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#### Euthanasia in Mental Illness: A Four Part Series

#### Part II: Sadness and Suicidality: Why Mentally III Patients Request Euthanasia

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#### Abstract

Unlike patients with terminal medical illnesses who are dying and may request euthanasia to bring their life to a peaceful but premature end, mentally ill patients are suffering not dying, becoming suicidal to escape severe and chronic psychological suffering – psychache, and may request euthanasia to accomplish this goal. In most patients the essence of psychache is unbearable sadness. This sadness has it roots in demoralization, a breakdown of coping because of the patient's precarious psychosocial predicament and biological depression, a true brain based malfunction. With better understanding of the human predicament and how the brain works, demoralization and biological depression can always be mitigated. There should never be an occasion in which a mental health professional should say to a mentally ill patient that there is nothing more that can be done. This knowledge should and must inform decision making when encountering a mentally ill patient who requests euthanasia.

Keywords: euthanasia, sadness, suicidality

To survive is a one of our most basic biological drives. A mind that wants to be dead rather than alive by destroying the body that permits its existence goes against nature itself. Other minds that observe this surmise that this is evidence of a mind deranged just as we see cancer as deranged cell biology. Experience has correctly taught us that there is some kind of disease process at work that is compromising normal mental functioning and labels such a self-destructive mental state as suicidal. But what causes such a pathological mental state?

We no longer believe in Cartesian dualism where the mind is distinct and separate from the brain. The mind, we know, is a product of the brain arising out of interconnected neuroanatomical structures that communicate electrochemically, utilizing various chemical molecules known as neurotransmitters. The fundamental function of these networks is to generate the normal aspects of the mind such as normal sensory and information processing, normal emotional experience, normal appraisal of reality, normal computations, and ultimately and mysteriously, consciousness itself that allows us to experience subjectivity and a sense of agency. In normal individuals, these various components work seamlessly together and appear as a unitary human ability called "the mind".

The specific neuroanatomical locations for the mind's components remain speculative as are the neurotransmitter systems involved. Localized brain lesions and structural and functional imaging continue to shed light on the location of the mind's source neurons and their networks, while the advances of basic neuroscience have permitted the development of medications that work by either enhancing or blocking neurochemical transmission. Failure in one or more of these networks produces specific clusters of symptoms giving rise to the diagnosable mental illnesses such as schizophrenia, mood disorders, or dementia. These major mental illnesses often occur in families because of a genetic vulnerability and once present, are lifelong conditions much like hypertension and elevated cholesterol. The major mental disorders are thus conceptualized as brain-based illnesses.

The challenge in assessing normal and abnormal mental states is that mental states cannot be reduced to functioning or malfunctioning of these intrinsic brain networks. The role of the brain is to process and respond to internal needs and external information to elicit adaptive need solving behavior. Normally working brain machinery stands ready to respond to the external world, labeling and emotionally weighting events on a utility continuum, as positive or negative to our survival and wellbeing, and to elicit the best response that will promote these goals.

Events, depending upon their significance, may make us happy, sad, angry, or anxious. From a psychiatric perspective, these external events can be lumped together under the category of psychosocial encounters that each of us must negotiate as we go about our business of daily living, doing the best we can. Adverse psychosocial events, of which there are many, may at times

produce severe dysphoric emotional responses.

The end common result regardless of specific causes is human suffering. For some individuals, their suffering may feel unbearable and for them, the only relief that they can see is to terminate their existence by suicide. In today's world it has become an option to ask society to legally sanction medical assistance to accomplish this goal. The purpose here is that the patient wants a dignified, guaranteed, painless, and non-gruesome death while surrounded by caring humans. As noted in Part I, the proper acronym here is MAIS (Medical Assistance in Suicide).

As suffering always represents a complex interplay between biological and psychosocial forces, a chief initial goal is to clarify the relative contribution of each to the patient's mental distress. Each contributor requires a different intervention. Biological based disturbances within neuronal networks are typically treated with psychopharmaceuticals while psychosocial disturbances are treated with psychotherapy and various psychosocial interventions. To be effective care must be comprehensive. Where psychosocial events are the dominant cause of mental disturbance and suffering, the issue of MAIS should not arise, in principle. With support, patients will adapt and their psychosocial circumstances will change over time or be amenable to environmental and psychological interventions. These can include:

- 1. more social support and community programs to address the pernicious effect of loneliness;
- 2. housing that is better, more secure, and safer;
- 3. reliable access to a reasonable level of creature comforts;
- access to mental health professionals with whom the individual can develop strong therapeutic alliances to provide individualized psychological support, guidance, counseling, and specific types of psychotherapy.

The value and benefits of mitigating these psychosocial factors that precipitate and perpetuate psychological distress should not be underestimated and can make a difference between a life worth living and a life in which the individual feels that she or he would be better off dead. In the Dutch study of patients with psychiatric disorders who received euthanasia or assisted suicide, 56% were socially isolated or lonely (Kim et al., 2016). The authors provide the following descriptions: "The patient indicated that she had had a life without love and therefore had no right to exist" and "The

patient was an utterly lonely man whose life had been a failure".

An everyday example of an external event that can provoke intense psychological pain, but that almost always settles by adaptation and acceptance, is the psychological symptoms associated with bereavement. By contrast, biologically based mental illnesses are often chronic and do not resolve by the normal mechanisms of psychological adaptation and acceptance. These are true brain illnesses, may entail severe suffering, and may prove treatment resistant to standard biological interventions. The issue of MAIS may then arise.

There are, however, fundamental differences between chronic refractory mental illnesses that cause severe psychological suffering including severe psychogenic pain and relentlessly progressive fatal medical conditions involving escalating physical incapacity, pain and psychological suffering, and ending inevitably in death.

- 1. Mental disorders may fluctuate but are not relentlessly progressive.
- 2. Mental disorders do not in and of themselves inevitably end in death except by suicide.
- The suffering associated with mental disorders can always be mitigated by comprehensive care combining psychosocial interventions with the judicious use of psychopharmaceuticals and other biological interventions such as ECT and as an ultimate and last biological resort, neurosurgical procedures.

In the setting of these chronic refractory mental illnesses, suicidality in thoughts and behavior may forcibly persist. However, as in the acute setting when the patient first presents with their psychiatric illness, the fundamental driver of suicidal ideation is the same: psychological suffering.

Shneidman (1993, 1998) calls this psychological suffering "psychache" and has written that "the author of suicide is pain". Psychache is not, however, always the cause of suicide in disturbed mental states. Suicide may occur in psychotic patients who kill themselves in response to a hallucination that instructs them to do this, or so called "command hallucinations". Such a clinical scenario would, in all circumstances, be considered as a psychiatric emergency in need of intervention, including involuntary treatment to bring the psychosis under control. Here a request for

MAIS would not warrant serious consideration.

What then is psychache? The essence of psychache is unbearable sadness that typically occurs as part of intractable depressive illness but may occur as part of any other major medical illnesses in which depression is present. Anxiety may contribute to the burden of suffering, but anxiety disorders with the exception of possible posttraumatic stress disorder do not, in and of themselves, prompt suicidality (Sareen et al., 2005).

The nub of the suicidal problem in mental illness and which drives the request for MAIS is then unbearable sadness. This sadness may come from 2 sources:

1. Biologically based sadness: Here the sadness is an intrinsic part of the illness, mostly mood disorders, and relates to disturbed brain function. At its core, it is from a malfunctioning ill brain but often made worse by psychosocial stress.

2. Demoralization: At the heart of the demoralization syndrome is a breakdown in coping: the person feels trapped and helpless (Kissane, 2004). Here the sadness is the patient's understandable response to her or his predicament. In psychiatric illness, this demoralization stems from a complex array of adverse psychosocial factors that include the consequences of a chronic mental disorder that has resulted in lost opportunities, compromised coping skills, compromised functioning, social isolation, and dependency on others.

Where demoralization is combined with biological depressive illness, and it often is, the distinction between the two is very difficult, if not impossible to make. Demoralization in this situation simply compounds the burden of suffering but should be mitigable by psychosocial interventions. Any sadness that remains after optimally addressing the patient's predicament can only then derive from one source: an ill brain.

The problem of unrelenting unbearable psychache that fails to improve despite optimal psychosocial interventions applied over time reduces to the central question of biologically based sadness and what can be done about this to mitigate the magnitude of suffering.

Modern psychiatry has made great strides in treating biologically based depression with

antidepressants (nortriptyline, phenelzine, fluoxetine, venlafaxine and multiple others). These drugs work by enhancing noradrenergic and serotonergic neurotransmission. More recently, second generation antipsychotics (such as quetiapine and aripiprazole) have been developed that have antidepressant effects. Given in adequate doses and for an adequate period of time, most patients with biologically based depressions will have some beneficial response while some may have a total reversal of their depressions. If pharmacotherapy fails, these individuals will then be offered electroconvulsive therapy (ECT) given either as a single course, multiple courses, or as a maintenance intervention. However, despite all these biologically based therapies, up to 10–15% of patients with major depressive disorder will remain refractory to treatment (Berlim & Turecki, 2007; Balestri et al., 2016). Within this group, a smaller but unknown minority will be burdened by extreme sadness (psychache), where the only escape from their perspective is suicide (Shneidman, 1993, 1998). In this residual and extremely small minority of patients with unbearable psychic pain, some will seek MAIS.

Treatment options for refractory depression do not however, end with medications and ECT; the final option is some form of neurosurgical intervention. Modern incarnations of neurosurgical intervention now include Deep Brain Stimulation (DBS), in which an electrode is inserted into various targets of the emotional (limbic) brain. The results to date have not been reliably reproducible and, hence, DBS should still be regarded as a technology in progress (Morishita et al., 2014). However, in the last century, a variety of neurosurgical procedures have been developed for treatment resistant depression. These have been refined and today include bilateral anterior capsulotomy (BAC), anterior cingulotomy, subcaudate tractotomy, and stereotactic limbic leucotomy (Schoene-Bake et al., 2010).

In 1998, the University of British Columbia began to offer BAC for treatment resistant depressive illness (TRD) and obsessive-compulsive disorder (TROCD). To my knowledge, British Columbia is the only jurisdiction in Canada that offers a neurosurgical option other than DBS. Since its inception 20 years ago, 17 patients have undergone this procedure, 12 for TRD and 5 for TROCD.

I describe here our experience with this procedure as it sheds new light on sadness and suicidality in mental illness and deepens our understanding of mentally ill patients who request MAIS. In anterior

capsulotomy, a surgical lesion is placed on both sides of the brain and destroys the anterior limb of the internal capsule, a pathway felt to be critical in depressive illness (Hurwitz et al., 2012). The most striking effect of BAC is the rapidity of effect upon suicidality because of a reduction in sadness, the psychic pain associated with the depressive syndrome. This dramatic reduction in sadness is seen in the first 1-2 weeks after surgery, when the brief brain stunning effect of the surgical procedure has worn off as the peri-lesional edema settles, allowing clarity of thinking and the capacity to introspect to return. This led us to invent a new term "tristolysis" (tristis: sadness; lysis: destruction of), as there was no existing term to describe this phenomenon (Hurwitz et al., 2012).

Follow-up of these patients, some for more than 10 years, has confirmed this initial observation, namely the abolition of suicidal ideation with the exception of a few patients. In these patients, suicidal ideation has resurfaced but only when they have been in the midst of major psychosocial stress. Suicidal ideation has settled when the psychosocial stress has resolved.

The clear lesson to be learned from BAC is that Shneidman was and is correct: sadness (psychache) is the author of and drives suicidality. No sadness, no suicidality. But psychache has many causes. These include psychosocial stressors and demoralization that overwhelm the individual, and who cannot see that time will heal the sadness inside or that circumstances will change and with it the experience of feeling crushed by the burden of daily living. From the health professional's perspective, options to intervene when demoralization underlies suffering are many and include simple psychological support to better housing.

Psychache can also be caused by a biological failure of the brain networks responsible for the normal emotional weighting of events and actions to ensure adaptive functioning. Thinking positive thoughts or optimizing the psychosocial milieu makes little difference and day-after-day, the patients awakens to unbearable and unending sadness.

But there is always something to be done to mitigate this psychache: new medications singly and in combination, ECT, and finally neurosurgery, while all the time providing hope by a strong therapeutic alliance and advocating for and organizing adequate social support and creature comforts.

Unlike terminal medical illnesses where death is inevitable and unpreventable, there should never be an occasion in which a mental health professional should say to a mentally ill patient that there is nothing more that can be done. There is always hope and an informed professional should know this, even if the patient does not. This knowledge should and must inform decision making when encountering a mentally ill patient who requests euthanasia.

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