

Chronic Traumatic Encephalopathy and Alienation Induced Suicide: A Christian Personalism Perspective

Kenneth A. Schmidt*
Brandman University

Charlene West*
Brandman University

Abstract

Suicide among athletes and military personnel diagnosed with chronic traumatic encephalopathy (CTE) was an international concern (Korngold, Farrell, & Fozdar, 2013; Wortzel, Shura, & Brenner, 2013; Kristof, 2012; Meterko, et al., 2012; Omalu, et al., 2011). Omalu (2013) and Tanner (2010) observed a correlation between brain injury and perceived social alienation resulting in injuries. It is suggested that, due to the unique social bonds created within each group, athletes and military personnel formed individual identities based on the dynamics of the group. Current psychotherapeutic approaches had limited effectiveness dealing with suicidal tendencies. Utilizing Seeman's (1959, 1967, 1971, 1975, and 1983) five alienation factors as redefined under a Christian Neo-Thomistic Personalist approach (Schmidt, 2011, 2012) could provide insight into why CTE-related suicide occurred and thereby initiate discussion regarding adjustments to social and cultural aspects of faith in treatment programs.

KEYWORDS: Chronic Traumatic Encephalopathy, CTE, Traumatic Brain Injury, TBI, Alienation, Suicide, Thomistic Personalism, Christian Personalism

Suicide among traumatic brain injury (TBI) victims with resulting chronic traumatic encephalopathy (CTE) was recognized as a health problem (Wortzel, Shura, & Brenner, 2013). In the U.S., Papanicolaou (2006) cited 1.5 million incidences of TBI. Of those, 80,000 experienced some form of chronic disability, and 5.3 million lived with a related impairment. CTE among athletes and Iraq and Afghanistan U.S. veterans was observed as well (Korngold, Farrell, & Fozdar, 2013; Kristof, 2012; Meterko, et al., 2012; Omalu, et al., 2011). Concussions were considered a mild traumatic brain injury (mTBI), and not all mTBI victims necessarily suffered from CTE. However, mTBI were approximately 90% of all brain injuries (Fourtassi, et al., 2011; Saulle & Greenwald, 2012). Johnson, Stewart, and Smith (2012) posited continued injuries, as well as age and gender, could increase the risk factor. Considering the frequency of mTBI among at-risk groups, suicide among CTE victims was a medical and social concern.

TBI and CTE

Martland (1928) noted some boxers exhibited slurred speech, lack of motor coordination, and behavioral outbursts symptomatic of being drunk, and the term *punch drunk* was coined for the condition. Martland concluded head trauma resulting from sports injuries led to brain damage. *Punch drunk* was renamed *dementia pugilistica*, and, during the 1960s, the term *Chronic Traumatic Encephalopathy* (C.T.E.) was applied (Saulle & Greenwald, 2012). Omalu (2005, 2006, and 2010) suggested CTE as the cause of suicide among some NFL players, and by doing so increased public awareness of the problem.

TBI resulted in increased emotional disorders, including depression and anxiety (Deb, Lyons, et al., 1999; Ling, et. al., in press; Poggi, Liscio, et al., 2005). CTE was a type of encephalopathy, specifically a neurodegenerative disease of the brain resulting from recurring TBI related concussions (Omalu, 2005, 2006, 2010). Pathologically identified symptoms were decreased brain weight and distinctive amassing of hyperphosphorylated tau protein as neurofibrillary tangles, glial tangles and neuropil threads in post-mortem analyses of CTE related suicide victims (Ling, et. al., in press; McKee, et al., 2012). Behavioral symptoms of CTE included an array of indications including anxiety, depression, cognitive disorders, and motor dysfunction (McKee, et al., 2012). The correlation between depression and suicide was well documented (Nock, et. al., 2008; Ösby, et. al., 2001; Simpson and Tate, 2002).

Current treatments for individuals with suicidal tendencies

Approaches used for the psychiatric management of persons at risk of suicide included psychopharmacological treatments. Barbui, Esposito, and Cipriani (2009) suggested selective serotonin re-uptake inhibitors or serotonin-specific reuptake inhibitors (SSRIs) were effective among adults with depression. When used with adolescents, SSRIs could amplify suicidal tendencies. For adolescents, this was especially problematic because of a high correlation between suicidal thoughts, depression, and alienation among the age group (Lee, 2007).

Once the preferred method of treating suicidal risk patients, Psychopharmacological treatments for anti-anxiety were found to be less effectual than previously thought (Baldessarini & Tondo, 2012). Clozapine, olanzapine, and quetiapine seemed favorable for suicidal patients with schizophrenia. Likewise, lithium appeared helpful for suicidal bipolar patients. Antidepressant medications, however, were linked to increased suicide risk in the at-risk group.

Psychological approaches emphasized the importance of counseling, utilizing three distinct therapies: 1) cognitive behavior therapy (CBT) for persons at risk of a second attempt at suicide. 2). Dialectical behavioral therapy (DBT) for individuals diagnosed with borderline personality disorder exhibiting recurring suicidal ideation and behaviors. 3) Acceptance and Commitment Therapy (ACT), a form of therapy that employed embracing personal events and uniting the self.

CBT is directed towards the patient's understanding of how thoughts determine the individual's perceptions and behaviors. Stanley, Brown, Brent, et al. (2009) found Cognitive Behavior Therapy for Suicide Prevention (CBT-SP) successful among a sample group of 110 adolescents between the ages of 13 to 19 years old. Part of the CBT-SP addressed the perception of hopelessness.

One strategy for increasing hopefulness early in treatment is to discuss the adolescent's personal reasons for living. Delineating reasons to live is an important activity because learning to cope with suicidal urges is rather empty if there are no reasons to want to cope. The reasons for staying alive may include the people who care about the patient, things the patient can look forward to in the future, things the patient likes to do, and things that the patient cares about (Stanley, Brown, Brent, et al., 2009, p. 1008).

A modification of CBT developed by Linehan (1993) to address chronically suicidal individuals with borderline personality disorder, DBT was found effective in adults and adolescents (Arthur & Salsman, 2011; Stanley, Brodsky, et al., 2007). Pompeii and Goldblatt (2012) suggested therapy should accompany medication; however, there was no evidence that psychological treatment, psychopharmacological treatments, or a blend of both were successful (Cox, et al., 2012). DBT focused on the intensity of psychosocial arousal of individuals in particular social settings and differed from CBT in that DBT required weekly group sessions.

ACT, a "Third Wave" approach with DBT, was "a contextualistic approach to psychological phenomena such as private events and interpersonal relationships over direct attempts to modify or control them" (Zettle, 2005, p. 77). Both DBT and ACT emphasized *mindfulness* or an increased awareness of the immediate moment. Feelings, thoughts, sensations, and immediate surroundings and situation were accepted without judgment or reference to past or future. Influenced by Buddhism, both DBT and ACT focused on individual perception and change instead of changing the environment (Chiesa & Calati, 2011). DBT and ACT differed in how and to what degree the individual change occurred.

Suicide and spirituality

Admittedly, suicide is a multifaceted problem, and an underlying cause was pathological; nevertheless, psychological and sociological components were evident. Not all depressed individuals with pathological problems committed suicide. Likewise, not all who were depressed committed suicide. Apparently, other factors were involved; suicide was a complex issue involving more than a pathological or psychological problem. Just as suicide is multifaceted, so, too, must be a means to address the issue. Each suicidal risk patient had individual contributing factors. Each patient was a unique person with a distinctive characteristic. No single approach

could resolve the dilemma and, as Pritchard (1996) observed, “Practitioners of all disciplines will need to include the social perspective in the search for effective prevention of suicide...” (p. 117).

Integrating spiritual elements with sociological factors within the therapeutic methods could strengthen the efficacy of approaches used to address the problem of suicide among TBI related CTE suicidal risk persons. Rosner (2001) suggested religion could function as an “analgesic to reduce physical and mental pain. Religious commitment may protect against depression and suicide” (p. 1811). The significance of a spiritual aspect in a chronically suicidal individual’s life should not be underestimated. It was important to note suicide attempts among depressed individuals with a religious affiliation were less when compared to depressed individuals without a religious affiliation (Dervic, Oquendo, and Grunebaum, 2004). While the relationship between a religious or spiritual life and decreased likelihood of suicide needed more study, individual identity was strongly influenced by spirituality (Bhugra, 2010). Cultural and social patterns, including spirituality, influenced the formation and maintenance of the individual self-concept. Being a member of a religious community gave a person a sense of hopefulness, a purpose for living, and an active support system found in the church community.

A lack of a sense of spirituality or connectedness to others, discomfort with ambiguity, personal rigidity, a sense of emptiness inside, and/or problems with disassociation can all be indicators of the need to develop the ability to make contact with a larger sense of self (Hayes, Strosahl, et al., 2011, p. 225).

Both DBT and ACT had a spiritual feature. Linehan’s (1993) Zen Buddhist training influenced the development of DBT, and Hayes, Strosahl, et al. (2011) admitted “some ACT methods and ideas parallel Buddhism, but ACT is not Buddhism” (p. 218). While ACT did not develop upon Buddhist traditions, ACT “uses acceptance and mindfulness processes, and commitment and behavioral activation processes to produce psychological flexibility” (Hayes, Strosahl, et al., 2011, p. 97). The unwillingness of some patients to participate in DBT and ACT due to references and similarities to Eastern religion and spirituality made therapy tenuous among individuals with strong religious backgrounds. It was recommended, for example, the term *mindfulness* be rephrased to avoid opposition (Hayes, Strosahl, et al., 2011). In addition, the disinclination of therapists to openly discuss spirituality during patent sessions, while understandable, limited the therapists insights into the patient’s personality. The implications of *mindfulness* were complicated to explain and eluded definition and, therefore, scientific research and clarification. Spirituality was present in therapy, either overtly or covertly, and was a necessary element. Was the form of spirituality, however, within the patient’s spiritual life? Placing spirituality into a socially and culturally contextual framework could be beneficial for chronically suicidal individuals reluctant to accept foreign religious concepts. Was the addition of a new religious concept to a chronically suicidal individual increasing stress and anxiety?

Suicide and alienation factors

Suicide is associated with several symptoms including, but not limited to, depression, hopelessness, withdrawal from social contact, feelings of being trapped, and a loss of meaning in life. The perceived loss of the internal locus of control and lack of resiliency contributed to the problem (Wielenga-Boiten, et. al, 2015). Each of the symptoms corresponded, in varied amounts depending upon the individual, to Seeman's (1959, 1967, 1971, 1975, and 1983) factors of alienation. Seeman defined social alienation as factors of powerlessness, meaninglessness, normlessness, isolation, estrangement, and cultural estrangement.

Seeman (1959) defined *powerlessness* as "the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes, or reinforcements, he seeks" (p. 784). *Meaninglessness* was defined by Seeman as when "the individual is unclear as to what [they] ought to believe—when the individual's minimal standards for clarity in decision-making are not met...sense of understanding the events in which he is engaged" (Seeman, 1959, p. 786). *Normlessness* was defined as "'third variant of the alienation theme, is derived from Durkheim's description of 'anomie' and refers to . . . a situation in which the social norms have broken down or are no longer effective as rules for behavior'" (Seeman, 1959, p. 787). For sociologists, the classical position developed by Durkheim linked anomic suicide to the disappointment and frustration felt when norms were no longer applicable to the new situation in which one lived (Durkheim, 1997). Isolation was experienced by "those who . . . assign low reward values to goals or beliefs that are typically highly valued in the given society" (Seeman, 1959, pp. 788–789). The last alienation factor, *estrangement*, was defined by Seeman (1959) as the perception of the self as an alien instrument of another, and "the loss of intrinsic meaning or pride in work. One way to state such a meaning is to see alienation as the degree of dependence of the given behavior upon anticipated future rewards, that is, upon rewards that lie outside the activity itself" (Seeman, 1959, p. 790). Loss of role status and income led to "persistent inequality that undermines modern society's promise of individual freedom" (Macionis, 2013) and a gnawing sense of powerlessness" (Macionis, 2013; Newman, 1993; Ehrenreich, 2001).

Alienation factors and Thomistic Personalism

Schmidt (2011a, 2011b) proposed a redefinition of Seeman's terms of alienation, noting alienation had a spiritual significance when delineated within Thomistic personalism. Alienation was a deeply spiritual dilemma resulting from a societal separation of the *person* and *individual*. The *person* was the spirit or soul of a human being in search of a significant end and purpose. The *individual* was the social being, quantifiable and functioning within society. As Maslow (1943) observed, human interaction is essential for the formation and maintenance of the self. The basic needs for love, belonging, and acceptance are embedded in human nature. "In our society the

thwarting of these needs is the most commonly found core in cases of maladjustment and more severe psychopathology" (p. 381). The person becomes lonely, anxious, and depressed. In a word, *alienated*.

Each human being had value and purpose worthy of dignity and respect. However, "when society intervened and confounded the individual's attempts to fulfill his or her purpose, the result was frustration and man sensed socially-induced alienation" (Schmidt, 2011a, p. 24). The *person* and *individual* were indivisible within each human and synchronized in the human quest for freedom and social liberation. What affects one, affects the other. Powerlessness was a personal and social condition; the lack of freedom for the *individual* destroyed the *person* to the extent that the human would become depressed and anxious about the autonomy of action. The restoration of perceived power over one's life is crucial because "a sense of powerlessness correlates most strongly with depression, but also with anxiety, and other unpleasant emotions such as anger and fear and cognitive problems" (Mirowsky & Ross, 2003, p. 196). As Allard (1982) stated, "The true freedom of autonomy of persons is at one with spiritual perfection and the freedom of choice is the means of conquering it" (p. 33). Denial of personal autonomy was the denial of personal free will, the root of slavery, for both the *individual* and *person*.

The loss of being an *individual* and *person* with autonomy and value led to depression (Frankl, 2014; Orbach, Mikulincer, Gilboa-Schechtman, Sirota, 2003). A meaningful existence was a life directed to the goal of expressing love. Without love, life had no meaning and purpose; meaning was the key to survival. "He [who] knows the 'why' for his existence...will be able to bear almost any 'how'" (p. 75). The restoration of the ability to express love by finding a renewed *why* for one's existence surpassed the struggles of the *how* of one's existence. The *why* of one's life was an existential question answerable by faith.

A meaningful existence implied a goal, or purpose, directing life (Warren, 2002). That to which one aspired must comprise of, at least, equal significance to the means by which the aspiration was obtained. One does not aspire to a goal of less significance than the means by which one would obtain it. The recognition of the significance of a mean implied the idea of purpose, intent, or justifiable existence. The meaningfulness of both the means and the ultimate goal were determined by the person in a societal context and was an agreement with the self in self-agreement and in accord with other beings in the world (Schmidt, 2011, p. 22). "It was suggested a definition for normlessness could be a condition where the human believed a norm(s) no longer reflected truth one could morally, rationally, and purposefully serve to facilitate the fulfillment of the individual and person socially and spiritually" (Schmidt, 2012, p. 47). In Western cultures, as Jetten, Postmes, and McAuliffe (2002) observed, individualism was dominant over collective group norms. There was a higher value on individual autonomy and self-efficacy. At the group level, behaviors were influenced in a manner similar to norms within a culture. The more one identified as a group and the group's norms, the more likely one was to acknowledge

the group's norms as guides to individual behavior. Norms were designed not only to maintain social and group order and stability, but to provide a framework by which one could achieve one's aspirations while assisting others in the same quest. The group, whether it was an athletic team or a military company, became a family. When the norms no longer provided the structure due to separation, a perceived normlessness occurred within the individual.

Isolation was the opposite of belonging or of being connected to a group. Terms associated with isolation included distancing, disengagement, and marginalization. While isolation could be self-imposed for personal reasons such as mediation, involuntary isolation had a negative connotation because of the loss of social engagement and support. The loss of social integration led to an array of illnesses including loneliness, depression, loss of self-esteem, and anger. Biordi and Nicholson (2009) suggested loneliness was a psychological condition indicating a possible desire to seek new relationships; social isolation was sociological in nature. Isolation may lead to loneliness, but loneliness did not necessarily result in isolation. Likewise, isolation did not necessarily lead to suicide. With the exception of Durkheim's concept of altruistic suicide, all other forms of suicide were based on a degree of detachment from social groups. Altruistic suicide was honored as the ultimate sacrifice for society. Other reasons for suicide were socially rejected as the ultimate selfish act.

Isolation could be defined as a personally or socially induced phenomenon in which the human was unable to equate the significance of the highly valued goals, beliefs, or rewards of the society to the fulfillment of the personality aspect of the being through the social actions of the individual (Schmidt, 2012, p. 48).

Self-estrangement was the disassociation of the *self* and the *individual*. As Orbach (1994) posited, "the question to ask is not what causes suicide, but rather what processes or conditions enable an individual to commit the act" (p. 68). The act of suicide was a complete disassociation of the self to the extent that physical pain was not felt. Pain increased depression; however, depression did not increase pain. Instead, Orbach suggested, pain, depression, disassociation, and suicide were integrated. The concept of *self* was indispensable to the idea of social alienation, and self-estrangement was the heart of social alienation. Without a concise and clear definition of *self*, any attempt to examine social alienation failed. The human *person* and *individual*, seeking self-fulfillment through a social order while aiding others to do as well, was the core of social interaction. When society separated the *person* and *individual*, the *self* was unable to be expressed. Without the expression of a unified person and individual, disassociation and self-estrangement resulted. "It was suggested estrangement was the result of the separation of the human individual and personality. Incapable of an authentic experience of self through the integration of individual and personality, the human being became self-estranged" (Schmidt, 2012, p. 48).

Group identity and alienation factors

Many TBI victims with resulting CTE had involvement in sports, the military, or both. The degree to which one was motivated to meet the expectations was intrinsically and extrinsically rewarded. Athletes and soldiers shared much in common in that both required the participant to be personally motivated, focused on the group goal, follow norms, and participate in the unity of the group. The *person* and *individual* had an investment in the group to the extent that one's identity became inextricably bonded with the group. Among athletes and veterans alike, shrines of awards and medals in the home dedicated to showing the person once belonged to a particular group existed. The self-identity was with the group and maintained by the individual and the group. Physically unable to perform with the group, the identity was lost in the search for a new group. Each activity carried social expectations, group norms, high risks of injury and self-sacrifice. When TBI victims with resulting CTE were removed from the group, personal motivation, group goals, group norms, and participation in the group changed, and consequently the perception of the meaning of life changed. For TBI victims with resulting CTE, such change was a life altering event exacerbated by physiological conditions beyond the individual's control. Given that participation in the group was a sociological means of self-identity and, most likely, a goal developed over years prior to the participation, such separation was perceived as a personal failure. Life held little purposeful meaning, and the standards by which life was organized were lost (Pagulayan, et. al., 2006). Isolated from the group that had once validated the *personality*, the TBI victims with resulting CTE no longer recognized the relationship between *personality* and *individual* as valid

Personal motivation was derived from either of both intrinsic and extrinsic factors (Vallerand, 2004). Among the intrinsic motivations was a perceived sense of autonomy in which one was motivated to learn, surpass one's previous accomplishments, or to have pleasure. For intrinsic motivation to exist, a concept of *self* was crucial. Extrinsic motivational factors were associated with the activity. Like intrinsic motivational factors, extrinsic motivational factors required a sense of *self* and, therefore, self-determination. Without a sense of *personality*, self-determination and motivation were nonexistent.

Group goals were established by and held meaning for, the group. A group existed for the purpose of attaining a common end. The individual in a group must be committed to the group goal, self-efficacy to achieve the goal, and attach purposeful meaning of the goal. Receiving feedback regarding the progress was necessary for maintaining the desired self-efficacy (Bandura, 1993). The complex interdependence within a group was dependent upon the individuals within the group, but how the motivation transferred from personal motivation to the group was unclear. Meaning was attached to the exchange of surrendering a measure of personal autonomy to the group. It was suggested some form of exchange occurred between the individual and the group where the individual came to expect some intrinsic or extrinsic reward for the surrender

(Ellemers, 2003), the absence of the reward resulted in *amotivation*, defined as “a lack of purpose and intentionality in one’s action, that is, the relative absence of motivation” (Vallerand, 2004, 427). A sense of purpose and meaning for the individual was lost.

Each group had a set of norms, either explicit or implicit, by which members were expected to behave. Norms were a means of regulating conduct within the group in order to achieve the group goal. Status within the group was accomplished by adhering to the norms, and “that part of an individual’s self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership” (Tajfel, 1981, p. 255). The *person* or *self* was validated by the group and maintained a social identity by conforming to the group’s norms. When removed from the group and the group norms, the *person* and *individual* were no longer validated, and anomic depression resulted (Durkheim, 1997).

Group identity dependence was problematic among retired athletes (Moshkelgosha, Tojari, et al., 2012). The self-concept was not only dependent upon the group identity, but such dependence often led to a disinclination to seek other psycho-social interactions. The self-identity became overly dependent upon the image of the group. Professional athletes rarely found other occupations, educational opportunities, or social groups. While educational opportunities existed for military personnel, the problems faced by former active duty personnel were well documented. For the athlete and soldier alike, the uniform and the individual were one. Social expectations of strength and agility became associated with the uniform and transferred to the individual. Once removed from the group, the self-identity became destabilized and lacked skills to adjust to the new social conditions (Temkin, et.al., 2015). With the added physiological challenges, the individual had a perception of isolation.

Without the perceptions of power, meaningful existence, norms, and self in a social group, the individual was estranged. The individual no longer recognized the *self*. The individual was separated from productive contributions and had, instead, become an instrument subordinated to will of others and physical limitations. “An injured athlete who is heavily invested in sports as a source of self esteem would be expected to experience depressed mood as long as his or her attention is focused on the consequences of the injury for his or her athletic goals” (Brewer, 1993, p. 362).

CTE related suicide and Thomistic (Christian) Personalism

If CTE related suicide was, in part, a result of socially-induced alienation as described, then the issue required a sociological response. Such a response would need to address the concept of the individual in society - the definition, purpose, and function of the person. Such a definition would need to include the person as a being with a specific purpose, or mission, to fulfill instead of as a commodity or object to be used. As Woyjtyla (1981) stated, persons should not “be treated

as an object of use and as such the means to an end. In its positive form the personalistic norm confirms this: the person is a good towards which the only proper and adequate attitude is love" (p. 41).

Individuals involved in athletic and military activities shared much in common. In each group, individuals were personally motivated to the extent that the self-identity became aligned with the group identity. As Stoltenberg (2008) found, athletes with a "strong athletic identity", primarily an athletic *self*, had problems adjusting to a life without direct athletic involvement. Indeed, some former athletes considered suicide instead of social adjustment (Morin, 2011; Stoltenburg, 2010). Similarly, military personnel needed to adjust to civilian life by modifying social behaviors, regulating stress responses, and reconnecting with family and friends. The distinctions between athletic or military lives and non-athletic or civilian lives and the need to adjust between the two implied that the individual faced with two distinctly separate lives involving the *personality* or self-identity. To be successful in one did not necessarily lead to success in the other, and the self-identity had to change accordingly for the perception of self-fulfillment. Within a personalist alienation paradigm, the emphasis of the *individual* over the *self* was problematic, and a balance of both was indispensable.

An occupation was what an individual performed in society, but did not define the self. Instead, an occupation was a means by which a person found a path to personal fulfillment. Granted, the confusion of self and occupation was due, in part, to the emphasis society placed on work and productivity. To be a productive member of society, one had to work and contribute to the wellbeing of society. Work became not a means to an end, but an end in itself (Fryers, 2006). Not working, or being *disabled*, meant to be unable to contribute to society in a meaningful way. To be *disabled* meant one was a social burden worthy of being marginalized and outcast (Livneh, 2012). The over-emphasis on the *individual* in society came at the expense of the *personality* and reduced the value of the person.

Ultimately personal identity and self-esteem are closely bound up together, and derive from a sense of personal value, of personal worth, of being needed, of being loved for what you are, not just for what you do. This is true health and wholeness, and, no doubt, much depends upon our experience of parenting as children. It is also a spiritual issue. Christians, and others of faith, will claim the ultimate value of a human being loved by God and therefore of infinite worth; others will be satisfied with a non-religious belief that each individual human being has intrinsic equal and great value (Fryers, 2006, para. 49).

For the chronically suicidal individual, the restoration of a perceived balanced power or free will was crucial. Social powerlessness, or the social rejection of the wholeness of man

physically and spiritually, denied the ability to express free will and a purpose, both of which are the fundamental desires at the spiritual level (Schmidt, 2011).

Finding meaning for the chronically suicidal individual, a life perceived without love, self-expression and meaning, meant a diminished self-love or a low self-concept. For the chronically suicidal individual, the social rules that once maintained and promoted the development of the *person* and *individual* in the aspiration of meaning no longer applied. Quite simply, society was no longer supportive of the path to a meaningful life for the chronically suicidal individual. A result was depression that led to suicidal thoughts. The restoration of meaning in life resulted in a sense of well-being and balance, purpose, and direction (Wong, 2012).

Current psychological approaches, such as DBT and ACT, utilized Eastern religious and spiritual terms. The concept of mindfulness did not respond to the innermost yearnings of the person to find full self-expression and service. A therapist's disinclination to candidly discuss spirituality added to the intricate problems the patient faced. The resulting reluctance of some chronically suicidal individuals was due to improperly contextualized and embedded concepts perhaps alien to a Western religious thought. Meaning was an intensely personal desire rooted in one's spiritual experience. Meaning can be found in suffering and sacrifice, and while it might "appear to be pointless in the normal world, the world of material success. But in reality our sacrifice did have meaning. Those of us who had any religious faith, I said frankly, could understand without difficulty" (Frankl, 2014, p.78).

Finding meaning in life not only exemplified personal aspirations, but established the contributing role one had in society. The role was unique because it was one of giving of oneself. During the Second Vatican Council, the *Gaudium et spes* expressed the fundamental statement of Christian Personalism, "...man, who is the only creature on earth which God willed for itself, cannot fully find himself except through a sincere gift of himself" (24).

Conclusion

Suicide is a complex problem and just as varied as causes are, no single approach can be reasonably expected to resolve the crises suicidal individuals have. Individuals suffering from CTE symptoms, whether caused by sports related trauma or the battlefield, may share similar physiological wounds. The use of medications had limited success. Psychological treatments, too, were ineffective in some cases. The approaches to assisting individuals exhibiting CTE related suicidal ideation address two aspects of the human: physiological and emotional. However, there are two components of being human that appear to be neglected, namely the social and spiritual.

Humans are social animals, framing interpersonal interactions through a set of socially accepted behaviors. A perceived sense of power and meaning are provided by the community's recognition of the person's contributions to the sustainability and improvement of the group. Consequently, the person's value is validated and rewarded, and the person becomes fully

integrated. The opposite can also occur. If the person perceives a loss of power and meaning by the community and the inability to contribute to the sustainability and improvement of the community, the person is marginalized. There existed a perceived diminished value of the individual. Consequently, the person becomes marginalized and alienated.

Humans are spiritual beings, finding purpose and meaning in life through faith and spiritual experience. At the core of the human identity is a relationship with God. It is through that relationship of love that the individual finds meaning and purpose in life, and that love, purpose, and meaning are expressed to others by helping them attain a purpose and meaning. As Pope Benedict XVI (2009) stated,

As a spiritual being, the human creature is defined through interpersonal relations. The more authentically he or she lives these relations, the more his or her own personal identity matures. It is not by isolation that man establishes his worth, but by placing himself in relation with others and with God (53).

Spirituality has been recognized as an important feature in psychological treatments for trauma (Courtois, 2015), cancer (Randazzo, et. al, 2014), and general nursing (Gudrun, et. al. 2014). Recognizing the value of spirituality in psychotherapy was effective (Ebrahimi, et.al., 2014), and worthy of further study.

Victims of CTE-induced suicidal ideation belonged to social organizations in which significant social bonds, norms, group identity dominate and extend to the individual *self*. It is suggested when an athlete or soldier is removed from the group due to injuries, the individual experiences perception of social alienation at a profoundly personal and spiritual level. Alienation, defined by Seeman (1959, 1967, 1971, 1975, and 1983), as powerlessness, meaninglessness, normlessness, isolation, and estrangement was reframed within a Christian personalist perspective by Schmidt (2011a, 2001b). The addition of a spiritual aspect to alienation factors allows for another perspective by which to assist individuals suffering from CTE induced suicidal ideation.

 WORKS CITED

- Arthur, R., & Salsman, N. L. (2011). Adapting dialectical behavior therapy to help suicidal adolescents: including the family, other changes increase DBT's efficacy for these patients, *Current Psychiatry*, 10(3), 18-33.
- Baldessarini, R. J. & Tondo, L. (2012). Psychopharmacology for Suicide Prevention. In Pompili, M. (Ed.). *Suicide: A Global Perspective*, (pp. 114-127). London: Bentham.
- Barbui, C., Esposito, E., & Cipriani, A. (2009). Selective serotonin reuptake inhibitors and risk of suicide: a systematic review of observational studies. *Canadian Medical Association Journal* 180, 291-297.
- Pope Benedict XVI(2009). *Caritas in veritate*. Retrieved from http://w2.vatican.va/content/benedict-xvi/en/encyclicals/documents/hf_ben-xvi_enc_20090629_caritas-in-veritate.html
- Biordi, D. L., & Nicholson, N. R. (2009). *Social isolation. Chronic illness: Impact and interventions*. 7th ed. Sudbury, MA: Jones and Bartlett Publishers.
- Brewer, B. W. (1993). Self-identity and specific vulnerability to depressed mood. *Journal of Personality*, 61(3), 343-364.
- Caron, J. G., Bloom, G. A., Johnston, K. M., & Sabiston, C. M. (2013). Effects of multiple concussions on retired national hockey league players. *Journal of Sport & Exercise Psychology*, 35(2), 168-179.
- Chiesa, A., Calati, R., & Serretti, A. (2011). Does mindfulness training improve cognitive abilities? A systematic review of neuropsychological findings. *Clinical Psychology Review*, 31(3), 449-464.
- Claes, M., LaCourse, E., & Villeneuve, M. (2003). Theoretical structure of adolescent alienation : A multigroup confirmatory factor analysis. *Adolescence*, 38(152), 639-650.
- Claes, M., Lacourse, E., & Villeneuve, M. (2001). Heavy metal music and adolescent suicidal risk. *Journal of Youth and Adolescence*, 30(3), 321-332.
- Courtois, C. A. (2015). First, do no more harm: Ethics of attending to spiritual issues in trauma treatment. In Walker, D. F. (Ed); Courtois, C.A. (Ed); Aten, J.D. (Ed), *Spiritually oriented psychotherapy for trauma*, (pp. 55-75). Washington, DC, US: American Psychological Association.
- Cox G. R., Callahan P., Churchill R., Hunot V., Merry S. N., Parker A. G., et al. (2012). Psychological therapies versus antidepressant medication, alone and in combination for depression in children and adolescents. *Cochrane Database Syst. Rev.* 11:CD008324 10.1002/14651858.cd008324
- Deb, S., Lyons, I., Koutzoukis, C., Ali, I., & McCarthy G. (1999). Rate of psychiatric illness 1 year after traumatic brain injury. *American Journal of Psychiatry*, 156(3), 374-378.
- Deci, E. L., & Ryan, R. M. (2000b). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227-268.
-

- Durkheim, E. (1997) [1951]. *Suicide : a study in sociology*. Mankato, MN: The Free Press.
- Ebrahimi, H. Kazemi, A., Khoshknab, M. F., and Modabber, R. (2014). The Effect of Spiritual and Religious Group Psychotherapy on Suicidal Ideation in Depressed Patients: A Randomized Clinical Trial. *Journal of Caring Sciences* 3(2), pp. 131–140.
- Fourtassi, M., Hajjioui, A., Ouahabi, A. E., Benmassaoud, H., Hajjaj-Hassouni, N., & Khamlichi, A. E. (2011). Long term outcome following mild traumatic brain injury in Moroccan patients, *Clinical Neurology and Neurosurgery*, 113(9), 716–720.
- Fryers, T. (2006). Work, identity and health, *Clinical Practice of Epidemiological Mental Health*, 31(2), 12.
- Gaudium et spes*. (1965). Retrieved from http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_cons_19651207_gaudium-et-spes_en.html
- Gudrun, R., Berggren, I., and Barbosa da Silva, A. (2014). Experiences of Spirituality and Spiritual Values in the Context of Nursing – An Integrative Review. *The Open Nursing Journal* 8, pp. 64–70.
- Halstead, M. E., & Walter, K. D. (2010). Clinical report—sport-related concussion in children and adolescents. *Pediatrics*, 126(3), 597–615.
- Harris, R. (2006). Embracing your demons: An overview of acceptance and commitment therapy. *Psychotherapy in Australia*, 12(4), 2–8.
- Hayes, S. C., Strosahl, K., & Wilson, K. G. (2011). *Acceptance and commitment therapy: The process and practice of mindful change* (2nd edition). New York: Guilford Press.
- Jetten, J., Postmes, T., and Mcauliffe, B. (2002). ‘We’re all individuals’: Group norms of individualism and collectivism, levels of identification and identity threat. 32 *European Journal of Social Psychology*, 189–207.
- Johnson, V. E., Stewart, W., and Smith, D. H. (2012). Widespread tau and amyloid-beta pathology many years after a single traumatic brain injury in humans, *Brain Pathology* 22(2), 142–149.
- Kirk, M. (2013). League of denial: The NFL's concussion crisis. *FrontlineSports Interview*. Retrieved March 30, 2014, from <http://www.pbs.org/wgbh/pages/frontline/sports/league-of-denial/the-frontline-interview-dr-bennet-omalul/#seg5//>
- Korngold, C., Farrell, H. M., & Fozdar, M. (2013). The National Football League and chronic traumatic encephalopathy: Legal implications. *Journal of the American Academy of Psychiatry and the Law Online*, 41(3), 430–436.
- Kostroun, B. (2012). Alex Smith: The only thing I did was get a concussion. *Washington Post*. Retrieved March 18, 2014, from <http://www.washingtonpost.com/blogs/early-lead/wp/2012/11/30/alex-smith-the-only-thing-i-did-was-get-a-concussion/>
- Kristof, N. D. (April 25, 2012). Veterans and Brain Disease. *New York Times*.
- Lee, E. (2007). Construction of a structural model about male and female adolescents’ alienation, depression, and suicidal thoughts. *Taehan Kanho Hakhoe Chi*, 37(4), 576–585.

- Ling, H., et al.,(in press). Neurological consequences of traumatic brain injuries in sports, *Molecular and Cellular Neuroscience.*, pp. 1-9, retrieved from: <http://dx.doi.org/10.1016/j.mcn.2015.03.012>
- Linehan, M. M. (1993). *Cognitive Behavioral Treatment of Borderline Personality Disorder*. New York: Guilford Press.
- Livneh, H. (2012). On the origins of negative attitudes toward people with disabilities (13-27). In Marini, I., & Marini, I. *The psychological and social impact of illness and physical ability* (6th ed.). New York: Springer.
- Martland, H. S. (1928). Punch drunk, *Journal of the American Medical Association* 91(15), 1103–1107.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review* 50 (4), pp. 370–96.
- Max, J. (2012). Traumatic Brain Injury in Children and Adolescents. *Psychiatric Times*, 29(11), 17-22.
- Meterko, M., Baker, E., Stolzmann, K. L., Hendricks, A. M., Cicerone, K. D., & Lew, H. L. (2012). Psychometric assessment of the neurobehavioral symptom inventory-22: The structure of persistent postconcussive symptoms following deployment-related mild traumatic brain injury among veterans. *The Journal of Head Trauma Rehabilitation*, 27(1), 55-62.
- McKee, A. C., Stein, T. D., Nowinski, C. J., Stern, R. A., Daneshvar, D. H., Alvarez, V. E., ... & Cantu, R. C. (2012). The spectrum of disease in chronic traumatic encephalopathy. *Brain*, 136(1), 43-64.
- Morin, R. (2008). The difficult transition from military to civilian life. <http://www.pewsocialtrends.org/2011/12/08/the-difficult-transition-from-military-to-civilian-life/>
- Moshkelgosha, E., TojariF., Ashraf Ganjooee, F., and Vaez Mousavi, M.K.(2012) The relationship between athletic identity and problems of retirement from athletics in Iran. *Archives of Applied Science Research* , 4(6), 2350-2355.
- Nock, M. K., Borges, G., Bromet, E. J., Alonso, J., Angermeyer, M., Beautrais, A., Bruffaerts, R., Chiu, W. T., DeGirolamo, G., Gluzman, S., (2008) .Cross-national prevalence and risk factors for suicidal ideation, plans and attempts. *British Journal of Psychiatry* 192 (2), pp. 98–105.
- Omalu, B.I., DeKosky, S.T., Hamilton, R.L., et al. (2006). Chronic traumatic encephalopathy in a national football league player: part II. *Neurosurgery*, 59(5), 1086–1092.
- Omalu, B.I., DeKosky, S.T., Minster, R.L., et al. (2005). Chronic traumatic encephalopathy in a national football league player. *Neurosurgery*, 57 (1), 128–134.
- Omalu, B.I., Hamilton, R.L., Kamboh, M.I., et al. (2010). Chronic traumatic encephalopathy (cte) in a national football league player: case report and emerging medicolegal practice questions. *Journal of Forensic Nursing*, 6(1), 40–46.
- Omalu, B., Hammers, J. L., Bailes, J., Hamilton, R. L., Kamboh, M. I., Webster, G., & Fitzsimmons, R. P. (2011). Chronic traumatic encephalopathy in an Iraqi war veteran with posttraumatic stress disorder who committed suicide. *Neurosurgical focus*, 31(5), E3.

- Ollman, B. (1976). *Alienation: Marx's conception of man in a capitalist society*. Cambridge University Press.
- Orbach, I. (1994). Dissociation, physical pain, and suicide: A hypothesis. *Suicide and Life-Threatening Behavior*, 24: 68–79.
- Orbach I, Mikulincer M, Gilboa-Schechtman E, Sirota P. (2003). Mental pain and its relationship to suicidality and life meaning. *Suicide Life Threatening Behavior*, 33: 231–41.
- Ösby, U., Brandt, L., Correia, N., Ekblom, A., Sparen, P., (2001). Excess mortality in bipolar and unipolar disorder in Sweden. *Archives of General Psychiatry* 58 (8), pp.844–850.
- Pagulayan KF, Temkin NR, Machamer J, Dikmen SS (2006) A longitudinal study of health-related quality of life after traumatic brain injury. *Archives of Physical Medicine and Rehabilitation* 87(5): 611–8.
- Palumbo, A. and Scott, A. (2005). Classical Social Theory I: Marx and Durkheim. In Harrington, A. (ed.), *Modern social theory* (pp. 40–62). Oxford University Press, Oxford.
- Poggi, G., Liscio, M., Adduci, A., Galbiati, S., Massimino, M., Sommovigo, M., et al. (2005). Psychological and adjustment problems due to acquired brain lesions in childhood: a comparison between post-traumatic patients and brain tumour survivors. *Brain Injury*, 19(10), 777–85.
- Pompili, M. and Goldblatt, M. J. (2012). Psychopharmacological treatment to reduce suicide risk: a brief review of available medications. *Psychiatric Times*, 29(4), 23–25.
- Randazzo, D., Affronti, M., Lipp, E., McSherry, F., Herndon, J., Flahiff, C., ... & Peters, K. (2014). Spiritual well-being and its association with health-related quality of life in primary brain tumor patients. *Neuro-Oncology*, 16(suppl 5), v182–v183.
- Rawat, S. (2011). Enhancing self-esteem of the soldier. *Journal of Defense Studies*, 5(2), 122–137.
- Ryan, R. M., and Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.
- Saulle, M. and Greenwald, B.D. (2012). Chronic traumatic encephalopathy: A review, *Rehabilitation Research and Practice*, 1–9.
- Schmidt, K. (2011a). Alienational powerlessness and meaninglessness: A Neothomistic Approach. *Journal for the Sociological Integration of Religion and Society*, 1(2), 15–34.
- Schmidt, K. (2011b). Alienational normlessness, isolation, and estrangement: A Neothomistic Approach. *Journal for the Sociological Integration of Religion and Society*, 2(1), 36–54.
- Schwartz, J. M. and Begley, S. (2002). *The mind and the brain: Neuroplasticity and the power of mental force*. New York: Regan Books/Harper Collins Publishers.
- Seeman, M. (1967). On the personal consequences of alienation in work. *American Sociological Review*, 32(2), 273–285.
- Seeman, M. (1971). The urban alienations: Some dubious theses from Marx to Marcuse. *Journal of Personality and Social Psychology*, 19(2), 135–143.

- Seeman, M. (1975). Alienation studies. *Annual Review of Sociology*, 1, 91-123.
- Seeman, M. (1983). Alienation motifs in contemporary theorizing: The hidden continuity of the classic themes. *Social Psychology Quarterly* 46(3), 171-184. Retrieved April 25, 2014 from <http://www.jstor.org/stable/3033789>
- Simpson G, Tate R. Suicidality after traumatic brain injury: demographic, injury and clinical correlates. *Psychological Medicine*, 32, 687-97
- Stanley, B., Brodsky, B., Nelson, J. D., & Dulit, R. (2007). Brief dialectical behavior therapy (DBT-B) for suicidal behavior and non-suicidal self Injury. *Archives of Suicide Research*, 11(4), 337–341.
- Stanley, B., Brown, G., Brent, D. A., et al. (2009). Cognitive-behavioral therapy for suicide prevention (CBT-SP): Treatment model, feasibility, and acceptability. *Journal of the American Academy of Child & Adolescent Psychiatry*, 48(10), 1005–13.
- Stoltenburg, Amber L. (2008). *Transitioning out of sport: The psychological effects of career-ending injuries on collegiate athletes*. Thesis (M.S.), Minnesota State University, Mankato. Physical Education: Psychological Aspects of Sport.
- Stoltenberg, A., Kamphoff, C., Lindstrom Bremer, K. (2010). Transitioning out of sport: The psychosocial effects of collegiate athletes' career-ending injuries. *Athletic Insight: The Online Journal of Sport Psychology*. <http://www.athleticinsight.com/Vol13Iss2/Feature.htm>
- Tanner, S. J. (2010). *Traumatic Brain Injury*. Army War College Carlisle Barracks PA. Retrieved April 25, 2014, from <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA520103>.
- Tajfel, H. (1981). *Human groups and social categories*. Cambridge, MA: Cambridge University Press.
- Temkin, N., Corrigan, J., Dikmen, S., & Machamer, J. (2015). Social functioning after traumatic brain injury. *Journal of Head Trauma Rehabilitation*, pp. 460-467.
- Vallerand, R. J. (2004). Intrinsic and extrinsic motivation in sport. *Encyclopedia of applied psychology*, 2, 427-435.
- Warren, R. (2002). *The Purpose Driven Life*. Michigan: Zondervan.
- Wielenga-Boiten, J. E., Heijenbrok-Kal, M. H., & Ribbers, G. M. (2015). The relationship of health locus of control and health-related quality of life in the chronic phase after traumatic brain injury. *The Journal of Head Trauma Rehabilitation*.
- Wojtyla, K. (1981). *Love and Responsibility*. N.Y: Farrar, Strauss, Giroux.
- Wortzel, H. S., Shura, R. D. & Brenner, L.A. (2013). "Chronic Traumatic Encephalopathy and Suicide: A Systematic Review," *BioMed Research International*, vol. 2013, Article ID 424280.
- Zettle, R. D. (2005). The Evolution of a Contextual Approach to Therapy: From Comprehensive Distancing to ACT. *International Journal of Behavioral Consultation and Therapy*, 1 (2): 77–89.

*Direct correspondence to: Kenneth A. Schmidt, Brandman University (schmidt@brandman) and Charlene West, Brandman University (chawest@brandman.edu).