disorders, are almost always those who have experienced, discrimination, abuse, displacement, trauma, genetic and epigenetic susceptibility; most notably those, whom have lost their cultural

connectivity and disruption of family support are amongst the highest at risk for substance use disorders.¹⁷⁵

At risk populations include immigrants, children born into poverty, children who have been abused, African Americans, Native Americans, families of holocaust survivors, and the aboriginal people of Vancouver Canada all have increased risk for anxiety disorders, addiction disorders, diabetes, and stress related neuro-immune inflammatory diseases; additionally the modern socio-political commodification of institutional systems, the breakdown of the extended family, the disconnection of communities and cultural ties, and extensive emphasis on autonomous living versus community life, places enormous risks to everyone.¹⁷⁶ Assigning or placing individual blame and culpability, without considering the scientific evidence that sadly perpetuates the unhealthy societal state of circumstances, refuses to consider the inherent dignity and care of the other and places the culpability on the lack of social action, despite ‘knowing’ and having access to evidence and freely choosing to ‘stay’ disconnected and detached; thus, refusing to assist those who are most vulnerable.

In order to reduce national and global consumption of addictive substance use, one must first investigate an in-depth analysis regarding the societal causes that shape the perception of addiction. Evaluating the historicity and perception of social policy and law formation can help implement-rectifying solutions to previously applied social standards that marginalized and stigmatized entire populations who suffered from addictive disorders and substance abuse.¹⁷⁷ As previously discussed addictive disorders are most popularly considered through the lens of the moral model of addiction; this model perceives addiction as a problem of an individual’s poor choice and culpability.¹⁷⁸ However, the scientific literature and research progressively understands addiction disorders through medical and genetic influences of disease that clearly

results in severe brain dysfunction. Management of brain dysfunction requires medical standardized intervention strategies aimed at harm reduction. Health systems must influence improved management of care for those who suffer from substance use disorders and addiction by offering real world interventions and solutions. Health solutions must potentiate decreased drug consumption nationally through education initiatives, prevention strategies, and radical change processes, which allow transformative potential to manage pathology; hence, changing legal system processes that inhibit reformation and inhibit the development of improved models of care.

Implementing a public health discourse that accurately assesses addiction requires a ‘reframing or re-description of the problem’ by evaluating the rights of individuals while simultaneously evaluating the consequences that criminalization has for individuals and entire communities.¹⁷⁹ By utilizing a combination of an ethics of care, public health principle approach, combined with health management outcome processes, which seek to implement and evaluate measures that ensure transformative solutions for substance use disorder cares, a holistic reestablishment of real world solutions becomes the imperative.¹⁸⁰ By applying Upshur’s public health principles approach through the classic lens of virtue and care, a framework of addiction management that actualizes Mill’s Harm Principle, through sliding scale capacity assessments, a transparent, minimally restrictive and coercive means, with the goal of reciprocity can be actualized.¹⁸¹

Hence, the new health care framework must comprehensively evaluate and mandate collaboration amongst disciplines while correlating the components of the substance use disorder and addiction triad, which recognizes the applicability of scientific evidence as the motivator that seeks restoration of dignity, seeks the respect of individuals and communities, while also seeking

the hope for healthy social environments, that advocate for decreased access to unmonitored substance use. This framework accepts the construct of social culpability. Therefore, it cannot occur solely as a medicalization framework attempt to reduce the risk for patients, separate from a universal framework of social responsibility; it must seek the understanding of an ethics of care framework that extends into every aspect of contemporary life through grassroots initiatives that educate individuals, families, communities. Initiatives of care seek understanding and collaboration amongst all members of society, including individual persons, organizational systems, schools, university campuses, universal places of employment, with the intention that private and government health care insurance providers cooperate in health improvement outcomes as well.

Therefore, making the important distinction between two types of public health initiatives is necessary in order to apply the appropriate and ethical planning in the management of substance use disorders and addiction risk reduction strategies. The first action recognizes that the moral model of addiction theory must reframe from assigning responsibility of exclusiveness on the ‘agent’ as the primary cause for the nation’s substance use disorder problem; assigning individual blame increases human vulnerability because of a refusal to recognize the essential components of societal and relational culpability. Second, a new moral theory based on an ethics of care must initiate transformative social and scientific responsibility to protect vulnerable populations from preventable disease through strategies that seek to protect the most vulnerable from increased risk. Teaching resiliency and health coping strategies through relational networks of support becomes a community endeavor that requires relationship. This dissertation asserts that an implementing an ethics of care framework is the relevant solution to fundamentally repair harms associated with decreasing the social constructs of harm, such as industrialization,

immigration and dislocation that contributes to the current national and global substance use disorder and addiction epidemic.

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Chapter 3 Ethics of Care

Early constructs of care and caring were articulated by the philosopher and professor, Milton Mayeroff, in his work, entitled: '*On Caring*' in 1971. Mayeroff stated that caring is 'helping the other grow and progress in some way.'¹ Caring is a process, which is active, courageous, patient, trusting and hopeful; an ethics of care places normative ethical action within structural and reciprocal relationships that move toward wholeness of the one who is cared for and the one who is the caregiver; caring manifests itself through reciprocal and relational behavior.² Moral agents of care recognize that the values and actions of care seek avoidance of harms, while also seeking benefits to others through responsive action; the aim is to influence individual behavior that optimizes human potential and flourishing, versus unbalanced dependency or dependent behavior.³ Consequently, seeking reciprocal relationships actualizes the importance of activating the optimal potential of all persons.⁴

The universal and ontological 'knowing' of care exists in the heart of understanding that human potential is reached in relationship and not in isolation or separation from relationship; the narrow focus of absolute individualism only enhances vulnerability for those with physical and cognitive dysfunction potentiates dependency for survival upon others; concurrently, relational autonomy, inter-dependency and care empowers individual protection and flourishing.⁵ Normative constructs of care recognizes that moral agents are not always autonomous, independent and self-sufficient; therefore, a careful analysis of human vulnerability and dependency is necessary in order to comprehensively evaluate how caring actions potentiate a decrease in harms, a decrease in discrimination and decrease in the exploitation of the most vulnerability.

An ethics of care recognizes that each person has intrinsic worth and purpose within society and an ethics of care places the value and giftedness of each individual as meaningful, despite physical disability, weakness, and dependency.⁶ Vulnerable populations should possess the same rights within culture and democracy, as those who write the laws; care understands that through the intrinsic act of knowing, that marginalization and discrimination can occur as a reflection of fear within societal constructs that misrepresent the marginalized or the underserved.⁷ It also recognizes that the pursuit of personal actualization is always achieved within relationships; therefore, personal bondage or social constructs of dependency can be created as a result of relational and societal dysfunction.⁸ Patients who suffer from addiction and substance use disorders, are afflicted with neurocognitive and physiological dysfunction that results in multidimensional dependency states; they are afflicted with a physical dependency, social, and economic dependency, which manifests itself through increasing sociocultural disparity.⁹ Research strongly supports that the progression of deteriorating social constructs of support for those with substance use disorders and addiction substantially increases vulnerabilities and harms for those who suffer.¹⁰

In health care settings and within the public health arena, those who are labeled as the most vulnerable or as underserved populations, are associated with a culturally negative construct of dependency upon others; this dependency as it relates to determinants of optimal health or holistic wellbeing, presupposes that the vulnerable and dependent person, requires essential information and services through the skilled care of a ‘professional’ other.¹¹ Vulnerability, for those with substance use disorders, is magnified through the intrinsic and complex social effects that result from criminalizing and isolating those with addiction; consequently, the isolation and labeling induces shame, guilt, and stigma, which further threatens

physiological health, individual identity, autonomy, and self-actualization.¹² Those labeled are particularly vulnerable to the perpetuation of the physiological, societal and environmental consequences that perpetuate epigenetic influences of heritability and suffering, for self and for future generations.¹³

An ethics of care seeks to decrease harms, exploitation, and vulnerability through the incorporation of human values, such as connectedness, attentiveness, responsiveness, responsibility, competency, wisdom, empathy of the other; therefore, seeking to decrease the generational harms associated with substance use and addiction.¹⁴ Seeking a new paradigm of care, which embrace the values of care is essential to reverse the trajectory of societal harms. Recognizing that human flourishing occurs through relationship and human potential is achieved through reciprocal interactions with one-another; therefore, aiming to increase human flourishing and decrease human harms associated with the vulnerability and frailty of societal consequences and individual neurocognitive dysfunction related to addiction is essential.¹⁵

An ethics of care focuses on the empowerment of all individuals, especially, the most vulnerable through communities of care and relationships.¹⁶ An ethics of care considers the particularity of the other, not the hierarchical placement of worth of individuals through stringent and rigid rules and rights, but rather in a participatory and relational context where responsibility and connectedness are valued indiscriminately for all members.¹⁷ Hence, making an ethics of care an essential ethic in the management of those who struggle with substance use disorders potentiating the essential elements of reconnection and healing. The bioethical discussion that incorporates an ethics of care framework seeks to integrate the normative and universal standards of care that envisions ‘care’ through a ‘mature’ lens; care through this ‘mature care lens’ stresses that it is not a one-way or unilateral directional action.¹⁸ Rather, it is behavioral action, which

occurs reciprocally, which seeks movement and actions that are similar to a dance that requires coordinated movements and partnerships.¹⁹

Mature care, may initially appear unbalanced between the vulnerable and the professional; however, an ethics of care, truly seeks transference of knowledge and the development of positive coping strategies that actualizes the potential of the one who is being cared for. Mature care recognizes the giftedness and value of each member of the community. Additionally, mature care does not demand selfless sacrifice of the care provider that is self-negating to the care provider.²⁰ Rather, an ethics of care, recognizes that the intrinsic dignity of each member of the relationship requires essential action that decreases vulnerability, decreases dependability and decreases weakness through the redevelopment of the 'other' through interdependency that values authentic relationships; this can be accomplished by decreasing the likelihood of known vulnerability development associated with addiction.²¹ Authentic human autonomy is not achieved through absolute independency and in isolation; but rather through the strength of healthy and caring relationships. Responsible qualities of mature care are achieved through qualities of responsive reaction, development of responsibility and wisdom, and while remaining attentive to the intrinsic dignity of persons through qualities of responsiveness and attentiveness that projects the hope and competency of all human potential.

3.1 Autonomy and Relationships.

The physiological nature of all human survival recognizes the need for support of family and community; despite this fundamental understanding of the importance of relationship, western civilization, liberal democracy and patriarchal societies, free market industrialized nations have wrongly placed the priority emphasis on individualism and the rights of autonomy separate from community and relationships.²² An ethics of care recognizes that the nature of

human thriving occurs not only within power structures of escalating dominance that separate individuals; but rather, through relational social structures that unite individuals into communities of supportive and relational interactions.²³ Relational social structures place the care of the ‘other’ as a central concept that aims to strengthen the intrinsic value of each individual person within a community, versus isolation and neglect; ultimately, an ethics of care ideally enhances the behavioral responses of all members within the community.²⁴

Through an ethics of care, the intrinsic dignity of each individual member of the community is enhanced by respecting the personal value of the ‘other’ as an ongoing and relational interaction that emphasizes active engagement of all participants; relational autonomy is not a ‘one and done’ attempt or a ‘one-sided action;’ it reaches beyond the self and reaches toward the human potential of each member within families, communities, societies and nations.²⁵ When an over emphasis of absolute self-determination and absolute autonomy dominates the cultural framework, the curtailing construct fails to recognize the relational and social context of culpability; blaming, shaming and stigmatizing the individual, automatically depletes appropriated freedoms, mutuality of human value, and equality of human worth.²⁶

Societal hierarchies that separate worthiness of others through domination and isolation escalates the risk of poor health outcomes. The underlying social causes of poor health outcomes is known as negative determinants of health.²⁷ Some of the negative determinants of health include unequal access of education, nutrition, access to health provider treatment, community support, and the social connectedness that could potentially decrease the risk of individual vulnerability; vulnerability manifests itself within societies through dislocation, marginalization, and stigmatization and therefore, incorrectly distorts human weakness through a framework of absolute culpability of individuals alone.²⁸ This social construct of perceived escalating

deficiencies of individuals, perpetuates the disconnectedness of human potential in historical proportions; one of the ways that this seemingly individualized dilemma manifests itself globally is through the escalating crisis of addiction and substance use disorders.²⁹ Human life for individuals lies within a balancing continuum of growth, development, flourishing, and care for one another, when human frailty becomes evident within this cyclic relationship with others and the one who is frail is discarded or cast aside, further vulnerability ensues; consequently, human vulnerability requires reliability upon others during these normal times of waxing and waning need from the moment of birth, throughout life, until death.

The constructs of autonomy, servitude, and hierarchical structures of dominance have a deep historicity that precedes the current discussion of the bioethical discourse on the protection of human subjects and the biomedical principle of respect for autonomy; additionally, the principle of the right for autonomy never intended to obliterate the importance of connection and their benefits within human relationships. Therefore, it is necessary to investigate the historical significance of autonomy through the framework of intrinsic rights of individuals, respect for autonomy. Autonomy as a relational element that promotes the self-actualization of all individuals, autonomy is achieved through reciprocal relationships, during the physiological elements of impaired neurological functioning, one requires an increase in relational connection. The focus on relational autonomy versus absolute autonomy can improve individual potential and minimize the vulnerability and frailty of individuals through the growth of supporting interdependency of one another.³⁰

Autonomy through the framework of intrinsic rights of individuals, takes a look at constructs of individual freedoms and individual agency. Individual freedom takes a look at how one's liberty is achieved despite controlling influences or dominance and personal agency takes a

look at the ability of the person to make precise, purposeful and decisional actions as a result of higher level executive brain functioning.³¹ The overarching or popular judgement made toward individuals who struggle with addiction and substance use disorders are commonly regarded as persons who make free and autonomous choices. Consequently, those who suffer with addiction and substance use disorders are additionally claimed to be autonomous individuals who are uninhibitedly capable of managing their own substance use dysfunction and as people who are able to autonomously manage their own medical care.

Yet, this view is biologically and socially problematic and has dangerously increased individual and societal harms. Science now knows and understands that the pathology of addiction impairs the brains normally functioning processes that constitute elements of individual agency, freedom and autonomy. Higher level executive functioning and agency is drastically impaired as a result of the controlling influences of the substance's effect on intrinsic reward mechanisms, which results in disordered, harmful, and oftentimes deadly miscalculated human survival responses.³² Claiming that the person with substance use disorder is a fully functional agent who has the full capacity to manage health outcomes is a fictional element that perpetuates the problematic trajectory of pathological harms associated with addiction; additionally, this incorrect assumption is problematic in relation to the principle of respect for autonomy.³³

The principle of respect for autonomy requires that healthcare providers and researchers respect the autonomous actions and decisions of the 'other.'³⁴ This respect for autonomy also identifies that the health care provider must explicitly provide comprehensive education and assess the patient's ability to understand the essential information regarding the treatment and intervention plans, in an attempt to protect patients from harm; patients who are vulnerable

because of altering levels of consciousness, or who lack decisional capacity may not have the capability to cognitively or consciously make health care decisions.³⁵ Therefore, the respect for autonomy must also consider the nuances of how incapacity to make higher level functioning decisions potentiates harms for individuals. With the drastic increase in neurocognitive impairments in disease states, such as dementia, Alzheimer's disease, and addiction, patients are at an increased risk of harm to self and others, while seemingly 'acting' autonomously.³⁶ Therefore, applying precautionary assistance in decision making for those diagnosed with substance use disorders and addiction through elements of relational autonomy and protection from increasing vulnerability and harms associated with neurocognitive pathology is highly recommended.

Autonomy as a relational element, illuminates the elements of holistic respect of the other by promoting self-actualization, empowerment, and decreasing susceptibility or vulnerability of individuals through reciprocal relationships.³⁷ The cultural transition from relationships toward elements of absolute autonomy occurred as a result of the idealization that free choice surpasses all 'other' essential elements of contemporary life; however, Mill's harm theory more than sixty years ago, asserts that altering the actions of individuals should logically occur only for reasons that seek protection of harms toward self and toward another.³⁸ Additionally, autonomy should also consider the nuances of how individual actions and decisions are effected by impaired neurocognitive functioning and how it relates negatively or positively to others socially, how it relates to the epigenetic landscape, and how it relates to the impact of conscious or unconscious interactions with others in order to enhance the holistic determination of benefits.³⁹

Mill's harm principle should be a good starting point in order to illuminate the current understanding of the protection of harms for individuals, of the protection of communities and in

order to understand how to positively affect outcomes for those who experience substance use disorders and addiction; culturally and socially individuals have been permitted to drink alcohol and consume addictive drugs, as an act of an individual right or as an element of self-determination, despite the known trajectory of individual and societal harm. Public policy and laws are currently aimed at protecting the safety of those affected by substance misuse through the implementation of what is known as a public health measure of ‘least restrictive means’; the least restrictive means principle or least coercive means principle is aimed at achieving health goals through policy implementation that utilizes low level restrictions for individuals first and then moves toward implementation of increased individual restrictive means as harms increase.⁴⁰

Examples of public policy and laws, which aims to decrease harms through means of the least restrictive means principle, include drinking and driving laws, setting standards of alcohol and cigarette purchasing ages, and by implementing mandatory methadone program treatment interventions for rehabilitation and incarcerating those found with illicit drug possession.⁴¹ Unfortunately, elements to protect families and communities from the deleterious effects of escalating harms of addiction and substance use disorders occur through legislative measures for individuals who misuse substance, without addressing the more personal and private level of harms through paradigms of care, despite the historical and debilitating harms that have persisted through time for loved ones, families, and communities.⁴²

Relational autonomy would not only ensure the restorative wholeness for the patient who exhibits impaired neurological consciousness states with addiction, but would reciprocally protect others from the psychological, physiological, and epigenetic sequela of associated harms, which have become evident. Consequently, elements of impaired neurological consciousness for

those with addiction potentiate impaired relationship to self, and to others, while increasing vulnerability, impairing autonomy and exacerbating frailty.

a. Autonomy and Frailty

Vulnerability and frailty are intrinsic elements of the human condition; contemporary medicine, public policy and health care professionals recognize that despite scientific advances physiological, psychological, and social constructs of wellness and prosperity are not infinite characteristics of being. As a result of abuses toward individuals who are vulnerable, medical practice, medical research, and the implementation of bioethical practices recognizes that the intrinsic value of each person is the essential element, as a pivotal way to insure respect for human subjects and patients during sickness, hospitalization, and vulnerability.⁴³ Technological advances, vulnerability, and physiological disease states more commonly result in complications that can chronically increase loss of physical functioning, loss of cognitive functioning, and can increase frailty and dependency states; therefore, increasing the need to recognize the benefits of ‘the principle of respect for autonomy, must include and evaluate the restrictions of persisting the absolute autonomy framework and examine the actuality of the beneficial aspects of relational autonomy’ in order to decrease the risk for consequential vulnerability.⁴⁴

The definition of vulnerability is a growing construct in application within the bioethical discourse; the broadening nature of the term can provide different themes of usage for individuals, groups and societies; hence, making the concept more difficult to comprehensively define.⁴⁵ According to Schroader and Gefenas, vulnerability and human frailty is defined as, ‘individuals and groups of individuals that have an assured likelihood of being subjected to probable harms, while also lacking the ability to defend or protect oneself;’ additionally, the public health nursing literature expresses the concept of vulnerability by linking the construct ‘as

a continuum state of dependency on healthcare providers for the management of establishing health care goals, interventions and outcomes.⁴⁶

Constructs of absolute autonomy increase the vulnerability potential for susceptible individuals through isolation and decreasing access to knowledge in decision making processes that can increase the risk for harms for an already underserved population; furthermore, when the hierarchical constructs of social systems are not equal for all members of society, disparate and unethical management of care can result unnoticed.⁴⁷ Social determinants of health are not equal from person to person and this simple fact must not be disregarded. When one considers the nuances of vulnerability and how current views of autonomous decision-making processes are made in health care, a parallel assessment of the essential elements of vulnerability must laterally evaluate how the known inequality negatively influences individual health and wellness. The seemingly obvious conclusions and assumptions may be unintentionally hidden because of personal and professional biases, which justify the disparity, by assigning individual fault or blame; this justification, which hides one's culpability is identified as an ethical blind spot.⁴⁸

The principle of respect for autonomy was implemented to provide guidelines for health care professionals to consider all individual patient rights during research or health care decision-making processes; the guidelines sought to dissolve paternalism and implement a standard of care that promotes a positive obligation of physicians to respect a patient's values of care, decisional capacity, maintain confidentiality, maintain veracity to obtain free willed consent for treatment, and to help patients make informed health care decisions through educational initiatives sought the dignity of individuals.⁴⁹ However, all patients do not possess the same capacity to make autonomous choices; and yet, determining incompetency and assigning surrogate decision-making in healthcare becomes a difficult and imperfect task.⁵⁰ Frequently,

those who are not competent to make decisions neuro-cognitively or psychologically appear competent, and may not be adequately assessed; thus allowing the perpetuation of harm to self and others, without appropriate, compassionate, and professional intervention and care.⁵¹

In an attempt to avoid paternalism, perhaps unnecessary priority has been placed on allowing individual autonomy and individual decision making despite known and associated harms by asserting that patients are permitted to ‘make bad decisions’ resulting in isolation, elevated risk of physiological progression of harms, resulting in escalating vulnerability, frailty, loss of consciousness, and ultimately directly cause exponential harms on others; consequently, a reconceptualization of how absolute autonomy should be transitioned into an improved reciprocal framework of relational and authentic caring interdependence is needed for the management of care for those who suffer the neurocognitive consequences and pathology of addiction and substance use dysfunction. Healthcare providers, family and societies must potentiate an improved model of care delivery, for those who suffer with altered consciousness, neurocognitive impairment and disease states.

The neurocognitive alterations associated with neurocircuitry changes in addiction and substance use disorders certainly increase vulnerability for those who are predisposed to addiction; additionally, by the very nature of an addiction or substance use disorder diagnosis, patients are potentially silenced, through fear of blame and stigmatization, which further widens the gap between ethical management of care interventions that are so necessary in improving patient and societal outcomes.⁵² Strengthening support through relational and attentive decision-making potentiates improvement in care by eliminating ethical blind spots and decreasing the disparate ethical gap between autonomy, vulnerability and frailty. Subsequently, failing to consider the specificity of how the application of absolute autonomy principles potentially

increase the risk of vulnerability for those with substance use disorders and addiction requires a careful examination of behavioral and applied ethics; behavioral and applied ethics seeks to comprehensively examine how social problem affect escalating harms on the individual level, organizational and societal level.

Health care providers are professionals who should strive to provide care and health care management interventions with the patient's best interests and best intentions as their primary duty. Yet, understanding how individual behavioral influences professional responses and therefore organizational treatment processes as it relates to those who suffer with addiction and substance use dysfunction along with the acknowledged societal biases must be closely examined. The differences between autonomy and frailty or autonomy and vulnerability is never a result from single responses of individuals; but rather, it is a result of an ethical response that fails to acknowledge that society can influence the continuation of harms and blindly respond in ways that are detrimental to individuals and society.⁵³ Only focusing on the narrowing constructs of individual autonomous actions and decision making for those who are known to have neuro-cognitive impairment from addiction, refuses to acknowledge the deep seeded cultural biases that unknowingly or unintentionally widens the unlikely development of a social and organizational acceptable frameworks of care. Developing a responsible and professional framework of care must seek to decrease premature mortality, morbidity, vulnerability, and frailty for those at greatest risk.

The management of care for those diagnosed with addiction and substance use disorders looms in the shadows of societal and organizational structures; bounded ethicality, examines how double standards and opposing intentions and actions impact individual ethical judgements, organizational processes and societal policies, which seek to uncover the psychological processes

that result in unethical behavior.⁵⁴ In order to recognize the inter-connected responsibility of action that seeks to decrease vulnerability for individuals, the ethical analysis must identify the ethics gaps associated with autonomy and vulnerability. The ethics gaps are closely associated with human biases, conflicts of interests, and processes, which begin to accept unethical actions as socially acceptable processes; the unnecessary and premature death of tens of thousands of people, due to substance use disorders without receiving adequate medical and societal support, is an example of unethical management of care processes that occur as a result of ethical fading. Ethical fading occurs as a result of unnoticed processes and actions despite resultant harms and an inability to recognize such harms as a result of inaction.⁵⁵

Behavioral ethics and an ethics of care take a look at how bounded ethicality and ethical fading continue to harm those with substance use disorders and addiction; an ethics of care illuminates the ethical blind spots that have perpetuated the negative health outcomes for those susceptible to substance use disorders and addiction. An ethics of care integrates behavioral responses that seeks to establish a paradigmatic shift in the management of care for those with addiction; an ethics of care seeks to expose the blind spots and identify the ethical fading in order to decrease the widening gap that is exponentially increasing harms and vulnerability for those with substance use disorders and addiction. An ethics of care identifies the distinction between interdependency, independency and dependency in order to establish the benefits of relational autonomy and the relational need for behavioral responsiveness of professionals.⁵⁶

b. Independency and Dependency.

From infancy through old age, from psychological dysfunction through superlative intellectual functioning, from physiological disability through optimal health the construct of relational autonomy recognizes that vulnerability and frailty is nurtured and sustained through

the interdependent actions of ‘others’ through relationships; yet, current application that seeks to describe human functioning, focuses on absolute independence and the negative aspects of dependency.⁵⁷ The principle of autonomy in healthcare places importance on the independent nature of one’s ability or one’s capacity to make health related decisions, oftentimes separate from complex relational decision making processes. Absolute individual autonomy in healthcare decision-making is problematic for the patient who experiences addiction dysfunction due to the physiological symptoms and resultant social isolation that predominates for this disparate population.

As a result, it is important to examine the linguistic meaning, distinctions, and relationships between the functional use related to the terminology of dependency, independency and inter-dependency as it is applied within complexities of contemporary healthcare decision-making. Dependency is historically thought upon as a negative state of human existence and independency is viewed upon in a much more positive light; even though, the reality of the human condition embodies waxing and waning of vulnerability and fluctuating levels of inter-dependence and dependency. Therefore, dependency presents within complex constructs and causes, while also existing in many forms, such as physiological, cognitive, emotional, moral, economic, political and social dependency, etc; the description of dependency has historically been associated with negative traits that are associated with individual fault and deficiency.⁵⁸

Constructs of independency are highlighted as highly favorable states, which recognizes that optimal physiological, cognitive, emotional, moral, economic, and political states are universal goals and the most desirable state of individual functioning; thus, ascribing autonomy and independency as the ultimate goal to be achieved for each productive member of society. This construct portrays that independent and autonomous individuals are the normal and desired

state of human striving, thriving and potential; leaving out the essence and the normalcy found within human relationships, connections and empowerment of supportive human constructs of care. Care embraces help for the other in times of need, through concrete actions that promote human interdependence; care, through commitment, empathy, and presence, combine a vision for equality of worth, despite dependent states and seeks to make a positive difference in the lives of those in need.⁵⁹

Those who struggle with the physiological, psychological, neurocognitive, social, economic and political effects of substance use disorders and addiction are not only paralyzed with the physical effects of dependent need, but they are severely affected by the structural, societal, and the behavioral effects of societal constructs of dependency as well.⁶⁰ Reversal of the isolating tendencies could slowly dissipate if values of reciprocity, connectedness, empowerment and interdependency replaced personal and spiritual emptiness that isolation and disconnectedness exacerbates; the continued societal alienation that ascribes autonomous nature of blame directly toward individuals only increases the disdainful influences of societal neglect and isolation that results.⁶¹

Bounded ethicality as terminology within a behavioral ethics framework seeks to explain the bondage that occurs when the refusal of acknowledging that one's actions and decisions result in harmful outcomes for others.⁶² Societal constructs of marginalization, isolation and individual blame for substance use disorders and addiction have resulted in overt harms to those who suffer; yet, political, social, and even professional constructs of addiction management continue to adhere to and cling to antiquated terminology and constructs of substance use policy, laws, and care that focus on individual blame without carefully reflecting upon relational culpability.

Epidemiological studies that review outcomes for substance use disorders and addiction, associated with marginalization, isolation and discrimination strongly indicate that the escalating harms from the current political, legal and healthcare policy are perpetuating the increase in mortality and morbidity for individuals with addiction dysfunction.⁶³ Historical references to this phenomenon include, historical times of dislocation and stress, such as during the United States (U.S.) soldiers Vietnam conflict, the dislocation of the aborigines in Canada, the dislocation of native Americans in the U.S., the dislocation of African slaves in the U.S., and the dislocation of the Jewish families in Nazi Germany.⁶⁴ Facilitating individual autonomy requires the establishment of supportive relationships through interdependency; therefore, the imperative to re-conceptualize the application of respect for autonomy in health care requires demystifying the exclusivity of individual choice as an absolute and autonomous choice to be addicted and embrace a true respect of individual autonomy by recognizing bondage, and embracing interdependency and empowerment of ‘others.’⁶⁵

Unfortunately, the current cultural and societal precedence of believing that those with substance use disorders possess free will and free choice to autonomously direct all health-related decisions only perpetuates individual and population harms; for patients who have confirmed substance use disorders and addiction the neurobiological, neurocircuitry and executive functioning dysfunction perpetuates complications through the continuum of substance use disorders and sociocultural environmental interactions.⁶⁶ Despite, the scientifically confirmed physiological changes, the current cultural belief or understanding of vulnerability for those with substance use disorders is often disregarded and blatantly ignored; it also indicates and implies that a certain hesitancy exists for professionals and family members to initiate interventions and care, because of the social stigma, which pervades actions that seek ‘to actively

restrict the actions or behaviors of the one with substance use disorder' as a violation of the respect of autonomy.

The implication of allowing patients to harm self, continues to suggest that it is an individual's right to make poor choices; hence, implying that the action of substance use is merely a matter of executive functioning decision-making choices, or absolute individual free will and therefore indicative of individual moral culpability. The hesitancy to impose professional practice interventions for those with neurocognitive dysfunction is feared and therefore, professional interventions are delayed and/or completely omitted. Additional, 'treatment' rationalization is further presupposes, that if legal and punitive sanctions are imposed, then individuals will voluntarily improve their decision-making ability and choose to not self-administer an illicit and addictive drug; and therefore, will be motivated to autonomously and willfully cease consumption of addictive substance. Yet, this presupposition is delusional, because substance use disorders and addiction dysfunction directly impairs decisional capacity through the activation of stress surfeit/ reward deficit dysfunction that further impairs executive functioning of the prefrontal cortex through neurocognitive and neurocircuitry alterations as previously discussed.

The social constructs, which seek to protect individual human life, through relational and interdependent states, are abandoned willfully by families and communities despite the individual, consequential and relational bondage that alienates individuals, from families and relationships. Care ethics focuses on the responsibility of relationships during concrete circumstances that exist in the focus of daily activities and actions; therefore, care ethics requires taking a look at human behavior, which supersedes rights, rules, formal and abstract systems of thought, and universal or unbending principles.⁶⁷ Care ethics reflectively analyses actions and

behaviors that can potentially eliminate all forms of physical, societal, and economic dependencies that are known to limit human flourishing, while seeking to invigorate human flourishing and lived potential.⁶⁸

An ethics of care recognizes that self-sufficiency influences dependency states; those who possess economic resources, despite addiction, may appear less vulnerable than those who lack financial resources. However, all individuals despite societal and economic positions would still possess physiological dependency, due to the pathology of neurocognitive impairment and remain at risk for harms. Economic self-sufficiency, which can purchase care during vulnerable physiological states does not constitute an example of absolute autonomy and independence; it only represents economic independence. Similarly, patients who suffer from addiction and poverty, manifest multiple levels of societal, economic and physical dependency and struggle with insurmountable stress to meet basic physiological human needs and are at increased risk of harms that result in risk for substance use disorders.⁶⁹ The plight of those with substance use disorders and addiction are generally more vulnerable to economic dependency, through poverty and homelessness and consequently, suffer increasing neglect and severity of disparities of care.⁷⁰

Unfortunately, addiction is perceived as a ‘self-inflicted’ dependency state and research, indicates that all states of dependency are negatively perceived; however, self-inflicted dependency states are particularly stigmatized, heightening the consequence of abandonment.⁷¹ According to Dean and Rogers’s, Economic and Social Research Study, he found that states of dependency were popularly portrayed during times of childhood, old age, or periods of disease and illnesses with periods of increased frailty, isolation, or emotional helplessness.⁷² As a result, outcomes of perceived dependency were viewed upon within the context of two prototypical

levels of understanding. The first view, identified dependency as both a potential state that was unavoidable and/or as a state that was self-infliction; hence, asserting deliberative judgement regarding either the acceptance or blame toward the loss of independence and choice to be a burden or to be dependent.⁷³ The second group did not assign blame upon those who developed specific conditions that resulted in a dependent state; rather, the second group agreed upon the universal nature of dependence on one another.⁷⁴ Regrettably, the stigma associated with dependency persists.

Additionally, personal independence is projected as the standardized normative state, while, dependency is often projected as either a personal tragedy or as an abnormal or deviant societal state. Dependency is often perceived as a deviance, which is viewed upon culturally as an abnormal state; yet, the dependency of obtaining food from farmers or distributors for the reliance of nourishment is perceived as a socially acceptable dependency. Yet, the dependency for the need of care from another is often times associated with moral blame, fault and weakness.⁷⁵ Adding to the particular nuances of dependency, substance use disorders and addictions are perceived as self-inflicting harms, which projects exceedingly harsh and negative judgements from society upon the other. The complex layering of the social constructs of dependency, inflicts elements of stigma and negative self-worth upon patients, perpetuating the escalation of substance use harms and obstructs reliance on others for help and care.

Unprecedented and relentless insistence that effective personal strength, independence, autonomy, and self-sufficiency dominate human existence would continue to heighten dominance of a hierarchical constructs that place individual moral culpability of all disease states, without acknowledging that the bounded ethicality of those who write the laws and policies dominate social and health care policy contribute to those harms; bounded ethicality

would fail to reflect upon the intrinsic dignity and care of each patient and would fail to reflect upon the societal harms that are perpetuated by denying that the intrinsic dignity of each person exists. The perpetuation of harms associated with addiction and substance use disorders must not be further subjected to the escalating harms associated with isolation and stigmatization by solely blaming individuals; an ethics of care requires the practice of virtue that recognizes the importance of relational responsiveness of professionals in order to empower the relational autonomy of patients who are afflicted with vulnerable cognitive and physical manifestations of disease.⁷⁶

Isolation, marginalization, criminalization, and discrimination is proven to be unable to reverse the trajectory of harms associated with neurocircuitry and neurocognitive changes that are associated with substance use disorders and addiction; albeit, an ethics of care attempts to build relational autonomy and interdependency for patients, empowering responsive and relational reaction from professional in order to acknowledge that through a framework of professional processes and actions that seek to build programs that respect the dignity of all persons aims to reverse the trajectory of harms associated with substance use disorders and addiction.

3.2 Relational Autonomy of Patients.

Moral agency refers to the capacity to act as a moral agent, meaning that the individual is capable to make moral judgments.⁷⁷ Moral agency and moral status are terms utilized in bioethics to refer to human rights; moral status and rights of individuals are assigned to all human beings by the very nature of their human condition.⁷⁸ The human condition bespeaks moral respect. However, historically this respect for human life is not consistently or universally honored. Moral respect is translated in bioethics by the very essence that constitutes the reality of

the human subject; thus, recognizing that despite cognitive changes, despite, marginalization of relationships, despite loss of physical functioning, the characteristics of humanness remain constant.⁷⁹ Once components of inherent dignity of an individual or of a population's humanness are removed, atrocities occur against those deemed less than human. Moral agency, despite its individual nature, recognizes that moral status remains a construct of relationships; and as a result, absolute autonomy, which is independent of relationships, is a fallible misconception, by the very nature of the true essences of human dependency, frailty and vulnerability.⁸⁰

Freedoms and rights of individual persons are determined within the social cultures and constructs that they are developed; an ethics of care validates the moral agency of all members of the community on a continuum of care.⁸¹ Meaning, that at different periods of life, all individuals fluctuate on the continuum of vulnerability, on the continuum of possessing decisional capacity, and the continuum need for care; current democracy frameworks portray images of individuality, independence, and autonomy above all rights, without acknowledging the importance of the interdependent nature of social relationships and the empowering essence of relational autonomy.⁸² Constructs of vulnerability, disability, frailty and dependency upon others for care increasingly ignore the giftedness and value of individual collaboration and support from relational and community structures.⁸³

An ethics of care enhances the moral agency of the patient through enlightening the frameworks of relationship and recognizing the intrinsic worth of each person, despite perceived imperfections in character; concepts of non-relational models of care for those diagnosed with dependency and addiction disorders in health care cannot manage the disorder effectively, as evidenced by the escalating harms of that criminalizing and stigmatizing individuals and populations has caused.⁸⁴ An ethics of care promotes a closer look at moral agency without

disconnecting individuals from the relational constructs that acknowledge the necessity of relational autonomy throughout the lifespan; the goal is to promote the responsible autonomy of the patient through relational support, when, where, and how it is appropriate.⁸⁵ Health care providers that embrace constructs of relational autonomy promote moral agency through responsiveness, responsibility, competency and actions that seek education, prevention, empowerment and wellness; the current constructs of criminalization, assigning absolute moral responsibility, while ignoring the constructs of societal and community culpability, cultivates isolation, disconnection, and the deleterious effects of individual stress states and persistence of generational harm and susceptibility.⁸⁶

Bounded ethicality also applies to patients who are diagnosed with addiction and substance use disorders who personally refuse to admit to individual culpability or refuse to acknowledge the harms that result to others as a direct consequence of their harmful substance use behavior; meaning that the one who is vulnerable to the deleterious consequences of addiction, must also acknowledge the harms that their disease state ensues upon family, community and future generations. Identifying one's individual moral culpability of related harm to others, identifies one's own moral agency with the dual aim to seek care to decrease the trajectory harms to self and others as it relates to individual pathology. Individuals must also seek to responsibly decrease the trajectory of biological, genetic and epigenetic harms for self, family and future generations; an ethics of care holistically seeks to influence the relational autonomy of individuals who suffer from substance use disorders and addiction by helping to increase the patient's ability to improve executive functioning, decrease stress response states and to regain neurocognitive homeostasis.

The snapshot of moral culpability must clearly seek identification of individual patient responsibility in order to assist those afflicted to consciously decrease inflicting harm to self and to others; each patient who suffers, must examine and reflect on their own individual particularities, such as etiology, intentions, circumstances, and behaviors that precipitate one's behaviors and actions, which increase susceptibility to disease. Additionally, moral agency of the person who is diagnosed with addiction and substance use disorders, must carefully examine the nuances of moral agency and how to increase control of one's own moral actions and one's responsible responses to those actions. Moral agency requires that the person possesses the ability to reason, has the ability to use past experiences as a guide in decision-making, has the ability to freely choose actions, and must have the ability to 'know' the consequences of those actions; therefore, the person diagnosed with substance use disorders and addiction, must seek to regain responsible responsiveness to their own situation.⁸⁷

Building upon one's own beneficial health outcomes, requires building a network of interdependence with trusted family, friends, community and health care providers through mechanisms that build one's own moral agency through relational understanding of one's own limitations and weaknesses; additionally, improving outcomes through recognition of one's need to seek relationships of empowerment and acknowledging personal strengths and weaknesses, through recognition of personal responsibility, responsiveness, reaction and wise action.⁸⁸

Building a patient's own moral agency through a framework of empowering interdependency when diagnosed with substance use disorders and addiction would then require strategies to improve a person's ability to reason during each phase of the neurobiological cycle of substance use disorder, ie binge/ intoxication stage, withdrawal/ negative effect stage, and pre-occupation/ anticipation stage. A patient with a substance use disorder and addiction is vulnerable as a

solitary moral agent to manage the trajectory of care for self without risking exponential harm to self and others; as a result, implementing a relational model of reflective moral agency is justified and recommended within an ethics of care model of care.

A relational model of care for substance use disorders would implement a relational decision-making model that applies all of the criteria of moral agency to the patient's substance use circumstances. An example of care includes, utilizing relational illumination of past experiences as a catalyst for applying guided health decision making interventions and goals. Acknowledge that, according to the stage of substance use disorder, the patient may experience the inability to freely choose immediate substance reward over chosen long term goal reward outcomes, due to physiological and neurocognitive impairment; hence, requiring relational intervention and standardized treatment protocols to decrease harms to individuals, families, and communities is suggested. Lastly, because individuals with substance use disorders and addiction cannot always cognitively choose between long term consequences versus short term rewards of actions, relational support and interdependent systems of decisional care is required to identify deleterious long term consequences and implement surrogate decision making protocols. Implementing relational support is an essential care element in order to empower individual growth toward personal responsiveness, personal reaction, and wise action through supportive measures of relational responsibility.

a. Responsiveness and Reaction.

Factors that influence responsiveness and reaction to one's substance use disorder continuum of dysfunction or disease, requires that individual who suffer are guided into a journey of recovery. This journey requires personal reflection and responsibility in 'managing' their personal wellness program, but it also requires expedient professional support that includes

daily, weekly, or monthly medication assisted treatment (MAT) and psychosocial counseling support.⁸⁹ The decision to seek recovery support has the potential to improve neurocircuitry and neurocognitive responses; however, immediate guidance is paramount during substance use disorder continuum. Patients ability to alter the trajectory of harms occurs through professional relationships and scientific treatment plans that seek to de-escalate substance use and harms along the particular ‘place’ of dysfunction; fortunately, by further improving individual agency through MAT and psychosocial counseling, reciprocity and interdependency can help protect the one vulnerable through the appropriately responsive treatment paradigms. As a result, future escalations in dysfunction can decrease, once a professional relationship is established.

Independent, responsiveness to one’s susceptibility of harms associated with substance use disorder has not traditionally been effective for individuals, families or communities; therefore, everyday decision- making and particularly decision-making during states of illness exacerbation and increased vulnerability require higher levels of supportive and relational interactions with others. Recognizing that depending upon the severity level of the substance use disorder, variable methods of supportive care and assessment is paramount for the implementation of successful intervention. Unfortunately, within the current addiction management structure, individuals who are diagnosed with substance use disorders are making health care decisions alone, in silence or within unsupportive and fearful encounters with the law and others. Unsupportive encounters increase isolation, stress states and further impairs resilience, and individual coping ability; increased stress states, escalate agitation, aggression, hopelessness, and further perpetuate chaotic social environments, which often results from negative expressions of bias, and disapproval toward the one diagnosed with dysfunction. Hence,

perpetuating further health disparities, escalating risk for patient harms, decreasing access to care and further facilitates the loss of trusting relationships.⁹⁰

Additionally, health disparities reflect a higher burden of susceptibility for individuals to disease and addiction; populations that remain at the greatest risk for addiction disorders include the genetically predisposed and socially isolated.⁹¹ Therefore, individual access and education initiatives, should seek individual responsiveness, provide education initiatives that teach responsible, and reciprocal responses to risks through grass roots initiatives that seek to empower those most at risk and marginalized. Identifying and teaching social determinants of care seek to empower individuals, families and communities in order to develop relational strategies of care for the most disparate of communities in order to decrease risk for the individuals who are most vulnerable, by seeking to decrease hostile environments, and promote positive relational strategies that seek prevention and recovery.⁹² Changing the management of care paradigm to embrace a relational and accessible public health model of care, versus a crisis management of care model would actively seek to help advocate for individual wellness and prevention initiatives before harms occur.

As a result of addiction science and evidenced based practice initiatives, individual and professional reaction strategies should implement relational treatment interventions that seek to improve an individual's reciprocal response and actions by decreasing associated risks during each stage of the substance use disorder continuum; hence, protecting essential connections for individuals throughout the substance use continuum. Responding to the specific pathophysiological behavioral responses during the binge/ intoxication stage could include individual recognition for MAT or administration of pharmaceutical agents that increase adverse responses to substance, such as flushing, nausea and vomiting; responding to the specific patho-

physiological behavioral responses during the negative/ withdrawal stage, individuals could fearlessly seek pharmaceutical agents to decrease the relentless stress and anxiety responses. Additional psychosocial counseling could be sought, along with family and community lead mindfulness training interventions; lastly, responding to preoccupation/ anticipation stage may require distraction techniques, psychotherapy, or involvement in social outreach initiatives.⁹³

As a direct result of inattentiveness and unresponsiveness of societal structures of care and failure of professionals to implement reciprocal relationships of care for patients, the current perpetuation of isolation of individuals results in human neglect and disempowerment for those with substance use disorders. This unfortunate trajectory of substance use disorder management of care paradigm, is a direct result of hierarchical power imbalances within the social constructs of care between the care provider and the care receiver; placing the provider of care and social structures in a dominant position over the one with neurocognitive dysfunction and dependency, this hierarchical power position of dominance will always perpetuate individual harms.⁹⁴

This current management of care paradigm, continues to place individual blame solely on persons, claiming complete moral agency and moral culpability upon the individual. Unfortunately, due to bounded ethicality, social culpability is not universally recognized; resistance often times lies within refusal to reflect upon social culpability that predisposes individuals to dependency states, such as physical dependency, economic dependency and psychosocial dependency through constructs of marginalization, labeling, and developing dehumanizing constructs of unworthiness of the 'other'.

Yet, the continued perceptions of societal blame and the evolutionary persistence that human frailty is a result or subjection to self-inflicted harms increasingly impacts the commodification of health care services through insurance payment refusals or insurance

liability; therefore, by commodifying care, blameworthy disease states are increasingly seeing restriction to care or restrictions to access of care; in some instances omission of services are seen as, necessary consequences of deviant and self-harming behavior as a result of availability of scarce resources.⁹⁵ Assigning moral blame for the development of disease states, such as obesity, diabetes, hypertension, cardiac disease, mental health disorders, sexually transmitted diseases, lung cancer from cigarette smoking, cirrhosis from alcohol consumption, addiction and substance use disorders, opens up gross infringements upon human rights and openly denies the vulnerability of the human condition.⁹⁶ Human rights violations of this kind that purport authoritative judgments that impair human freedoms to access of health care interventions and treatment grossly impact human protections, which increase vulnerability, violate intrinsic dignity of persons and should be viewed upon with trepidation and great concern.⁹⁷

Until social constructs of care admit responsibility through reflection and responsiveness, harms for individuals will persist. An ethics of care supports reciprocal and relational actions of attentiveness and responsiveness with the goal to recognizing the complexity of individual and societal agency and culpability. Through dissemination of education initiatives, awareness of physiological and biological disorder trajectory associated with the understanding of neurobiological, genetic and sociocultural consequences of dysfunction, an improved awareness of complex physiological, psychological and societal influences on individual harms and stigma may dissipate. Embracing the scientific evidence and developing a plan that attempts to reverse the adverse consequences of neglect and isolation, requires patient and professional courage to express assertive action that facilitates improved coping strategies along with the commitment to persevere responsibly through the commitment of responsive and reciprocal relationships, that actualize individual, professional and societal responsibility through treatment paradigms that

recognize universal responsibility to prevent dependency, and to promote care through the application of advancing science and wisdom.⁹⁸

c. Responsibility and Wise Action.

An ethics of care combines professional and patient responsibility in the management of disease and illness as a central category of practice and virtue; overriding market systems, which often times commodify individuals and populations and aim to decree policies that place moral judgments upon individuals, which have negatively impacted the professional responsibility of care that should seek the prioritization of professional care to vulnerable populations in ways that meet the physical, emotional, psychosocial needs of those who suffer with substance use disorders and addiction.⁹⁹ Care seeks to make distinctions that market systems fail to provide. An ethic of care's focus should seek to empower and enlarges the scope of individual and professional duty, through characteristics of virtue and practice that illuminates a comprehensive nature of wellness facilitation. Care enhances the traditional role of deontological or professional obligation roles by holistically including not only required professional actions and duties, but by infusing authentic caring intentions.¹⁰⁰ Relational, empathetic, and inclusiveness of purpose during patient encounters serve to function through methods that empower personal, social, and environmental constructs of health.¹⁰¹

An ethics of care through practice and care, enlarges the scope of one's personal and professional responsibility and duty, because it implements an intentional, thought filled, conscientious, and virtuous processes of interacting with one another. An ethics of care enlarges one's deontological role to oneself and to one another by placing care above justice; current management of substance use disorders and addiction, have placed justice in the dominant position that overrides care as the dominant human need. Patriarchal dominance in current

political and social systems place the unequal value of autonomy, duty and rules over the value of care, sensitivity, and needs of individuals with dependency, vulnerability, and weakness; therefore, it is not surprising that individuals are set up to struggle against the dominant framework of justice.

Many opponents of an ethics of care and many care theorists have debated, whether or not, an ethics of care has the comprehensive ability to encompass elements of justice within the ethics of care's moral theory model. Virginia Held and Eva Feder Kittay support the presupposition that care practices rightly include characteristics of justice, which certainly enhance individual agency and responsibility; however, care places an emphasis of distinctive relational aspects of care, versus individual nature of autonomy.¹⁰² They also conclude that although actual care practices should incorporate both elemental aspects of care and justice, an ethics of care rightly embodies different priorities over justice; which suggests an imperative to alter the current paradigmatic approach in the management of substance use disorders and addiction from a framework of justice to a framework of care, which should seek to comprehensively characterize patient and professional obligations, responsibilities and duties.

Responsibility for one's substance use disorder and addiction, within a justice framework has the primary aim to exemplify legal culpability through legislative efforts to improve law enforcement for those who are deviant or in opposition to the created laws; this was the aim and the purpose on 'The war on drugs.'¹⁰³ The focus on justice, is to create, laws, find fault in individual actions and to 'bring to justice' those who are deviant to those laws, as an effort to prevent individual and societal harms; hence, the primary value is justice.¹⁰⁴ On the other hand, responsibility for one's substance use disorder and addiction dysfunction, within an ethics of care framework, has the primary aim to broaden the nature of dysfunction into relational elements

that examine an improved comprehensive and holistic paradigm of thought.¹⁰⁵ Justice, duty and responsibility certainly remain important elements of care; however, the primary value becomes care over justice, because caring relations should invoke trust and consideration of the wellness of others.¹⁰⁶ The current justice paradigm management for substance use disorders and addiction dysfunction has invoked the antithetical components of care, which are characterized by fear, isolation, abandonment and loss of trust.

Therefore, the combination of professional and patient centered commitment to health and wellbeing is actualized through the implementation of individualized, social, and cultural education initiatives that focuses on care, responsibility, and justice; value on justice alone, does not alter the trajectory of harms. A commitment to continuous learning programs that are formulated on contractual respect and relational competencies that seek to recognize the goals and values of patients, their social support systems, their communities, and their health care providers, aims to build relationships through care, concern and mutual responsiveness of both the patient, while also addressing the broader social concerns.¹⁰⁷ Supporting patients through treatment plans include formulation of life style modifications that enhance sobriety, validation of a need to decrease identified vulnerabilities and triggers, and creation of a comprehensive plan that aims to enhance personal and social strengths of supports.¹⁰⁸

To enhance patient understanding of the multidimensional physiological, psychological, genetic, epigenetic, social and environmental factors that interplay with the risk, the progression, and the exacerbations of addiction dysfunction, it is important that the patient is educated on the complexities of addiction through a reconceptualization of disease; this includes illuminating vulnerabilities and empowering patients to persevere through setbacks and difficulties, without fear of punitive consequences; additionally, wise action includes visually providing the patient

with concrete evidence that dependency and addiction results in self-inflicted brain dysfunction. Consequently, it is imperative to provide education, regarding the hopeful evidence that this trajectory of dysfunction can improve with treatment interventions. Wise action for the patient includes taking responsible steps to reverse trajectory of dysfunction, reconceptualization of self-image, discontinuation of self-blame, yet empowered by the courage of recovery, refocusing and re-identifying with one's intrinsic self-worth and dignity.¹⁰⁹

3.3 Relational Responsiveness of Professionals.

Individual patient responsiveness and reaction to illness, disability and disease states can be highly influenced by the social constructs of culture and environment; therefore, it becomes a professional imperative for health care providers to remain scientifically and socially attentive to the responsiveness and reaction of individuals with a vast potential of disease states, illness and disability. Responsiveness, attentiveness and reaction for the management of care for those diagnosed with substance use disorders and addiction through the framework of an ethics of care requires prompt help establishing a strong trust and interdependence between the one who requires the help and the one who provides the help. This means that the interdependency in care is void of power hierarchies; the responsiveness is mutually exclusive for both the care recipient and the professional care provider.¹¹⁰

Professional responsiveness and reaction to those with any disease state, requires a reciprocal and attentive professional response in order to implement educational initiatives that seek to help decrease the risk of each person's potential harms that would increase the trajectory of risks for that individual: additionally, professional responsiveness and intervention in the management of substance use disorders and addiction should seek to improve the patient's response to illness, to improve social support systems, to provide coping strategies whose goal is

to increase neurocognitive functioning and decrease triggers that potentiate the escalation of the continuum of harms.¹¹¹ By implementing professional interventions such as therapeutic communication and empathetic responses, along with MAT and counseling would allow the important role of prompt treatment with scientific principles of care, in order to decrease individual vulnerability, without negative withholding of care because of negative biases, associated blame and stigma.¹¹²

Processes of professional responsibility must include maintenance of professional competencies through education initiatives that identify patients obstacles to the treatment plan, management during negative patient response interactions, instructions on de-escalation of negative responses, activation of positive coping strategies, and promoting professional assessment recognition that responsibility includes awareness of one's own potential negative responsiveness to patients, in order to embrace the virtues of care and support to patients, without succumbing to personal biases, discrimination, paternalism and parochialism¹¹³ The present day health care system is often times disconnected to the value of relational responsibility and responsiveness of patients; this disconnectedness exemplifies the potential for power imbalances that can silently overshadow the needs of care for those diagnosed with addiction disorders.¹¹⁴ The relational responsibility of professionals includes identifying the unique manifestations of each patient present within the continuum of substance use disorders; it is the health care professional's responsibility to remain attentive and responsiveness to the individual patient's genetic, biological, epigenetic, and sociocultural circumstances in order to help formulate initiatives that preserves individual and generational integrity.

Responsive and responsible prevention and treatment strategies must be implemented to address the complex nature of substance use disorders and addiction; unfortunately, scientific

and social delineations have segmented agreement about etiology. The segmentation of etiology results in fragmented and separate approaches to prevention strategies, treatment plans, and research initiatives; by separating the evidence, rather than integrating a comprehensive framework of the interwoven components of substance use disorders and addiction, the crisis of consistent and empathetic professional addiction management ensues.¹¹⁵

Health care systems and providers of care have a unique responsibility and ability to respond to the global challenge of the escalating rise of substance use disorders and addiction; health care providers have the unique ability to understand, to conduct research, disseminate the scientific findings and change societal constructs that perpetuate the etiological causes of addiction disorders while also understanding how to collaborate in complex care systems for paradigmatic management changes.¹¹⁶ Healthcare providers have an overarching and global responsibility to re-evaluate the current system of care to decrease the stigma, marginalization and disparities that increase the continuum of substance use disorder dysfunction progression; while also being on the forefront of aggressive treatment initiatives that seek to save lives.¹¹⁷ This initiative requires recognition that professional silence is a result of ethics avoidance and inattentiveness that violates the fundamental principles of human dignity and essence of a professional responsibility of care.¹¹⁸

According to the ethics of care framework, implementing the moral qualities of responsiveness, attentiveness, responsibility, competence, and integrity of care, requires paying attention to the innate human need of the ‘other’ who does not ‘know and requires help;’ professional attentiveness, requires responsiveness that results in care that is based upon scientific evidence and research, with the aim to improve patient responsiveness and reaction to their own disease state and physiological struggles in order to promote the security of self,

family, and the community. An additional professional focus should advocate for altering the sociocultural environments that increase stress for those who struggle with poverty, economic dependency, physical, and cognitive dependency that can further fluctuate decisional capacity to use substances as a coping strategy for the burdens of societal neglect and struggle.¹¹⁹

The current healthcare industry is required to remain responsive to the needs of all persons, especially those with neurocognitive dysfunction and fluctuating decisional capacity; additionally, members of the community should become supportive and responsive to the needs of the most vulnerable. The marginalized and impoverished have increased comorbidities of disease resultant from stress, decreased nutritional states, and other epigenetic influences that alter health awareness and access to educational public health preventative support.¹²⁰ Healthcare markets further widen health disparities for those who are at risk for substance use disorders and addiction. Populations that are unable to pay for health care services are victims of limited access to market system that further isolates, marginalizes and ignore those in greatest need; as a result, perpetuating disparities of care and risk for substance use disorders addiction.¹²¹

Therefore, the industrialization of primary market systems, focuses the attention and the wellbeing of individuals through the commodification of people's ability to pay for services; therefore, when people are viewed as a means to make money, those who have little access to insurance and economic resources become disproportionately unable to obtain access to care, negatively affecting the wellbeing of individuals and entire social communities through constructs of inattentiveness and unprotected responsiveness of the most frail and underserved.¹²²

Relational responsiveness of professionals seeks to actively respond to the need of those who suffer with economic, sociocultural, and physiological causes of dependency resultant with substance use disorders and addiction.¹²³ Embracing an ethics of care as a responsive moral

ethics framework, requires adherence to an understanding that the essence of each person is a moral connection of humanity by the very essence of the related nature of human dignity.¹²⁴

Empowering individual is just one identifying role in assisting the development of affective treatment strategies. Professional responsiveness motivates the recognition of the giftedness of individuals despite the sequela of harms caused by a disease trajectory, an ethics of care demands professional responsibility and attention to the moral qualities to treat all patients with the utmost dignity and respect; this dignity is actualized in human empowerment and relational support for those who suffer from the physiological consequences of substance use disorders and addiction.

a. Professional Attentiveness and Treatment with Dignity.

An ethics of care requires professional responsiveness and attentiveness that recognizes the complexities of illness through interconnected manifestations that include the physical, the social, the environmental and the psychological aspects that affect the chronicity of dysfunction and disease; an ethics of care calls for the incorporation of attentiveness and relational autonomy that holistically embodies dignity for each person, despite dependency, vulnerability or any characteristic that invokes negative responses from society. Recognizing the value of each person is at the heart of the moral framework of an ethics of care. Therefore, relational autonomy does not compartmentalize individuals because of individual physiological disease processes, from the social determinants of health or from the negative psychosocial responses of disease, but rather recognizes that chronic disorders such as substance use disorders and addiction are a result of a spectrum dysfunction and progression; management demands upon holistic, comprehensive and relational approaches that meet the needs of individuals without devaluing personhood.¹²⁵

Professional attentiveness requires the development of a relational and participatory plan that identifies the inadequacies of the present management of care; partnering concepts of relational

autonomy and professional attentiveness potentiates a paradigm of care that increases the dignity of care for those who are most marginalized.¹²⁶

Humans are sensitive beings that remain vulnerable throughout a lifetime, requiring the sustenance and development of relationships, companionships, and connectedness. Professional attentiveness recognizes that principles of human flourishing, actualization, and wellbeing are associated with the incorporation of holistic care paradigms that include the promotion of human dignity and respectful development throughout the lifespan.¹²⁷ Professional codes of ethics promote optimal care to individuals and communities, despite disease, diagnosis, race, gender or sexual orientation.¹²⁸ Unfortunately, aspects of stigma and marginalization still abound in the treatment of addiction dysfunction, often times unnoticed due to bounded ethicality and ethical fading; the current social constructs of care in substance use disorders and addiction management must embrace concepts of dignity for all human life.¹²⁹ Substance use disorders and mental health disorders are not exempt from the fundamental principles of inherent dignity in healthcare.

Professionals must embrace the fundamental principles of inherent dignity for all individuals, despite opposing views, values, or life choices; attentiveness, requires an adherence to models of care that promote understanding, enhances relationship, facilitates responsibility, encourages accountability, and incorporates safe and equitable elements of care.¹³⁰ Incorporating authentic implementation of dignity for those with substance use disorder and addiction dysfunction, must directly improve access to care, by influencing social constructs of ethical behavior change; attention to authentic professional values of attentiveness, recognizes that human dignity treats all persons with respect and care by facilitating care relationships, through embracing care as a deep and fundamental value.¹³¹ Professional responsibility, seeks to improve social and professional responsiveness to those who are vulnerable by aiming to unite and heal

versus separating and dividing.¹³² Professional attentiveness enhances the lens of responsibility and illuminates skills necessary to provide professional competency.

Implementing an ethics of care and relational decision-making decreases patient vulnerability and improves individual dignity through relational respects, of acceptance and care. All persons, by nature of their humanity, are fundamentally vulnerable and dependent upon ‘others;’ social constructs of family, community, and healthcare organizations can either produce positive care environments or negative care environments.¹³³ Positive care environments that decrease vulnerability, empower relational autonomy, and ameliorate individuals through the promotion of wellbeing and intrinsic value embody the essence of human dignity holistically in clinical practice; this includes the respect for the giftedness and value of those who suffer from substance use disorders, addiction and other neuropsychological diseases.¹³⁴

The United Nations Educational, Scientific, and Cultural Organization’s (UNESCO)’s Universal Declaration on Bioethics and Human Rights, asserts that the respect for human vulnerability and personal integrity should be respectfully considered in the care of all persons.¹³⁵ This care consideration includes persons with dependency and cognitive dysfunction that impairs the ability to make sound executive functional decisions because of neurocircuitry dysfunction related to substance misuse. Intrinsic dignity of persons is expressed through acceptance of individual limitations through amelioration of individual strengths that can be actualized through relational empowerment; relational empowerment and dignity recognizes that the values and the views of the persons who are vulnerable, require assistance when making decisions, encourages the person to be as self-supporting as possible, and assists with surrogate decision-making in order to help avoid harms for persons when aiming to decrease harms. Aiming to decrease harms because of impaired decisional capacity include the patient in the

decision-making process as often as possible, clear individual goals of treatment are respected in all decision-making circumstances.¹³⁶

According to the standards of the Patient Self-Determination Act, patients cannot be predestined or predetermined as incompetent decision-makers because of an ascribed physiological or asserted medical diagnosis; however, it is an ethical imperative to preserve individual dignity when a patient is at risk for harms to self or other because of poor decisional capacity.

Implementation of a care paradigm that seeks to avoid harms associated with vulnerabilities as a result of decreased cognition, decreased rationality, and alterations in thought processes are essential components of substance use disorder and addiction management that have not previously been considered as normal elements of care.¹³⁷ The particularities of the task at hand are monumental and a relational approach to care must incorporate strategic implementation process that strongly supports individual dignity, by the application of authentic professional responsibility and competencies.

b. Responsibility and Competency.

Incorporating responsibility and competency in professional interactions requires the incorporation of professional standards and objectivity without eliminating the relational elements of care.¹³⁸ It should be the goal of the professional to follow standards of clinical practice that include attentiveness to the needs of the patient utilizing evidence based practice standards that may separate the perceived biases of the caregiver, in order to provide the optimal care of the patient.¹³⁹ Professional responsibility includes incorporating the synthesis of professional knowledge, acting objectively for the benefit of the patient, disregarding ones' own personal or negative judgment regarding the patient while implementing the care of the 'other' with fidelity and compassion.¹⁴⁰

Patients entrust that professionals will maintain responsible and competent care in their interactions with patients by practicing and adhering to high moral standards that provide unwavering attention to moral values and professional codes of practice; patients anticipate that professionals will practice with integrity and trustworthiness.¹⁴¹ This requires that professionals act with fidelity, transparency, respect for informed decision-making, incorporation of individual rights, and the inclusion of the principles of beneficence, and non-maleficence during all patient interactions.¹⁴² Professionals that seek to maximize the value and dignity of the patient must also include the sharing the contributory causes of substance use disorders and addiction dysfunction to patients in order to include appropriate education strategies that integrate addiction etiology, epidemiology, neurobiology of disease, genetic and epigenetic pre-disposition, so that patients, families and communities are truly informed; incorporation of scientific knowledge for patients, potentially revolutionize the management of care for this disparate population, because it validates a model of care that eliminates the focus on intrinsic personal failures and blame and enables a more constructive paradigm of relational responsibility between health and wellness, versus debilitating self-destruction.¹⁴³

United States healthcare systems have primarily focused on individual autonomous rights of patients through constructs of decisional competence determinations of patients by professionals; however, responsibility in an ethics of care clearly displays the role of human flourishing as a priority within the nature of relational structures.¹⁴⁴ A collaborative model of an ethics of care recognizes that supportive and relational decision-making models improve individual and system outcomes, decreases risk for patient harms and heightens the interdependency and interconnectedness of social supports.¹⁴⁵ Minimizing the vulnerability and harms for those with substance use disorders, addiction and the often times resultant

neurocircuitry and neurocognitive disability that impairs executive functioning capacity of individuals by increasing the associated harms of substance use; assessing the quality of improved consent processes, assessing the quality of treatment outcomes, and assessing the development of processes that support relational decision-making potentiate the enhancement of human dignity for those with addiction. Therefore, it is the responsibility of professionals to seek processes of care that improve relational outcomes through implementation of shared decision-making by improving competence for those with increased vulnerability who are at risk to inflict harm to self, harm to families, and harm to future generationally through changes that seek optimal health for all.¹⁴⁶

Responsibility of action as an ethics of care value, does not solely focus on subscribed duties or obligations; within an ethics of care paradigm, responsibility embodies the care philosophy which embraces outreach to ‘others.’¹⁴⁷ Outreach to others is a professional responsibility in the management of care to those diagnosed with substance use disorders, addiction and neuropsychological illness, must understand that the collaborative path of care requires implementation of continuous assessment of patient understanding, assessment of patient centered goals and values, incorporation of participatory communication with others, attentiveness to adhering to the values and goals of patients, validation of vulnerabilities, and a commitment to eliminate barriers of care, which could impact patients and social supports negatively.¹⁴⁸

It must be additionally noted, that implementation of professional responsibility of this magnitude, requires organizational support systems and policy structures, that empower professionals to gain the competencies to implement supportive, relational and collaborative care to patients and families.¹⁴⁹ Professional competencies in the delivery of care for patients

diagnosed with substance use disorders and addiction dysfunction require that professionals manage the delivery of care through a thorough understanding of the rights of persons with dependency and disability.¹⁵⁰ Professional competence is attained through continuous reception of training and educational information that strengthens professional practice; professional competency is evaluated by organizational and professional standards of practice guidelines and aligns with the overarching concepts of professional ethical standards.¹⁵¹ Professional ethical standards of practice are required to be adhered to during the management of care for those diagnosed with both impaired cognitive disease and for those diagnosed with impaired physical disease.

Therefore, it is the responsibility of care providers to implement relational decision-making care guidelines that incorporate mental health policy and disability policy standards in everyday practice.¹⁵² Providing appropriate services to patients diagnosed with substance use disorders and addiction include anticipating continuous re-assessment and re-evaluation to ensuring that sliding scale capacity assessments are strongly considered in relational aspects of care and decision-making. Ensuring that futuristic decision-making is respected for those with neurocognitive changes and potential trajectories of care associated with neurological crisis and chronic deterioration are considered. This inclusive responsibility of re-assessing and re-evaluating patients is a process that professionals must clearly identify within the Patient Self-Determination Act; it is clearly stated, that all patients should be informed about the right to prepare advanced directives regarding the desired trajectory of their personal care.¹⁵³ Application of preparing relational decision-making directives in the management of care for substance use disorders and addiction have not been previously implemented; however, presents an exciting

care element that seeks to decrease the current trajectory of harms to the enormous number of patients and families affected by the current international addiction epidemic.

Responsibility to implement quality initiatives that enhance awareness to actualize maximum decision-making potential for those with fluctuating cognitive impairments related to substance use disorders and addiction is necessary; hence a reconceptualization of previous legal mandate and criminalization of addiction is warranted; additionally, bioethical principles that address the roles and duties of proxy or surrogate decision-making must be fully explicated within the framework of the unique patient circumstance in substance use disorders, mental health dysfunction with addiction and the neuropsychological manifestations of fluctuating levels of cognitive ability. Proxy and surrogate decision-making guidelines often emphasize the responsibility of the appointed decision-maker for patients during end-of-life decision-making; however, the application of proxy decision-making for a person with fluctuating competency as a result of substance use disorders and addiction within a framework of an ethics of care adds a layer of relational decision making, dispelling the myth of an ‘all or nothing’ appointment of surrogate decision-making proxy for those with neurocognitive dysfunction with addiction and substance use disorders.¹⁵⁴

Therefore, a supportive and relational decision-making implementation process becomes a process of professional responsibility and adherence to professional competencies; allowing persons with substance use disorders and altered cognitive ability that imposes a risk of self-harms, seeks to maximize individual decision-making without being subjected to the paternalistic decisions of others. Professional responsibility requires that patients are assisted in expressing values and wishes in the management of healthcare related decisions, prior to times of insistent self-harm through substance misuse.¹⁵⁵

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Chapter 4 Consent in Addiction Disorders

Obtaining informed consent for patients diagnosed with substance use disorders and addiction disorders is problematic because the assessment in determining individual autonomous decisional-capacity does not meet the standards of the informed consent criteria. Obtaining informed consent for patients who experience chronic neurological changes that impede executive cognitive functioning violates the historical elements of informed consent that sought to protect individuals from harms. Applying the elements of obtaining informed consent and assessing decisional capacity for patients who experience chronic substance use disorder and addiction, requires a careful analytical examination of the process, which seeks to investigate the known neurological changes that restrict adequate adherence to the elements of informed consent; the elements of informed consent include the analysis of the following criteria, first - determination of individual competency; second, maintaining voluntariness of individual; third, ensuring adequate disclosure; fourth, assessing individual capacity of understanding complex disease processes and treatment interventions and lastly, determining the individual's capacity to assess risks and benefits of complex health information.¹

Determining competency for consent for the medical treatment for patients diagnosed with substance use disorders and addiction, an understanding of the confirmed neurocognitive functioning changes must be carefully examined, because of the resultant physiological influences that alter executive functioning abilities; as a result, a careful analysis that seeks to determine the connection between how the escalating neurological dysfunction and neurocircuitry changes respond to stress states is paramount. It is a professional obligation to implement a holistic and ethical plan of care that adequately discloses the treatment plan,

assesses patient competency, determines voluntariness, assesses the capacity for understanding complex nature of substance use and addiction as a disease, and carefully assesses the ability of the patient's ability to assess risks and benefits of behavior and treatment.²

In order to comprehensively evaluate all of the essential elements of consent for those diagnosed with substance use disorders and addiction, professionals should assess and recognize the fluctuating stages of the substance use continuum. Meaning assessment is continuous, relational and varying; determining an individual's competency for substance use and addiction management takes longer than the determination of an instantaneous authoritative judgement of the 'other.' The professional team must seek to recognize the manifestations of neurocognitive and neurocircuitry dysfunction, understand the neuropathology, must recognized intrinsic reward/ stress responses and aim to decrease escalating physiological harms and often times hidden harms, such as psychological, spiritual, and existential suffering.³

Despite clear bioethical standards that require a systematic and comprehensive method of obtaining informed consent, traditional processes of obtaining consent for patients who suffer from substance use disorder and addiction continues to ignore the particularities of the spectrum of substance use disorders. Hence, perpetuating an increase in the associated neurobiological complications that often times result in loss of human life. Startling increases in mortality and morbidity result; death as a result of preventable accidents is now the third leading causes of deaths in the United States.⁴ Substance use and addiction is one of the leading causes of the occurrences classified as preventable accidents.⁵ Utilizing an ethics of care seeks to repair autonomy and authentic self-determination by incorporating relational decision-making processes through the actualization of individuals through community support, through the empowerment of relationships, and through prevention and wellness initiatives, that recognizes

the multifactorial processes, that necessities individual, social and cultural responsibility and culpability of harms.⁶

The constructs of an absolute autonomy model, which highlights isolation, blame and stigma for those who suffer from addiction and substance use only instills perpetual vulnerability and escalating harms; consequently, developing an improved informed consent processes for treatment of substance use disorders and addiction requires implementing methods, which clearly address the states of altered consciousness and cognitive impairments that occur both acutely and chronically as a result of substance use. An ethics of care, seeks a professional response that acknowledges the nuances of substance use and addiction when apply the criteria of informed consent; once, the criteria of substance use disorder continuum and addiction have been validated, a relational and shared decision-making mode of informed consent processes should be initiated.

Shared patient, professional and surrogate decision-making, ensures the implementation of professional partnership initiatives that respond scientifically to improve individual autonomy by improving decisional capacity and shared decision-making ability to individuals, despite the neuropathology of dysfunction; partnership links individual vulnerability to the strength of holistic management strategies.⁷ Improving neurocognitive functioning for those who suffer from substance use disorders and addiction is made possible by utilizing treatment interventions that adequately develop relationships of care for the patient, family, and community; the development of relationships of care eliminates the authoritative and paternalistic paradigms that result in radical neglect of dysfunction and disease, based upon out dated constructs of fear and repulsion associated with the 'unknowing' of how to manage what seems to be a self-induced

state of altered consciousness. The advances in technology and science can provide the evidence that begin to dispel the myths associated with blame and weakness of character for individuals.

4.1 Altered Consciousness and Relational Decision-making.

Consciousness is often thought of through constructs that are separate from the actual functioning components of the brain; however, consciousness and neurological functioning are intimately connected on a biological and cellular level.⁸ On a fundamental level the relationship between consciousness and neurological functioning are simply described within the elements of an awake state of being.⁹ In health care, level of consciousness is measured by determining potential complication of neurological functioning through the determination of assessing the level of consciousness by measurement scales; the spectrum of consciousness fluctuates as waxing and waning states that occur during sleep, during illness, during injury, during anesthesia, psychological responses, or during accidental loss of consciousness resultant from substance use, etc.¹⁰

Additionally, consciousness means more than simply an awake state. Consciousness also attempts to explain the ‘awareness’ of self, awareness in relationships with others, and awareness of one’s spacial presence in time and place.¹¹ Consciousness experiences the complexities within interactions, processes, and environments, through multifaceted interpretations of creating meaning through neurological functioning; consciousness requires executive functioning and complex decision making ability.¹² The state of consciousness also includes personal subjective experiences and how those experiences occur reciprocally with self and with others. During substance use and addiction, states of consciousness are altered with self and with others, due to the specific nature and neurological effects of each substance used; Elizabeth Hirshman’s phenomenology of addiction research describes the altered state of consciousness as an extreme

emotional and rational thought that deconstructs self and relationships through disordered, illogical, and destructive states that are described through an inauthenticity to self.¹³

However, consciousness is not restricted to the limitations of wakefulness or awareness; rather consciousness indicates the overall functioning of the human ‘brain’ and how it responds inclusively through biological functioning of the entire person through the complexities of the human nervous system.¹⁴ The neurobiology of consciousness is now able to trace the characteristic patterns of neural circuitry and hence neural activity, that occur during conscious and unconscious states within individual brains; yet, experiences seem intrinsically private and personal, which are more complex than neuronal activity alone and difficult to share through explanations of the spoken word linguistically.¹⁵ Individual experiences are intricately determined by both the objective and subjective responses of human encounters; to make matters more complex, neuronal experience responses are drastically altered through the chronic consumption of substances. Physiological and behavioral responses to these substances resort to intrinsic protective responses that seek to preserve reward pathways, that mistakenly link substance use with the urgency of survivability; hence, intrinsically altering perceived threats of safety to self, and creating tension between the subconscious version of the authentic self.¹⁶

The negative/ withdraw stage of addiction, contributes to the development of inauthenticity for individuals. Authenticity is described as being honest to one’s self, being trustworthy and reliable to one’s self; unfortunately, as a result of the neurological changes that seek to increase survivability and reward seeking behavior an inauthentic identity develops, hidden and shadowed in silence.¹⁷ The shadowed silence of inauthenticity causes existential suffering for those who experience substance use disorders and addiction.¹⁸ The public opinion, which reflects the projection of blame and stigma, only heightens the shadows of blame and self-

loathing, which incorrectly places an emotionally heavy burden upon individuals, escalating stress and further impairing executive functioning states, which further impairs the ability of the individual to act authentically and autonomously.

The neurobiological changes, which occur in patients during the acute and chronic stages of substance use disorder and addiction dysfunction interferes with the individual's neurological functional capacity; the changes in the hippocampus directly influence the impairment of short and long-term memory functioning and directly influence changes in the mesolimbic dopamine reward system by altering the neurotransmission of reward and survival seeking pathology.¹⁹ Impaired neurotransmission, impaired neurological functional capacity, and changes in reward seeking functioning interferes with the patient's ability to understand complex health information and to rationally consider the long term consequences of substance use harms and medical management of care benefits. The escalating short term stress responses, which motivate the survival reward circuitry functioning will intrinsically take precedence over executive decision-making functional ability; impairment affects rational understanding of long term medical treatment goals and blocks decisional capacity that is necessary to adequately determine the risks and benefits of treatment versus continued substance misuse.²⁰

Additionally, genes that are extensively exposed to cocaine specifically reveal mitochondrial membrane changes that are associated with altered hypothalamic pituitary adrenal axis system responses that further alter genetic expression, affecting glucose and metabolism regulation, in response to escalating stress.²¹ The epigenetic consequences of stress on future generations is staggering, indicating that the seemingly autonomous decisions of individuals deleteriously affects the future health and wellbeing of not only the individual, but the cellular expression and methylation stress responses of immediate offspring and future generations.²²

Seemingly the conscious and autonomous decisions of individuals negatively effects decision-making, and overall wellbeing and health due to harmful neurological responses, which affect decisional capacity for self and for future generations.

The American Psychiatric Association (APA) and the Diagnostic and Statistical Manual (DSM-V) of the American Psychiatric Association's fifth (5th) edition criteria defines dependency as an uncontrollable craving and an inability to stop using a substance despite repeated spoken desire to cease usage of substance; the criteria further includes that substance use disorders are categorized as a chronic spectrum disorder that begins with dependency fluctuates between remissions, relapses and climaxes with the acuity of addiction. Individuals who experience this spectrum disorder often verbalizes a desire to stop use of substance, but makes the non-rational choice to continue use of substance; the complexity of addiction pathology affects neurological functioning of the brain through the stages of binge/ intoxication, withdrawal/ negative effect, and preoccupation/ anticipation stages.²³ The scientific evidence supports that the processes that cause physiological dysfunction in substance use disorders and addiction alters consciousness, cognition and alters decisional capacity; thus, turning a blind eye and advocating for the autonomous rights of patients by stating, 'that patients are 'allowed' to make poor decisions when they fall within the spectrum disorder of substance use dysfunction' certainly exhibits an overt neglect for the respect of human dignity.

Robert M. Veatch, reflectively suggests that the notion of informed consent, requires a transition to a more modern and revolutionary conceptual development; recommending that the components of informed consent that seeks the theoretical 'good' for patients should be re-examined.²⁴ The transition toward a reconceptualization of the informed consent criteria and theoretical 'good' for patients in healthcare cannot narrowly focus on generic check-box criteria

and processes of informed consent; rather, each patient's condition must be carefully examined within the socio-cultural, particularities of disease, support, and resources available for each associated circumstance. The particularities for the treatment for those diagnosed with substance use disorders and addiction disorders must seek to decrease the risk of vulnerability associated with isolation, alterations in consciousness and impaired decisional capacity. The reinterpretation of informed consent for substance use disorders, must seek to implement processes, which seek to restore authentic identity and restore consciousness, which will as a result increase competency, improve self-determination, and restore autonomy of individuals through constructs of partnerships and relational decision-making.

a. Criteria for Consent: Autonomy and Self-determination.

Modern bioethics, medicine and science have unintentionally through reductionism, deductive reasoning and the quest to heighten the dignity of individual persons placed an impossible burden and value on autonomous decision-making.²⁵ In the application of healthcare decision-making, the very definition of autonomy translates from the Greek interpretation that recognizes the importance 'of self-ruling' principles and concepts.²⁶ It is interesting to note, that the original interpretation of autonomy identifies the self-ruling of city-states not the sole self-rule of individuals. With the advancement of modern biological science and democratic government establishments an increasingly reductionist interpretation of autonomy and its application to healthcare decision-making has evolved; as a result, the limited scope of individuality has wrongly led to the increased risk of harms that for those who are suffer from substance use disorders and addiction, further widening the gap of care, as a result of fear and isolation, in decision-making practice and process.

Historically, informed consent processes were implemented as a way to protect vulnerable research subjects from harm as a result of human experimentation; often times, physicians and researchers lacked transparency for those who were not informed regarding the nature of medical treatment or research.²⁷ It was common for patients to passively accept the hierarchical and paternalistic care of physicians without full participation, knowledge or understanding of the plan of care; therefore, implementing standards of informed consent became a revolutionary way to encourage patient participation in their plan of care. Constructs, which encourage patients to participate as partners in their own plan of care, requires grassroots health related education initiatives and higher level executive neurological functioning ability for individual patient participation; the conundrum is further complicated when an honest analysis identifies that all patients do not possess the complex reasoning skills necessary to ‘partner’ with professionals who are scientifically trained and educated. This understanding, necessities the importance to implement relational decision-making models of care that extends beyond the medical community and acknowledges the multifaceted, holistic and relational nature of family, social, and cultural supports.²⁸

The bioethical criteria necessary for obtaining consent in health care requires that the patient has capacity to make autonomous decisions, this ability to make one’s own decisions is paramount for self-determination. Self-determination, is more specifically defined as the universal right of individuals to determine their economic, cultural and social development.²⁹ Competency in health care decision-making identifies a patient’s ability to understand health related information and then be able to express personal values related to treatment choices, consistently over time; additionally, the ability to understand health related information should be synthesized in the expression of desired outcomes for care without coercion.³⁰

During different periods of one's life, personal ability to perform tasks, including decision-making, fluctuates from periods of independence to periods of increased dependency on others for decision-making; optimal development that promotes autonomous decision-making requires acquiring interdependent knowledge from others in order to increase foundational wellbeing and to decrease vulnerability through family or community structures.³¹ Therefore, autonomy and self-determination is a relational process shaped by the accumulation of knowledge, which is shared through support of family, healthcare providers, and communities.³²

The legal criterion of competency, presupposes that the individual who seemingly makes a conscious decision to consume alcohol or illegal drugs is acting autonomously; however, the physiological determination of deciding a patient's capacity in order to make clinical decisions should not confuse the legal linguistics of decision-making, with the scientific and neurological application of evidence based decision-making.³³ Historically, maintaining that patients who are diagnosed with substance use disorders and addiction meet the decisional capacity criteria necessary for self-regulation and self-governance during their medical management of care is not scientifically justified. Therefore, patients who are diagnosed with substance use disorders and addiction require application of a revolutionary standard of professional practice and care that truly differentiates autonomous decisional capacity versus physiological alterations in neurological functioning that is affected by genetics, epigenetics, and neurotransmission alterations due to substance.³⁴

Application of an interpersonal, professional, and relational system in decision-making is necessary to enhance the social nature of empowering personal autonomy and decision-making.³⁵ The central proponents of individual autonomy have rightly heightened the bioethical principle of 'respect for autonomy.' The bioethical principle emphasizes the intrinsic value and dignity of

all persons, by placing intrinsic value of each person against constructs of discrimination and stigmatization for marginalized individuals, communities and populations; the respect for autonomy principle recognizes that all persons have the fundamental right to rationally choose one's own trajectory in life, including medical treatment and care in relation to one's individual values and beliefs.³⁶ Additionally, healthcare professionals commonly seek to include in practice the bioethical principle of beneficence, which rightly prioritizes seeking the positive good for patients during management of care; providing the good for patients, has often times resulted in paternalistic decision-making of practitioners without considering the individual goals and values of the patient.³⁷ Developing partnerships through shared decision-making models of care, seeks to embrace patient centered goals and values, while also preventing harms associated with neurological dysfunction; placing absolute autonomy in its rightful place through the support of relationships, or a relational autonomy standard.

More specifically, the bioethical principle of autonomy focuses 'on the respect for autonomy' by 'normal choosers' in regard to their actions of intentionality, comprehension, and understanding; those who suffer from substance use disorders and addiction are not cognitively or neurologically normal choosers. Respect for autonomy is actualized by healthcare providers when a patient's perspectives, values, and wishes are acknowledged, implemented and adhered to by their healthcare providers; yet, if known cognitive or neurological impairments are overtly manifested and are ignored by practitioners, then escalation in vulnerability is inevitable for this disparate population, that suffers from substance use disorder and addiction.³⁸

The delineation to respect autonomous individual responses to decision-making is justified in patients who possess normal decisional capacity; however, the process is confounded when patients are unable to adequately understand health information, express or communicate

care preferences, regulate projected consequences or understanding of treatment interventions, and has difficulty rationalizing care, risks and benefits of care; this conundrum of decision-making as it relates to determining the competency of persons who demonstrate altered levels of consciousness, as a result of substance use disorders and addiction, requires a comprehensive and systematic evaluation.³⁹

Decision making for patients who experience altered levels of consciousness as a result of progressive dementia or complications from neuropsychological factors are commonly determined incompetent and are eligible to receive support from surrogate or proxy decision-makers.⁴⁰ Cognitive examinations and assessment of decisional capacity is routinely completed; as a result, many hospitals and practitioners, utilize a simple psychiatric consultation process to accomplish this goal.⁴¹ Yet, this oversimplification of obtaining a psychiatric consult is not the best way to determine cognitive capacity in patients who suffer from substance use disorders and addiction and often times results in a subjective and paternalistic decision patterns based upon ‘best interest’ standards.⁴²

The best interest standard in health care, identifies that when a patient is unable to freely choose a medical trajectory of care, then physicians and health care practitioners are required to implement the best interest standards of care for that patient; concurrently, when a patient is deemed incompetent to make their own health decisions, a surrogate decision-maker is assigned to make decisions for the patient and is expected to adhere to the same standard of care.⁴³ When autonomous decision-making ability is lost by persons because of declining neurological functioning, bioethicists have implemented forms of surrogate decision-making processes through application of subjective and objective judgment standards; consequently, implementing a systematic process for determining decisional competency, while navigating through the

variable levels of consciousness and cognition changes in substance use disorders seeks to comprehensively improve supportive decisional care.⁴⁴ However, best interest standards cannot occur in isolation, without ‘knowing’ the values of patients, families, and community.

Collaborative and relational decision-making is an approach that includes professional expertise, requires family participation, and an inclusion of what is known of the patients expressed desires or values of care.⁴⁵ Within the traditional surrogate decision-making role, the proxy or surrogate is charged with determining healthcare decisions for the patient, based upon what is known to be the previously expressed desires or wishes as they would have been related to healthcare treatment and interventions.⁴⁶ When the patient’s interests and values are unknown, the best interest standard can be implemented; decisions are made because they are in the best interest of the patient, meaning, surrogates or proxies are not permitted by law to reject treatment interventions that would not be beneficial to that patient.⁴⁷

Vulnerable populations, such as those diagnosed with mental health disorders, substance use disorders, and any other patient who is determined to have decreased levels of consciousness, and those diagnosed with neurodegenerative diseases require collaborative, responsible, and professional advocacy interventions that implement decision-making through relational and professional advocacy plans of care; relational and professional advocacy plans should be implemented for those who have altered levels of decisional capacity, altered abilities to communicate those abilities, and insufficient resources or family support.⁴⁸ Therefore, implementing an ethics of care maximizes the relational aspects of decisional care for those who require support from professionals, family, and society.

Family members or proxy decision-makers often times verbalize concerns that they are inadequately prepared to make substitute decisions; additionally, professional healthcare

providers feel that limited clinical standards or guidelines of care have yet to be fully developed in order to offer improved professional development strategies that seek supportive and empowering consent processes for those diagnosed with neurocognitive impairments, substance use disorders and addiction.⁴⁹ This conversation and establishment of guidelines must supersede the care of those diagnosed with substance use disorders and addiction. Health care professionals have an obligation to advocate for the avoidance of harms, implement treatment interventions that seek to enhance positive coping strategies, and advocate for avoidance of neglect associated with impaired decisional capacity for those who suffer from the harms associated with the physiological coercive processes that hijack neurological functioning of those who are inflicted by substance use disorders and addiction.⁵⁰ Consent processes in the management of care for those who are diagnosed with substance use disorders and addiction, must seek to revolutionize best practice standards by implementing a relational alternative to consent through a paradigm of authentic care and shared decision making strategies that include preventative and harm reduction education initiatives, developed for individuals, family, healthcare practitioners, and entire social communities.

b. Shared Decision-making: Developing a Treatment/ Social Plan.

Allowing individual and autonomous decision-making in the management of care for patients diagnosed with substance use disorders and addiction has not improved the outcomes for this epidemic.⁵¹ The most severe form of the continuum of substance use disorders is addiction; addiction is complicated by the intrinsic and coercive nature of the substance's ability to alter cellular functioning, impact epigenetic and biological functioning, and severely alter cognitive and neurological processes; managing the coercive nature of substance use requires a relational supportive development of a holistic and comprehensive treatment plan that must include

community and social empowerment. Furthermore, the current social structure of criminalization for those who suffer from substance use disorders and addiction only serves to alienate and isolate individuals from supportive social environments, family, and communities. Social constructs of marginalization and stigma must disintegrate; hence, aiming to alter the epigenetic consequences of dysfunction from one generation to the next.⁵² It is time to holistically develop strategies that comprehensively manages all aspects of substance use disorders in order to decrease harms through relationship, shared decision making and community collaboration.

Because the progression of the chronic continuum of substance use disorders and addiction progressively impedes the voluntariness of actions for individuals and thus inflicts its learned behavioral perpetuation for subsequent generations of individuals, while also continuing the intrinsic pathology risk of cellular methylation and adverse cellular responses, which influences generational cellular expression during periods of stress and illness, it becomes an ethical imperative to initiate a paradigmatic and revolutionary treatment program that includes a social plan to prevent further individual and consequential societal harms. This can be accomplished by avoiding alienation, marginalization, isolation, and dislocation of patients through the development of evidenced based treatment programs that are not discriminatory and reflect a relational paradigm of care.⁵³

Developing a shared decision-making model of care requires developing components of care that implement strategies that seek to decrease vulnerability, paternalism, hierarchical power imbalances and violations of individual human rights. As a result, the current framework that only identifies, individual moral culpability, by not acknowledging or examining the comprehensive and communal nature of the rise in substance users disorders and addiction nationally, fails to reflectively consider the evidence that supports the pathophysiological,

neurological, and social constructs that continue to escalate harms, disability and death.⁵⁴ The unrealistic assumption, that addiction is a freely chosen path in life blatantly ignores the supportive scientific evidence of pathology; as a result, the extreme neglect of persons, despite the APA's DSM-V criteria that clearly illuminates the neurological pathology that substance use disorders and addiction continues despite the frequently verbalized desire, by many to cease consumption⁵⁵.

Professional practice interventions, pharmaceutical interventions, collaborative treatment modalities, and holistic interventions that aim to heal existential and spiritual suffering have resulted in improved outcomes for patients and families; therefore, the hesitancy to develop alternative health care treatment options as a result of misinterpreted and narrow constructs of autonomy as it relates to substance use disorders and addiction appears to be a grave violation of the Universal Declaration of Human rights. Article one, states: 'all human beings are endowed with reason and conscience and should act toward one another in the spirit of brotherhood.' Perpetuating human harms, through antiquated authoritative punishment strategies is no longer an acceptable management of care process; perpetuating harms increases vulnerability and suffering for this disparate population.⁵⁶

Developing a shared decision making model for the management of care for patients diagnosed with substance use disorders and addiction, seeks the development of an alternative method of obtaining informed consent, through an essence of a common spirit or relational partnerships that seek harm reduction and prevention strategy implementation.⁵⁷ The development of an alternative method of an informed consent process should clearly articulate the importance of shared decision making and the development of individual treatment options; but the criteria must also incorporate a social plan of support, through empowerment, guidance

and hope.⁵⁸ The development of relational criteria is essential, versus the solitude associated with a disease model of care and isolation of a criminalization model of care that instills barriers to individual decision making through constructs of fear, rejection and marginalization.⁵⁹

By addressing the particularities associated with the neurobiological pathology, which causes the neurocognitive dysfunction associated with the continuum of substance use disorders and addiction, pathways of recovery can materialize when compassionate and relational education initiatives are established.⁶⁰ Utilizing elements of surrogate decision making is helpful; yet, extrapolating elements of transparency, empowerment, and collaboration in the development of practical, measurable and realistic goal setting must also be established. Criteria of effective surrogate decision making in the management of care for substance use disorders and addiction, must include a compassionate educational based treatment initiatives that teach prevention and harm reduction strategies.⁶¹

The experiences of individuals, family members, and communities who are affected by the devastating effects and the struggle of loved ones who are diagnosed with substance use disorders and addiction continues to escalate in numbers. The manifestations of existential suffering and the struggle of those who are diagnosed, negatively affects family and friends as they witness the neurocognitive loss of relationship with a loved one who suffers from substance use disorder and addiction; this emotionally draining loss can negatively affects the entire family, and community, through emotions such as depression, helplessness and anxiety with the seemingly unexplainable trajectory of dysfunction and minimal professional and societal support.⁶²

Additionally, associated family members are often times labeled with the same stigma, shame and blame that plagues the one diagnosed with addiction; therefore, perpetuating

detachment, neglect and abandonment for those who suffer. Developing a model of care that seeks empowerment, healing, and support aims to project a framework of care that weaves together the human values of respect, dignity and social justice. Implementing ethical values provide a comprehensive framework of care that seek the actualization of attentive, responsive, and accountable professional behaviors that honor and respect the development of realistic patient goals that implement strategies and interventions that actively seek to prevent harms and improve health outcomes for individuals, families and communities, through a comprehensive and relational interpretation of competency for consent.⁶³

4.2 A Relational Interpretation of Competency for Consent.

Current management of chronic disease states such as hypertension (HTN), coronary artery disease (CAD), chronic obstructive pulmonary disease (COPD), type II diabetes mellitus (DM), obesity and human immunodeficiency virus (HIV) all entail management of care paradigms that included shared decision making regarding diet, exercise, pharmaceutical interventions mindfulness programs and other health related prevention strategies in the management of physiological disease processes that are also caused by complex cellular, genetic, and environmental factors; treatment does not result in isolation, marginalization, and social alienation. When a patient diagnosed with diabetes continues to consume foods high in sugar, rather than alienate, marginalized and discriminate, programs attempt to include interventions that support behavioral modification, interventions that identify psychological support, offer alternative pharmacological management strategies, and offer alternative services to avoid progression of etiological advances of chronic disease and heritability.⁶⁴

The professional call to action requires application of a responsive health care environments that identify that the cognitive dysfunction of addiction should not negate the

provision of the same evidenced based practice and care, as provided in other chronic and complex inherited diseases; unfortunately, due to the nature of perceived blame of disease choice and negative nature of cognitive impairment, current practice perpetuates progression of chronicity, suffering, and death.⁶⁵ It was not so long ago, that similar stigma, alienation, and marginalization occurred for infectious disease states such as leprosy and HIV. Both of which were associated with individual moral failure and culpability.

The relational interpretation of determining competency for consent in the management of care for patients diagnosed with addiction disorders requires the support of healthcare providers that recognizes that those who are diagnosed with impaired cognition and impaired executive neurological functioning should not be expected to medically manage their own trajectory of care.⁶⁶ The reinterpretation of consent in the management of care of addiction disorders requires a commitment of professionals to eradicate the socially embedded culture of blame, shame, and isolation by teaching prevention strategies, instructing responsibility and personal ownership of susceptibility of disease, and teaching strategies that optimize human flourishing and potential.⁶⁷

This initiative requires the development of individual patient strategies that acknowledge human potential and flourishing within the individuals given circumstances, focusing not on negative and perceived faults, but on individual drive and strength that potentiates hope and recovery.⁶⁸ This hope of recovery is not achieved through isolation, marginalization and discrimination, but through respectful education strategies that patiently discuss the physiological processes that cause impaired decision making for those who suffer from substance use disorders and addiction.⁶⁹ Once the physiological elements that contribute to individual impaired decision making is taught and understood by the patient, initiatives that seek to improve

the journey of neurocognitive functioning can begin. A partnership that is grounded upon shared decision making is initiated through initiatives that include the unique perspectives, values, and needs of each patient.⁷⁰

Eliminating paternalistic and authoritative measures of professional coercion is paramount to the success of the patient's improved competency and repair of developing autonomous decision making capabilities. Professionals must begin to embrace the perspective that medical and healthcare initiatives are ill prepared to implement best practice standards without knowing the particularities of the unique perspectives of individual patient values and circumstances; however, this does not negate the professional responsibility to openly share long term trajectory of risks and harms to patients, families and communities.⁷¹ The new approach to informed consent must consider the nuances of patient choice, values and goals in order to develop authentic and caring partnerships.⁷²

a. Impaired Decision-making.

Identifying impaired decisional capacity in addiction disorders is challenging, unpredictable, fluctuating and progressive or regressive in nature; the substance use disorder determination is often considered through the lens of a spectrum disorder, with substance dependency being the preliminary state of the dysfunction and addiction being the acute and most severe progression.⁷³ Therefore, the disorder requires application of skilled assessment strategies to determine, at which stage or progression of neurological and cognitive dysfunction the patient is currently experiencing; this assessment should include a comprehensive professional evaluation assessment, completion of the MacArthur Competence Assessment, and examining the results of periodic nuclear imaging scans to diagnostically determine impaired decisional capacity.⁷⁴

Additionally, an empathetic approach that seeks the values of care, such as attentiveness and responsiveness are necessary to ensure treatment with dignity and respect for the ‘other,’ despite neurological vulnerability.⁷⁵ Professionals must recognize that decisional capacity and decision making in addiction is fluctuating, it cannot be managed as a stagnant entity of the treatment plan and it would be negligent to not comprehensively assess with a detail to due diligent considerations of the known neurological fluctuations. During substance use disorders, capacity fluctuations occur between periods of improved understanding during remission and stability and drastically impaired capacity during times of chronicity and exacerbation.⁷⁶

Until recently, the ability to gaze into the operational components of the brain’s phases of neurological functioning was unimaginable; yet, presently the discovery of imaging processes, which enable practitioners to view the brains perfusion and neurocircuitry activity is possible.⁷⁷ This imaging helps practitioners see hypoactive, hyperactive, and normal activity of a person’s neurological brain functioning; this technology revolutionizes the care for patients after neurological insults, such as from strokes, epilepsy, psychiatric illnesses, traumatic brain injury, or with the progression of Alzheimer’s disease.⁷⁸ This technology also has the ability to revolutionize the care of those who suffer from substance use disorders and addiction.⁷⁹ This technology is called single photon emission computed tomography (SPECT) scans along with the use of computed tomography (CT) scans, is known as a SPECT-CT scan.⁸⁰

This visualization can now support the individualized management of care components necessary to validate and support the clustering of symptoms associated with the deterioration of functioning from substance use disorders and addiction.⁸¹ Why is this important? Because the alterations in decisional capacity and the nuances of the particularities of brain dysfunction must be treated according to individual necessity. Through brain imaging studies, the nuances of

addiction, criminalization, isolation, escalation of stress states, increased emotional anxiety can clearly validate the negative impact on brain functioning, health and decisional capacity.⁸²

Impaired decisional capacity in the management of care for those with substance use disorders and addiction is a serious conundrum of care that has been neglectfully unaddressed medically, socially, culturally and politically; unfortunately, not identifying the problem has only escalated in individual and societal harms. Creating inaccurate constructs of unfounded presuppositions that claim addiction is associated ‘as a freely chosen component of the will’ by claiming that the user consumes in order to seek euphoria is unfounded. The proliferation of this over simplified fallacy of addiction can no longer confirm addiction as a weak moral resolve of individuals; the perpetuation of this inaccuracy is neglectful and unethical and can no longer be utilized as rational justification for allowing the perpetuation of harms associated with those who suffer as capable to manage their own trajectory of care.

In 1947, after a series of investigations, the sociologist Alfred Lindesmith noted in his book entitled, *Opiate Addiction*, that those who used opioids sought to relieve the negative physiological withdrawal states of distress and the escalating stress responses that occurred after utilization of substance, rather than freely choosing the use substance for the attainment of euphoria.⁸³ Now with the availability of supportive SPECT-CT scan imaging, the deleterious effects of substance use disorders can no longer be disputed as a disorder of moral weakness and individual culpability; behavioral, emotional, cognition and psychological impairments result in pathological brain dysfunction that impairs normal neurological functioning that clearly includes impairment in cognitive processing.

The individual circumstances that create substance use disorder and addiction are different from person to person; additionally, the methodology to restore impaired decision

making, once substance use disorders and addiction results is equally complex. Yet, the notion to restore competency and decision making ability for those with substance use disorders and addiction is often spoken in terms of individual responsibility, implying the notion that the recovery from inflicting harm on self and others is freely chosen and therefore must be individually resolved.⁸⁴ This notion that suggests that a person with substance use disorders and addiction is fully competent, and solely responsible for making competent decisional claims to prevent harms is unfounded. Therefore, implementing programs that seek to relationally restore competency and consciousness associated with the neurological and neurocircuitry harms associated with addiction are necessary.

Determining the particularities of impaired decision making in substance use disorders and addiction can benefit from the investigative inquiry of the neurosciences and in particular neuro-ethics; technological imaging, indicates that neuronal activity involved with the processing of large amounts of information, is impaired during intense emotional states, trauma, infections, environmental toxins and drugs.⁸⁵ Investigative utilization of the information should seek to create concrete neurological guidelines in determining competency for decision making for those diagnosed with substance use disorders and addiction. Currently, the determination of obtaining an assessment for those with potentially impaired decision making ability is commonly evaluated through the examination of the components of a person's understanding, expression of choice, appreciation of those choices and reasoning ability through the utilization of the MacArthur Competence Assessment Tool. (MacCAT-T).⁸⁶ However, the utilization of this assessment tool is rarely, if ever utilized in the determination of competency for those with substance use disorders and addiction. Additionally, new technologically advanced imaging scans should be used to guide the implantation of determining decisional capacity.

Emotional intelligence and emotional responses have also been determined to impact the beneficial or detrimental components in decision-making processes; without balanced and sustainable emotional responses, decision-making capacity has been found to be significantly altered.⁸⁷ Therefore indicating that both cognitive and emotional abilities are necessary to sufficiently participate in informed consent understanding, adds yet another layer of complexity as it relates to the nuances of impaired decision-making for those with substance use disorders. Human emotions are characterized generally through complex mechanisms of incentive feelings, biological factors of intensity, which can be characterized through enculturation or socially learned characteristics.⁸⁸

Identifying the importance of human emotion and cognition in the process of assessing impaired decisional capacity for those who suffer from substance use disorders and addiction becomes the essential elements necessary in determining the ethical implications of utilizing a relational process for informed consent and decision-making. Examining the psychological and neural properties of the cognitive ability during decision making processes for those with substance use disorders is relevant as it closely correlates to determining accurate and accountable assessments as it relates to impaired decisional capacity, negative emotional responses, and the stress of the negative withdrawal stage of addiction.⁸⁹

Emotional states are effected by either the physiological processes of sympathetic nervous system (SNS) responses or parasympathetic nervous system (PSNS) responses; sympathetic nervous system responses invoke physiological excitatory states, which are manifested by flight or fight responses and the parasympathetic nervous system responses induces feelings of peace, contentment and relaxation. Negative, stress states further induce impairments in emotional response, which impedes functioning of the prefrontal cortex, clearly

potentiating impairment of cognition, negatively effecting executive functioning ability and negatively effects actions and impulses as a result of dysregulation of those emotions.⁹⁰

Dr. Bruce Lipton, brilliantly witnesses the results of both positive and negative emotions as they influenced the failures and success of his struggling medical students in his work entitled, *The Biology of Belief*. By studying the work of Candace Pert's *Molecules of Emotion*, both Pert and Lipton unlock the scientific evidence that reveal an organism's ability to communicate through intracellular organism responses, that either induce human growth states or initiate human protection or organism survival states.⁹¹ States of protection, invoke the stress response or the organism activation of the sympathetic nervous system response. Alternatively, human growth states rely on nutrition, harmony, synergy of cellular functioning and supportive relationships; during stress states alterations in cognitive brain functioning decreases and during times of growth, cognitive functioning improves and develops in harmony with others.⁹²

Therefore, examining programs that seek to decrease stress responses and improve emotional responsiveness that increases the ability to improve competency through relational decision making processes, education and prevention strategies potentiate improved patient outcomes. Because current decision-making guidelines fail to adequately measure decisional capacity in patients' diagnosed with the neurodegenerative effects of substance use disorders, addiction and the associated mental health disorders it is recommended that collaborative professional consent processes are created that require diligent checks and balances that seek to preserve the dignity of those who suffer, through accurate and objective strategy implementation; adequate assessment strategies should attempt to identify diagnostic and treatment plans that seek to improve patient competency and seek to improve outcomes through enhanced measurement criteria.⁹³

b. Improving Competency.

The neglect to develop affordable and accurate diagnostic testing for risk of dependency dysfunction and the failure to develop affordable and accurate diagnostic testing to indicate progression of disability of dependency dysfunction violates the very principle of respect and dignity that seeks to protect autonomous rights that healthcare providers proclaim to protect; therefore, clearly determining rationality and how it may determine free choice must be evaluated. Rationality clearly identifies one's ability to reason, based on calculation of objective determination of facts, and then deliberating and acting according to those facts.⁹⁴ Free choice is associated with one's voluntary decision, one's own determination, one's consent or assent indicating free will and responsible rationality to make that choice.⁹⁵

The neurological, biological and genetic processes that affect neurotransmission and complex neurological functioning in cognitive rationality are visually recognized as functional impairments on diagnostic imaging studies; additional scientific evidence supports that purposeful 'thinking' behavior does not occur during substance use and addiction exacerbations. Rather, addiction stages are affected by pathway stimulation or reward deficit mechanisms that neurologically alter transmission pathways that result as habitual and 'unthinking' behavior.⁹⁶ Placing credence on the 'intactness' of decisional capacity for individuals diagnosed with substance use disorders and addiction, as if it were a reliable source of reliability, without completing a comprehensive capacity assessment places the patient at an unprecedented risk for harms and death.

The sympathetic nervous system activation that induces increased 'organism-protection' stress response states within the sub-conscious of those with addiction, overtly overrides complex decisional neurological functioning by inadvertently hijacking individual awareness,

creativity and consciousness, because of the perceived and urgent need to ‘protect self;’ when the sympathetic nervous system overpowers the organism in order to seek the organism’s protection, the functional components that support growth, development and human flourishing are greatly impaired.⁹⁷ Substance use disorders and addiction are fueled by overactive protection mechanisms that escalate urgency for perceived survival needs, invoke fear, paranoia and seemingly self-indulgent responses of manipulation for consumption of substance; yet, the underlying reactive purpose is one of survival.

The quest to improve competency for patients who are diagnosed with substance use disorders and addiction requires the development of a treatment plan that requires a cultural paradigm shift that recognizes that substance use disorders and addiction occur because of neurological pathway changes that alter motivational reward pathway dysfunction through complex physiological states that solely seek organism survival. The outdated assumption that substance use disorders and addiction represents a patient’s cognitive choice for self-harm can no longer be classified as social deviance, and managed through methods of marginalization and isolation.⁹⁸

Assessment tools have been created with success to help manage care for patients and families through shared decisional assessment of values in relationship to progressing and deteriorating neurological and neurodegenerative dysfunction in patients diagnosed with Parkinson’s disease and Alzheimer’s disease.⁹⁹ Diagnostic assessment tools are necessary to measure increasing risk of disease progression in all other chronic disease states, finding ways to measure the resultant impaired competency in addiction is paramount; assessment tools that could routinely be used to identify changes in decisional capacity in addiction disorders could include laboratory tests that measure serum levels of illicit substances, laboratory tests that

measure specific stress hormones and nuclear medicine brain scans that seek to provide objective visual results, which show the confirmed physiological and neurological evidence of brain dysfunction for both the individual, their families, and to the healthcare team.¹⁰⁰

Implementing processes to improve competency for those who suffer from substance use disorders and addiction requires application of a comprehensive biological, psychological, and socially constructed paradigm of care that utilizes the elements of an ethics of care in order to re-interpret consent in the management of care for this neglected population. Elements of care seek to improve human potential, actualization and growth; therefore, seeking to decrease the perpetuation of the deleterious effects of stress states that are activated due to the perception that individual survival is threatened. Management of care interventions, must seek mechanisms that decrease sympathetic nervous system responses, which result in catecholamine and adrenal hormone releases, that perpetuate the escalation of disease progression.¹⁰¹

In order to improve competency for patients who are diagnosed with substance use disorders and addiction specific components must be identified to improve the neurological functioning that is impacted across the spectrum of substance use disorders and during each of the stages of addiction; additionally, measurable assessment tools that accurately determine competency in health care decision-making that parallel the examination of the biological criteria during each stage of the addiction cycle must be comprehensively identified. Substance use disorders and addiction are associated with the following criteria: 1. Individual verbalizes consistent desire to decrease or discontinue use, without success. 2. The individual spends an extraordinary amount of time seeking, using and recovering from substance use. 3. Individuals daily routines revolve completely around the substance. 4. Individual craving is persistent and associated with allostatic changes in the individuals neurocircuitry alterations in the brains

reward structures; identification of improved competency cannot be determined until the criteria above is resolved.¹⁰²

When implementing strategies to assess competency, the health care practitioner is required to determine if the patient has the ability to understand health information and if the patient has the ability to understand the consequences of their health decisions.¹⁰³ This process is not accurately determined for patients who suffer from substance use disorders and addiction; however, it can be accomplished through the systematic assessment of changes with *'The Aid to Capacity Evaluation'* (ACE), *'The MacArthur Competence Assessment Tool for Treatment'* (MacCAT-T) and through SPECT-CT imaging evaluations during the various stages of substance use disorders and addiction. The MacCAT-T, is particularly helpful because it provides the patient the opportunity to 'write out' or verbalize their understanding of diagnosis, features of disorder, trajectory of disorder, and address understanding of interventions, discuss benefits and risks of treatment and to discuss alternate treatment options.¹⁰⁴

By instructing the patient who is diagnosed with substance use disorder and addiction to periodically reflect about their comprehensive understanding of their disease progression, reflect upon their understanding their disorder, their treatment goals, assess their benefits and risks associated with progression of substance use, and understand the benefits and risks of treatment interventions and alternate treatment interventions, enables family and professionals to while carefully document and determine consistency of understanding over time of those choices.¹⁰⁵

By documenting patients written or verbal responses, practitioners are able to assess the understanding of findings; additionally, detailed assessments that evaluate if the decision-making process is affected by adverse or beneficial consequences, by assessing if patient's are unable to respond to open ended questions, to determine if patient's require prompting, to assess if the

patient is affected by cognitive signs of guilt, shame, punishment, hopelessness, delusions or psychosis or if the patient's decisions are influenced coercively by 'drive' to use substance during negative withdrawal states.¹⁰⁶

Additionally, by diagnostically evaluating nuclear medicine SPECT-CT scan results, concrete visual neurological dysfunction can be measured and utilized in determining severity of progression of incompetency over time. Conversely, if a SPECT-CT scan results show visual brain functioning improvement and the patient is able to consistently document an understanding of health-related information and synthesize the expression of desired outcomes without coercion of substance, as a result of improving standardized assessment criteria, then identification of improved competency can be determined.¹⁰⁷ In order to implement the above mentioned competency assessment process, the establishment of professional and family interpretation of informed consent becomes an essential element in the patient's plan of care. This relational process of determining competency, initiating shared decision making, and implementing a treatment plan that requires the engagement of the patient, family, community and health care professionals, developing partnerships and shared decision making can radically improve the outcomes strategies that seek benefits over risks, improve interventions that support neurological healing, versus radically neglecting individual needs by allowing the continuation of impaired decisional capacity to dictate harms to vulnerable populations.

4.3 A Relational Interpretation of Coercion by Professionals.

According to an ethics of care, human nature is empowered by the relational response with others; hence, growth, development, empowerment and actualization of individuals are the primary focus and goals of all relationships.¹⁰⁸ Coercion on the other hand is defined as influencing another with the use of physical or psychological threats.¹⁰⁹ Healthcare professionals

in the management of care for patients who are diagnosed with substance use disorders and addiction, do not seek to restrain patient's decisional capacity through coercive means; rather, health care professionals influence decisional outcomes out of respect of human dignity, when patients lack the decisional capacity to prevent harms to self.¹¹⁰

When cells and organisms are left within toxic environmental states, abnormal cellular isolation and apoptosis result; similarly, when people are negatively influenced by environmental factors that are toxic to the welfare of individuals and future generations, illness, isolation and death occur.¹¹¹ The current management of care strategy for substance use disorders and addiction must reflect upon the perpetuation of toxic and stressful environments in which it almost unknowingly persists, perpetuating human harms, illness and death. Statistics reported by the World Health Organization (WHO), indicated that in 2014 alcohol related deaths exceeded three million persons globally and that 'other' substance related deaths exceeded over fifteen million; additionally, according to the 2014 National Institute of Health (NIH)'s statistics and the National Institute on Drug Abuse's National Survey on Drug Use and Health (NSDUH) more than nine percent of America's total population directly consumes illicit drugs every month.¹¹²

The national reports clearly indicate that substance use disorders and addiction are not the result of personal and individual failure, but rather a culmination of societal dysfunction that has also become an economic burden that exceeds over two hundred and twenty three billion dollars annually; the crisis clearly indicates that the continuation of individual marginalization and blame heightens the need to radically disempower the trajectory of harms that are potentiated by present day management dysfunction.¹¹³

A call for action is required; implementation of strategies that embrace individual, professional and universal responsibility includes application of scientific knowledge, provisions

of treatment plans that are not punitive, and relational support initiatives that seek to improve competency, cognition and neurological functioning through plans of care that seek responsive and attentive interventions that recognized the intrinsic dignity of the vulnerable ‘other.’¹¹⁴ A call for professional and societal support requires empathetic disease management that seeks the prevention of harms through the implementation of care guidelines that provide positive influences over individual behavior; prevention strategies, through the lens of partnerships and health promotion intervention techniques, which affect behavior is ethically justifiable, even when these healthcare actions illicit rational reflection and professional persuasion.¹¹⁵

Professional persuasion is often viewed as disrespecting autonomy and free will in patient decision making and has been negatively affected through the historical harms associated with previous association with disregard to human rights through paternalism, professional manipulation, and methods of health care coercion; however, utilization of positive persuasion constructs of physician management of care paradigms, requires a closer evaluation as it relates to normative constructs of care for those who are diagnosed with substance use disorders and addiction. Taking a closer look at how, initiatives to influence behavior to enhance personal autonomy, may occasionally necessitate protections from harm in certain instances in order to ‘repair’ neuropsychological aspects of repairing the will, and empowering elements of relational protection and human flourishing.¹¹⁶

Phrasing the influences of scientific evidence as it relates to seeking wellness initiatives must realistically illuminate the social construct of harms that negatively and assuredly illicit intrinsic and toxic environmental effects on populations through the oftentimes unspoken coercive influences of social constructs of consumerism and behavior marketing constructs that unknowingly and negatively influence the health of individuals and populations.¹¹⁷ Coercive,

societal influences that value consumer agents as a means to attain exponential wealth, influence consumerism of products without fully informing the consumer of risks; as a matter of fact, the opposite is true, the marketing strategies purposefully appeal to parasympathetic nervous system activation and reward seeking behavior, which cognitively associates consumerism with feel good hormones, social acceptance, elimination of suffering, and improvement of a quality of life, and promises the attainment of unattainable euphoria.¹¹⁸

Addiction consumerism and behavior marketing constructs understand the physiological human tendencies of reward mechanisms, the understanding of the intrinsic human longing for food, love, belonging, and the power of influencing strong rewards and instincts for an ideal and unattainable desire of complete satisfaction; consumerism and economic marketing strategies actively influence the lure of personal actions that contribute to substance use disorders and behaviors that produce huge profits for alcohol, food, tobacco, cannabinoid, and pharmaceutical organizations, by capitalizing on human vulnerability and desires without considering the cost of human life.¹¹⁹ Societal influences of marketing coercion do not consider the implicit autonomy of individuals; rather, marketing coercion seeks embellishment of the imagination in order to enhance the influences of superlative desires.¹²⁰ On the other hand, health care professionals and paradigms of care that seek disease prevention, health promotion, and methods to improve neuropsychological aspects of autonomy and decision making in order to ‘undo’ the harms associated with the complex constructs of commodified coercion are not in violation of normative ethical values necessary for ethical deliberation and processing.

Therefore, health care constructs that seek to respect individual autonomy of patients who are diagnosed with substance use disorders and addiction utilize their professional education and understanding of pathology to positively influence improved goal related outcomes, not as a

means to inflict coercive harms upon another; but rather, to influence decisional capacity that seeks health promotion, prevention of executive functioning dysfunction, empowerment of optimal brain health, and educational initiatives that enhance information processing, improve understanding of emotions and desires understanding that relationally supportive environments realistically improve health benefits and decrease risks of long-term harms associated with substance use and addiction.

a. A call for Partnership Versus Radical Neglect

To reverse the consequences of social neglect in the management of care for patients diagnosed with substance use disorders and addiction requires the development of professional and relational partnerships in the management of care to restore optimal, authentic and truly autonomous decision-making, which promotes individual flourishing; restoring executive functioning ability and reversing the trajectory of neurological dysfunction for those diagnosed with substance use disorders and addiction would potentiate a decrease in disease related comorbidities and alter transgenerational risk of heritability. The call for the development of a national healthcare improvement plan, seeks the utilization of professional commitment influencing optimal health promotion strategies, which decrease the rising incidence of substance use disorders and addiction globally; it is a call to reverse the consequences of societal neglect and to reverse the deleterious consequences of neurocircuitry and physiologically disordered reward seeking dysfunction, which results in the loss of human capacity for decision-making.

Initiatives that seek to minimize poor outcomes of disease continuums have previously helped to decrease mortality and morbidity, enhance the quality of human life despite chronic disease states, disseminate educational initiatives that seek health promotion, and provide implementation of aggressive public health prevention strategies that improve patient outcomes;

examples include the national and global public health initiatives that have been able to significantly decrease new onset of disease and minimize disease progression in the management of patients diagnosed with human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS).¹²¹ HIV is a chronic spectrum disorder disease state, that begins with viral infection that effect destructive pathology to normal human immune responses and culminates in severity with the development of AIDS comorbidities and death; similarly, substance use disorders begins with dependency that effect destructive pathology to normal neurological functioning and culminates in severity with addiction comorbidities and death.

With the implementation of complex professional and public health initiatives to decrease the stigma and marginalization associated with HIV and AIDS diagnosis, fear and the associated stigma began to decrease. Additionally, the public health initiatives utilized health promotion strategies sought the dissemination of prevention strategies in order to decrease the transmission of the virus; concurrently, they also sought methods, which decreased the virus's ability to replicate and further destroy the normal functioning of the patient's immune response. By seeking methods that were able to alter the destructive progression of the virus effects on the patient's (host's) immune response, the progression toward the obliteration of T-lymphocyte production was improved, progression toward a diagnosis of acquired immunodeficiency syndrome (AIDS) halted, and a new model of health promotion was able to decrease the risk of the severity of disease progression.¹²²

As a result epidemiology studies indicate a twenty nine percent decrease in AIDS related deaths during the eight year period after the public health initiatives were implemented; an additional thirty three percent decrease in new HIV infections occurred, and a fifty two percent decrease in pediatric HIV infections were associated with the direct result of global healthcare

strategy improvement implementation and preventative education initiative plans.¹²³ Relational constructs of care that include patients, family, and community seek to decrease stigma, marginalization, and disease progression through evidenced based practices that understand physiological constructs of the chronicity of disease and pathological dysfunction. Through public health initiatives and relational educational intervention implementation, individual and public understanding and trust in healthcare providers can empower a comprehensive change in the trajectory of harms associated with inadequate knowledge, fear and misunderstanding of the chronic spectrum disease progression.¹²⁴

Supporting a similar plan of care for substance use disorders and addiction requires embracing an ethics of care framework that seeks to eliminate the stigma of blame and unjust moral branding; through implementation of professional duty and responsiveness, new care guidelines can implement operative and functional diagnostic criteria, through the development of harm reduction strategies that clearly outline guidelines of care that disempower the ill-informed, eradicate vulnerability and decrease the exploitation of those susceptible to cognitive impairment.¹²⁵ Management of neurological dysfunction should not be linked to legal mandates of treatment interventions, such as obtained with incarcerations and criminal sentencing of those diagnosed with substance use disorder and addiction; but rather, management of care should be linked with a compassionate and comprehensive treatment initiative that functions to promote wellness, eradicate despair and shame, and offer hope for the reversal of the unnecessary suffering.¹²⁶

Relational constructs that seek to decrease stigma, improve health outcomes and promote educational initiatives to decrease progression of disease decreases harms and empowers relational constructs of consent for treatment; relational constructs of care that seeks the

neurological enhancement of the will of the other seeks to increase cognition and executive functioning for those caught in the cycle of neurological dysfunction, empathetic and compassionate application that seeks to reverse the trajectory of neurological harm acknowledges the dignity of those who have been radically marginalized and neglected.¹²⁷

Understanding that social constructs of criminalization and marginalization creates fear, isolation and impedes the construction of relational elements of care and trust, destroys the essential elements of the physician-patient relationship.¹²⁸ The constructs of relationship improves consent processes for patients, health care providers, treatment centers, community support and family; elements of consent must continue to promote transparency, promotion of best interests, and full disclosure of the benefits and risks of proposed treatment plan, through supportive and trusting relationships that seek to repair neurological pathways that empower authentic relational autonomous decision-making through relational constructs of care.¹²⁹

Despite the professional's competency as it relates to the complex understanding of the neurological dysfunction of substance use disorders and addiction; the professional is not the sole decision maker. The health care provider cannot arbitrarily and intrinsically 'know' the complex circumstances of each patient's trajectory of substance use disorders, addiction and the intrinsic beliefs, values, suffering and circumstances of each individual person.¹³⁰ Additionally, Paul Ramsey articulates that the patient physician relationship is an association of trust, fidelity and honesty; thus, indicating that the relationship must place the patient at the center of the decision-making.¹³¹ However, as previously discussed, the nuances related to competency, understanding, neuropsychological circumstances that invoke grave potential for personal, transgenerational, and societal harms as it relates to the impaired decisional capacity for those diagnosed with substance use disorders and addiction, requires an added component of relational

participation of family and community standards of care. Including the relational aspects of care is commonly utilized as a vital conceptual framework of care within health care environments; ‘person and family centered’ care paradigms have existed routinely for pediatric populations, and adults who have fluctuating and deteriorating neurological functioning. Advocating for the inclusion of patients, families, and community centered in decisional support, engages in a comprehensively holistic attempt to ensure the development of interventions and treatment plan that meets the particularities of each circumstance.¹³²

A call for patient, family, community and health care provider partnership seeks to ensure optimal paradigms of care initiatives by eliminating constructs of radical neglect that dominate the historical contextual management of care paradigms that currently exist. By implementing a systems approach to care and by implementing a public health prevention of disease progression strategies outcomes can improve outcomes through collective responsibility for the benefit of future generations and society. Elements of obtaining informed consent, require a comprehensive and thorough evaluation method, which help to determine a comprehensive understanding of how the intervention, treatment and outcome management of care plans relate to human benefit and human risk for increased harms. Developing an honest reflection of the current plan of care programs for substance use disorders and addiction is necessary; improving benefits and eliminating unnecessary risks are paramount in the management of care for the management of care for this public health epidemic.

b. Assessing Benefit-risk Ratio.

Epidemiological studies must be analyzed to properly identify benefit-risk ratio in the determination of initiating an endeavor that seeks to consider a re-interpretation of consent in the management of care for those diagnosed with substance use disorders and addiction. Assessing

benefit-risk-ratio begins with a reflective analysis of national statistics that adequately portray the escalating societal problems related to substance use disorders and addiction; it is always the desire of health care and bioethics to seek methods that avoid human rights violations and decrease vulnerability through the trajectory of potential harms, related to treatment interventions.¹³³ Therefore, analyzing the effectiveness of current treatment programs and outdated and harmful constructs of informed consent for patients diagnosed with substance use disorders and addiction as they relate to outcome and disease trajectory is paramount.¹³⁴ It is also necessary to assess for the need of a reformative implementation of care paradigms that continue to harm, marginalize, devalue, and discriminate substance use disorders as a rational choice; it is time to incorporate comprehensive and holistic disease management approaches that align with evidence based practice actions and cooperative empowerment of the ‘other’, through nondiscriminatory and transparent plans of care that seek to decrease individual and societal risks, by incorporating interventions that decrease known variables of harms.¹³⁵

Physicians and primary care practitioners are unable to determine the expected short term and long term benefits and harms associated with treatment interventions to individuals and families in every instance; however, the physician or practitioner has experience in anticipation of procedural or intervention related risks for harms or benefits and they are obligated to share their knowledge with patients and families in a comprehensive, transparent, and knowledgeable inclusiveness.¹³⁶ It is important to keep in mind that risks and harms are uniquely evaluated by the values and perceptions of individuals and families. The practitioner who authoritatively declares absolute claim to optimal benefits for another, is not reflectively participating in partnership.¹³⁷

Therefore, it is important to clearly define all terms, diagnosis, treatment plans, interventions and expected outcomes to the patient diagnosed with substance use disorders and addiction; it is also important to discuss minimal risks, greater risks and direct benefits of treatment plan in relationship to the chronicity of dysfunction.¹³⁸ Because of alterations in executive functioning processing, it is important to discuss aspects of minimal risks to the patient and the family. Minimal risks include feelings and emotional responses that present in physiological withdrawal discomforts, psychological negative reward responses with negative emotions such as anger, indignation, depression, embarrassments and feelings of privacy and confidentiality concerns regarding one's psychological or moral perception of 'others.'¹³⁹

Similar considerations are necessary when determining participation in research, with patients who have increased vulnerability because of impaired decisional capacity. The overarching goal includes the inclusion of two circumstances in order to promote optimal consideration for the neurocognitive dysfunction that increases risk for vulnerability: first, interventions must include relatively assured prospective benefits and secondly, the interventions should only impose minimal risks as mentioned above.¹⁴⁰ Perhaps more accurately, patients who are diagnosed with substance use disorders and addiction, who demonstrate alterations in ability to provide competency in decisional capacity and require relational components of decision making requires an assessment of benefits, burdens, and risk versus strictly just a benefits and risk assessment. The determination of assessing benefits, burdens and risks for those who are diagnosed with substance use disorders and addiction require innovative bioethical assessment strategies that carefully extrapolate the nuances of vulnerability as they relate to risks of authoritative and paternalistic influences or the continuation of societal harms and neglect.¹⁴¹

For example, implementing health promotion strategies that seek to decrease harms as it relates to the substance use disorder continuum from dependency to addiction seeks the decreased progression from the physiological state that induces withdrawal of substance symptoms to the progression of chronic relapsing binge/ intoxication, withdrawal/ negative effect, and preoccupation/ anticipation stage manifest as addiction. By halting the chronic and unnecessary progression of neurobiological and neurocircuitry abnormal changes in the brain that result in the progression of escalating risks, comorbidities and death, outcome interventions can achieve higher levels of health and wellness. Implementation of treatment strategies may impose ‘burdensome’ manifestations, but repair and restore normal functioning of the patient’s neurological decisional capacity functioning. By seeking methods that are able to alter the destructive progression of neurological impairment effects of addiction, neurological improvement can decrease the deleterious consequences of advancing substance use disorder dysfunction. It remains imperative to distinguish between substance use disorder progression of risks that result in neurological impairment, multi-organ dysfunction, and death versus treatment intervention burdens that invoke consequences of disease dysfunction, but improve benefits of autonomy and decisional capacity.

Implementing relational consent paradigms of care must evaluate outcomes of care, as they relate to neglected treatment plans, which leaves patients alone in decision-making, despite the known neurological and decisional capacity dysfunction for those individuals. With relational consent paradigms of care, objective and thoughtful consideration of the pathophysiological responses of addiction that certainly impedes individual decision-making capability, replaces abandonment with relational considerations of care. Continued monitoring of substance use disorder and addiction outcomes, through the evaluation of elevated risks, burdens, and benefits

of recovery, relapse, and comorbidities of physiological and psychological disease states, require the implementation of improvement paradigms that alter comprehensive management of care initiatives by truly considering the nuances of neurological dysfunction in addiction.

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Chapter 5: A Relational Paradigm for the Management of Care.

An ethics of care seeks to carefully consider and treat the comprehensive elements of substance use disorders and the underlying causes that increase risk of progression from chronic substance use states toward advanced progression of dysfunction to addiction; additionally, an ethics of care seeks to decrease the comorbidities associated with the culmination of complex physiologic, psychiatric, and social complexities. An ethics of care seeks to unravel the hierarchical constructs that label substance use disorders and addiction as the result of the oversimplification of human actions and moral culpability; as a result of the outdated constructs, individuals sustain harsh and deleterious consequences. Therefore the practice of applying an absolute moral culpability toward the individual alone, is no longer justified; the justification judgement paradigm neatly offers concrete, rigid, immovable and propositional human solutions to a perceived individualistic human problem, by labeling the actions that culminate into addiction as sinful and morally disdaining.¹ Constructs of care must facilitate an understanding of the social magnitude of the problem through careful reflection and the collection of gathering inclusive and comprehensive evidence in order to appropriately analyze the interventions, which are necessary to institute a relational and empowering plan of care.

The goal is to implement a relational paradigm of care framework that responds to the complexities of substance use disorders and addiction by seeking to change the justification judgement paradigm of care into an authentic and responsive management of care process, which treats all people with dignity and respect. A paradigm of care seeks to deconstruct the theory that supports the justification judgement paradigm of care and treatment for substance use disorders

and addiction, by clearly and emphatically highlighting that the oversimplification of declaring that the sole fault belongs to individuals without considering the scientific biological, epigenetic and societal consequences of addiction and substance use disorders; maintaining a narrow perspective is irresponsible and neglectful. A relational paradigm of care seeks to authenticate a holistic and responsive management of care framework, which recognizes the social consequences that increase the risk of substance use disorders and addiction for individuals because of cultural discrimination, stigmatization, and environmental factors, which are closely aligned with the development of other disease states as indicated by the social determinants of health.² Improving the treatment of all persons equally by implementing health promotion priorities and disease prevention strategies for disparate populations is essential.

Implementing an ethics of care as a relational management of care paradigm, incorporates the holistic care approach of patients who are diagnosed with other physiological disease states, such as cardiovascular disease, hypertension, and diabetes mellitus by responding to the scientific evidence, by acknowledging the complex biological, genetic and epigenetic consequences of disease that can increase the incidences of harm to patients and populations; implementing prevention and harm reduction strategies, while also considering the nuances of each patient's circumstantial, cultural and environmental risks, which can progress into escalating harms and contribute to comorbidities of disease and increase mortality are considerations of a responsible plan of care.³

The recognition and identification that the current hierarchical justification and judgement paradigm of care for substance use disorders and addiction has grave individual and societal consequences related to the trajectory of escalating harms elucidates the ethical imperative to apply caring and evidenced based practice initiatives consistently in the plan of

care; the implementation of responsive interventions, such as through the development of destigmatizing language modifications that seeks to eliminate the unnecessary suffering and preventable escalation of vulnerabilities for patients with substance use disorders and addiction provides the necessary and preliminary constructs for the paradigm shift.⁴ Language has the influential potential to help change perceptions and to facilitate human responsive behavior changes as it relates to improving understanding and acceptance of the pathophysiological alterations and effects of substance use disorders and addiction, when mismanaged.⁵

Management of care within an ethics of care framework requires the implementation of strategies that decrease suffering, decrease harms and decrease vulnerabilities, which are associated with the neurobiological, neuroimmune, and abnormal stress state response processes, that impact behavioral responses and influence social factors, which exacerbate physiological and psychological states; the hierarchical justification judgement paradigm of care consequently results in the dehumanization of the ‘other.’ Dehumanization has the ability to de-actualize and impair human flourishing; the management of care shift must include innovative treatment modalities that seeks to repair the integrity of those diagnosed with substance use disorders and addiction, through the implementation of therapeutic plans, which validate the need for relational consent paradigms, positive behavior modification programs, neurological enhancement interventions, and alter impaired genetic expression. Modalities of care, such as neurological enhancement, pharmacogenomics interventions, and immunotherapies, could potentiate the reciprocal well-being of the ‘other.’⁶

In order to influence effective change, relational collaboration and utilization of inclusive language must be instituted to successfully alter the current negative language associated with the harms of the current epidemic of substance abuse and addiction; utilizing non-biased

language, implementing relational consent processes, re-developing paradigmatic treatment protocols that aim to restore relationships, to development prevention programs, to implement reduction of harm strategies, and an to overhaul and reform policies and programs are necessary.⁷

Cultivating an empathetic, compassionate, and relational connectedness for individuals who suffer from the sequela of substance use disorders, addiction, and chronicity of symptoms requires the implementation of comprehensive development strategies that seek to improve the understanding and application of how the differences of neurocognitive and neurological functioning is expressed and validated in the framework of neurodiversity; by using the term neurodiversity, the ability to reframe the language and illuminate the use stating, ‘impaired neurological and impaired neurocognitive functioning’ is actualized through the lens of neurodiversity. The language of neurodiversity provides a linguistic framework that rationally understands that all brains function is intrinsically differently; yet, not necessarily impaired.⁸

Recognizing that despite differences, all human life is treated respectfully, regardless of one’s neurological functioning. This diversity acceptance results in accepting differences in others despite the variability of human physiological states or conditions; differences in appearances, such as facial features, skin color, body types and body size are no longer acceptable reasons to discriminate, stigmatize and marginalize. Yet, the perpetuation of stigma and discrimination persists for the neurological and cognitively diverse, especially in desperate populations who suffer from substance use disorders and addiction.

Additionally, investigating treatment modalities that aim to enhance the neurological potential for patients who experience neurological reward mechanism reorganization, may seek neuroplasticity enhancement and neurocognitive-repair through innovative methods or

interventions in order to decrease the societal constructs of harms, which further isolates individuals. Recognizing neurodiversity, potentiates improvement initiatives, which seek to alter the negative social determinants of health for vulnerable patient populations; the language of neurodiversity leads to collaborative measures that are supportive of relational consent implementation and shared decision making processes.⁹

The term neurotypical provides the overarching description that seeks to assuredly describe a ‘normal’ brain. However, the neurological development of each person’s brain is an intricate process of genetic and environmental factors that rapidly grow and develop from conception to early childhood; each person’s brain forms their own complex networks of functioning, dependent upon factors, such as early stress, neglect, abuse and poverty.¹⁰ The brain functions and grows from the age of zero until three through a combination of genetic and environmental factors; early on in life, the brain is strongly effected by genetic influences and as the child grows and experiences interactions in life, the environment and the experiences help to shape the brain’s functioning.¹¹ Therefore, examining how neurotypical diversity potentiates improved neurological functioning in substance use disorders, addiction, and recovery is an interesting and descriptive way, which can perhaps identify early preventative strategies for addiction through parenting education and continue to support the process, which can decrease the construct of stigma related to early vulnerability.

The neurodiversity movement was initiated as a result of the exponential increase in patients diagnosed with autism spectrum disorders and the association of disability stereotyping, as it identified the neurobiological influences and differences that are uniquely associated with children who are diagnosed with the spectrum disorder.¹² The movement seeks to establish the understanding of neurodiversity as a relational, responsive, and empathetic construct, which is

necessary in developing meaningful and productive lives for those who learn and behave differently than the ‘typical’ child; the movement seeks to bring value and equality for those who experience neurological differences by providing supportive and inclusive accommodations that seek human flourishing.¹³

Establishing an understanding of the unique characteristics of each person’s brain development through neurodiversity constructs of care has the potential to empower and support all patients who experience the neuropsychiatric, neurocognitive, neurobiological and physiological brain alterations and differences, influenced by events that lead to substance use disorders and addiction.¹⁴ In order to comprehensively embrace the construct of neurodiversity in substance use disorders and addiction management, treatment paradigms must respect the experiences of the ‘other’ as a vulnerable human and not as a problem to be fixed.¹⁵

Understanding that neurological development is a construct of the complex interplay between biology, genetics, experiences, behavioral responses and environmental stimuli, assists to illuminate the need to consider the particularities of the ‘other’ consistently, rather than dismiss the person as a result of dysfunction pathology and constructs of justification judgment paradigms of care.¹⁶

5.1 Substance Use Disorders Comorbidities in a Relational Context.

Substance use disorders and addiction have relevant societal consequences, as evident by the rapidly increasing mortality and morbidity epidemiology studies; additionally, the awareness that substance use disorders and addiction are chronic disease states is also evident and scientifically determined. Yet opponents of the disease model of addiction, persists with the claim that because persons are inaccurately influenced by the constructs of the disease model, purposeful and long term motivation to one changing behavior impedes one’s personal journey

toward health; therefore, the person remains caught in the perpetual cycle of substance use and addiction.¹⁷ As a result of the opposition to the disease model of addiction, Maia Szalavitz, introduces the framework of addiction as a developmental disorder, versus a neurological or physiological progression of disease, without comprehensively considering the American Psychiatric Association's, Diagnostic and Statistical Manual V's Editions diagnostic criteria.¹⁸ Still others claim that addiction is simply a habitual, behavioral and learning disorder that results through the operative effects of reward and punishment through the unconscious preferences and repeated demonstration of actions of the subject.¹⁹

As previously indicated substance use disorders and addiction are multifactorial, biological, neurocognitive, and neurocircuitry disease states that present as a result of polygenetic, epigenetic and transgenerational effect that are influenced by social determinants of health, such as poverty. Despite the complexity of the multivariate elements of addiction, both individual and societal consequences are well known through the results of public health statistics; concurrently, most all chronic disease states, including addiction, manifest for individuals and communities in relationship with cultural and social determinants of health.²⁰ And most chronic disease states do not present exactly the same way in every patient; yet, the diagnostic criteria remains evident, despite diversity of personal presentation.

Additionally, by classifying addiction as a behavioral or developmental disorder, the perpetuation of prescribing individual blame, without recognizing the epigenetic consequences is at risk. The perpetuation of assigning an individual with a behavioral or developmental dysfunction, justifies the judgement and blame paradigm, which additionally justifies blame and stigma for the co-existing psychological and physiological comorbidities such as anxiety, stress, depression, personality disorders, hypertension, liver dysfunction and pancreatitis; yet, this

perpetuation of the justification of judgement, further escalates harms developmentally, behaviorally and cognitively, while also, increasing the harms associated with psychological health.²¹

It is true, that substance use disorders and addiction directly affects the overall health of communities through escalations of relational conflicts, ‘increased risk-taking’ behavior, violence, crime, and poverty.²² Social determinants of health clearly identify how environments, families, communities, and relationships can positively or negatively influence health, learning, communication skills, and holistic abilities to navigate through human vulnerabilities. Therefore, the relational context of an ethics of care paradigm includes health promotion and disease prevention strategies that meet people where they are, with the goal to improve the outcomes for individuals, families and communities; an ethics of care meets the human condition of vulnerability, dysfunction and disease living environments and in the particularities of human circumstances.²³

An ethics of care functions by knowing that the ‘actualization of the other’ or the ability to obtain optimal human thriving must move beyond the narrow constructs of moral judgements and justifications; an ethics of care does not seek to determine the justification of the actions for the one who is cared for as the ethical focus. Rather, an ethics of care focuses on the natural human obligation to evaluate situations qualitatively and comprehensively in order to see the intrinsic and extrinsic factors that potentiate harm for the ‘other’; an ethics of care does not seek to determine the causal culpability of placing moral judgement on another as if people were commodified as an equation to be solved algebraically.²⁴ An ethics of care considers the particularities of ‘being’ human and seeks ways to empower the other through relationship.

As a result, an ethics of care considers all elemental causes of substance use disorders and addiction dysfunction, by remembering to place the person in relational context with others and by remembering that vulnerability is a universal human characteristic. Therefore, acknowledging that all health disease states predispose persons to increased susceptibility to physiological and psychological harms must be stated as an objective scientific norm and not as a subjective determination or a moral claim; by firmly ‘naming’ substance use disorders and addiction as a disease, the paradigm of care seeks to dissipate flawed moral reasoning that deconstructs human worth and value through circumstantial evidence, without regard or acknowledgement of the complexities of each individual’s situation.

Through the incorporation of an ethics of care re-establishing the repair of relationships, enhances social connections and incorporates educational initiatives that empower an improvement of health outcomes for individuals and communities; an ethics of care paradigm must seek to incorporate management of care goals that enhance psychological well-being, enhance neurological functioning, decrease disease progression, improve developmental actualization, and improve neural plasticity in order to help promote behavioral modification through shared decision-making and the implementation of caring interventions that repair personhood and self-actualization.²⁵

Shared decision making seeks to decrease the risk of biological harms, decrease neuroimmune dysfunction, decrease problematic psychological dysfunction, prevent the societal increases in crime, and seeks to decrease and prevent escalating risk of accidental death and injury; repairing areas of the brain that are effected by the deleterious consequences that increase mortality include the hippocampus, amygdala, insula, prefrontal, anterior, posterior cingulate, and somatosensory areas.²⁶ By reflectively analyzing a root cause analysis of the substance use

disorder and addiction conundrum, an ethics of care must carefully examine how psychiatric, neuroimmune, inflammatory comorbidities of substance use disorders and addiction often times overshadow and divert the focus of care away from the affective treatment for substance use disorders and addiction itself. Acute care management of health consequences, such as treating the comorbidities and the complexities of substance use disorders and addiction tend to reactively seek rapid and instantaneous medical management of care priorities; yet, an ethics of care seeks long term, gradual, and holistically patient paradigms of care that seek authentic and relational care methods in order to strengthen human relationships and minimize human vulnerability.²⁷

Holistic management, inclusively strives to decrease the psychiatric and physiological comorbidities of substance use disorders and addiction, by recognizing that the problem cannot be acutely, objectively and problematically solved through constructs of historical systems of criminalization, justification, judgement and blame; an ethics of care must not separate self and others, an ethics of care must be drawn into the other, must nurture the other, and must protect the other by initiating actions that contribute to the wellbeing of another inclusively. These actions seek to identify the elements of neurodiversity, which effect the psychiatric, neuroimmune, and inflammatory comorbidities of addiction.

a. Psychiatric Comorbidities.

Substance use disorders and addiction are closely associated with concomitant psychological and neuroimmune dysfunction, which is known as the tri-morbidity of addiction/dependency.²⁸ Common psychiatric dysfunctions include, depressive, anxiety, personality and bipolar disorders; concomitant disease states, such a neuroimmune disorders, psychiatric dysfunction and addiction increases the risk and vulnerability of dysfunction and places the

individual at greater risk for harm and death.²⁹ Additionally, environmental influences, such as prenatal/ antenatal exposure to substance, prenatal stress, physical abuse, psychological abuse, post-traumatic stress disorders (PTSD), poverty, and dislocation, have the potential to influence harm to individuals and future generations through epigenetic heritability factors.³⁰ Due to the unique and complex interrelated dysfunction of neurotransmitter and neuroendocrine functioning complications may arise from excessive secretion of catecholamines, such as norepinephrine and epinephrine; additional alterations in neurotransmitter functioning of dopamine, serotonin, and gamma-aminobutyric acid (GABA) can further contribute to the psychological aspects of dysfunction that persists for patients because of the increasing risk of misdiagnosis, increasing the risk of biased and dismissive care, which increases the continuation of the misuse of substances and addiction by impairing an individual's comprehensive treatment plan development.³¹

The additional etiological complexities of substance use disorders and addiction, include the effects of the social constructs and criminalization paradigm, which are closely associated with the further perpetuation of isolation, marginalization and ongoing stress responses; additionally, the escalating risk of concurrent comorbidities of physiological and genetic susceptibility as it relates to the intrinsic genetic expression, further increases the risk of chronic dysfunction and episodic exacerbations caused by the body's inability to maintain homeostasis. The body's internal environmental genetic expression malfunctions, further alter neurotransmitter functioning, causing dysregulation of mood, alterations in sympathetic and parasympathetic nervous system responses, potentiate impaired inflammatory processes, exacerbate cognitive dysregulation, effect cardiac and respiratory dysfunction, which can

culminate in overwhelming organism impairments that negatively affect human psychological health, actualization, and flourishing.³²

In order to adequately monitor and evaluate chronic disease states, methods of psychiatric and addiction dysfunction evaluations are desperately needed; thankfully, even though evaluation methods have been almost nonexistent to the present day, current methods of brain imaging are now becoming available through visual radiological imaging scans, magnetic resonance imaging (MRI) scans, and single proton emission computed tomography (SPECT) scans.³³ Additional advances in genetics, biological functioning, and diagnostic testing is now available to measure alterations of histones, proteins, and specific cytokines that influence genetic expression.³⁴ Additional evidence is needed to determine the role the hypothalamic pituitary adrenal axis (HPA) functioning responses to the intricacies of neurological circuitry functioning and how it relates to the chemical communication of the endocrine, immune, and psychiatric functioning effects in patients who suffer from substance use disorders and addiction. Greater understanding of the brain body connection in relationship to stress, genetic expression, heritability, environmental and nutritional influences potentiate an ability to implement interventions that seek to decrease the psychiatric comorbidities associated with substance use disorders and addiction.

Evaluating depressive, anxiety, personality and bipolar disorders requires an examination of the additional effects that stigmatizing and marginalization inflicts upon person's who suffer from psychiatric disorder diagnoses; concurrent exacerbations of anxiety and depression are common affective states in patient who suffer from substance use disorders and addiction. Aspects of socio-cultural stigma contribute to the morbidity associated with addiction and psychiatric disorders. As a result, stigma increases the psychological suffering for individuals

contributing to spiritual and existential suffering that further perpetuates intrinsic imbalances in homeostasis and contributes to cellular inflammatory processes that further impair neurological functioning.³⁵

Inflicting social and cultural isolation and stigma upon another has deep Judeo-Christian roots related to adopting the cultural justification for labeling individuals who are different, unclean, and sinful, for fear of inflicting potential harms upon individuals and the community; therefore the justification to judge the 'other' as unclean, infectious, or sinful and remove them from the community, because of the risk of harms to 'another' became an ethical standard and often times perceived as one's duty within societal culture.³⁶ Excluding those who exhibited undesirable physical or psychological characteristics from the community as a response to factors that included fear of social disruptions, fear of potential transmission of communicable disease and fear of psychological or spiritual harms, alienated individuals from community support.³⁷ The justification to label another through the hierarchically proclamation of prominent language, must be re-evaluated. By implementing neurodiversity awareness strategies in the management of care substance use disorders and associated psychological comorbidities, constructs that perpetuate anxiety, depression, personality disorders, bipolar disorders, post-traumatic stress disorders, for those with substance use disorders and addiction, becomes an essential starting point.

The effects of modern society, through industrialization and dislocation have separated families, communities and relational constructs that increase interpersonal connections between people, families, and communities; increasing the opportunity for increased feelings of isolation, fear, loneliness, anxiety, depression and vulnerability.³⁸ A deep existential longing for authentic, and loving relationships often times exist for those diagnosed with substance use disorders and

addiction; yet, the reflection of the one with substance use disorders and addiction mirror the culmination of emptiness, loneliness, and longing for the resolution of dissected and impaired relationships.³⁹ By implementing an ethics of care, the restorative qualities of acknowledging and repairing relationships becomes the essential priority.

Additionally, the comorbidities of psychiatric disorders in the management of care with substance use disorders and addiction, coincide with the association of impaired epigenetic expression of abnormal stress responses, that result because of difficulties and strains in everyday living; consequently, manifestations of stress as it results from contemporary living are often times stabilized and minimalized through family and community support systems.⁴⁰ However, the stabilization of social support systems for patients who are diagnosed with psychiatric disorders, substance use disorders and addiction are at an increased risk for experiencing strained family relationships, abusive relationships, and increased past traumatic experiences, which increase the likelihood of decreased relational, community, and social supports, increasing the likelihood of the perpetuation of anxiety, and depression.⁴¹ The largest indicator for predicting the likelihood of the development of twelve to seventeen year olds to experience substance use disorders in the United States include correlating psychological distress states and major depression; public health initiatives that seek to decrease the risk of early substance use disorders highly recommends advocacy programs that seek the integration of behavioral health paradigms that teach risks and coping strategies. Behavioral health paradigms recommend that adequate initiatives to address the disparities of care must provide confidentiality and guarantee that patients will receive care, without judgment.⁴²

A growing understanding of the relationship between stress and substance use disorders and addiction is becoming evident; concurrently, stress is associated with many other

pathophysiological disease states, such as cardiovascular disease, gastrointestinal ulcerations, Cushing's Syndrome, hypertension, and psychiatric disorders.⁴³ Yet, the correlation to empathetically treat the psychological components that increase the risk for substance use disorders or that perpetuate the continuation of substance use, requires an intensive implementation of education to decrease stigma and discrimination and program development for mental health resilience training initiatives.⁴⁴

Physiological balance or homeostasis is normally sought through the regulation of physiological and psychological functioning. A normal hypothalamus-pituitary-adrenal axis neuroendocrine functioning response initiates stimulation of the hormone adrenocorticotrophic hormone (ACTH) from the hypothalamus in response to circulating cortisol levels, which then stimulates the anterior pituitary in order to increase the secretion of ACTH, which activates the secretion of glucocorticoids, from the adrenal cortex, as the normal activation of situational stress response.⁴⁵ This normal stress response is activated in conjunction with the sympathetic nervous system to intrinsically protect the person during an imminent life or death threat. The perceived threat to the intrinsic survivability of the person was designed to occur as a fleetingly temporary response.

Yet, for people who experience chronic neglect, chronic abuse as a child, who experience chronic physical, sexual, or psychological abuse at any time during life, or those who experience post-traumatic stress from an illness, accident, violence, crime, chronic states of stress can initiate the harmful consequences that impact psychological and physiological health.⁴⁶ Chronic states of stress, which increase excess adrenal hormone secretion have negative effects on the homeostasis of psychological functioning.

The impaired response of elevated serum cortisol levels influence, stress states that include elevations in heart rate, elevations in blood pressure, elevations in serum glucose levels, elevations in serum dopamine, and changes in serotonin levels that result in manifestations of increased cognitive awareness initially from the elevations of glucose and dopamine during the initial threat; however, as a result of chronic elevations of stress hormones, such as epinephrine, norepinephrine, glucocorticoids, glucose, aldosterone, anti-diuretic hormone and cortisol levels remain elevated, causing complications that include increased capillary permeability, sustained inflammatory processes, decreased immune responses, and psychological states that include irritation, anxiety and depression.⁴⁷ The complexities of fluctuating stress hormones and the interaction of illicit substance further impairs the excretion and reward mechanisms of dopamine, glucocorticoids, cortisol; thus further impairing the homeostasis of neurotransmitter functioning that can result in labile psychological periods of anxiety, somnolence, or depression. Additionally, the fluctuations in neurotransmitters in relation to the pathology of addiction greatly effects moods, motivation, and aggression.⁴⁸

The negative reward/ withdrawal stage of addiction, enhances the neurotransmitter release of epinephrine and norepinephrine, which increases the effects of the psychological exaggerated responses and increased risk of psychosis and mania through the chronic elevations of the corticotrophin releasing hormone (CRH), adrenocorticotrophic (ACTH) hormone release that increased the adrenal secretion of glucocorticoids, or cortisol, which sustain the stress response states; additional release of catecholamines from the adrenal gland, fluctuations in dopamine, and decreases in the parasympathetic nervous system responses that are unable to induce calming states and homeostasis contributes to the negative behavioral responses that are so difficult to empathetically manage during the care of substance use disorders, and addiction.⁴⁹

The escalation of these adverse psychological responses of abnormal stress and substance use states, increases the stress and reactive repulsion of ‘others’ to therapeutically respond to the care of the patient in a comprehensive, holistic and caring way; hence, the perpetuation of stigma and marginalization.⁵⁰ From an ethics of care perspective, the management of the deleterious effects of the neurocognitive dysfunction that perpetuates the negative consequences of the stress response and the negative reward - withdrawal stage of addiction requires special care that seeks to restore homeostasis and personhood. An ethics of care understands that the existential suffering and the psychological comorbidities of substance use disorders and addiction, respond through the repair of relationships; it understands that marginalization and stigmatization escalates the perpetuation of the deleterious psychiatric effects of addiction.⁵¹ Therefore, the care provider actively seeks to implement relational interventions that empower the integrity of the individual, restores personhood, attempts to relieve vulnerability through constructs of hope for healing and self-transformation of the other by seeking to respond to the traumas, stress, abuse, dislocation, hurt and longing of the ‘other’ in order to restore dignity.⁵²

b. Neuroimmune/ Inflammatory Comorbidities.

Normal neuroendocrine sympathetic nervous system responses to chronic stress result in sustained release of inflammatory mediators that increase risk of systemic alterations in circulation, hormonal release, and organ functioning; sustained stress states have been clearly indicated to also increase the risk of cardiovascular disease, neuroendocrine dysfunction, autoimmune dysfunction, cancer, liver, pancreatic disease states, and increased risk for substance use disorders and addiction dysfunction.⁵³ Additionally, effects of stress further complicates the trajectory and spectrum of harms associated with the neuropsychological risks of impaired cognition, which can escalate the risk of fluctuating anxiety and depression, while also

progressing the risk of acute sympathetic nervous system responses leading to cardiovascular stress, tachyarrhythmia, and circulatory system collapse.⁵⁴ Additionally, substance use disorders and excessive consumption of alcohol and illicit substances, increase the risk for the activation of internal immune communication or signaling of proteins called cytokines.⁵⁵

Neuroimmunity is the study of the relationship of the interconnected physiological effects related to the functioning of the relationship between the immune system and the central nervous system; the complexities of the interaction between the brain, the nervous system, and the immune responses are just beginning to be understood. Immune cells of the brain are called microglia, just like other immune cells of the body, the body's natural immune defenses seeks to keep the organism free from intrinsic harms associated with external invasion of viruses, bacteria, and other potentially damaging antigens, constant surveillance of external harms is completed through the complex cellular communication system of the nervous system and the cells of the immune system.⁵⁶ Microglia are the primary macrophage or white blood cell of the brain; the additional job of the microglia, includes debris cleaning, or phagocytosis. The Inflammatory response intricately works to maintain homeostasis within the entire organism; however, the brain and the neurological system obtains special immune protections.

As previously indicated increased stress hormone states deleteriously influences increased chronic inflammatory states and decreases the body's ability to illicit an optimal immune response; additionally, the perpetual exposure of neurological changing substances, such as alcohol can further increase the risk of disordered neuroimmune functioning.⁵⁷ After exposure to alcohol and illicit substances, microglia and monocytes illicit communication with pro-inflammatory communicator proteins called cytokines in order to illicit protective immune responses effected by the elevated brain stress states, elicited by exposure of substance. The

neurological system facilitates the activation of microglia proliferation within regions of the brain; this stress response increases capillary permeability and can contribute to the neurological functioning and cognitive changes that result from the increased inflammatory neuropathology. Dr. Daniel Amen's research is able to produce vivid pictures of how the increases in the impaired neurocircuitry and impaired circulation pathways portray in an unhealthy brain after the chronic exposure to substances as a result of addiction; the brain visually appears as cottage cheese, showing missing matter and empty spaces, which disable optimal functioning, perfusion and oxygenation.⁵⁸

Additional immune responses that are effected by the microglia and monocyte communication signaling of the protein communicator's or cytokines include communication to other body systems, such as increased communication to the the gastrointestinal tract and the liver; the pro-inflammatory cytokine signaling in the gastrointestinal (GI) tract and the liver attempts to decrease the the risk of translocation of GI bacteria, which is initiated after sustained stress responses. Further increases in the proliferation of inflammatory mediators, continue to increase the systemic secretion of glucocorticoid hormones, which can continue to contribute to the escalating neuro-adaptive psychological responses, which include anxiety, psychosis and depression. As a result, additional chronic inflammatory dysfunction occurs in the liver and the pancreas. The inflammatory processes that occur in the liver and the pancreas with the chronic exposure to alcohol and illicit substances include the risk of esophageal varices, coagulopathies, hypermetabolic states, hepatitis, and pancreatitis.⁵⁹

The inter-related effects of the neuroimmune and the inflammatory response potentiates the perpetuation the abnormal increases of sustained corticotropin releasing hormone and sustained corticotropin releasing factors, which ultimately result in sustained serum cortisol

levels, which affect entire organism homeostasis. The corticotropin releasing factor (CRF) and corticotropin releasing hormone (CRH) are regulated by the encoding of the CRH gene; the CRH gene is primarily responsible for stress regulation. The CRH gene is often times associated with familiar heritability of transgenerational excessive genetic expression tendencies; studies indicate that environmental and epigenetic influences potentiate an increase in cellular communication sensitivity for excessive stress, fight and flight responses, by increasing the heritability of substance use disorders and stress states through the effects of abnormal immune marker functioning.⁶⁰

Additional neurotransmitter release of excessive catecholamines, such as epinephrine and norepinephrine accentuates the effects of the hypothalamic-pituitary-adrenal axis functioning that results in additional excess secretion of glucocorticoids, mineralocorticoids, anti-diuretic hormone and androgens that can negatively cause fluid and electrolyte imbalances; the end result, increases the risk of sustained physiological impairments of circulation, perfusion, and oxygenation systemically, which causes abnormal vasoconstriction, cardiovascular disease, atherosclerosis, hypertension, abnormal glucose regulation, insulin resistance that results in hyperglycemia, hyperlipidemia, and diabetes.⁶¹ Additional abnormal neuroimmune responses result in leukopenia, delayed wound healing, increased risk for cancer, infections and sepsis.⁶²

Inflammatory mediators when properly functioning within an organism are instrumental in maintaining internal homeostasis; however, when excessive, abnormal and sustained release of pro-inflammatory mediator activation occurs, the chronic inflammatory response can actually harm the organism through an array of cellular and hematological complications; as stated previously, after long term chronicity of substance use and immune dysfunction, complications include end organ failure as a result of, glucose dysregulation, and abnormal inflammatory states,

which permanently increases stretching and resistance of specific organ cells. The primary cause of pancreatitis or inflammation of the pancreas is excessive use of alcohol; additionally, a leading cause of liver dysfunction, hepatomegaly, ascites, hepatic encephalopathy, hepatitis C virus (HCV) and cardiomegaly include excessive use of alcohol and unsafe use of illicit drugs.⁶³ As a result of further Gastrointestinal (GI) complications and increased systemic capillary permeability, translocation of gastrointestinal bacteria predisposes the patient with substance use disorders and addiction for sepsis, septic shock and death; this state of risk for translocation of bacteria from the gut, compounds the risk for infections for patients already at high risk. Patients are already at an increased risk for delayed wound healing, have an increased susceptibility to infections, because of a decrease in white blood cell production, or leukopenia; additional elements that continue to impair the immune response includes dehydration, and nutritional deficits.⁶⁴

Healthcare systems and providers of care can individually treat substance use disorders and addiction through antiquated constructs of individual blame and through the disconnected treatment modalities that only treat the isolated symptoms of acute disease exacerbations, with disregard to the elevated incidence of the inflammatory effects on the neurological system that ensues; however, this treatment methodology ultimately results in disregard of the integrity of the patient.⁶⁵ It is best to carefully consider the comprehensive neuroimmune response effects of substance use disorders and addiction as it relates to the psychological and physiological complications. The complications that correspond with the symptoms of impaired immune activation, also influences the withdrawal-negative affect stage in the amygdala and the preoccupation-anticipation stage of addiction, or craving stage in the pre-frontal cortex as indicated by Crews, et. al.⁶⁶ Additional considerations should evaluate how the activation of pro-

inflammatory mediators impact the pro-inflammatory genetic and epigenetic expression of neuroimmune cellular signaling which affects the transgenerational genetic expression from one generation to another.⁶⁷

Examining the influences of the neuroimmune and inflammatory responses that increase the risk for physiological harms in relation to the complexities of stress, neurological function, and the associated abnormal heritability of substance use disorders and addiction, requires implementation of treatment modalities that consider the nuances of genetic neuroimmune risks, while seeking to find genetic treatment modalities that aim to decrease over activation of the neuroimmune stress states.⁶⁸ Considerations must also seek to decrease the potential progression of psychiatric and physiological dysfunction through the development of treatment modifications that address the neuroimmune inflammatory states, in order to decrease the risk of comorbidities of disease, which can destroy individual lives, families, and communities.

Further evaluation of the role that immune functioning and the excessive release of pro-inflammatory mediators negatively affect both the psychiatric and the systemic damage to the heart, the gastrointestinal system, the liver and the pancreas all require application of scientific understanding of the tri-morbidity of disease. The elements of substance use disorders, the neuroimmune dysfunction and the associated psychiatric dysfunction that constitutes the comprehensive aspects of the tri-morbidity addiction/ dependency is an often times an under developed consideration in the management of care for those who suffer. Incorporating the essential elements of the neuroimmune and inflammatory comorbidities in relationship to the complexities of substance use disorders and addiction requires application of professional wisdom, attention and understanding; improving the understanding of the complex processes requires the incorporation of concern that identifies the wellbeing of those who suffer from

substance use disorders and addiction by decreasing vulnerabilities associated with the essential and distinguishing aspect of the dysfunction.⁶⁹

5.2 Relational Vulnerabilities of the Patient: Consent and Coercion.

Persons who suffer from substance use disorders and addiction have endured centuries of negative health consequences, as a result of personal, physical and social neglect, because of a simple and sad consequence, that societal constructs identify substance use disorders and addiction as an individual and morally culpable condition.⁷⁰ Hence, the perpetuation of isolation, marginalization and discrimination, as decreed by a disordered hierarchical justification judgement paradigm, which has placed abhorrent social and cultural biases toward the one with addiction, which manifests as an exponential increase in existential psychological, physiological and societal harms; the unfortunate trajectory of our current epidemic has occurred in part, because of the confounding social, religious, cultural, political and health policy stagnation and resistance to comprehensively applying a holistic implementation plan that bases the management of care through scientific interventions that are focused through body, mind, spirit and communal relationship with others in community.

This antiquated legal and health systems approach in the management of care for substance use disorders and addiction continues to stringently adhere to the premise that substance use disorders and addiction are disorders of individual choice and free will. This approach will continue to impede improvement outcomes for those who suffer; additional social requirements include, limiting the commodification of humans by limiting the coercive effects of marketing systems that understand the financial gains as it relates to the vulnerability of persons in relation to addictive substances. Public health models of care that seek initiatives to prevent and decrease risk of substance use disorders and addiction, find it helpful to classify

interventions on three levels, which include: the distributor of the substance or agent; the one who is addicted or the host; and lastly, the community, or the environment, which includes either the local national or international community.⁷¹

This information is helpful when evaluating the relational context of vulnerabilities and the relational context of the potential layers of individual coercion. Solely focusing on autonomy, decision-making, consent for treatment and health provider coercion as it relates to substance use disorders and addiction is unwise and inconclusively focused; the holistic consideration of the effects of coercion must focus on the outside influences and nature of societal market systems, or the coercive effects inflicted by the distributors and the systematic and societal exploitation of those who are most vulnerable.⁷² Market systems or agents value financial gains and profits over the exploitation of vulnerable human hosts; market systems or agents perpetuate the continuation of human harms to individuals, by understanding the intrinsic pathways of addiction, while participating in the sustenance of public policy that assigns blame to individuals, while profiting from market sales and dehumanization of the vulnerable.

Embracing the evidence that the debilitating physiology of the neurological dysfunction of the increased risk for substance use disorders and addiction frequently exhausts individual human potential to flourish, because of abnormal pathophysiological and genetic responses to every day stress states, through the overwhelmingly abnormal inflammatory responses that greatly impair decisional capacity appears to be a product of unintended adherence to the disregard of human dignity.⁷³ In health care, it appears that while striving to respect individual autonomy, by declaring that patients have the right to consume substances and ‘make bad decisions to use substances’, as though the coercive effects of the distributor and the environment have little or no effect on the ‘host,’ devalues individual integrity, negates care for the other and

withholds professional obligation to protect patients from the progression of disease and human vulnerability.⁷⁴

The professional values of care, such as connectedness, interdependency, responsiveness, attentiveness, professional responsibility, wisdom and competency have unintentionally negated to respect the authentic respect for human life for those who suffer from the complex neurological sequela of dysfunction, by confusing neurological incompetency with competency in a brain that is negatively affected by the systemic inflammatory and cellular response of chronic stress states that are exponentially exacerbated by the commodification and social constructs of hierarchical dominance, justification, and judgement. The host is exploited, while the agent ensures considerable profit through coercion of social constructs of misinformation.⁷⁵

The trajectory of systemic and chronic inflammatory mediator release in the body and brain, greatly impairs a person's ability to make autonomous decisions; as a matter of cellular responses to stress and the genetic expression in response to stress, certain individuals who are at high risk for substance use disorders and addiction are predisposed to the negative physiological and biological effects of substances with just one exposure. This increased and misunderstood response of the perpetuation and cycle of abnormal neuroimmune cellular expression after one exposure of drug is often dismissed as simply a personal weakness and choice, even though the biological coercive effect of the substance has been determined.⁷⁶ A call to restore individual understanding in regard to the need for relational interdependence, a call to enhance human flourishing, and a call to adequately treat the physiological risks of dysfunction that result from potential neurological and neuroimmune risk for the person with substance use disorders and addiction heritability is long overdue.

Legal constructs of the term, coercion is considered through the actions or processes to which power is exerted on another person in order to receive a confession; however, coercion in healthcare is utilized as a term, which considers the vulnerability of patients when experiencing states of diminished autonomy during illness.⁷⁷ Meaning, that one who is vulnerable in healthcare, is coerced when implementing medical interventions against the person's desired will. It is commonly considered that autonomy is negatively impacted during states that impact an individual's mental health or psychological stability; hence, the concern that those who have limited mental capacity are at increased risk for provider coercion in their management of care.⁷⁸ The risk for institutional health care coercion in the management of care for those who are diagnosed with mental health dysfunction is a concerning reality for those with a history of psychiatric illnesses and mental health dysfunction.⁷⁹

The management of care for those diagnosed with substance use disorders, addiction, psychiatric dysfunction and mental health disorders have experienced exponential ethical concerns in regards to exploitation, harms, and coercive authoritative management of care; however, implementing plans of care that seek to respect the individual autonomy of persons are indicated. Historical coercive and paternalistic practices, were justified in the management of care for those who suffer with the psychiatric comorbidities of addiction as a result of a health providers by claiming that paternalism ensured patient beneficence was justifiable.⁸⁰ Yet, the current constructs of care lean toward negating unwanted interference of professional implementation or instituting a plan of care without the full and autonomous consent from the patient for treatment. This inaction, which seemingly disregards the manifestations incapacity criteria that the patient presents with is equally problematic.

Through the implementation of a relational consent for treatment for substance use disorders and addiction by initiating a framework of care, which is based upon the values of relational interconnectedness and professionalism, care providers should seek to restore the physiological neuroimmune homeostasis for the patient, by decreasing the trajectory of harms induced by complex systemic inflammatory states, through the consequential impairment of authentic autonomy states. Relational support, which facilitate comprehension and application of the complexities of the abnormal and damaging neuroimmune state must manage the negative effects to the brain. Applying elements of care, which decrease vulnerabilities, empower personhood and repair consciousness must address the physiological coercive effects of stress and substance use as it authentically relates to impaired neurological functioning; impaired neurological functioning manifests through changes in affective psychological predisposition and impairing decision making. The body's normal response to stress states, neurological dysfunction must be comprehensively considered.

Implementing paradigms of care that seek to decrease the risk for vulnerabilities through relational consent processes must prioritize a unique understanding of the physiological infractions of personal autonomy that occur for those with substance use disorders and addiction; historically, two divergent anthropological frameworks for addiction management of care influenced the medical and legal responses for those who are diagnosed with substance use disorders and addiction. The anthropological frameworks include first the medical patient anthropology and second the social client anthropology; Janssen et, al describe the two anthropologies as being incompatible with one another. Therefore, creating the justification to identify the development of a third anthropology is necessary; an ethics of care asserts the development of a third anthropological framework that embraces the relational aspect of the

medical patient anthropology, while also considering the interconnectedness of societal influences that necessitate the dignity of the one who suffers. Through the development of an anthropology framework that seeks to restore personhood, repair consciousness, eliminate the hierarchical justification judgement paradigm that perpetuates individual and societal vulnerabilities.⁸¹

a. Empowering Personhood, Repairing Consciousness.

Empowering personhood and repairing consciousness, begins with evaluating the two opposing anthropologies of addiction and developing a new anthropology that seeks to reconcile the differences. The medical patient anthropology, considers that the person who suffers from substance use disorders and addiction is a person who inconsistently looks toward the health care systems to assist with the unmanageable or acute escalations and exacerbations of the chronicity of the physiological and psychological manifestations of disease; the medical patient encounter is not relational and it is fragmented during periods of abstinence, exacerbations, and periods of disconnection.⁸² The medical patient anthropology recognizes that the fluctuating capacity of the patient's ability to competently manage their trajectory of care is consistently limited; yet, the anthropology recognizes its inability or its stagnation to implement real change for the patient, because care is still negatively affected by the social constructs of the criminal justice system, fear of the patient's concern for criminal consequences and the perpetuating effects of social stigma occur.⁸³ Even within the medical patient anthropology, the patient is subject to the effects of the hierarchical influences of the justification and judgement constructs that blame individuals for the inability to remain abstinent or to completely cease the utilization of substance.⁸⁴

Albeit, the social client anthropology does not recognize that the one with substance use disorders or addiction is a patient who requires help with the trajectory of physiological and

psychological disease state; rather, the social client anthropology lives in dichotomous tension with the medical patient anthropology, believing that the one with addiction is a client and a societal peer. The social client anthropology perpetuates the construct that the client is a completely autonomous agent, rather than a 'host' and therefore morally culpable when utilizing substance and therefore judged as wrongful and weak.⁸⁵ Education initiatives that disseminate the criteria that constitute an autonomous moral agent and that evaluates competence in healthcare decision making is imperative. The careful evaluative elements of moral agency require, first that the person has the ability to reason, has the ability to use past experiences as a guide, has the ability to freely choose actions, and must 'know' or fully understand the consequences of those actions.⁸⁶ The ones who market substances, the ones who are the distributive agent, must be held to the same accountability, before inflicting harms on vulnerable hosts.

Historically, substance use disorders and addiction management case scenarios presented with such diverse physiological complexities that at times seem impossible to describe or explain outside of the language of moral intemperance, sin and culpability; however, current scientific evidence can no longer allow the inadequate mismanagement and societal tensions to unnecessarily impair the lives of those who are so tragically affected by the unreconciled constructs of a social anthropology that refuses to embrace the medical, scientific and bioethical constructs that seek to restore the rights of individuals and future generations; the bioethical justification to empathetically adjust, accommodate and develop a merging anthropology for those who suffer from substance use disorders and addiction seeks to restore both individual and societal health by repairing the consciousness of society.

Combining the medical patient anthropology and altering the social client anthropology for the management of addiction through a revised anthropology that seeks to incorporate aspects of the relational medical patient and through the constructs of a relational social human person anthropology. This collaborative anthropology recognizes the need to embrace the specific relational aspects of autonomy through empowerment, the redevelopment of repairing competence and consciousness; because the one who suffers, suffers within a community from the neurological, neuroimmune, neurocircuitry, and social impairments from substance use disorders and addiction, which grossly impede the essential elements of meeting the standards of individual agency and competency.⁸⁷ Implementing relational consent paradigms and incorporating shared responsibility potentiates restoration of personhood, restoration of consciousness, restoration of improving individual competence ultimately seeks to restore societal health.

Relational decision-making and paradigmatic reconstruction of informed consent processes, and implementation of a relational management of care paradigm for those diagnosed with substance use disorders and addiction is not coercive it is good healthcare and ameliorating medical treatment. It is ethically justified to partner with patients, families and communities to eradicate the current addiction epidemic, by revealing that the social elements of commodification and exploitation of the vulnerable has exponentially harmed millions of lives through the coercive measures of marketing, policy, and physiological effects of stress and substance.⁸⁸ In order to reverse the influences of the neurobiological, genetic, and epigenetic consequences of the substance use disorders and addiction that have escalated the trajectory of harms that impair personhood through the neuroinflammatory cellular mechanisms, restoration

of cellular dysfunction can begin through developing a comprehensive and restorative process, which seeks to restore physiological and societal homeostasis.⁸⁹

As a result, relational decision making adjusts to the ever changing circumstances of the one diagnosed with substance use disorders and addiction and allows persons to adapt to the complex mechanisms and nuances of the neuroinflammatory and affective psychological responses of the disease trajectory with assistance from others in order to avoid harm to self and to others.⁹⁰ Implementing measures of shared decision making, strengthens the construct of the relational medical patient and social patient anthropology, by limiting the effects of the coercive stress induced states of chronic substance use. Hence, the restoration of the one who suffers is justifiable when avoidance of patient harms are evident, when patient choices substantiate harms, when interventions improve patient outcomes, when interventions seek to improve public health outcomes, and when implementation of interventions prevent the sequela of known disease trajectory of harms in order to empower and restore human personhood and consciousness.⁹¹

Unlike many physiological disease states, substance use disorders and addiction are often internalized states that produce powerful emotions of personal failure, that develop as a result of repeated chronicity and acute exacerbations often times occur in opposition to one's core values and intrinsic vision of the self and consequently leads to disempowered personhood and unexpected mental states; substance use and addiction progresses through altering levels of conflicting consciousness.⁹² Hence, in order to discuss the earnest need to heal consciousness, explaining the deleterious magnitude of impaired consciousness is necessary. The intensity of personal, familial, and community suffering as a result of addictions' grasp on altering levels of consciousness for individuals must be reflectively and responsibly repaired through implementing new treatment modalities utilizing strategies that heal physiological disease and

empowers autonomy through relational connections. Like all medical interventions, balancing benefit and risks of treatment are necessary.

Defining the concept of consciousness requires extrapolating the vastness of the concept. Consciousness is often discussed through both scientific criteria perspectives and through the complexities of metaphysical deliberation.⁹³ Physiologically, the spectrum of understanding consciousness can be simply examined through the lens of awake and sleeps states or through the compounding nature of cognitive processes that relate to the complex abilities to process the notion of self, environment, feelings, and decisions that constitute the unique nature of the neurophysiological components of the mind-body experience that influences each individual person's life with others.⁹⁴ The metaphysical and ontological aspects of consciousness are emotionally unique for the satisfaction of the human desire to understand the intentionality or non-intentionality of action of 'being' related to the self.⁹⁵

Utilizing professional practice standard as guides to repair consciousness and restore personhood for patients who experience the psychological and neurobiological harms to self during addiction requires the implementation of relational decision making in order to benefit patient well-being and improve physiological health.⁹⁶ The overwhelming call for professional responsibility to empower personhood and repair consciousness for those diagnosed with addiction disorders is an insurmountable professional task, requiring the relational support of patient, family, and community; communal provisions that are necessary in restoring personhood and repairing consciousness must reconstruct the human spirit through restoring hope through re-socialization and restoration of community acceptance.⁹⁷ Professional responsibility require incorporation of attunement and dignity management to validate individual worthiness and the intrinsic need of human connectedness during vulnerability; navigating the responsibility of care

includes empathetic processes to repair harms through respectful communication, health promotion education, nonjudgmental and holistic care, and acknowledgment of the worth of each patient.⁹⁸

b. Decreasing Vulnerabilities.

Decreasing human vulnerabilities includes implementing care systems of connection, knowledge transference, and supportive care environments; decreasing vulnerabilities for individuals and populations afflicted with substance use disorders and addiction occurs with the distribution of knowledge and programs that aim to decrease deleterious actions of care that perpetuate marginalization and stigmatization.⁹⁹ Additionally, Dr. Gabor Mate's research on substance use disorders and addiction clearly shows that vulnerability is heightened in all living organisms when physiological and psychological isolation occurs; cellular and biological synergy consistently results in strength of organism, whereas, when organisms and cells are isolated from mutual cellular supports, the host is susceptible to disease, illness, and death is likely to occur.¹⁰⁰ When societies support the profits of the distributor over the management of care of the host or person, similar increases occur in the susceptibility of disease, illness, and death are imminent consequences.

Human vulnerability perpetuates when affirmation of perceived societal norms remain unquestioned; unquestioned isolation, unquestioned dominance structures, and unquestioned ethical systems that implement hierarchical justification judgement over another, increase social systems that potentiate powerlessness, false normality, and result in persistent harms of the most vulnerable 'other.' However, neurobiology, genetics and addiction science aims to restore the unnecessary silence of suffering, aims to decrease vulnerabilities through implementing values of care that increase individual hope, repair and reconstruct consciousness and re-empower

personhood through innovative strategies that promote physiological, psychological, and neurobiological restoration through social reintegration and non-stigmatized scientific disease management care.¹⁰¹ Social reintegration requires a careful assessment in the determination of respect for autonomy, personhood and competence. Restoration of hope and societal belonging is required necessary.

Determining competency for consent begins with an honest evaluation of the criteria of informed consent and then secondly includes the reconstruction of consent by incorporating safeguards that protect persons diagnosed with substance use disorders and addiction through relational decision-making processes and implementing contractual consent requirements for those who are vulnerably affected by neurological impairment. The wellbeing of each individual's personal health is necessary, while implementing constructs of care that seek individual integrity and neurological and neuroimmune stability; a relational consent paradigm of this magnitude seeks assurances of family centered participation, avoidance of neglect, empowerment for those with known neurological impairment and allows healthcare providers to implement elements of relational care through patient and family centered consent processes that seeks the relational integrity of all individuals.¹⁰²

Decreasing vulnerabilities require a comprehensive evaluation for determining competency for consent for healthcare decision-making for those who are diagnosed with substance use disorders, addiction, and the neuroimmune sequela of the effects of sustained inflammatory states, requires the application of a new anthropology of care; an anthropology of care that values the integrity of individuals through the constructs of relationships, incorporates insurances that the patient with substance use disorders and addiction maintain cognitive ability to make health care decisions consistently over time, remain free intrinsic and extrinsic coercive

influences of inflammatory neuroimmune effects of sustained substance induced stress states. Are able to assess risks and benefits of decisions, while also understanding the long-term consequences of those decisions.

The principle of double effect examines the analytical conceptualization of the essential bioethical questions. Historically, the principle of the double effect has been successfully utilized in the daily decision making considerations that healthcare providers are faced with in the age of complexity and technological advances; however, the utilization of the principle of double effect is useful for everyday decision making and toward evaluating the normative values of complex implementation of health care interventions. The principle of the double effect incorporates four essential normative criteria for considerations during the ethical decision making process. ‘They include: 1.) The action must not be a bad or morally wrong action; 2.) The bad effect must not cause the good effect; 3.) the agent must not intend the bad effect as an end to be sought; and lastly, 4.) the bad effect, must not outweigh the good effect.’¹⁰³

Implementing a relational consent process of decision making for the management of care for those who suffer from the deleterious consequences of substance use disorders and addiction seeks to facilitate a treatment paradigm shift that empowers personhood, repairs consciousness and decreases vulnerability through the implementation of relational consent for the management of care for substance use disorders and addiction. The first criterion examines the duty of the one who acts.¹⁰⁴ The action, which seeks to implement relational consent is not morally objectionable; if the action sought the removal of all individual autonomy it would be an objectionable action; however, the action, which seeks to implement relational consent confirms the value and dignity of the individual and of the individual’s autonomy by seeking to restore competency and autonomy through relationship. The action identifies the impaired biological

mechanisms that impair the neurological ability to demonstrate competency and seeks to ensure safeguards against the patient's perpetuation of inflicting harms to self and to others. The first condition is met.

The second criterion examines the sequence of consequences, from the action to the actions effects.¹⁰⁵ The action, which seeks to implement relational consent in the management of substance use disorders and addiction, seeks to restore the individual's ability to increase the independent autonomous decisional capacity through medical interventions that decrease stress states and neuroimmune psychological states that impair cognition, while implementing constructs of relational empowerment, dissemination of educational knowledge, and societal reintegration and belonging.¹⁰⁶ The second condition is met, because the act's effects given that the neurological circumstances require the patient's assistance in action; the action's effect is not the result of removing the decisional autonomy of the patient. The decisional autonomy is already compromised.¹⁰⁷

The third criterion examines the intention of the action; it has already been established that through the implementation of relational consent, the intention of the healthcare professionals is to restore and repair the harmful effects associated with neurimmune effects of perpetual stress states.¹⁰⁸ The health care professional does not intend or desire the bad effect of the loss of autonomy, which causes impaired decision making; the healthcare professional implements the relational consent process in order to restore competency.¹⁰⁹ Lastly, the fourth criterion exams that the bad effect or the action which seems to limit absolute autonomy of the person for those diagnosed with substance use disorders addiction does not outweigh the good effect of the goal to restore the limited and impaired neurocognitive functioning, which negatively influences affective psychological states and executive functioning ability.

By applying the principle of the double effect, the complexities of managing the trajectory of care despite neurological impairment of the patient who is diagnosed with substance use disorders and addiction improves the trajectory of outcomes, attempts to restore personhood, decrease vulnerability and relieve the existential suffering of individuals and society. Substance use disorders and addiction are associated with additional vulnerabilities, which include psychological, spiritual or existential suffering; suffering of this nature is perpetuated when fears, isolation, social withdrawal and hopelessness prevail.¹¹⁰ Implementing a comprehensive understanding of competency, implementing relational consent processes and understanding the justification or need to change the management of care attempts to restore personhood and repair of consciousness, by additionally seeking the relational relief of suffering.

5.3 Relational Relief of Suffering: Patients, Professionals, and Society

Contemporary medical approaches of western medicine have a difficult time defining and addressing the constructs of human suffering and its associated relationship with human vulnerability. The multifactorial components of human suffering, pose complex and intrinsic personal characteristics of perceived misfortune for individual patients. Suffering, according to Eric Cassel, possesses the distinction of severe distress that actively deconstructs the wholeness of the person.¹¹¹ Whereas, pain, does not always deconstruct personal wholeness.¹¹² Differentiating between and comparing between pain and suffering is necessary to adequately evaluate the true depth and scope that suffering involves. Pain is routinely described as a physiological process with a known etiology, pain can also be described as a subjective experience of a physical ailment; pain is typically caused by known and unknown origins.¹¹³

However, medicine has objectified the pain experience, by routinely monitoring a patient's pain experience as the fifth vital sign; in hospital systems, nurses must document and

measure a patient's pain experience at least every four hours in the clinical setting.¹¹⁴ Assessing a patient's pain is a routine assessment. This assessment inclusion attempts to quantify the patient's experience of pain. The experience of pain is numerically numbered in order to provide an accurate measurement of the intensity of pain, interventions are implemented to 'remove' the pain, through administration of pharmacological agents, and lastly the pain is re-evaluated after the intervention has been implemented to assess the physiological relief of the pain. The numerical reductionism of the pain phenomenon, succinctly attempts to describe the pain experience in order to effectively treat the phenomenon through pharmacological or alternative treatment interventions.¹¹⁵

Conversely, suffering is largely ignored in clinical practice. Suffering cannot be reduced to scientific objectification, so instead it conceptually hovers in the recesses of a shadow or in the patient's personal experiences; suffering is, virtually unaddressed scientifically by modern medicine.¹¹⁶ Suffering has the potential to infiltrate its anguish into all elements of the individual human condition and experience, unnoticed; it's often-silent assent potentiates negativity, yearning, and destructive affects upon the one who suffers. Suffering is experienced physically, emotionally, spiritually, and socially; suffering may progress slowly through time, or it may rapidly destroy hopes and dreams for the future. Suffering may result from unresolved personal conflict or suffering may result through unresolved chronicity of illness or pain.¹¹⁷ As suffering progresses, personal direction and purpose is often lost; hence, the ability to humanly adapt to the stressors of disease and illness is detained through vulnerability.¹¹⁸

Utilizing a reductionist approach, cellular or physiological adaptation is necessary for survival of any organism. Consequently, adaptation in times of suffering is an essential component needed for recovery. Complete human adaptation is necessary for individual survival

and flourishing; if suffering is ignored personal identity and integrity can be lost. The medical imperative should be in establishing a relationship with patient's personal suffering during illness, to promote adequate care and adaptation for the holistic care of the person. Suffering encompasses the entire human person, not just the cellular components of organs and biological systems. The essence of humanity cannot survive through the reductionism approach of medicine. Human survival, care for humanity, and preservation of individual wholeness, requires medical physicians to incorporate virtuous care in response to individual patient suffering.¹¹⁹ The necessity to embrace the existence of suffering as a natural human phenomenon, should be embraced by health care providers in order to impart knowledge of the normalcy of suffering as an intrinsic human condition. Physicians through compassion, empathy and wisdom should no longer allow the shadowing of suffering to remain in the recesses of personal darkness for patients diagnosed with addiction.¹²⁰

The nature of existential suffering includes the overall search for human freedom and pursuit of meaning within one's life and purpose.¹²¹ Current research regarding the nature of existential suffering is frequently examined in context to end of life illnesses, such as cancer. But the reality of the nature of existential suffering should be examined for all human experiences throughout the lifespan. Irvin Yalom identified four intrinsic human elements that lead to the intrinsic nature of existential suffering at end of life; he identified the elements through human feelings of isolation, meaninglessness, loss of human freedom, and contemplation of one's own mortality as the essential qualities; although, it is important to note, that existential suffering often exists during the management of care for those who are diagnosed with substance use disorders and addiction. Often those who suffer with substance use disorders and addiction express feelings of victimization, isolation, loss of human freedom, loss of control to create

meaningful or authentic lives, and imminent realization that their disorder will result in death.¹²² Compounding feelings associated with social isolation induces personal thoughts of moral failing or sin, which further impedes the perception of self in an intrinsically negative manner.¹²³ The medical patient anthropology and the societal client anthropology contribute to materializing the four intrinsic components of Irvin Yalom's, inner conflicts that exacerbate suffering in isolation, meaninglessness, loss of human freedom and ultimately an increase in mortality risk that results from an inability to 'know' where to find help.¹²⁴

The current health care systems approach to medicine, functions in a fast forward, high pressured functioning treatment centered disease specific paradigm that rarely attempts to assess the potential personal, spiritual, psychological, or suffering, which often persists with illness; for those who experience increased neurological and neurocognitive vulnerability as a result of addiction, these essential elements of vulnerability are often mistakenly overlooked and unseen.¹²⁵ The associated consequences of the abnormal neurological and cellular immune response for those who are diagnosed with substance use disorders and addiction, leaves many in need, lurking in darkness. Unaddressed family distress, intrinsic physiological processes that overpower consciousness, communication, and emotions, result in breakdowns, despair, demoralization, loss of hope and a loss in the value and meaning in life.¹²⁶ Increasing incidences of depression and increasing risk for suicide ensue.¹²⁷

The 1988 Hastings Center Report entitled, '*A Special Challenge: Ethical Challenges of Chronic Illness*,' identified that the medical management of addressing the chronicity of disease and suffering are inadequately managed and it remains a relevant issue, thirty years after its first publication; the ethical challenges, which are faced in the chronic illness management of substance use disorders and addiction inadequately addresses the impact of suffering and the

chronicity of disease.¹²⁸ The complexities of unaddressed suffering, psychological hardships, compounding degrees of shame, isolation, betrayal, secrecy, powerlessness, impaired normalcy and marginalization further complicate the existential suffering and confusion of life's meaning for those who suffer from addiction; implementing a relational approach in the management of care, requires implementing the skill and wisdom of professionals to restore human dignity.¹²⁹

Implementing a call for professional action to address the plight of human suffering and escalating rise of mortality and comorbidities of dependency and addiction is long overdue; an ethics of care framework is needed to re-examine the patient-physician relationship and role, which should seek to develop a relational response of care to decrease the intrinsic suffering that often times coincides with substance use disorders and addiction.¹³⁰ The nature of existentialism, embraces the belief that all humans suffer; yet, if one is to survive, finding the intrinsic meaning of that suffering can motivate hope, can seek authenticity and ultimately a more meaningful life.¹³¹

Through the tri-cooperation of developing a community approach to utilizing professionals, the participation of family support, and incorporation of a socio-political community outreach policy that embraces inclusion of the neurodiversity of those who suffer with substance use disorders and addiction through empathetic and evidenced based treatment programs that aim to decrease the suffering of individuals through supportive and empowering programs that seek to treat the pathophysiological processes that increase the exacerbation of addiction with known mechanisms that begin to repair cellular expression through the facilitation of treatment paradigms that address suffering, offer implementation of pharmacological, immunotherapies, neurocognitive enhancement and most importantly hope to restore meaning and personhood.¹³²

The broad nature of suffering and its relationship with chronic illness and disease states such as in substance use disorders and addiction surpasses physical pain, focusing on only the physical elements of pain or the pathophysiological processes that exacerbate the biological trajectory of disease is only one element of healthcare's responsibility in caring for the health needs of individuals, communities and populations; the profession of nursing has always emphasized the intrinsic importance of considering the person as a complex spiritual, relational, physical and psychological being; that in the care of the 'other' an essential and holistic management of care is needed to treat the whole person, not just the physical self and the need extends to caring for the 'other' where they are in space and time. For those who experience substance use disorders and addiction, existential suffering is often witnessed, but disregarded; however, once vulnerability and suffering are recognized within a framework of care, facilitation of a treatment paradigm shift is actualized.¹³³

a. Facilitating a Treatment Paradigm Shift.

The medical model of care oftentimes, focuses intently on the pathophysiological processes, risks, etiology, and manifestations associated with disease states as a separate entity from the overall relationship between the complex social, environmental, and personal constructs that influence human illness; as a result, the paradigm shift, must clearly link the behavioral, social, and complex psychological connections between physiology, brain function, and propensity for responsive human actions in response to the physiology.¹³⁴ Chronic substance use disorders and addiction are not always acknowledged as a legitimate disease state; the ability to see the interconnection between neurological and cellular responses transgenerationally through cellular expression is an entirely new frontier of science. Hence, the argument ensues, that emphatically negates the disease model paradigm and insists upon individual responsibility for

individual's actions that lead to chronic and disordered use of substance, as manifested in addiction.¹³⁵

However, the legitimacy of addressing individual responsibility is not negated or minimized by adhering to a disease paradigm or pathophysiological processes of complex cellular dysregulation or complicated neuroimmune sequela of dysfunction for addiction, any more that it negates the legitimacy of individual responsibility for the management of care for other complex multifactorial genetic and epigenetic disease states.¹³⁶ The complex heritability of patients who are at increased risk for diseases such as diabetes mellitus, hypertension, atherosclerosis, cardiovascular disease, osteoporosis, and cancer all are effected by similar, yet uniquely different and complex interplay of environmental and social stress states, inflammatory processes, environment influences, nutritional status, and social life circumstances that stimulate genetic heritability and epigenetic results of cellular expression.¹³⁷

The differences with the presentation of, or the comparison of the aforementioned diseases, is that the target organs which are effected by the multifaceted etiology of disease do not manifest the expression of that disease through the 'essence of who one is' intrinsically; meaning the pro-inflammatory, neuroendocrine stress states that causes atherosclerosis, hyperlipidemia, cardiovascular disease and hypertension progresses through manifestations of impaired blood flow, inflammation, myocardial damage, ineffective mechanical functioning of the heart as a result of human action, or inaction, such as deleterious food consumption and increased sedentary life styles. Yet, the discussion that cardiac disease as an authentic disease is never disputed through the framework of the insistence that impaired cardiac functioning results from individual behavioral dysfunction; although the mechanisms of progression from preliminary stages of disease to advanced progression of cardiomyopathy or failure can correlate

to the adherence of the treatment paradigm of care, which includes strategies to educate individuals and families regarding etiology, heritability, genetic family risks, epigenetic and environmental influences of disease exacerbation.

Historically, not so long ago, most all disease states were associated with fluctuating degrees of blame, shame, and stigma that was associated with moral culpability, sin and punishment for wrongdoing; the justification, judgement paradigm, which assigns individual fault as ‘a way to tell the story’ of a person’s intrinsic vulnerability, is not an adequate depiction of truth; and therefore, requires the careful explication of developing a story that restores personhood and consciousness for those who become lost in the maze of neurological cellular expression and neuroimmune inflammatory mechanisms that block oxygenation, perfusion and circuitry that enables and enhances human flourishing and potential.

By restoring the dignity of those who are diagnosed with substance use disorders and addiction, health care professionals must collaboratively and convincingly embrace a model of care that seeks to protect the intrinsic rights of individuals through an ethics of care framework. An ethics of care framework must direct physician centered and medical models of care to comprehensively embrace a paradigm of care shift that emphatically utilizes a holistic model of care that incorporates relational decision making by rejecting an trajectory of dismissiveness for those who suffer. Enhancing the care of the other while restoring and repairing human integrity, personhood, consciousness through application of implementing treatment interventions that seek to restore physiological functioning is paramount.¹³⁸ Improving trajectories of care for those who are diagnosed with substance use disorders and addiction are needed in order to reverse the escalating harms.

The exponential growth of outreach programs and education initiatives that sought to utilize a relational and holistic approach for treatment of patient's diagnosed with human immunodeficiency virus (HIV) has drastically influenced the national and international initiatives that sought to decrease stigma and marginalization for high risk populations who suffered with HIV and AIDS; the management of care paradigm actively sought to decrease the risk for susceptible populations through dissemination of educational information on a subject that had previously elicited unprecedented stigma and shame. Concurrently, the development of scientific discoveries, which innovatively impaired the viral replication of the HIV virus that wiped out a person's normal immune response were discovered and additional public health prevention strategies, known as clean needle programs, met people where they were to offer programs of assistance; the dissemination of one of the most effective public health initiatives began a slow and methodological campaign to prevent harms from the transmission of HIV and AIDS through the knowledge of science, through relational care of the 'other,' versus a stubborn refusal to scientifically and socially perpetuate social neglect, judgement, and justification.

The paradigm shift must include changes in policy that decreases the vulnerabilities associated with risk for substance use disorders and addiction, such as isolation, dislocation, and marginalization, by developing authentic, professional, and safe community outreach programs; incorporating supportive outreach programs require reintegration to work and school programs, and a decrease in criminalization policies for those who are susceptible to sustained substance use as a way repair consciousness, repair neuroimmune functioning and repair personal dignity.¹³⁹ The relational paradigm of care shift should assimilate the HIV initiatives and European models of care for the most desolate substance users that were successful in breaking through the stigma of shame, silence and fear of disease that is associated as 'just punishment for

the consequences of societal construct of sin and wrongdoing.¹⁴⁰ Responding in solidarity of ‘the other’ because of a common humanity and relatability of human frailty; rather than justify the deleteriously neglectful refusal of care, through assigning judgement for the shame of the fall.¹⁴¹

It is time to decrease the suffering and despair of individuals and populations afflicted with substance use disorders and addiction, by aggressively utilizing innovative advances in educational initiatives, innovative redevelopment of public policy, and providing humanistic healthcare initiatives that seek to reverse deleterious consequences of genetic and epigenetic risk for neurological impairment. A careful consideration of the scientific contributions of pharmacogenomics, immunotherapies, neurological manipulation and enhancement technologies have the potential to reverse the deleterious consequences of neurological dysfunction related to neuroimmune inflammatory states for the brain, as the development of pharmacological cardiovascular medications, anti-hyperlipidemia medications, coronary artery bypass grafting (CABG), coronary artery stenting, and intra-aortic balloon pumps, and ventricular assist devices revolutionized innovative cardiovascular medicine.

b. The Contributions of Pharmacogenomics, Immunotherapies, Manipulation, and Enhancement.

Pharmacogenomics, immunotherapies, viral manipulation, immune enhancement interventions, social support networks, and destigmatization initiatives have all influenced the successful management of HIV care that has contributed to drastically decreasing the rapid proliferation of disease progression from initial onset of HIV to the rapid and destructive spectrum of the disease’s association with AIDS; the historical progression from HIV to AIDS, almost assuredly increased risk for early mortality. The physiological viral replication that destroyed the body’s natural immune response, through the virus’s ability to destroy and

replicate itself in the human- hosts CD4 cells, is often successfully halted by initiating therapeutic pharmacological combination of medications, that halt the virus's ability to replicate itself at multiple replications stages. With the advances in HIV and AIDS immunology research, the complex understanding of viral replication and transmission enabled the scientific communities understanding of genetics, and the biological components of communicability of disease led to pivotal educational and social outreach programs that extended support to marginalized and vulnerable individuals and populations; the lessons learned from the joint ventures of science, public policy, government, health care and communities resulted in a significant decline in the horrific consequences of a deadly disease progression, improved national health outcomes and decreased viral transmission of the HIV considerably after just four decades of care.

Pharmacogenomics, neural manipulation, cognitive immune enhancement interventions, public policy changes, innovative educational initiatives, and collaborative social outreach programs potentiate the same decrease in the effects of impaired consciousness and comorbidities of disease in the management of substance use disorders and addiction; reversing the adverse sequela of addiction, restoring neural plasticity, and improving the social constructs that perpetuate isolation and marginalization are needed to support the reversal of harms to families, communities, and future generations.¹⁴²

Improved understanding of environmental influences of genetic expression, methylation and neuroimmune functioning that potentiate the neurocognitive, neuropsychiatric and behavioral reward pathways and pathologies that increase susceptibility to substance use disorders and addiction tendencies, will potentiate scientific advances in the activation or deactivation of neurotransmitter responses that preclude genetic vulnerability to disease states,

altering stress responses, repairing neural synapse dysfunction, and reversing the neuro-inflammatory mediators that alter resiliency to stress, substance use, isolation and dislocation are essential for effective treatment paradigms.¹⁴³ The ethical concerns with implementing aggressive treatment interventions on the brain have historically been cautiously approached; altering neurological functioning has ethical considerations that the altering of ‘other’ human organs do not precipitate.

The ethical implications of neurocognitive enhancement demand a prospective analysis that reflects upon the significant realities of the future. Enhancing the brain compared to other organs potentiates certain change of the concrete nature of ‘one’s’ core essence of being, this occurs because neurocognitive enhancement interventions have the capacity to change the very components that define individual ‘personhood.’¹⁴⁴ The neuroethical analysis must consider the unique relevance of such mind altering techniques that threaten to re-define the concept of one’s human ‘identity;’ the brain is the organ that helps humans to ‘know’ and ‘understand’ the meaning of self. It is also the organ that embodies the human mind and consciousness.¹⁴⁵ Human societies have evolutionarily altered and enhanced cognitive functioning throughout the centuries, by implementing improved methods of communication, writing, mathematics, and the sciences. The present advances in science have the ability to use invasive cognitive enhancement modalities as treatment for dependency disorders; The current reality of advancing genetic science potentates manipulation of neurocognitive functioning through alteration of gene expression and reengineering of genetic design in order to eradicate medically debilitating disease and disease processes; this new potential requires careful considerations for establishment of applicable ethical guidelines.

This paper has discussed the abhorrent inheritance potential of specific genes and the transgenerational epigenetic methylation processes that can potentiate and exacerbate heritability risk for addictive disorders. It has also examined the relationship that the overstimulation processes that signal the hypothalamus-pituitary-adrenal-axis to continually increase the sympathetic nervous system in response to stress, or threats. The stress response and traumatic events can lead to disordered genetic expression that can progress to neuronal changes in cognition, depression and substance use disorders; progressive substance use disorders to addiction can additionally include influences that effect behavioral from environmental stimuli. This hopeful prospect that new cognitive enhancement modalities can offer personalized treatment for substance use disorders and addiction is exciting and revolutionary; however, obtaining relational consent for treatment, with the advances in research, must carefully apply personal privacy protections and avoid illusory prognostication.¹⁴⁶ Improving the personalized management of substance use disorders and addiction treatment must not use paternalistically coercive measures.¹⁴⁷

Behavior modification strategies have proven to be ethical and effective in changing ‘behavior’ risks for heart disease, hypertension, diabetes, and some cancers. Behavior modification should similarly be considered as relevant and ethical in managing substance use disorders and addictive. The group of alleles that influence reward, reinforcement, and cognitive effects of alcohol and illicit drug consumption can contribute to the management of behavioral and pharmacological interventions. Research must be encouraged to utilize and apply scientific discovery to initiate new therapeutic processes that influence brain behavioral changes for populations susceptible to addictive disorders; through enhanced behavioral modification therapies such as motivational enhancement, manipulation of genetic expression, manipulation of

metabolic responses to substance, and alteration of prolonged excitatory sympathetic nervous system responses to stress, beneficial therapeutic treatment modalities are potentiated.¹⁴⁸

Evidence-based treatment for substance use disorders and addiction includes pharmacological interventions such as medications to detoxify the drug withdrawal; these medications are used to decrease the adverse effects of the physical manifestations.¹⁴⁹

Decreasing the effects of withdrawal supports the physiological dependency consequences of substance use; additional pharmacological interventions potentiates the alteration of behavior, which seeks consumption by decreasing or altering the synopsis of the reward pathway.¹⁵⁰

Altering the reward pathway of substance use is actualized through the administration of pharmacological medications classified as agonists, partial agonists and antagonist; agonists activate receptors by producing the effect of an ‘already intrinsic chemical substance, partial agonists produce a decreased response, and antagonists can block an intrinsic reward response of substance completely.¹⁵¹ Blocking the intrinsic reward response of a substance, decreases the physiologic effect of the drug.

Alcohol indirectly increases the reward pathway of dopamine, by affecting the endorphin and gamma-aminobutyric acid GABA systems.¹⁵² Pharmacological opiate receptor agonists prevent the responses of neurotransmitter receptors that stimulate reward pathways. Scientific research has indicated that the antagonist Naltrexone blocks the dopaminergic release or euphoric response related to alcohol use, especially in patients who poses specific u-opioid receptor gene alleles.¹⁵³ Additional studies have indicated that the GABA agonist Valium also decreases alcohol use in patients who were treated; however, certain medications could cause additional misuse and abuse.¹⁵⁴ Other pharmacological drugs that are capable of blocking the GABA effects on reward pathways have been developed and proven effective in animal studies,

but significant effectiveness for treatment has yet to be determined.¹⁵⁵ Alcohol acts upon the central nervous system through neurotransmitter and neuromodulator systems by targeting specific genetic susceptible target alleles; as a result, the complexity of the different genes associated with alcohol addiction, brain system dysfunction, and reward system pathways become actively persistent over time, resulting in resistance to treatment through current pharmacological interventions.¹⁵⁶ Alternate behavioral modifications and anti-reward or decreasing stress interventions may be achieved in the future with the use of corticotropin releasing factor 1 (CRF1) receptor antagonists or altered genetic expression of the corticotrophin releasing hormone gene.

Understanding the advances of neural development and cognition as they relate to consciousness, beckons concerns regarding the ethical implications to potential changes in personhood and potential consequences of the ‘unknown’ affects for those who are at risk for increased vulnerability; fear of deleterious neurological manipulation and change cannot be ignored.¹⁵⁷ Careful protections must be sought to avoid an increase of harm to persons and populations. Rigorous application of bioethical principles must govern the advances and application of new treatment programs; collaborative cooperation of the interdisciplinary team of healthcare providers along with transparent processes of care, and high quality of authentic decisional programs of care that support the decline of generational harms associated with vulnerabilities of dependency are needed to successfully improve quality of care for dependency and addiction disorders.

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Chapter 6 Relational Consent & Quality of Care for Addiction Disorders.

The need to Improve and implement a management of care paradigm for patients diagnosed with substance use disorders and addiction requires application of the Institute of Medicine's (IOM)'s quality support measures, which were included in the 2001 report entitled, *Crossing the quality Chasm: A New Health Care System for the Twenty First Century*. The support measures include, ensuring the safe delivery of health care, ensuring health care treatment processes are effective and efficient, ensuring programs develop and implement patient and family centered care, and ensuring timely and equitable distribution of services.¹ Additionally, the Substance Abuse and Mental Health Services Administration- Health Resource and Service Administration (SAMHSA-HRSA), and the Center for Integrated Health Solutions (2012), further specify inclusive goals of reducing harms in the management of care for those diagnosed with substance use disorders and addiction by promoting improved prevention strategies, assuring provisions for patients with self-management support, improving system design changes in order to improve delivery of care, assisting in the formation of improved communication strategies in order to implement best practices to ensure healthy living, and improving clinical information systems to obtain current data collection measures that seek to improve long term health outcomes.²

Improving communication, implementing patient and family centered care paradigms, and developing strategies that improve innovative quality of care frameworks should include the re-interpretation of consent processes for the treatment of any neurocognitive, neuroimmune or neuropsychological disorders that increase the risk of vulnerability or harms, due to the

pathophysiological changes that impair neurological functioning; this includes patients who suffer from substance use disorders and addiction. By utilizing relational decision making and implementing revised sliding scale competency consent processes, health care would identify the need to skillfully implement reliable assessment evaluation tools and adequately determine methods to assist those who struggle with decisional capacity and neurocognitive functioning as a result of substance use disorders and addiction.³ Additionally, once neurocognitive dysfunction and decisional competency impairments are determined, a comprehensive evaluation determined to investigate the potential for the known alterations in neuroimmune dysfunction is also essential in order to develop a comprehensive and successful treatment plan; which is associated with the prevention of harms for the potential chronic exacerbations of neurological sequela that further impedes functioning and decision making.⁴ A management of care paradigm is necessary in order to decrease harms and chronicity of dysfunction that increasingly result in death.

Additionally, implementing a shared decision-making paradigm of care must attempt to integrate holistic life management skills, such as employment retention, establishment of stability in housing, increasing strategies to support social connections, ensuring access to health care services and improving understanding of disease and disease services; assessing the quality of treatment for substance use disorders and addiction requires careful data collection to enhance program development that aims to reintegrate the patients continuously with social and interactive community participation roles. By aligning to the national outcomes measurements (NOM) project, implementing a management of care paradigm which seeks to decrease mortality and morbidity associated with the increase in consequences of substance use disorders, and addiction is possible.⁵ The complexity of such treatment goal interventions require assistance from families and communities, and acknowledgement that individuals are strengthened through

supportive social relationships; hence, enhancing the integrity of individuals through relational support and empowerment that decreases the deleterious consequences associated with the rise of substance use disorders and addiction pathology.

The phenotype of substance use disorders and addiction is changing. The observable characteristics that result from the interaction of one's specific genetic traits with the environment is complex and multifaceted; this environment includes cellular functioning, cellular expression, and neuroendocrine hormone functioning, and neuroimmune cytokine communication that is yet to be fully discovered; consequently, promising advances assuredly indicate that improving quality of care for those who suffer from the heritability of substance use disorders and addiction must develop in order to drastically improve the care of an increasingly growing vulnerable populations. The need to improve quality care initiatives requires collaboration and shared decision making paradigms that assuredly seek the deconstruction of stigma, the development of aggressive prevention strategies, the dissemination of monumental educational initiatives and policy development that supports the paradigm of care that supports the comprehensive medical and social anthropology through the realization that social responsibility can empower individual responsibility and wellness.

6.1 Management of Care for Relational Consent.

Decisional capacity determination requires assessment of the person's ability to provide consent or refusal of care, with the understanding that the patient has normal neurological functioning to adequately comprehend the important health information; additionally, the patient must be able to communicate their choice for treatment consistently over time and be able to understand the risks and benefits of their plan of care in relationship to their expressed choices.⁶ However, patients who are at risk for and are diagnosed with substance use disorders and

addiction disorders are known to exhibit impaired decisional capacity; recent diagnostic evidence, now supported by SPECT scans and functional assessment tools clearly indicate, physiological evidence of neurological impairments that impact attainment of treatment goals.⁷ Yet, even with known impaired decisional capacity, current health care decision-making processes continue to allow individual decision making versus shared decisional processes to prevent harm and further dysfunction; this simple adjustment must occur in the management of care for those who are diagnosed with substance use disorders and addiction.

Implementing strategies of relational consent in the management of care for patients diagnosed with substance use disorders and addiction requires utilization of capacity for consent assessment tools that identify the inconsistencies of decisional capacity for patients with confirmed impairment of neurological functioning. The implementation of diagnostic assessment tools that confirm the neurological impairments; protective measures aim to institute the optimum application of evidenced based practice guidelines and for those who suffer from the neurological dysfunction as a result of substance use disorders and addiction. Implementing protection measures through relational decision making and relational consent for those who suffer from the increased physiological dysfunction, associated with substance use disorders in order to improve decisional capacity functioning, decrease risk of harms and vulnerability, and decrease risk for comorbidity complications.⁸

It is time to implement decisional assessment tools that standardize a threefold shared decision making model of care, by carefully examining the implementation of sliding scale capacity assessments, implementing professional recommendations of care through evidenced practice models of care, consistently, while also seeking a protective third party participation in the plan of care; shared decision making with family or surrogate decision maker, contributes to

the implementation of patient and family centered care, which seeks to decrease risk of professional coercion and paternalistic care paradigms; similar assessment strategies, such as the Aid to Capacity Evaluation (ACE) and the MacArthur Competency Assessment tool (MacCAT) are being implemented in patients who experience neurological decline during the physiological dysfunction of Alzheimer's disease and Parkinson's disease, in order to provide improved quality of care and incorporate relational, family and person centered approach to care in order to enhance the personal dignity, requires application of the scientific evidence in ways that have not been implemented previously.⁹ Implementing a new model of aggressive medical interventions, which seeks to alter the deleterious consequences of substance use disorders and addiction, requires medicine to assuredly disband antiquated models of assigning individual stigma and blame, by aggressively advocating for the standardization of comprehensive assessment strategies, that include identifying the need for relational consent after the completed risk assessment results indicate vulnerability.

The IOM's *Crossing the Quality Chasm: A New Health System for the 21st Century*, identified the evidence that supports that the health care delivery system is significantly falling behind in translating scientific knowledge into 'best practices.'¹⁰ Recommendation thirteen of the IOM's 2001 report on *Crossing the Quality Chasm: A New Health System for the 21st Century*, states, "The Agency for health care research and quality should fund research to evaluate how the current regulatory and legal systems facilitate or inhibit the changes needed for the 21st century health care delivery system." The thirteenth recommendation in the IOM report, continues to state that modifications should be implemented to help health care providers and health care organizations to professionally accomplish the six aims of the report which were previously identified as care which is: safe, effective, patient centered, timely, efficient and

equitable.¹¹ The management of substance use disorders and addiction must effectively evaluate how the current legal and medical system facilitates the perpetuation of impaired health care outcomes for this disparate population.

Current regulatory and legal systems are influential in the trajectory of the perpetuation of stigma, marginalization and discrimination of those who are diagnosed with substance use disorders and addiction; to add insult to injury, the current commodification of vulnerable persons as it relates to the sale of addictive substances such as cigarettes, alcohol, and bad food specifically targets the poor, the vulnerable and the less educated populations.¹² The theory of commodification asserts the justification, that the sale of such products are permissible, because they inform populations (or the vulnerable hosts) of the risk of harms, by placing warning labels on products; however, the full disclosure of the comprehensive risk of harms for short term and long term health is never fully disclosed; the market distributor or agent asserts that the provision of a warning label is sufficient information. Unfortunately, benefiting the distributor financial gains at the cost of human lives. Therefore, it becomes necessary for health care providers to convey the essential and complex information to consumers as it relates to the gravity of the unforeclosed damages that the marketed substance use, like alcohol, cigarettes, marijuana, genetically modified food, and long term effects of certain pharmaceutical products, which actually causes harms to persons, decrease health and human flourishing. It is essential to implement mechanisms a paradigmatic and revolutionary cultural change; one that insists on social culpability.

Implementing an ethics of care paradigm that utilizes the re-interpretation of consent in the management of care for substance use disorders and addiction, innovatively seeks to develop practice standards that translate scientific knowledge into clinical practice; by delivering

innovative addiction management care that safely fosters preventative and educational initiatives to individuals and populations, by identifying social risk and reveal commodification marketing strategies, that disregard the value of human life. Implementing an ethics of care paradigm embraces patient centered care. An ethics of care seeks the respectful and responsive approach that clearly delineates the value of each person and seeks the methods which seek to restore optimal neurological cellular and immune functioning for individuals, by not allowing the myth of free choice to be veiled by the chameleon of commodification, big money, neglect, and biological coercion that distorts the physiological functioning of every humans person's psychoneuroimmunoendocrinology system's normal physiological response.¹³

Relational consent in the management of care for those who are diagnosed with substance use disorders and addiction should attempt to achieve standardization for all patients; the opportunity to implement a standardized response to the current deleterious harmful sequela of addiction should be clearly illuminated across every health care institution across America. However, typical day across hospital emergency departments and hospital admission statistics report in excess of 4.6 million drug related emergency department visits that included harm related consequences from drugs in 2009; and the statistical numbers suggest large increases in harms as a result of the 2016 statistics. However, the 2009 report, places the magnitude of the problem, which indicates the severity of the problem; the 2009 report indicates the drug related emergency department visits showed that fifty percent of harms included prescribed pharmaceutical medications and about forty five percent involved non-prescribed use of abused substances.¹⁴ The unfortunate truth reveals that acute health care systems have difficulty managing the time and resources to adequately address the 422, 896 thousand cocaine reported visits, the 213, 118 thousand heroin visits, the 93, 562 thousand stimulant, amphetamine and

methamphetamine visits, the 658, 263 thousand alcohol visits, and the estimated 519,650 thousand combination alcohol and drug visits that occurred in 2009.¹⁵

Our Acute care health systems are developed to care for the acute and the ‘fast’ management of disease states of care interventions; for the drug, related emergency admissions, this means that emergent medications are administered to restore immediate oxygenation deficiencies, poor perfusion, and adverse homeostasis functioning that results in maintenance of vital signs, restoring consciousness, and then the patient is discharged back into the community. Acute care systems are not structured for ‘slow medicine,’ which could seek preventative and supportive interventions. Current health care organizations are not structured to implement care paradigms that holistically consider the comprehensive pathology of addiction and seek the long-term amelioration of individual care.

Yet, a system that proactively and aggressively implements evidenced based practice strategies to this large portion of the population should occur; acute care hospital systems are not foundationally structured, in managing the resultant psychoneuroimmunoendocrinology long term, chronic nature of substance use disorders and addiction of this magnitude. Albeit, becoming responsive to the sequela of complications and comorbidities that substance use disorders and addiction science reveals, must urgently seek to achieve advances in long term quality care for patients through the reduction of risks, initiating processes of change, changing the socio-political environment, and through the reinvention of care; the reinvention of care, begins with immediate implementation of relational consent processes for the holistic management in relationship for the of 4.5 million patients who are admitted to the emergency department each year as a result of drug related hospital emergency room visits.¹⁶

The implementation of standardized screening, standardizing diagnostic tests, and implementing relational consent processes for incorporation of intervention paradigms, which seek to connect patients to the resources that safely provide treatment, care and self-promotion for a life of wellness can be proactively established. The reinvention of care for substance use disorders and addiction, requires clear and definitive language that indisputably labels addiction as a physiological disease state that is greatly influenced by sociocultural and epigenetic circumstances; the reinvention of care for those with substance use disorders and addiction as a phenotype that embraces the potential for human flourishing must begin with acute care identification and interventions that are committed to the long term chronic disease measurement programs.

a. The Phenotype of Addiction.

Implementing a relational consent strategy for the specific treatment of patients who are diagnosed with substance use disorders and addiction is necessary in order to develop individual assessment strategies that address the particularities of physiological dysfunction specific to the neurological alterations associated with impaired functioning, that present as disordered and fluctuating states of decisional capacity.¹⁷ The relational consent processes implement mandatory standardization initiatives during the acute care emergency department hospitalization admission. Admitting hospital documentation requirements include the completion of past medical history, physical, and assessment standardization, which includes history of present condition, past medical history, history of medication use, history of illicit drug use, history of alcohol use, history of physical abuse, post-traumatic stress syndrome, history of past medical conditions, history of mental health conditions and a comprehensive systems health assessment. During this

admission process, the determination of standards related to decisional competency must be evaluated simultaneously with determining the cause of admission.

Concurrently, determining the potential for substance use disorders and addiction should be carefully evaluated. The incorporation of obtaining appropriate diagnostic tests that support the evaluative diagnosis should be incorporated in the standardized plan of care. By carefully implementing and documenting the collection of information, the health care environment responsively and attentively begins to determine the pathology of disease and therefore preemptively screens with inclusive diagnostic testing criteria, evaluates for the potential of neurocognitive vulnerability and conclusively seeks to acknowledge that the phenotype of addiction is an authentic disease, which requires careful evaluation. Completing a simplistic neurological assessment that quickly determines if a patient is oriented to person, place and time does not comprehensively evaluate, whether or not the patient has executive decisional competency.

When a patient is admitted to the emergency department after a motor vehicle accident and substance use is identified as a prospective or suspected coexisting condition in one of the hospitalized patients, the current admission assessment strategy includes the completion of serum alcohol and serum drug testing levels; once the admission assessment indicates actual use of substance, or is determined to be ‘under the influence’ during the health history or the physical exam is determined, basic neurological assessments are completed that seek the patient’s knowledge of who they are as a person, by verbalizing their ‘name’ and stating their recognition of their personal orientation to place and time. If the patient verbalized orientation to person, place and time, health care providers seldom question the agency of the patient, through an additional or more comprehensive evaluation.

However, when completing a comprehensive cardiac assessment, health care providers, place the patient on a heart monitor, assess a 12 lead Electrocardiogram, complete serial blood pressure readings, monitor oxygenation levels through pulse oximetry, and obtain serum blood work, which includes electrolyte levels that affect cardiac functioning, inflammatory markers that determine myocardial wall damage, and lipid panels to determine possibility for atherosclerosis. If any of the above mentioned diagnostic criteria indicates suspicion of the hearts decreased functional capacity, additional and more invasive diagnostic procedures are implemented, such as invasive cardiac catheterization to determine potential blockage of coronary artery blood flow to the heart.

Yet, even when more than 4.6 million patients are admitted to hospital emergency departments with known consequences and harms from drugs and hundreds of thousands of patients are confirmed through admissions with complications and comorbidities of substance use disorders and addiction from prescribed pharmaceutical medications, marijuana, cocaine, heroin, stimulant amphetamines, methamphetamines, and alcohol additional assessment criteria that scientifically indicate the need for additional diagnostic evaluations that could include serum blood draws to evaluate inflammatory markers, elevated neuroendocrine hormone levels, completion of single photon emission computed tomography scan, or neurocognitive competency assessments are never completed to determine the extent of neurocognitive impairment as a result from the ‘known’ substance use.

Due to the nature of heritability, the deleterious effects on future generations and entire populations are at stake; therefore, ignoring and neglecting to identify the influences of the complexities associated with the neurobiology and heritability of substance use disorders is professionally irresponsible, causing great harm to millions of patients across the country yearly.

This neglectful approach to care reflects the anthropology of addiction that reflects the social client effectiveness anthropology of addiction, which focuses on the adherence to the individualistic moral agency blame approach of addiction, by assuming that the ‘client knows’ the risk; but purposefully avoids self-motivation to seek intervention. The contemporary phenotype of addiction, can no longer allow constructs of stigma to overshadow the professional care for those in need of responsive treatment interventions for substance use disorders and addiction; illuminating the need for aggressive diagnostic standards is essential. The validation of the medical diagnosis that requires the implementation of a treatment plan illuminates responsible clinical practice; the implantation of the new anthropology of addiction validates the medical patient as partner and through the constructs of a relational social human person anthropology standardizes, which deserves a comprehensive diagnostic evaluation that imitates all other evidenced based diagnostic processes in current medical practices.

Therefore, seeking an anthropology of care, eliminates unnecessary suffering for future generations.¹⁸ Developing an agreeable and consistent construct of the addiction phenotype is difficult, diverse and conflictual; however, by adhering to the basic standards of phenotype development, the construct should no longer illicit restrictive and cultural barricades that are not based on scientific evidence. Such barriers, negatively influence the development of quality of care paradigms from being actualized for those who suffer. Our current paradigm of care neglectfully discharges hundreds of thousands of patients each day, without implementing a long-term commitment treatment strategy that promotes human care.

The phenotype of substance use disorders and addiction, consistently demonstrate a set of observable characteristics as stated in the American Psychiatric Association’s Diagnostic and Statistical Manual 5th resource manual; the nuances of adjusting language, between old

Diagnostic and Statistical Manuals have never disregarded the physiological and psychological nature of the disease. Scientific research, extensively and continuously explicates the cellular, genetic, and epigenetic nature of addiction, validating the complex physiological processes that characterize the interactions of individual traits and the environment that are transmitted from one generation to another. Additionally, the phenotype of substance use disorders and addiction specifically calls for the implementation of relational strategies that incorporate collaborative decision-making processes in order to combat the contributory genetic, epigenetic and neuroimmune processes that lead to neurocognitive impairments, neuroimmune inflammatory states and the resultant psychological comorbidities of disease that can result in inhibition of behavioral control.¹⁹

While, examining the phenotype of substance use disorders, dependency and addiction, it becomes evident that the physiological and progressive inability of the patient to reverse one's own neuroimmune inflammatory state, which impairs oxygenation, perfusion, and therefore behavioral tendencies, will ultimately effect executive control, affective functioning, cognitive ability and therefore autonomous decision-making.²⁰ Additionally, the neurological dysfunction impairs the ability to interact with external environment stimuli, communication, escalates physiological responses to stress, impairs immune response, alters memory functioning, and impairs executive control functioning; this neurological dysfunction necessitates the care of the 'other', requiring the assistance of care and the support of care, which is no less than the care of the person with cardiac dysfunction through professional guidance.²¹

The formulation of shared decision-making and the implementation of re-interpretation of consent for treatment is a necessary component to enhance functional ability and improve health outcomes for patients who experience physiological decline of neurological functioning; the

imperative to deconstruct stigma, decrease, vulnerabilities, dismiss antiquated treatment programs, and improve quality of care requires the assured dissemination of an addiction anthropology that clearly defines the phenotype of addiction and eradicates the deleterious consequences of a culture that inflicts exponential harms on the ‘other’ through constructs of complacency and marginalization.

The phenotype of addiction is a physiological prototype of human survival that is influenced by the complex genetic, epigenetic, neurocircuitry, and neurobiological influences that progress into negative physiological, psychological and societal functioning; previous cultural norms ascribe addiction as a construct of human weakness, sin and repulsion. Yet, the phenotype that identifies people through the constructs of weakness and sin, existed prior to the scientific evidence that clearly illuminates that the historical construct potentiates an even larger cultural and social consequences of harms for those who suffer from substance use disorders and addiction. Action, which is responsive, attentive, aggressively based on evidence, applies professional and scientific knowledge through the implementation of responsible and accountable treatment paradigm shifts. Richard Brodie, correlates the communication of ideas, such as stigma, paternalism, authoritative justification and judgment paradigms as viruses of the mind.²² Viruses of the mind can occur through language, culture and performative actions that have the potential for irreversible consequences if not evaluated reflectively.²³ An ethics of care does not ascribe to ethics as a practice of rules ascribed from an authoritative judgement. An ethics of care focuses on the ordinary and intrinsic human accomplishments that results from thought, speech, and actions toward the other; dissemination of educational initiatives that promote relational support, provision of educational initiatives, in order to reduce harms for those who are diagnosed with substance use disorders and addiction, promotes prevention

strategies, improve delivery of care, implement best practices that ensure healthy living and ensure long term health outcomes.²⁴ An Ethics of care approach to the management of care for substance use disorders and addiction, embraces the intrinsic actions of responsive and responsible health care delivery versus the radical neglect of ‘the other’.²⁵

b. Disseminating a Relational Education Paradigm.

Educational initiatives must clarify the etiological causes of substance use disorders and addiction in order to eradicate antiquated constructs of shame, blame, and stigma by properly providing shared responsibility of care for individuals, families, and communities through social systems that embrace an ethics of care framework that work toward improving quality of life for those who are presently disempowered and marginalized.²⁶ Cultivating a culture of relational care versus stigmatization and blame for those susceptible to substance use disorders and addiction will require a radical cultural shift from seemingly ingrained cultural and social constructs of social deviance; constructs of social deviances at the turn of the century included interracial marriages, artificial contraception use, and homosexual activity.²⁷ Yet, as social policy and regulation of laws have emerged to encompass more compassionate constructs that portray the true dignity of each human person, social constructs that previously criminalized prescribed cultural actions as deviances, are no longer permissible by law.²⁸ It is the role of health care providers and systems to holistically care for the ‘other’ and not to determine that care based upon constructs of bias and stigma.

Disseminating a relational educational model that emulates the initiatives of the HIV/AIDS epidemic of the 1980s as an educational paradigm of care, that influenced a pendulum shift in the cultural climate related to the associated stigma and marginalization of male homosexuals and intravenous (IV) drug users was successful in decreasing the harms associated

with an aggressive virus; disseminating educational paradigms of care to decrease disease transmission, successful dissemination of disease prevention strategies and empowerment of the vulnerable emerged through the slow development of social policies and care paradigms that sought to increase public policy awareness and quality of care initiatives through educational and social reform.²⁹

National health care quality initiatives for the prevention and care of HIV and AIDS actively disseminated complex care programs in order to provide equitable dissemination of prevention, safety, improved quality of services, access to timely services, and realigned constructs of blame toward individuals to refocus on national prevention strategies that included efficient and effective care processes that sought patient and family centered care approaches that helped to decrease stigma and marginalization.³⁰

National health care initiatives are needed to focus on the prevention of addiction education and dependency dysfunction by utilizing similar care strategies that tackle the complexities of social constructs through the de-stigmatization of individuals and seek to eliminate fear, isolation and individual marginalization strategies, the successful dissemination of improved prevention strategies are needed. By offering quality service education initiatives that seek to implement individual and family support programs, which focus on incremental severity of disease and through the adaptation of early school aged education through adolescent education initiatives that address the nature of the disease and various stages of use and risk for those most susceptible.³¹

Instituting public health policy change requires initiating grassroots efforts that transparently reveal statistics of heritability, likelihood of 'at risk populations' and the distribution of those statistics publically in order to share essential health research education with

communities. Grassroots initiatives can provide distinct examples of how public health initiatives can reduce the development and progression of disease. This public health phenomenon was witnessed by the benefits of syringe distribution centers and medical outreach care, which was offered to patients within community street services for those who were at risk for HIV and AIDS. French policy significantly changed from a curative policy of ‘drug abuse treatment to a preventative policy of drug use’ in the 1990’s, when awareness of initiatives was implemented to decrease the transmission of HIV and AIDS; prompting government policy to begin looking at public health initiatives to support community wellbeing.³² With the help of the media and dissemination of information related to the distribution of ‘clean’ needles and its known effect to stop the transmission of HIV and AIDS circulated; the public’s response began to support the population health incentives that supported transformative management of drug use.³³

Additional interventions such as the development of methadone clinics also revealed the decline in HIV transmission.³⁴ Such discoveries and information transmission certainly can shift the restrictive power of governmental authority. Additional use of the media is needed to accurately disseminate health research information and to reframe substance use disorders and addiction from an individual weakness toward a more conclusive social responsibility and expansion of health promotion.³⁵ Education and research must redirect the harms of addictive substance use from incarceration to treatment.

Education and research regarding substance use disorders, addiction, and management of care requires implementation of interventions that decrease susceptibility to genetic inheritance, behavior modification therapies, and pharmacological intervention to prevent deleterious consequences of use. Genetic inheritance of disease is evident by changes proven to occur with alterations of gene expression after drug use and sustained periods of stress. Central nervous

system responsiveness to the changes in perceived stress and wellbeing after drug consumption can be permanently altered.³⁶ Understanding the genetic predisposition of substance use disorders and addiction becomes relevant knowledge that requires improved dissemination to individuals, families and communities within the nature of progressive continuum and management of disease, versus personal failure, shame and blame. The strong genetic and epigenetic alteration of gene expression along with the advances in neuroimmunity provides the public health discourse support for seeking programs that voluntarily enhance motivational change techniques as a viable methodology of treatment.³⁷

Ethically justifying relational methods of treatment should be available for those who suffer from substance use disorders and addiction over incarceration. Personalized options to participate in treatment programs have been studied to improve outcomes of some offenders. By being treated with dignity and respect, individualized and relational plans of care can be implemented. Due to the nature of addiction, implementing an ‘all in one’ treatment intervention cannot be realistic or effective. Given the nature of influences that affect substance use disorders and addiction, particular treatment modalities must address the specific implications of the commodification of the human host by addressing the specific agent and environmental influences that negatively impact the contributory societal constructs of coercion to influences market consumption.³⁸

Lastly, education initiatives must inform populations and communities how enhanced participation in medicalized prevention and controlled pharmacological recovery initiatives, assist the physiological processes of healing the neurological alterations that occur with sustained substance use and addiction. Increasing the knowledge and implementation of pharmacogenomics in substance use disorders and addiction treatment is an essential

management option and is increasingly noted as an essential element of recovery.³⁹ It is essential that relational education paradigms clearly provide the transparent scientific evidence to improve paradigms of management of care. Community populations are leery of medicalization and pharmacological interventions that seek to decrease the isolative and physical responses to addiction. However, due to the increased knowledge of neurotransmission, neuroimmune, and stress responses that influence substance use disorders and addiction, pharmacological, pharmacogenomics, and evidenced based psychosocial treatments such as motivational interviewing, and social skills training dramatically improve patient outcomes.⁴⁰

Current pharmacological treatment management for alcohol use disorders include: naltrexone, disulfiram, and acamprosate and pharmacological treatment management for opioid use disorders include: the opioid agonist methadone, medicalized heroin, buprenorphine and naloxone.⁴¹ These treatment options are controversial because medicalizing heroin inflicts fear of legalization, and methadone clinics potentiate increased consumption as a result of treatment intervention use along with street drug use; additionally, naltrexone and Valium use could also potentiate further misuse for the one who suffers from substance use disorders and addiction.⁴²

Historically, educational information was delivered via passive education strategies, today active family involvement and community participation in education initiatives must be implemented for prevention strategies to achieve the desired effects.⁴³ Education initiatives should seek the skills of medical providers coinciding with family and supportive community participation; implementing a relational and a holistic approach to the management of care, which includes education is necessary. The annual 2013 National Prevention, Health Promotion, and Public Health Council implemented a prevention of substance use and excessive alcohol use recommendation by presenting fourteen actions to promote the prevention of substance use

disorders. They included: screening, intervention, referral to medical treatment programs, along with resources for parents, resources for schools, recognition enhancement, prevention intervention, and decision-making education, such ‘as just think twice.’⁴⁴

Yet, this standard of care has yet to be implemented in 2018 as a standardization process or initiative across American emergency departments. Screening interventions are not incorporated, referral to medical treatment programs are not consistently achieved, stigma free resources are not offered, nor are decision making education optional consistently provided for family members during an acute substance use or addiction crisis. An ethics of care paradigm, which seeks to implement relational consent and shared decision making actualizes professional responsibility and accountability in revolutionizing the expansion of community participation of family and relational involvement, which necessitates community response during this national health crisis. Improving quality standards in order to seek decreasing vulnerabilities in patient care is imperative.

6.2 Improving Quality and Decreasing Vulnerabilities in Patient Care.

Improving quality and decreasing vulnerabilities in patient care requires cultural redevelopment of national prevention strategies, improvement of diagnostic testing, implementation of national educational initiatives, and implementation of constructs of care that aim to increase community support and decrease marginalization and criminalization for those who are susceptible for substance use disorders and addiction; measures include providing reliable and safe standards that improve quality of care, improve interventions that address vulnerability as noted in determinants of health across populations, and provide equitably delivery of care for disparate populations at risk for substance use disorders and addiction.⁴⁵

Decreasing vulnerability, disseminating and initiating cultural change in order to improve quality of care delivery requires prompt and nonjudgmental access to care versus treating individuals at the severe end of the addiction spectrum disorder as outcasts and products of extreme social deviance through criminalization; through implementation of empathetic and positive professional support strategies, non-punitive crisis intervention, and empowerment of communities, families, and health care systems posit influences of relational empowerment toward wellness, recovery and human flourishing.⁴⁶

Improving quality of care for those who suffer from substance use disorders and addiction require a comprehensive public health investigation that holistically attempts to seek an epidemiological perspective that helps to determine effectiveness of current intervention policies. The epidemiological research on substance use consumption indicates an overall decline in drug use since the 1990's; however, the research also indicates that heavy drug consumption consistently occurs in increased magnitude across urban and metropolitan sections of disadvantaged populations. Records evaluated in hospital emergency departments determine this evidence.⁴⁷ The prohibition of drugs in the U.S. is undoubtedly failing; proponents of the decriminalization of drugs began in the 1980's when Baltimore Maryland's Mayor Kurt L. Schmoke proposed a national debate, which supported the decriminalize illicit drugs.⁴⁸

Mayor Schmoke was a visionary politician and a Harvard Law graduate who starkly agreed that 'the nation should have a war on drugs, but that the war should be primarily a public health war and not a criminal justice war.'⁴⁹ Similarly, substances such as tobacco and alcohol are addictive substances that can predict patterns of future substance use behaviors and disorders. Both tobacco and alcohol consumption have been widely researched over the past few decades and the research reveals the implications of the long-term healthcare consequence; this research

is statistically significant. Tobacco and alcohol use combined account for more than five hundred thousand deaths per year.⁵⁰ Tobacco and alcohol use is legal in the US; however, in an attempt to restrict consumption and in an attempt to increase prevention, age restrictions for purchasing were initiated and are sustained through policy restrictions. Mayor Schmoke's visionary expression and idea to decriminalize drugs did not attempt to de-emphasize law; rather he recognized and wanted to learn from similar trends and progression of organized crime and violence from the prohibition of alcohol in the 1920's.

Mayor Schmoke recognized the correlation between prohibition of drug use in the 1980's with the prohibition of alcohol in the 1920's. Both prohibitions brought about increased crime and harms, which ravaged the American people; however during the prohibition of alcohol, the American people recognized that the harms of prohibition outweighed the benefits from restrictions.⁵¹ As a consequence, the U.S. government lifted the ban on alcohol and legalized its consumption. Since that time regulatory laws have become part of U.S. legal structures and the management of health consequences from alcohol consumption has become part of the public health management of care. Regulation of alcohol and tobacco currently includes restrictions of use through high taxation, restriction in purchasing, and restriction of availability of sales.⁵²

If the scientific community recognizes the escalating pattern of evidence that supports the medical model of substance use and addiction, and science has identified the relationship between the pathophysiological and neurological mechanisms that physically influence substance use disorders development and addiction, then how can criminalization of disease progression adequately deter substance use.⁵³ The medical model also clearly indicates that addiction is a chronic and recurring disorder by the very nature and complexity of the disease; attempting to solved advancing drug use through criminalization becomes a very ineffective way

to attempt to solve the national problem. Consequently, the premise that drug users ‘are’ criminal and need managed through incarceration only greatly underscores scientific evidence and the medical model of substance use and addiction science. The prohibition of drugs and the criminalization of drug users is confusing, narrow, and misguided.⁵⁴ Hence, the unsatisfactory results of the current ‘War on drugs.’ Instead, criminalization of drugs has enabled marginalization of populations, increased market costs of illegal substances, increased risk for death and disease progression, and increased crime through black market trafficking.⁵⁵

Those in favor of continued prohibition of all illegal substances argue that the current ‘War on Drugs’ and criminalization protects children, decreases crime, prevents immorality, and prevents further addictive substance disorders.⁵⁶ The criminalization debate focuses the need for laws against select substance users and addicts because of the moral debate that indicates the debasement of humanity with the use of substances such as heroin and cocaine.⁵⁷ This moral claim suggests that tobacco shortens an addict’s life, but that it does not alter the ‘human soul’ as does the effects of cocaine and heroin; therefore ‘criminalizing certain ‘drugs’ as morally justified according prohibition proponents. However, the debate does not satisfactorily discuss the same ‘soul’ altering consequences as a result of harmful use of alcohol; despite the fact that the consequences of other illicit drugs result in similar harms to individuals.⁵⁸ Morally correlating the use of ‘substances users’ as criminal only supports ‘social discrimination’ and social isolation. Hence, encouraging community education and support through proper management of care is the necessary intervention in order to improve quality and decrease the perpetuation of vulnerability. Scientific evidence correctly identifies substance use disorders and addiction through physiological and neurological impairment of functioning; therefore, improving quality requires actualizing the phenotype of addiction through scientific constructs,

not historical culturally and social constructs that were not based on evidence. Criminalization, unjustly increases human vulnerability; as a result, only focusing on the host's susceptibility to substance use disorders and addiction through criminalization. This outlook, substantially increases vulnerability for future generations and humanity as a whole, without improving the comprehensive nature of substance use disorders and addiction through health care quality improvement initiatives, which failed to recognize or acknowledge the public health model of care, by highlighting the need to focus management through all three points of care, including the individual host, the distributor agent and the environment.⁵⁹

a. Improving Quality

Application of similar initiatives to improve health quality and decrease unnecessary deaths as a result of complex systems failure in hospital organizations should be systematically applied to the development of complex systems approach to improving quality and health outcomes for the management of substance use disorders and addiction; the care paradigm shift for the treatment of dependency disorders and addiction must incorporate sustainable public health goals. An estimated sixty-seven billion dollars a year are spent on the management of care for illicit drug use and misuse; yet, over sixty-four thousand United States citizens died in 2016 from over dose deaths alone and over eighty-five thousand persons per year die from alcohol misuse.⁶⁰

Implementing systems changes that seeks to improve the quality of healthcare delivery for those diagnosed with substance use disorders and addiction must recognize the importance of constructing care models that avoid the implementation of punitive and devaluing responses to individual error and misjudgment in health care decision-making.⁶¹ Application of improving quality of care for those who suffer from substance use disorders and addiction require the

same application of dignity and respect in order to eradicate social stigma and eliminate perpetuation of perceptions of social deviance.⁶² Seeking quality methods to improve the care of addiction includes accurately assessing the National Outcomes Measurements (NOM)s criteria, which include improving recovery treatment centers, increasing trained employment retention, decreasing criminal justice involvement, increasing stability in housing, increasing social support systems, increasing access to services, increasing affordability of medical costs, continuing the use of evidenced based treatment programs, improving patient perception of care, and improving rates of abstinence when indicated.⁶³

Improving quality of treatment for this disparate population is certainly compounded by the complex nature of neurological dysfunction and its effect on decisional capacity of individualized care; quality improvement initiatives that utilize an ethics of care framework, which provide a unique opportunity to ensure the relationality of supportive care environments by embracing collaboration, implementing shared decision-making processes, seeking to disseminate evidenced based treatment standards, deconstructing stigma, while also instituting rigorous strategies that hold patients accountable for responsible and responsive behavior initiatives that seeks to increase cooperation in the treatment plan through partnership. Increasing partnerships provide the relational hope that encourages the enhancement of a lifelong supportive commitment to physiological, and psychological recovery that holistically values the personal wellbeing of the ‘other.’⁶⁴

Improving patient outcomes and quality requires an examination of the essential components of healthcare quality. A focus on quality acknowledges that the patient is the primary focus of all healthcare services. This focus for those with substance use disorders and addiction, should adhere to the evidence that supports patient safety above all other aspects of the

healthcare delivery system; patient centered care acknowledges that the purpose of healthcare functioning should adhere to global norms, application of evidenced based practice, and require professional excellence standards nationally that support the management of care from acute care transitions of care, through acute care hospital discharge, and into long term coordination of care treatment access across the lifespan.⁶⁵ As previously mentioned, In 2001, the IOM's report, *Crossing the Quality Chasm* identified six goals, which are necessary in order to improve the overall quality of healthcare delivery. The goals were to, ensure safe healthcare, ensure effective healthcare, to ensure patient-centered healthcare, to ensure timely healthcare, to ensure efficient healthcare and to ensure equitable healthcare.⁶⁶

Quality of care for healthcare has been specifically defined by the IOM. The IOM's definition of quality emphasizes on patient outcomes to the 'degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.'⁶⁷ However, quality entails a broader perspective of measurements rather than just the analysis of patient outcomes. Additionally, outcome measurements should include a broad criterion, one that views abstract and subjective concepts like patient satisfaction with life, patient feelings of well-being, patient perception of optimal social functioning, physical functioning, functional and social outcomes and mortality.⁶⁸ Unfortunately, healthcare often focuses on more measurable outcomes, unrelated to patient perceptions of functional limitations. Healthcare services and healthcare interventions can inflict an array of unintended side effects that change a patient's quality of life. In order for healthcare to truly examine the full range of organizational quality issues, healthcare quality should include a complex analysis and examination that includes healthcare processes, structures, and outcomes for this desperate population.⁶⁹

Healthcare quality should evaluate all three types of quality improvement measurements in the management of care for substance use disorders and addiction as specified by the Donabedian Triad; recognizing the importance and connection between processes, structures, and outcomes.⁷⁰ Quality processes involve the examination of the entire patient experience. Process examination includes efficiency, timeliness, and effectiveness of the entire healthcare experience for the patient. The examination of healthcare quality structures requires an examination related to the adequacy of equipment, professional training, and environmental influences. Then, in conjunction with process and structure evaluations, the evaluation of patient outcomes can more holistically be obtained. This examination of patient outcomes critically requires inclusion of all three components of Avedis Donabedian's taxonomy.⁷¹ Evidenced based practice (EBP) assists in providing quality healthcare, by utilizing research to scientifically determine patient outcomes in relation to best clinical practices. EBP was formulated upon clinical research trials that seek improvement initiatives by gathering information about medical processes and outcomes; hence, allowing research to translate into best practice protocols.⁷² Evidenced based practices in the management of care for substance use disorders and addiction should promote public systems or organizational, transparency and accountability.

Developing organizational systems of care that value quality requires moral responsibility. Organizational moral responsibility and values of organizational transparency and accountability are leading components within the organizations operationalized functioning processes. This operational process includes the implementation of an organizational ethics paradigm that should recognize that the patient as the valued center of all healthcare services. The operational process should also recognize that healthcare systems are complex systems that work at the edge of their operational capacity.⁷³ When systems work on the edge of their

operational capacity, the system experiences hazardous and stressful situations that require the pulling together of multifaceted relationships between participants.⁷⁴ High reliable Organizations(HRO)'s attempt to anticipate problems and develop systems to avoid accidental injury or hazards in the work environment. High reliable organizations in healthcare are organizations that are committed to a culture of quality and safety for patients consistently over time.⁷⁵ Yet, the commitment to culturally high quality and safety management of those who are diagnosed with substance use disorder and addiction, experience poor and inconsistent quality of national standards; this development requires, significant leadership change that is able to foresee the need for transformational care change. The Transformational leadership required for the management of substance use disorders and addiction requires implementing the social principle of 'shared-decision making.'⁷⁶ This commitment to excellence in health care delivery for substance use disorders and addiction care, requires the implementation of standardized evidenced based practice guidelines, and clinical pathways to ensure consistency in best practice implementation.⁷⁷

The American Society of Addiction Medicine, developed comprehensive practice guidelines entitled: *National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use*, addressing the opioid epidemic, June 1, 2015 in the U.S.⁷⁸ Their recommendations included: assessment and diagnosis of opioid use disorders, treatment options, treating opioid withdrawal, treatment recommendations for the use of methadone, naltrexone, buprenorphine, psychosocial treatment in conjunction with medication interventions for opioid use disorder, and special considerations for specific vulnerable populations.⁷⁹ Yet, the standardized implementation in application on organizational levels have yet to be formally established. Additionally, the guidelines do not suggest how to initialize standard processes of

care at ‘ground’ zero in our nations emergency departments. Other diseases that present in emergency departments across the country, have standardized emergent practice guidelines initiated to prevent heart, liver, or kidney organ failure; yet, the implementation of addiction management with the aim to prevent acute and chronic ‘brain failure’ or neurological health consequences have not been prioritized in health care institutions beyond the acute management of care for the physiological prevention of death for acute overdoses. The implementation of medical or health care follow up beyond the acute overdose state is simply perceived as an individual person’s choice; standardized guidelines at this point are not materialized, under the false guise of individual autonomy.

To make matters worse, health care organizational systems have yet to implement the American Society of Addiction Medicine’s practice guidelines universally; presupposing, that the long-term ability to adequately address the chronicity of addiction is not likely to be achieved under the current instantaneous, quick and easy fix ‘fast’ medicine paradigm; the current medical paradigm of acute medicine should not justify the disconnection of care.⁸⁰ The department of Veterans Affairs (VA) instituted national initiatives to implement practice care guidelines across all levels of care for veterans who are at risk for substance use disorders, consistently since before 2005; The updated practice guidelines were published in 2015 as a result of carefully evaluated research, which shows standardized practice guidelines that reach out across the care continuum as a necessary process and provide effective management benefits for veterans who suffer with substance use disorders and addiction.⁸¹ These practice guidelines hope to achieve the following outcomes: First to assess the patient’s individual condition and implement collaborative patient involvement for the implementation of the best treatment methodology. Second, the VA hopes to optimize each patient’s recovery by eliminating or decreasing

substance consumption. Third, the VA hopes to improve the patient's health outcomes and comprehensive wellness, by assisting the veteran to live a self-directed life style and to reach actualization of one's own health goals. Additionally, the VA hopes to decrease associated comorbidities of disease through the implementation of patient-centered care.⁸² Achieving optimal patient outcomes requires implementation of patient, physician, organizational collaboration and shared decision-making strategies,

b. Collaboration and Shared Decision-making.

An ethics of care incorporates the essence of nurturing and nurturance as a fundamental principle necessary in personal interactions with another, through collaboration, improving quality of care and share decision-making. This aim is often difficult to achieve in the institutionalism of healthcare. However, dissemination of educational initiatives to reconnect families and communities within a world that isolates one another because of a sense of the necessity for individual autonomy without considering the developmental necessity of social constructs of connectedness, and relationship, families and communities often find themselves without the supportive tools to increase relational strength. Relational strength is a fundamental method to decrease human vulnerability, for those who are at risk for harms by the coercion of substance and market systems; implementing an organizational systems approach to achieve an authentic collaborative management of care framework necessitates shared responsibility of patient and societal outcomes.⁸³

Including the patient and the patient's social support systems as valuable, collaborative and relational members of the health care team becomes a relatively new concept in the application of health care decision-making; a cultural shift that still requires the careful deliberation in identifying the preferences, values, and engagement of individual stakeholder's

health needs, while also ensuring partnerships of trust and open communication.⁸⁴ Partnership development requires the establishment of shared treatment goals, shared plan of care strategies, clear identification of team member roles, development of clear communication networks, and establishment of patient health outcome goals.⁸⁵

The IOM's report in 1999, *To Err is Human: Building a Safer Health System* determined that errors in healthcare occurred through faulty system failures, not because of the recklessness of an individuals or individual groups.⁸⁶ This realization was the result of a collaborative research initiative that sought to find answers to the ever-growing problem of adverse events in healthcare. The current system of managing the care of those who are vulnerable to substance use disorders and addiction is perhaps the most silenced error of neglect of all times, as a result of ethical blind spots and viruses of the mind, which unknowingly extinguishes the breath of those most vulnerable through the loss of life from substance use disorders and addiction.⁸⁷

The IOM's recommendations include creating national leadership, improving research and education, implementing reporting systems, increasing performance standards, and implementing organizational wide safety systems, in order to prevent system errors.⁸⁸ Additional reflection on scientific evidence, the admission that erred cultural understanding related to disease pathology and the courage to communicate the facts are necessary. The IOM report strongly supported system enhancements strategies to improve communication and deliberation processes within healthcare organizations. Communication and deliberation process serve to heighten ethical decision-making capabilities of the organization. Ethical decision-making capabilities that improve patient safety recognize the importance of shared decision-making processes amongst all stakeholders in order to improve the functioning of the entire system.⁸⁹ Why should processes to improve the outcomes of substance use disorders and addiction, adhere

so stringently to individual autonomous methodology that require individuals with known neurological dysfunction, to navigate the terrain of illness and dysfunction alone.

Since the publication of *To Err is Human*, healthcare continues to talk about iatrogenic harm and error in a drastically different way; yet, its application to the exponential harms associated with substance use disorders and addiction are rarely if ever included in the ultimate cost of healthcare error.⁹⁰ The organizational discussion switched from recording individual incident of errors to the development of processes that decrease iatrogenic harms, or processes that aim to prevent iatrogenic harms from even occurring, through relational guidelines and policies of checks and balances. This system wide deliberation process seeks to develop quality leadership that promotes accountability and responsibility in building a culture of accountability and safety versus a culture of individual patient blame.⁹¹

An open organizational system that encourages inter-collaboration, relational deliberation and patient and family centered decision-making requires transformational leadership that recognizes the importance of innovative change, which is necessary for the management of substance use disorders and addiction.⁹² A transformational leader in addressing the issues of substance use disorders and addiction quality initiatives openly respects the collaboration of individuals to efficiently pursue individual, community, and organizational desired goals.⁹³ Transformational leadership in healthcare requires implementing the social principle of ‘shared-decision making in the management of care to decrease the deleterious consequences of current substance use disorder and addiction management.’⁹⁴

Additionally, deliberation and decision-making processes have been implemented to improve system wide efficiency and accountability by introducing accreditation and government regulations. Joint Commission on the Accreditation of Health Organizations (JCAHO) now

requires accountability of safe practices in order to remain an accredited healthcare organization.⁹⁵ JCAHO's safe practice initiatives include mandatory documentation by hospitals systems to complete the following: improve the accuracy of patient identification, improve the effectiveness of communication, improve safe medication administration and usage, and decrease iatrogenic harms in healthcare organizations.⁹⁶ The National Quality Forum (NQF) was influential in establishing national standards that required mandatory reporting of hospital or iatrogenic harms to patients.⁹⁷ Yet, the harms from that result from the neglect to institute a comprehensively adhered to practice guidelines that adheres to quality guidelines across the continuum for the management of substance use disorders and addiction continues to not be addressed.

The NQF functions to improve the quality of American healthcare, through implementation of improved patient safety recommendations.⁹⁸ Mandatory reporting involves, reporting all serious events in hospitals, that include: pressure ulcers, catheter associated urinary tract infections, failure to check for blood incompatibility, wrong site operations, and objects left in patients after surgery.⁹⁹ Event reporting is encouraged to determine a systems approach for the error. The incident or error is evaluated and analyzed to determine the cause, to decrease likelihood of repeating the error, and to monitor improvement efforts over time.¹⁰⁰ The same stringent processes to evaluate the effectiveness of implementing best practices across the continuum of care for those patients who are admitted to acute care emergency departments with substance use disorders should be implemented. Mandatory reporting should occur, every time that a patient is admitted to the emergency department without the completion of recommended practice guideline screening assessments, without proper guideline adherence of standardized

interventions including pharmaceutical and psychosocial interventions, referral for follow up or transfer to appropriate treatment settings.¹⁰¹

According to research, patient harms and decreased access to healthcare occur approximately thirty percent more frequently for vulnerable populations¹⁰² The National Healthcare Quality Report (NHQR) reveals staggering discrepancies and shortfalls between quality of care between patient populations as well. The NHQR indicates that prevention of disease through routine diagnostic testing occurs half as frequently for women of low education and economic status in the United States (US). Women with less than a high school education and women who live below the poverty line are less likely to obtain a Papanicolaou smear or Pap test, for cervical cancer screening. African Americans and Hispanics require an increase in acute care hospitalizations due to complications from diabetes, compared to white patient populations.¹⁰³ The Agency for Healthcare Research and Quality (AHRQ), helps support investigative research that examines disparate healthcare treatment and interventions for vulnerable population.¹⁰⁴ Research has also revealed that there are increases in medication administration errors in elderly populations and there are increases in handoff errors during hospital discharges for the elderly and poor; because of the above mentioned barriers of care; statistics indicate that the ‘invisible epidemic’ of substance use disorders and addiction occurs increasingly in older adult population and most often in desperate or vulnerable populations.¹⁰⁵

The underlying premise, to include patients and family members in the participation of their personal healthcare plan of care appears at first glance to be an advantageous method to decrease errors and to increase quality of patient care; especially as it relates to quality and safety in the delivery of quality substance use and addiction policy development. The simple acknowledgement that focuses on patients as a vulnerable population helps to redirect the

responsibility of primary advocacy for the patient back to healthcare professionals and healthcare organizations. Healthcare organizations, healthcare professionals, and healthcare insurance providers must understand the fundamental issues that deter patient participation at an optimal functioning capacity. Issues such as healthcare literacy, language proficiency, communication skills, conflict management skills, and basic physical and cognitive functioning disorders, such as substance use impairs full capacity of patient participation in all aspects of their own healthcare management; therefore, requiring relational decision making and consent processes is difficult.¹⁰⁶

Combinations of low health literacy, low language proficiency, and poor communication skills are often sources of increased medical harms that directly affect patient outcomes. Attempted resolution to decrease patient errors requires the same complex methodology as resolution methods for entire systems. An integrated participatory framework of collaboration, teamwork, improved communication, and improved healthcare system strategies must be established across all levels of healthcare. Increased attention must be made to decrease errors and outcomes in patient populations; this goal should be accomplished by facilitating improved outreach and education for especially vulnerable populations.¹⁰⁷

Promoting collective responsibility and accountability is an appropriate way for healthcare systems to examine safety and excellence from a systems approach is necessary. Collaboration and collective responsibility promotes unity amongst the individual members of an organization and an incentive to continually move towards the mission of healing and promoting health within the communities that healthcare systems serve. Collective responsibility must be mutually valued as an organizational moral imperative by patients and by each member of the health care team. This moral imperative collectively values the importance of the public

reporting of errors, honesty in disclosure of harms, and the importance to adhere to the regulatory and accreditation standards.¹⁰⁸ The collective acknowledgement that each and every member of the team shares the responsibility is not sufficient alone in meeting the requirements. Collective responsibility acknowledges collaboration as an essential element necessary to incorporate amongst members of the healthcare team, which include patients, families, and communities.

Collaboration is perhaps one of the most essential components necessary to successfully navigate through the complexities of today's healthcare environment. Collaboration is an essential element necessary to rebuild communication, decrease patient harms, enhance working environments, and improve overall care to vulnerable patients within healthcare. Gaps in trust, gaps in patient centered care, and gaps in communication must be narrowed in order to improve the functioning of comprehensive healthcare systems to represent patient and family centered systems that provide the best practice standards consistently to the most vulnerable.¹⁰⁹ Trust cannot be established for those diagnosed with substance use disorders and addiction if fear of incarceration ensues; rather the commitment to the implementation of best practice guidelines. In order for healthcare providers and patients to successfully adhere to clinical practice guidelines, universal excellence, and improved paradigms of care that increase the evidenced based practice interventions that support patient wellbeing, healthcare teams must collaborate collectively with patients and families to support best practices. Collaboration, must transition from acute care settings to outpatient support services and away from prisons, in order to enhance a culture of practice excellence, which truly seeks the dignity through an ethics of care paradigm change in the management of substance use disorders and addiction.¹¹⁰

Establishing and continuing collaborative relationships in healthcare is an essential component for rebuilding public and patient trust. Establishing relationships with patients, professionals, and members of the organization as collegial partners in the management of care paradigms should help eliminate a ‘shame and blame’ culture when failure to implement best practices do occur.¹¹¹ Through collective collaboration, institutions, patients, professionals recognize the integrated responsibility of all members within the complex methods of treatment, intervention, and overall management of patient care.¹¹²

Patricia Benner has long noted the benefits of patient education and patient management of disease processes not in isolation to, but rather in conjunction with, healthcare practitioners through collaborative partnership.¹¹³ Benner also recognizes the importance and need of healthcare professionals to incorporate the processes of co-acting with one another and co-acting with patients through collaborative sharing of wisdom. Collaboration and leadership supports transforming knowledge through experiential knowledge and collaboration to decrease injury and harms in healthcare. Ultimately translating transformational collaboration and collective responsibility into improved quality outcomes for patients, which seek to facilitate professional and societal prevention of harm strategies for those who suffer from substance use disorders and addiction.¹¹⁴

6.3 Professional and Societal Prevention Strategies.

Current prevention strategies that seek to decrease the use of substances that cause substance use disorders and addiction in communities continue to incorporate educational strategies that place responsibility of actions for person’s as they relate to ‘free choices’ despite the physiological disease risk model and sequela of use that predispose adolescence and vulnerable populations to substance use, dependency and addiction; on a social and community

level, adolescence receive substance use education from public school systems, with very little collaboration with health care professionals. However collaboration with health care professionals who have specialized professional experiences in substance use disorder and addiction management is necessary in order to disseminate current evidenced based risk education and outreach systems of support for at risk populations at the community level.¹¹⁵ The stigmatization and fear of criminal consequences of substance use persists at early ages within school systems, fear cannot suffice for sufficient educational restraint from substance use; rather, encouraging adolescence and young adults to relationally seek support for prevention is necessary. Implementation of educational paradigms that seek to support children who live in high risk environments, must also occur within community and school programs, by developing increased strategies that seek to develop life coping strategies and social resistance skills.¹¹⁶ Prevention strategies should seek to develop open ‘safe’ communication environments and life-skills that are free from stigma and fear, while seeking the development of positive health promotion education initiatives.¹¹⁷

Individuals who are diagnosed with or suffer with substance use disorders or addiction are harmful to self and to others; the most often affected societal harms occur to the children of parents or caregivers who raise children in a homes where the primary care providers display manifestations of substance use disorders, concomitant mental health disorders and addiction.¹¹⁸ When a nurse or an airline pilot presents with the manifestations of substance use disorders or addiction, professional programs seek the protection of the community through program prevention strategies that implement alternatives to discipline programs through the promotion of early detection, early intervention and early treatment for the professional that exhibits manifestations of substance use disorders and addiction; program development sought to protect

the professional from the loss of permanent professional licensure; yet, despite the success of such developed plans for professionals to achieve sobriety and recovery from substance use, society continues to impede the development of such strategy development for general populations and parents.¹¹⁹

Professional and societal prevention strategies must first seek to deconstruct stigma associated with substance use disorders and addiction and to adjust the development of prevention and professional strategies to help manage positive outcomes of disease sequela for those who are affected. The growing need to develop responsible policies for managing substance use disorder prevention strategies and to develop responsible policies that acknowledge the vulnerability of populations; this requires including the individual, hereditary, and social constructs that increase susceptibility. Professional and societal prevention strategies need to clearly disseminate the factors that influence personal and societal responsibility. Factors that increase personal responsibility include, awareness of the substance use addiction problem and identifying one's risk, or understanding one's own genetic predisposition, developing a supportive social support system, obtaining psychiatric and medical care when needed, and understanding the addiction process.¹²⁰

Successful professional strategies that assist the nurse or the pilot in obtaining sobriety and recovery, requires the development of contractual and relational accountability; this contractual and relational accountability is achieved through what is named, the alternate-to-discipline program for nursing and the recovering alcoholic airmen and medical certification standards for sobriety.¹²¹ Additionally, both the pilot and the nurse are monitored through licensure renewal or certification to practice their profession through integrated legal systems

that monitor driving records, which then identify individuals of professional risk through mandatory reporting of violations associated with substance use history.¹²²

The strategy developed to enhance accountability for nurses, which also increase quality and safety for patient related care, adheres to the philosophy of an ethic of care and relational consent for treatment. This process promotes accountability for not only the individual well-being of the nurse who is identified as having a substance use disorder, but synchronizes the promotion of safety of the patients that nurses care for through programs that seek to reintegrate the nurse into the work environment.¹²³ The formal process is not entitled ‘relational consent’; rather the structural developed program is identified as a ‘monitoring program, which requires the commitment of a legal contract that requires the nurses signature of a formal monitoring agreement. If the nurse does not agree to the legal contractual participation of the moral monitoring program, then the nurse risks loss of licensure to practice her profession and criminal discipline.¹²⁴ The consequences are professionally debilitating, potentiating financial destruction and many may say the relational and contractual consent for ‘non disciplinary’ action through commitment to participate in the alternate-to-discipline program is coercive and paternalistic; yet, the success to sobriety, recovery, and reintegration to professional practice, and ultimately to potentiating human homeostasis and flourishing is achieved through the long-term commitment of substance use treatment availability, professional mentoring, and relational support of care.

Utilizing an ethics of care, includes supportive recovery centers, relational consent processes, development of an action plan, development of a culture of transparency, so that help can be obtained and the development of relational boundaries of responsibility across all care continuums, which include public health and educational institutions occur; public health policy

support is needed to proliferate the massive educational and cultural dissemination of prevention and health promotion strategies in order revolutionize community and national outcomes results to susceptibility.¹²⁵ In order to accelerated the actualization of national prevention strategies and improvement goals for substance use disorders, addiction and to end the substance use associated death epidemic, increasing accurate and essential educational initiatives that seek to decrease stigma are necessary.¹²⁶

a. Deconstructing Stigma.

Intrinsic loss of respect and dignity occurs for those who are stigmatized against. According to sociologist Erving Goffman, stigma occurs when societal norms as they relate to human appearance, behavior, or actions break from societal expectations and result in degradation of personal character; hence, stigma results in negative and inferior judgment of individuals from ‘others’ in accordance to particularly shaming or cultural, environmental, and social constructs of unacceptable human qualities.¹²⁷ Additionally, stigma allows the marginalization of others to somehow justify the action of ‘separation’ of the ‘other’ as a moral act.¹²⁸

President Nixon’s attempt to decrease the harmful effects of the use of illicit drugs in the 1970’s, sustained the shame and blame mentality, propagated public fear and continued the defamation of personal character of the ‘other’ with the initiation of the ‘war on drugs.’¹²⁹ The social consequences of placing stigma, marginalization, and criminalization for those with addiction dysfunction increased the isolation of those with substance use disorders and addiction; decreasing the likelihood of those who suffer the perpetual decline in wellbeing from chronic substance use disorders and addiction to invoke a plea for help.

An ethics of care seeks to deconstruct stigma by implementing processes that disseminate educational initiatives that embrace community centered care and relational support; the development of processes that supportively seek the wellbeing of individuals will exponentially decrease further isolation and vulnerability, while repairing dignity, repairing health, and re-igniting purpose and meaning.¹³⁰ An ethics of care, uncovers the correlation between the social determinants of health, uncovers the results of genetic heritability research, utilizes of physiological and psychological evidence that reveals the inter-relatedness of the complexities of biological, personal, familial, and social constructs that predispose individuals to mal-adaptive coping strategies to the stressors of life that potentiate advanced cognitive dysregulation.¹³¹

An ethics of care recognizes that individuals are strengthened in relationships and that by discriminating against individuals who are in need of support only increases vulnerability, increases physiological stress, perpetuates separation and increase the comorbidities of disease.¹³² Holistic management of care paradigms and professional standards of ethical delivery of care require the development of prevention, implementation, and evaluation strategies that strive to reduce population harms and improves health outcomes of populations through development of cooperative programs between host, agent, and environment.¹³³ The implementation of the NCSBN's development and striving to provide nurses with substance use disorders, aims to restore the dignity of nurses who suffer the trajectory of harms, while also seeking the optimal protection of the patients that nurses care for, without betraying public trust. National initiatives to protect our nation's youth, while supporting parental dignity is necessary in order to deconstruct stigma across national communities and homes.

By implementing contractual programs and relational consent processes for the development of treatment programs, increasing transparency, promoting alternate-to-discipline

programs for parents and children, promoting parental accountability through the implementation of professional and relational monitoring programs for those who require long term relational support could occur; therefore, this process for nurses who suffer from substance use disorders and addiction is often associated with long term recovery and sobriety. Deconstructing stigma, requires the implementation of paradigm of action that supports paradigmatic change that seeks to decrease harms and empower programs of relational support in response to the vulnerability of persons.

Deconstructing stigma requires implementation of clinical pathways, support of insurance coverage for acute care management, transitions of care management from early identification programs, which promote long term recovery programs and chronic management programs that implement evidenced based treatment changes throughout the spectrum of the disorder.¹³⁴

Schaefer, et al, describes the professional challenges that professional treatment programs have as it relates to developing extended program participation as it related to long term continuation of care for those who suffer from substance use disorders and addiction.¹³⁵ Yet, professional nursing's alternate-to-discipline programs obtain participant commitment through relational contracts and relational mentorship that function as a checks and balance system, in order to ensure participant's long term relational commitment to recovery.

The profession of nursing turned away from the antiquated theory's that support strict punitive measures of punishment by the commitment of a long term relational commitment that begins with a contractual and relational agreement of consent for the implementation of a care paradigm that embraces human potential in response to the stressors of environmental and professional practice, the human physiological aspects of vulnerability, and a community and social response and attention of solidarity to the 'other,' while still seeking the protection from

harms for individuals and communities. The development of a policy imperative of prevention, seeks to address the prevention form substance use disorders and it seeks to implement the policy of harms prevention that persist because of the lack of acknowledging the role of social response and solidarity. The alternative-to-punishment program provides hope for the development of harms reduction strategies that can coincide with public health initiatives to decrease societal harms related to substance use disorders and addiction for future generations; additional initiatives to limit market influences that increase profits for agents or distributors are also imperative in order to prevent the harms to individual or family hosts.

b. Policy Imperative of Prevention

Public health policy must refocus its view on health promotion and disease prevention strategies; in 2010, the Global Commission on Drug Policy released the reports, *The War on Drugs* and *Taking Control: Pathways to Drug Policies that Work*. The publications revealed the research and global statistics that support the associated harms that occurred with the previous public policy on the way on drugs, while assigning responsibility to a global drug framework that perpetuated the marginalization and stigmatization of vulnerable patients through legal systems that criminalized drug possession and usage.¹³⁶ The 2011 and 2014 policy recommendations included the need to place health and communities first, ensuring equitable access to medication and treatment interventions for individuals by eliminating criminalization of individual users and in order to reduce the power of underground criminal organizations through medical distribution and support; pathways of care recommends that health policy reform seek to improve the humane treatment of those who are marginalized by the physiological sequela of disease and a systems corruption that is unable to proactively empower individuals through the previous policy.¹³⁷

Therefore, harms reduction strategies must innovatively support national initiatives that incorporate professional standards of shared decision-making in order to disseminate educational material to populations, while implementing collaborative quality improvement measures, and that remove individuals and communities from harms.¹³⁸ To achieve this goal, health care systems must embrace organizational functioning goals, which seek to overcome intrinsic disservices to individuals and populations at greatest risk for substance use disorders and addiction. In order to accomplish such goals, organizations should emulate the moral accountability of the organizations, such as the policy's implemented by the National Council for State Board of Nursing, which provides just delivery of substance use disorder and addiction services to those who are vulnerable and susceptible to disease by implementing deliberative processes that set limits to market influences, redefines professional values and recommits integrity to individuals by providing equal access and compassionate care to a population who is in need.

Organizational healthcare systems, public health policy, implementation programs, and healthcare professionals have the moral responsibility to function as an integral and participatory component of society; all aspects of the health care systems should function comprehensively through a paradigm of care that ensures the intrinsic qualities of a morally functioning agent. As a morally functioning agent, one's character is shaped by one's moral actions.¹³⁹ Similarly, individual persons and organizations are justified in developing morality as a guide toward fruitful and prosperous living; healthcare organizations, public health policy and the implementation of comprehensive health care programs should seek the care of those with substance use disorders and addiction by incorporating plans, which include right action, directional discernment, and directional navigation that recognizes the supportive evidence in

developing new treatment interventions for those vulnerable to substance use disorders and addiction.¹⁴⁰

Health care organizations and health care professionals are called to function within the world in service of those who are suffering and those who are ill. Organizational health care markets have the potential to be saturated with the same greed and power as other financial market systems that function on philosophies of power and wealth.¹⁴¹ Social responsibility and the awareness of the commodification of substances to vulnerable populations has societal consequences that require the development of aggressive prevention and treatment strategies.¹⁴² However, to avoid societal complicity, health care systems, public health systems and professionals are called to function morally within a capitalistic market, to pursue economic survival, to ensure fair access of care to the poor and the vulnerable, and to seek the elements of care for those entrusted to health care services.¹⁴³ By utilizing the principle of moral cooperation and by incorporating methods of operational transparency, individuals within organizations are provided with the guidance and tools to function within a framework of an ethics of care during difficult situations; hence, limiting decreased patient participation and patient neglect for vulnerable populations, such as those with substance use disorders and addiction.¹⁴⁴

It is the role of health care systems, public health policy, professionals, individuals, communities, government, and humanitarian aid policy to prepare, promote and formulate initiatives that identify the values in the preparation and planning for natural disasters; it should also be the role of society to prepare, promote and formulate initiatives that identify the value of preparation and planning for the national solution to the opioid and substance use epidemic. Part of the planning requirements for natural disasters closely evaluate the equitable distribution of public services and rights of citizens to identify public health risks of pandemic outbreaks,

accidental catastrophes such mass casualty explosions, accidents, and natural disasters; they should also consider the massive loss of life, which substance use disorders and addiction have caused.¹⁴⁵ Human dignity is an intrinsic human moral value that necessitates the fair allocation of resources; therefore implementation of public health, government, and humanitarian aid mandates the fair distribution of material and management programs that seek preservation of life for the most vulnerable; this same outlook should invoke solidarity of quality initiatives and best practices.

Moral intuition in the United States often permeates the compassionate participatory responses of individuals, communities and organizations when there is an infringement of the principles that represent human dignity.¹⁴⁶ There was an acknowledged delayed response of the disaster relief response planning after hurricane Katrina in New Orleans and as a result of hurricane Maria in Puerto Rico. Yet, the outcry of society seems silenced in response to the devastating loss of life that has resulted from the delayed implementation of treatment programs in the management of care for substance use disorders and addiction. This violation of human dignity, must initiate a compensatory movement of solidarity in order to seek the enhancement of individual commitment to participation in preparation and planning for improved evidenced based treatment paradigms for patients who suffer from substance use disorders and addiction.¹⁴⁷

Policies must consider methodologies that support educational initiatives for all constructs of care, which include socio-political, governmental, comprehensive levels of education and academia education for health care providers in order to decrease sequela of harms as a result of the current substance use epidemic; additionally, policy must support substance use and addiction crisis recovery center development, improved community distribution of emergency antagonist medications that decrease harms from overdose, development of patient

centered medical homes, implementation of relational consent processes to support long term and chronic treatment programs, and the development of partnership program pathways that facilitate optimal care coordination, transitions of care and humane support that actualizes optimal treatment goals and outcomes through community and relational partnerships.¹⁴⁸

Until universal actions of solidarity, transparency, responsibility, and accountability occur for individuals, families, communities, health care organizations and market systems, harms will continue to exponentially affect those who are the most vulnerable to the sequela of substance use disorders and addiction, through the antiquated paradigm of individual blame and labeling. Implementing the deconstruction of stigma and developing a robust paradigm of care, through shared decision making, interactive and participatory community prevention strategies, and the development of a long-term commitment to an ethics of care in order to meet the moral obligation which ‘goes’ beyond the limited constructs of absolute autonomy must occur. Developing a framework of care that recognizes the benefits of relational consent in order to promote human flourishing for those who suffer from the coercive effects of substance, biology, and societal influences is one that intrinsically recognizes the intrinsic dignity of the other through the actions of care for the most vulnerable.

¹ Teruya, Cheryl. “Assessing the quality of care for substance use disorders and conditions: Implications for the state of California,” in *Report for the California Department of Alcohol and drug Abuse Program: UCLA Substance Abuse Programs*. Retrieved on December 10, 2016 at <http://attcnetwork.org/regcenters/productDocs/11/Assessing%20the%20Quality%20of%20Care%20FINAL.pdf>. (2012):10-20; Institute of Medicine’s Report. (2001), *Crossing the Quality Chasm: A New Health System for the Twenty First Century*. (Washington, D. C.: National Academy Press, 2001), 1-23.

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Chapter 7 Conclusion

This dissertation purposefully, examines the essential elements that investigate the cellular and pathophysiological processes that incorporate an extensive examination of the neurobiological, genetic and epigenetic analysis of substance use disorders and addiction. It purposefully focuses on the role of professionals and health care systems, which include public health prevention and transitions of care management improvement processes for those who suffer from substance use disorders and addiction. It carefully examines the criteria for decisional capacity and the nuances of obtaining consent for the management of care framework, for those who are vulnerable to the known neurological, neurocognitive, and neuroimmune dysfunction of the brain.¹ This dissertation asserts that by utilizing an ethics of care framework, a paradigmatic change in the management of care for those with substance use disorders and addiction should occur.

This assertion affirms that an ethics of care framework can decrease harms associated with societal constructs of blame, stigma and marginalization for patients by implementing educational initiatives that recognizes that the empowerment of human wellness occurs through relational structures of care that acknowledges impaired decisional capacity for those with addiction.² Health care organizations and professionals that seek to provide educational resources and implement community initiatives of care, by promoting non-judgmental support for those who are diagnosed with substance use disorders will create healthcare environments that extend beyond the walls of institutions and become embedded within a cultural shift that is focused on

the development of care initiatives that implement clinical pathways which seek to transform lives through relational partnerships that encourage individual human flourishing.³

This dissertation purposefully discusses the criteria of moral agency, by illustrating the differences between the autonomous actions of individuals who have full decisional capacity and those who have impaired neurological functioning that results in deleterious executive decisional functioning ability for those diagnosed with substance use disorders and addiction.⁴ The examination carefully evaluates the criteria of decisional capacity for those who are diagnosed substance use disorders and addiction. It is the ethical responsibility of the care provider to ensure that patients meet the criteria for decisional capacity; when patient's do not meet the criteria, it is the responsibility of the health care provider to recognize incapacity and to implement systematic processes that include proper assessment, monitoring of diagnostic tests, and implementation of evidenced based practice interventions that seeks relational approaches of care through the re-interpretation of consent.⁵ The re-interpretation of informed consent actualities an ethics of care framework, by seeking to decrease the harms for those who are most vulnerable through the implementation of a strategies that promote a collective commitment to individual, professional and global accountability.⁶

This dissertation spends very little time discussing the responsible accountability of individuals who are diagnosed with substance use disorders and addiction, not because the one who is diagnosed with substance use disorders and addiction are exempt from responsibility and accountability; but rather, because the focus of the writing was to acknowledge the imperative of health care providers and health care organizations with their associated professional role in recognizing the potential gaps in care and ethical blind spots that impede best practices.⁷

Improving best practice goals aim to increase quality of care initiatives, increase patient safety and ultimately decrease patient harms, through professional intervention strategy development.⁸

An ethics of care explicitly examines the necessity of reciprocal elements of care, which are essential components between the provider of care and the ‘one’ who receives the care. An Ethics of care framework, which seeks the re-interpretation of consent for those who are diagnosed with substance use disorders and addiction, does not assert that those who suffer from substance use disorders and addiction are exempt from the essential elements of responsibility and accountability for the development of substance use disorders, addiction or sequela of dysfunction. Rather, individual accountability and individual responsibility are essential components within the patient provider relationship.⁹ Patients who are diagnosed with substance use disorders and addiction are responsible for their own physiological inherited genetic and epigenetic susceptibility to disease progression; the management of care paradigm must also include incorporation of methods that promote and instruct individual accountability and responsibility for the one who suffers from substance use disorders and addiction.¹⁰ Methods that promote and instruct accountability and responsibility can be compared to a parent’s perseverance in teaching a child health coping strategies and resiliency despite human imperfection and vulnerability.¹¹

An ethics of care truly seeks the actualization of individuals by recognizing that the intrinsic dignity of each person is often times felt through actions of human encouragement and values of belief. Healthcare providers that recognize the inherent dignity of those with substance use disorders and addiction seek to encourage, authentically support, and holistically educate patients related to the etiology of disease, increased risk for disease, expected trajectory of disease, and educate patients on the importance of managing their disease through the best

practice standards.¹² However, implementing those actions without authenticating care values, becomes meaningless without authenticity; the beneficial characteristics of care lose implicit value without authenticity and respectful presence. Implementing care values seeks to provide the tireless characteristics of encouragement to the other in order to promote human flourishing.¹³ Relationships of care reflect mutual responsibility and accountability within the relationship. Initiatives should seek relational structures that incrementally increase individual responsibility, without negating the patient's self-worth through degradation.¹⁴

Implementing constructs of care, which reflect power dominance of physicians over patients, potentiates the implementation of authoritative coercion that can potentiate further harms for those who are labeled as impaired or vulnerable from addiction; however, implementing relational consent and contracts of care with patients, families, communities, and health care providers, seeks to improve patient accountability through relational decision-making, the development of frequent substance screening, promotes open and honest communication that develops a treatment plan through accountability and participating in an attempt to improve individual patient outcomes.¹⁵ However, restoring optimal neurological functioning and restoring individual capacity is the goal of treatment; it is recognized that the intrinsic essence of individual personhood is associated with the repair of consciousness through the slow neurological repair, which aims to restore an optimal state of neurological homeostasis.¹⁶

As a result, seeking to repair neurological functioning includes the necessity to decrease the effects of neuroimmune, neurocircuitry and neurobiological alterations that alter brain functioning; this fluctuating in brain functioning is an expected result of the substance use disorder and addiction trajectory of waxing and waning repair and harms; however, teaching

patients methods to enhance individual agency promotes self-worth and aims to restore intrinsic dignity of the patient.¹⁷ Utilizing the language of neurodiversity as a means to express personal and fluctuating differences in one's own understanding of neurological functioning is a means to describe various levels of neurological processes and enhance the ability to improve one's own responsibility for agency.¹⁸ The ability to understand the complex mechanisms of addiction, seeks to restore decision-making ability, and seeks to improve the development one's actions in relationship to others.

The neurodiversity dialogue embraces the acknowledgement that neurological alterations occur because of the disease trajectory of substance use disorders and addiction; yet, the ability to improve neurological functioning due to the implementation of processes through neural plasticity enables the brain's dysfunction from substance use and addiction to begin the process of healing itself, through purposeful participation in evidenced based plans of care.¹⁹ The combined partnership of patient and health care providers, synergistically complements one another. The care provider needs the authentic participation and commitment of the patient, the patient needs the collaborative benefit of a skilled provider of care to make accurate diagnoses, implement timely response to exacerbations of dysfunction and implement consistent long term treatment plans, despite complications and persistence in relapse.²⁰ Additionally, and perhaps most importantly, the patient and the care provider benefit from the commitment of family and community, which support recognition of patient fluctuations during times of high risk and relapse, through relational support plans, hope and forgiveness.²¹

The language of the neurodiversity framework potentiates a renewed respect and appreciation for those who 'think' differently than others; therefore, validating self-worth of the one with altered brain functioning in a beneficial way versus through negative constructs that

potentiate further harm.²² All chronic disease states present as spectrum disorders; meaning that along a continuum of care, all chronic disease states have periods of acute exacerbations and periods of remission.²³ Patients diagnosed with heart disease and diabetes have the same potential for the development of fluctuating trajectory of disease states. Alterations in blood pressures and fluctuating blood glucose levels indicate fluctuating periods of stability and periods of acute exacerbations for patients diagnosed with heart disease and diabetes; the waxing and waning levels of physiological dysfunction, fluctuates between optimal levels of control and extreme levels of loss of control during circumstances that precipitate exacerbations.²⁴ Consequently, patients are encouraged to maintain close communications with providers of care during an acute exacerbation without discouragement of reaching out to healthcare providers in fear of asking for relational assistance in the complex management of acute physiological changes in disease states.

During periods of remission from heart disease, diabetes, substance use disorders and addiction, patients and family members often times feel a sense of achievement over the self-management of disease trajectory. Yet, during times of acute exacerbation in substance use disorders and addiction, overarching feelings of shame, personal failure, and loss of hope can occur, which can negatively affect prompt healthcare assistance through the acute relapse or exacerbation phase.²⁵ However, if patients and families were consistently encouraged to continue persevering through treatment plans despite initial signs of relapse and sought to understand the importance of seeking help immediately, for the assistance of medical interventions because of increased negative stress response states, increased craving stages, and impaired neurological preoccupation states then an increased individual responsibility and accountability could be achieved through shared decisional standards of care.²⁶ Implementing shared decisional

paradigms of care that seek medical assistance and responsive care paradigms that support the relapse or acute exacerbations of the sequela of disease state harms initiates supportive plans of care. Unfortunately, for those diagnosed with substance use disorders and addiction, reciprocal action is not always responsive to the care required for the achievement of relational support because inconsistent management of care processes and marginalization.

Utilizing an ethics of care to re-conceptualizes autonomy through empowerment of relational autonomy and relational decision-making requires a careful analysis of the sequela of chronic neurological and cognitive impairments associated with addiction disorders and how support through vulnerability can promote neurological repair and improve support. Vigilant implementation of a relational re-interpretation of consent must be attentively formulated for this vulnerable and marginalized population; implementing the institute of Medicines and the National Behavioral Health Quality Framework (NBHQF) care coordination improvement initiatives must occur between transition of care programs in order to improve care between acute care systems, public health outreach programs, and assist in transitions of care environments, by educating patients, families, and communities.²⁷

This complex endeavor requires implementation of improved systems of care coordination by facilitating clear and concise health care initiatives that aim to place the health of individuals and the safety of communities first; policy development must adhere to standards of least restrictive means, while also embracing strong multilevel prevention education strategies that simultaneously seek to decrease stigma and social isolation in order to embrace the responsibility of extended human dignity for the vulnerable by avoiding social constructs of shame, blame, discrimination, stigmatization, and isolation in order to empower others through relationship, connectedness, responsiveness, communication, education, discussion, solidarity,

community and professional support that seeks to deconstruct the deleterious isolation of those most susceptible to the perpetuation of generational dysfunction and harm

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