Running Amok: A Modern Perspective on a Culture-Bound Syndrome

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Running amok is considered a rare culture-bound syndrome by current psychiatric classification systems, but there is evidence that it occurs frequently in modern industrialized societies. The historical origins of running amok as a psychiatric condition are reviewed in this article, and its relevance to modern day episodes of violent behavior is discussed. Psychotic illnesses, personality disorders, and mood disorders are all possible causes of amok, and the identification and treatment of patients who are at risk for manifesting violent behavior are discussed.

(Primary Care Companion J Clin Psychiatry 1999;1:66–70)

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The general public and the medical profession are familiar with the term *running amok*, the common usage of which refers to an irrational-acting individual who causes havoc. The term also describes the homicidal and subsequent suicidal behavior of mentally unstable individuals that results in multiple fatalities and injuries to others. Except for psychiatrists, few in the medical community realize that running amok is a bona fide, albeit antiquated, psychiatric condition. Although episodes of multiple homicides and suicide by individuals with presumed or known mental disorders occur with alarming regularity today, there are virtually no recent discussions in the medical literature about the recognition and treatment of these individuals before their suicidal and homicidal behavior occurs.

The psychiatric literature classifies amok as a culture-bound syndrome based on its discovery 2 centuries ago in remote primitive island tribes where culture was considered the predominant factor in its pathogenesis. The primitive groups' geographic isolation and spiritual beliefs were thought to produce a mental illness not observed elsewhere in the world. DSM-IV,[1] which is the current consensus opinion on psychiatric diagnosis, depicts amok as a cultural phenomenon that rarely occurs today. However, characterizing amok as a culture-bound syndrome ignores the fact that similar behavior has been observed in virtually all Western and Eastern cultures, having no geographical isolation. Furthermore, the belief that amok rarely occurs today is contrary to evidence that similar episodes of violent behavior are more common in modern societies than they were in the primitive cultures where amok was first observed.

HISTORICAL BACKGROUND

Amok, or *running amok*, is derived from the Malay word *mengamok*, which means to make a furious and desperate charge. Captain Cook is credited with making the first outside observations and recordings of amok in the Malay tribesmen in 1770 during his around-the-world voyage. He described the affected individuals as behaving violently without apparent cause and indiscriminately killing or maiming villagers and animals in a frenzied attack. Amok attacks involved an average of 10 victims and ended when the individual was subdued or "put down" by his fellow tribesmen, and frequently killed in the process. According to Malay mythology, running amok was an involuntary behavior caused by the "hantu belian," or evil tiger spirit entering a person's body and compelling him or her to behave violently without conscious awareness. Because of their spiritual beliefs, those in the Malay culture tolerated running amok despite its devastating effects on the tribe.

Shortly after Captain Cook's report, anthropologic and psychiatric researchers observed amok in primitive tribes located in the Philippines, Laos, Papua New Guinea, and Puerto Rico. These observers reinforced the belief that cultural factors unique to the primitive tribes caused amok, making culture the accepted explanation for its pathogenesis in these geographically isolated and culturally diverse people. Over the next 2 centuries, occurrences of amok and interest in it as a psychiatric condition waned. The decreasing incidence of amok was attributed to Western civilization's influence on the primitive tribes, thereby eliminating the cultural factors thought to cause the violent behavior. Modern occurrences of amok in the remaining tribes are almost unheard of, and reports in the psychiatric literature ceased around the mid-20th century.

Inexplicably, while the frequency of and interest in amok among primitive tribes were decreasing, similar occurrences of violence in industrial societies were increasing. However, since the belief that amok is culturally induced had become deeply entrenched, its connection with modern day episodes of mass violence went unnoticed.

The following case reports illustrate the typical violent behavior reported in amok episodes in Malay tribes:

> In 1846, in the province of Penang, Malaysia, a respectable elderly Malay man suddenly shot and killed 3 villagers and wounded 10 others. He was captured and brought to trial where evidence revealed that he had suddenly lost his wife and only child, and after his bereavement, he became mentally disturbed.[2]

> In 1901, in the province of Phang, Malaysia, a 23-year-old Muslim man who was formerly a member of the police force stole a Malay sword and attacked 5 individuals while they were sleeping or smoking opium. He killed 3, almost decapitating 1 victim, and he seriously wounded the others.[2]

Contemporary descriptions of multiple homicides by individuals are comparable to the case reports of amok. In the majority of contemporary cases, the slayings are sudden and unprovoked and committed by individuals with a history of mental illness. News media, witnesses, and police reports describe the attackers as being odd or angry persons, suggesting personality pathology or a paranoid disorder; or brooding and suffering from an acute loss, indicating a possible depressive disorder. The number of victims in modern episodes is similar to the number in amok despite the fact that handguns and rifles are used in contrast to the Malay swords of 2 centuries ago. The outcome for the attacker is also analogous to amok, being death, suicide, and less commonly, apprehension. The following report demonstrates the resemblance between amok and contemporary violent behavior:

> In 1998 in Los Angeles, Ronald Taylor, aged 46, killed 4 of his family members and a friend, and then jumped to his death from a freeway overpass. The police discovered Taylor's victims when they went to his home to inform them of his death. Court records revealed that Taylor was experiencing financial problems, was filing for bankruptcy, and had debts of more than $64,000, including a $21,302 personal loan from his employer and a $5,547 Sears credit card debt.[3]

Amok was first classified as a psychiatric condition around 1849 on the basis of anecdotal reports and case studies revealing that most individuals who ran amok were mentally ill. Prior to that time, amok was studied and reported as an anthropological curiosity. Historically, observers described 2 forms of amok, but DSM-IV does not differentiate between them. The more common form, beramok, was associated with a personal loss and preceded by a period of depressed mood and brooding; while the infrequent form, amok, was associated with rage, a perceived insult, or vendetta preceding the attack. Based on these early case reports, beramok is plausibly linked to a depressive or mood disorder, while amok appears to be related to psychosis, personality disorders, or a delusional disorder.

The early case reports suggest that amok in all likelihood is not a psychiatric condition, but simply a description of violent behavior resulting from another mental illness. The multiple homicides and injuries that occur in amok may represent an unusual manifestation of a depressive condition, a psychotic illness, or a severe personality disorder. It is also probable that certain individuals are predisposed to exhibiting extremely violent behavior when they are suffering from mood disorders or personality disorders.

CONTEMPORARY EXPLANATIONS OF AMOK

From a modern perspective, amok should not be considered a culture-bound syndrome, because the only role that culture plays is in how the violent behavior is manifested. An individual's behavior is influenced by environment and culture even in situations where those actions are the product of a mental illness. Thus, the behavior observed in amok 200 years ago in the primitive tribes will necessarily differ from that seen in contemporary cases of violent behavior. Characterizing the violent behavior in amok as the product of another mental illness dispenses with its culture-bound origins and reconciles it with the violent behavior observed in contemporary cases.

Previous psychiatric investigators also questioned the culture-bound classification of amok, indicating disagreement with the consensus opinion that was developing circa the first edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM). Pow Meng Yap,[4] a psychiatrist for the Hong Kong Government, wrote in 1951 that amok behavior was preceded by a period of brooding, and if the attacker was not killed in the process, it ended when the individual became exhausted and collapsed (and frequently had amnesia for the event). Yap's description of amok suggests a psychotic type of depressive disorder or a dissociative disorder. By the time of Yap's comments, violent behavior similar to amok had been observed in most countries. For a condition to truly be culture bound, it could not be found in other distinct cultures, and culture must be indispensable to its pathogenesis. This has never been the case with amok, or for that matter, with most other psychiatric conditions.

Jin-Inn Teoh, a professor of psychiatry at the University of Aberdeen in London, reported in 1972 that amok behavior existed in all countries, differing only in the methods and weapons used in the attacks.[5] According to Teoh, culture was a modulating factor that determined how amok was manifested, but not whether or not it occurred. The individual's culture and the weapons available naturally influenced the method of the attack. Teoh's report of amok was one of the last in the psychiatric literature. In the subsequent quarter century, the incidence of

violent behavior similar to amok has increased dramatically in industrialized countries, surpassing its incidence in primitive cultures. This increase may be the result of better case reporting and heightened public awareness and interest in violence, combined with an increase in the psychopathology responsible for amok. Teoh's findings and the increase in violent behavior in industrialized societies are further evidence against characterizing amok as a culture-bound syndrome.

Amok was thought to be related to suicide, a violent behavior that has never been considered a culturally bound psychiatric condition. In fact, suicide and suicidal behavior are not considered psychiatric conditions at all under present psychiatric classification systems. Suicide is a self-destructive behavior that can occur in a variety of psychopathologic states such as psychotic depression, personality disorders, and schizophrenia. In 1934, John Cooper, a professor of anthropology at Catholic University in Washington, D.C., analogized amok to suicide in an attempt to disprove its classification as a culture-bound syndrome.[6] Cooper stated that neither racial, ethnic, nor environmental factors played a role in the pathogenesis of mental diseases and that amok had the same etiology in primitive and industrialized people. Cooper postulated that running amok in primitive tribes was an indirect means of committing suicide.[6] Suicide was a rare occurrence in primitive cultures as opposed to industrialized societies. He thought that the same psychosocial stressors leading an industrialized European to commit suicide caused amok in the Malay tribesman.

However, Cooper's conceptualization of amok as an expression of suicidal urges does not explain why violent behavior similar to amok is so common in Western cultures like the United States, where societal prohibitions against suicide are not strong. Cooper's theory also implies that suicide and amok are alternate phenomena where culture determines which behavior the individual will manifest. Thus, Cooper's characterization of amok makes culture a necessary factor in its pathogenesis, which is the premise he was attempting to disprove. Suicide and amok share common features and risk factors, but they are nevertheless distinct behaviors.

PREVENTING AMOK

Today, amok should be viewed as one possible outcome of an individual's undiagnosed and/or untreated psychiatric condition with psychosis or severe personality pathology. Considering the large number of individuals who have psychotic psychiatric conditions, mood disorders, and personality disorders, amok is still a statistically uncommon occurrence. Nevertheless, the emotional damage that it causes to the victims, their families, and communities goes beyond its small numbers and has an enduring effect. Since it is virtually impossible to stop an amok attack without risking one's life or limb, prevention is the only method of avoiding the damage that it causes. Table 1 shows the characteristics found in contemporary individuals who run amok.

Table 1. Common Characteristics of Individuals Who Run Amok

A psychotic depressive disorder or mood disorder, especially bipolar disorder
Personality disorders with violent urges such as antisocial and borderline personality disorders
Paranoid personality disorder and/or delusional disorder with themes of persecution and violent behavior as a defense against perceived harm
Significant personal losses and psychosocial stressors
Suicidal and homicidal behavior and thoughts imbued with anger, hopelessness, and revenge
Psychotic disorders with persecutory themes and a history of acting on them
Paranoid schizophrenia with command hallucinations and a history of obeying them, or violent themes and psychotic thoughts with a history of acting on them

Viewing amok from this new perspective dispels the commonly held perception that episodes of mass violence are random and unpredictable, and thus not preventable. Characterizing amok as the end result of a psychiatric condition reveals that, like suicidal behavior, there are risk factors that can be used to assess a patient's potential for amok and for planning treatment.

Identification

Preventing episodes of amok requires early recognition of susceptible individuals and prompt treatment of the underlying psychopathologic condition. Medical intervention is virtually impossible once an individual is running amok, and the outcome of his or her violent behavior is no different today than it was 200 years ago before the advent of modern psychiatric diagnosis and treatment. The first step in intervention is identifying those individuals whose psychiatric conditions or psychosocial stressors predispose them to running amok. Identification entails assessing patients for risk factors that are known to be related to violent behavior.

General and family practitioners are in a unique position as frontline clinicians to identify these patients. Most individuals who manifest violent behavior similar to amok have had recent contact with medical practitioners preceding their homicidal and suicidal behavior.[7] Many of these patients preferentially consult general and family practitioners instead of psychiatrists owing to the perceived stigma attached to consulting a psychiatrist, denial of their mental illness, or fear of validating their suspicion that they have a mental disorder.

The limited literature on amok concludes that psychiatric conditions, personality, pathology, and/or recent losses are all important factors in its pathogenesis. However, none of the reports has determined which particular

Table 2. Risk Factors for Running Amok

History of violent behavior and/or threats
Prior suicide attempts
Significant interpersonal stress, eg, loss of loved one, financial stress
Paranoid, antisocial, narcissistic, or borderline personality traits or disorder
History of psychosis and violent behavior during a mood disorder
Psychotic disorder with persecutory themes and history of acting on them
Delusional (paranoid) disorder
Psychotic disorder with violent command hallucinations
Employment problems such as sudden job loss, termination, or employee conflicts

Table 3. Risk Factors for Suicide

Depressive symptoms, psychosis
History of prior attempts
Lack of a social support system
Male gender and age above 45 years
A personal loss within the preceding 6 months, eg, death, financial problems
Alcoholism and substance abuse
Dramatic personality disorder, eg, borderline, narcissistic

psychiatric conditions or personality disorders are responsible for this susceptibility. Based on the psychiatric literature reports and evidence from contemporary case reports of violent behavior, the factors that should be considered as creating a risk for amok are as follows: a history of a psychotic condition, prior episodes of violent behavior or making violent threats, recent personal losses, violent suicide attempts, and significant personality traits or personality disorders. The more risk factors that a patient has, the greater that patient's potential for acting violently. These risk factors are presented in more detail in Table 2.

Each risk factor should be assessed through a history taken from the patient supplemented by information collected from family members or observations from those persons familiar with the patient and his or her situation such as friends, neighbors, coworkers, and employers. Medical records obtained from prior health care providers are also useful for uncovering precursors of amok behavior. Patients with psychotic disorders may not be capable of providing reliable and coherent information, while those with personality disorders may minimize or conceal their violent impulses and past behavior. An ongoing interpersonal conflict, especially occurring in school or at work, should be regarded as a significant warning sign for a potential amok episode. Many of the risks factors for amok are similar to those for suicide, and the 2 behaviors frequently converge when the individual's intent is to kill himself or herself following a homicidal spree. The most significant risk factors for suicide are presented in Table 3 for comparison.

Treatment of Underlying Conditions

The second step in intervention is treating the patient's underlying psychiatric condition or personality disorder so that running amok never occurs. A primary care practitioner can initiate medical intervention in patients who are susceptible to running amok, but it should be supplemented with a prompt referral for psychiatric or psychological evaluation and treatment, because these patients pose complicated and challenging clinical management cases. The treatment can also be initiated by a nonmedical source through a referral to an employee assistance program, the patient's health insurance provider, or a community mental health clinic. Involuntary psychiatric hospitalization is an option for those patients who are imminently suicidal or homicidal as a result of their mental condition, but patients whose risk factors do not include a major mental illnesses may not qualify for involuntary treatment. This is typically the case with patients who have personality disorders.

Proper treatment of the patient at risk for running amok requires that the clinician make an accurate diagnosis that can be used to determine which treatment modalities are best suited for each patient. To date, there is no medication that has been proven to specifically treat violent behavior, and since violence results from multiple factors, it is unlikely that any such medication will be developed in the near future. The mass violence observed in running amok may be caused by a variety of psychiatric conditions, and medical treatment should therefore be aimed at a diagnosable mental disorder or a personality disorder. In general, depressive disorders can be treated with antidepressants and supportive psychotherapy. Antidepressants are effective in alleviating depressive symptoms and depressive disorders in 85% of cases.[7] Antidepressants should be started in therapeutic doses, and the patient should be monitored for symptom improvement within 6 to 8 weeks. The selective serotonin reuptake inhibitors should be the first-line treatment choice because of their rapid therapeutic response as compared with tricyclic antidepressants and evidence that serotonin depletion plays a role in suicidal and violent behavior.[8] The supportive psychotherapeutic goal is to prevent violent behavior, and the clinician should take an active role in the therapy and enlist the help of the patient's family and social support network. If the patient has signs of psychosis along with the depressive disorder, then an initial treatment period with antipsychotic medications may be necessary until the antidepressant's mood-elevating effect is achieved. While most patients can be managed in outpatient settings, those with severe psychotic symptoms or with homicidal or suicidal urges occurring during their depressive illness may require hospitalization.

Patients who have psychotic disorders such as paranoid schizophrenia or delusional disorder should be treated with antipsychotic medications. Antipsychotic agents are effective in reducing the thought disorder, hal-

lucinations, and delusions in schizophrenia, mania, and nonspecific psychotic disorders.[9] The antipsychotic agents are only modestly effective in controlling violent behavior resulting from nonpsychotic conditions such as borderline personality and antisocial personality disorders.[10] Anticonvulsants have been used and found effective to control violent behavior in limited series of patients.[11] However, their use, like that of the other medications discussed for treating violent behavior, is still considered experimental and off-label.[12] The only exception to the general statement regarding off-label usage is when anticonvulsants such as valproate or carbamazepine are used to treat violent behavior associated with mania. The antimanic agent lithium is still the first line of treatment for bipolar disorder and mania. Hospitalization may be necessary to prevent these patients from harming themselves or others, and most state laws provide for involuntary commitments. After hospitalization, or if the symptoms do not warrant it, partial hospitalization and day treatment programs are useful as a means of monitoring patients' behavior and adjusting their medications in response to it.

SUMMARY

In summary, running amok should no longer be considered an archaic culture-bound syndrome. A more useful and modern approach is that amok represents an extreme form of violent behavior occurring as a result of a mental disorder, personality pathology, and psychosocial stressors. Early recognition of the risk factors for amok and prompt treatment of the underlying psychiatric condition or personality disorder offer the best chance of preventing it. Finally, conceptualizing the mass violence of amok as the manifestation of another mental disorder provides a framework in which future occurrences of mass violence can be analyzed.

Drug names: carbamazepine (Tegretol and others), lithium (Eskalith and others).

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