Mass sociogenic illness

The impact of occurrences of epidemic hysteria is underappreciated and underreported. These events place significant financial burdens on emergency services, public health and environmental agencies.

Background and epidemiology: Mass sociogenic illness refers to the "rapid spread of illness signs and symptoms affecting members of a cohesive group, originating from a nervous system disturbance involving excitation, loss or alteration of function, whereby physical complaints that are exhibited unconsciously have no corresponding organic aetiology."[1] It occurs in the context of a credible threat that provokes great anxiety, such as a noxious odour in a school amid fears of chemical warfare or bioterrorism. In standard psychiatric nomenclature, mass sociogenic illness is subsumed under the general heading of somatoform disorder and subcategorized as "conversion disorder hysterical neurosis, conversion type." In the literature, it is synonymously termed mass psychogenic disorder or epidemic hysteria and distinguished from collective delusions by the presence of illness symptoms.[2]

Most physicians, through experience or training in psychiatry, are aware of individual cases of "hysteria" or somatoform disorders. They are less educated and knowledgeable about epidemic hysteria, even though a review of the literature reveals over 200 published accounts of mass responses to situations involving suspected poisonings and other events.[3] One example in September 1998 involved 800 children in Jordan who believed they had suffered from the side effects of tetanus–diphtheria toxoid vaccine administered at school; 122 of the children were admitted to hospital. For the vast majority, symptoms resulted not from the vaccine but from psychogenic illness.[3]

The impact of such events is underappreciated and underreported. They place significant financial burdens on emergency services, public health and environmental agencies and the affected building or occupation site, which is often closed for days or weeks.

Part of the difficulty in recognizing outbreaks of mass sociogenic illness has to do with its diverse nature.[1] A historical review of these events suggests that the features of mass sociogenic illnesses tend to mirror popular social and cultural preoccupations that define distinct eras and reflect unique social beliefs about the nature of the world. Before the 20th century most reports of mass sociogenic illness involved motor hysteria incubated by exposure to long-standing religious, academic or workplace discipline.[1] These produced outbreaks of convulsions, contractures, tremors, paralysis and laughing. In the 20th century and on to the present, strange odours presumed to be an environmental contaminant or toxic gas from a bioterrorist or chemical warfare attack have been commonly blamed in episodes of mass hysteria, producing breathlessness, nausea, headache, dizziness and weakness in affected people. For instance, during the 1990 Gulf War the first missile attack on Israel by Iraq was widely feared to contain chemical weapons. Although such fears were unfounded, about 40% of civilians in the immediate vicinity of the attack reported breathing problems.[1]

Clinical management: The confluence of 8 symptoms or conditions typically indicates mass sociogenic illness and permits a presumptive diagnosis while investigations are underway. These include symptoms with no plausible organic basis; symptoms that are transient and benign; symptoms with rapid onset and recovery; occurrence in a segregated group; the presence of extraordinary anxiety; symptoms that are spread via sight, sound or oral communication; a spread that moves down the age scale, beginning with older or higher-status people; and a preponderance of female participants.[1]

When faced with the prospect of an outbreak of mass sociogenic illness, physicians should involve public health officials in the investigation. A prompt diagnosis is problematic because controversy often surrounds outbreaks and time is needed to analyze environmental and medical test results. It is often advisable to close the building or area until negative results are returned. This action serves to control the outbreak by reducing anxiety levels and temporarily dispersing the group.[1,4]

Treatment involves identifying and reducing or eliminating the stress-related stimulus.[4]

Prevention: No one or group is immune from mass sociogenic illness. Attempts to identify predisposing factors and susceptibilities have produced conflicting results.[1] Understanding the historical shifts in the manifestations of these outbreaks, the fears and uncertainties that preoccupy current cultures and the distinctive features of mass sociogenic illness that appear to transcend historical context will assist in more rapid recognition and treatment of outbreaks.

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