risk factors for suicide

Suicide is currently the eighth leading cause of death in America[1]. It accounted for approximately 30,000 deaths in 1998 (11.3/100,000 population). Within the 15-24 year-old age group, it is the third leading cause of death behind accidental death and homicide. In addition, it is suspected that the incidence of suicide is underreported. There may be several explanations for this concern. The classification of suicidal death is often not an easy matter. In many cases, cooperation must occur between medical practitioners, coroners and criminal investigators to allow this determination to be made. In general, jurisdictions with a low autopsy rate probably tend to classify some suicidal deaths as being due to natural causes, particularly in the elderly[10]. In addition, the social and religious milieu of a region or country can affect the reported rates of suicide. It is suspected that the greater the social condemnation of suicide, the less

>>> Estimation of the risk of suicide is obviously important to underwriters, but is often met with a great deal of trepidation. Unlike some conditions, it is not easy to quantify the risk, since there are no lab tests or procedures to measure the severity of the risk. A thorough understanding of the risk at hand can, however, help to alleviate some of this discomfort. A few facts will shed more light on the relative risk present when evaluating the potential for suicide. It is well-established in the United States that suicide rates increase with age and are highest in people greater than 65 years of age, particularly those that are divorced or widowed. The suicide rate of young people is about 13.5/100,000, whereas that of white males over the age of 85 is about 70/100,000[11]. While females are more likely to attempt suicide, males are four times more likely to die from suicide[1]. This trend is also evident in most countries[14], with the notable exception of Hong Kong, where young females commit suicide at a higher rate than young males[12]. Death by firearms in the U.S. accounts for three out of five suicides and is the most common form of suicide in both males and females, although males use this method more frequently than females. The prevalence of other methods of suicide differs by country, and may reflect the relative availability of tools found in that country.

Suicide has been well-studied by epidemiologists. It appears that certain occupations are at a higher risk for suicide. Several of these groups include anesthesiologists[2,3], veterinarians[4],

underwriting of eating disorders (ED)

There are three clinical entities which make up this category of psychiatric illnesses according to the Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition (DSM IV). They are Anorexia Nervosa (AN), Bulimia Nervosa (BN) and Eating Disorders Not Otherwise Specified (ED - NOS). Essentially, the latter represents a significant ED that fails to meet the stringent criteria outlined in DSM IV for either AN or BN.

AN is characterized by a severe disturbance in eating behavior and body-image manifest by refusal to maintain a minimally normal body weight (<85% of weight considered normal for sex, age and height). Individuals are intensely afraid of gaining weight and postmenarchal females are amenorrheic. Interestingly, individuals rarely suffer from a loss of appetite and as such the term anorexia is a misnomer.

Weight loss is accomplished primarily through a reduction in total food intake and some may purge through vomiting and laxative abuse. The intense fear of becoming overweight is not alleviated by weight loss, and in fact may intensify as weight loss progresses. Most individuals claim to feel globally overweight or require “sculpting” of body areas considered fat. An individual’s self-esteem is highly dependent on self-perception and weight loss is viewed as an impressive achievement signifying extraordinary self-discipline. Anorexics are typically in denial regarding the potentially serious medical complications of their prolonged malnourishment. In females, amenorrhea is an indicator of endocrine physiologic dysfunction when present for at least three consecutive cycles.

There are two subtypes of AN known as restricting and binging/purging. Restricting individuals accomplish their weight loss primarily through dieting, fasting or excessive exercise whereas the binging/purging subtype has regularly engaged in either or both behaviors at least weekly during their current episode.

Many individuals known to suffer from AN manifest depressive symptoms and abuse alcohol or illicit drugs. These behaviors are usually found in the binging/purging subtype.

BN is characterized by binge eating and inappropriate compensatory methods to prevent weight gain at least two times per week for three months. A bulimic will consume, reflective of an “ox-like” hunger, an amount of food that is considerably larger than most individuals would eat under similar circumstances.

Similar to AN, affected individuals’ self-esteem is strongly influenced by body shape and weight. Bulimics are ashamed of their eating problems and conceal their behavior. Eighty-to-ninety percent of individuals induce vomiting as a means of weight control. There are two subtypes; the purging type and the non-purging type, as defined during the current episode. These individuals, in contrast to AN, are typically within the normal weight range but are susceptible to many of the same associated features as previously described for AN subjects.

The epidemiology of ED reveals that they are far more prevalent in industrialized societies where being considered attractive is synonymous with being thin. It is most common in the U.S., Canada, Europe, Australia, Japan, New Zealand and South Africa. When the illness begins during early adolescence (ages 13 - 18), it is considered to have a better prognosis. Ninety percent of cases are females. Prevalence studies among females in late adolescence and early adulthood suggest 0.5% - 1.0% are affected by AN with 1.0% - 3.0% being affected by BN. The incidences of both illnesses are believed to be increasing. The mean age of onset is 17 and onset after age 40 is considered rare. Onset is often marked by a stressful life event, however the course and duration are highly variable. Death has traditionally been attributed to starvation, suicide or electrolyte imbalance. The issue of underreporting is always mentioned in the literature. There is increased risk for ED among first-degree relatives of both AN and BN

>>> had a history of alcoholism, 4/7 had a history of bipolar illness, 3/7 had experienced a major depressive disorder and 3/7 were known to have an extensive, illicit drug-abuse history. In addition, 6/7 had been hospitalized at least once and 6/7 had expressed suicidal ideation with 2/7 having made a previous attempt.

In discussion of these results, researchers noted a longer duration of illness in AN as predictive of a fatal outcome, with 5/7 deaths having an ED history in excess of 20 years. The report alluded to an underreporting of ED-associated deaths from death statistics in that 0/7 of the death certificates in the study listed ED as a contributing cause of death. The findings support that BN carries a much lower risk, however, the specific mortality relationship remains unclear. BN morbidity appears to be particularly responsive to Cognitive Behavioral Therapy (CBT), a form of psychotherapy, which may partially explain these results.

Mortality risk features that apply to all ED patients would include a past history or current episode of binging/purging, alcoholism or drug abuse or affective disorder co-morbidity. It is believed the combination of prolonged malnutrition and alcoholism may synergistically increase the chances of fatal cardiac arrhythmias, seizures, alcohol poisoning, infections and cirrhosis. Co-morbid substance abuse has been found by other researchers to approximately double the risk of sudden death for individuals with affective disorders. Unfortunately, treatment recommendations for ED patients, especially high-risk patients, are sorely lacking, and as such, the caveat ‘underwrite with caution’ is applicable to this population of individuals who likely make up a small yet significant portion of the insurance-buying population.

Resources

1. Center for Disease Control, www.cdc.gov/ncipc/factsheets/suifacts.htm

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3. BH Alexander, H Checkoway, SI Nagahama, KB Domino, “Cause-Specific Mortality Risks of Anesthesiologists,” Anesthesiology, 2000 Oct;93(4):919 - 21.

4. JM Miller, JJ Beaumont, “Suicide, Cancer, and Other Causes of Death Among California Veterinarians,” 1960 - 1992, Am J Ind Med, 1995 Jan;27(1):37 - 49.

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