

Epidemiology of cocaine abuse



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Cocaine is a powerful addictive psychostimulant that was first extracted from coca leaves by Albert Niemann in 1859. It was not until the 1800s that cocaine use became popular in the medical community when Sigmund Freud, an Austrian psychoanalyst, promoted cocaine as a cure for depression and sexual impotence. Additionally, in 1886, cocaine's popularity skyrocketed when John Pemberton added coca leaves as an ingredient to Coca-Cola soft drink. Consequently, patrons experienced euphoria and boosted energy levels which in turn made Coca-Cola a popular drink of choice. However, when the dangers associated with cocaine use became increasingly evident, public pressure forced the Coca-Cola Company to remove cocaine from the soft drink in 1903. Today, abuse of illicit drugs such as cocaine continues to present a significant health and social problem worldwide. A major problem in the treatment of drug addiction is that during periods of abstinence, pervasive thoughts about the drug lead an individual to relapse to drug use (Koob et al.

, 2004). The 2012 National Survey on Drug Use and Health revealed that an estimated 23.9 million (9.2%) Americans aged 12 or older were current (used in the past 30 days) illicit drug users at the time of the survey. Of these, cocaine was the second most abused illicit drug behind marijuana, with around 1.6 million (0.6%) current users aged 12 or older (Fig.

1.1; SAMHSA, 2013). As reported by the National Institute of Drug Abuse, in the USA, it is estimated that the costs of drug abuse and addiction values \$524 billion a year.

Of this, illicit drug use account for approximately \$181 billion in health care, loss of productivity, crime, incarceration and drug enforcement. Among illicit drugs, cocaine use is not only responsible for the most hospital emergency department and drug-treatment center visits but is also the most common cause of drug-related deaths (Lange & Hillis, 2001). Cocaine is a potent central nervous system (CNS) stimulant with effects lasting up to one hour, depending on route of administration. Cocaine has been used as a local anesthetic in nasal (Noorily et al.

, 1995) and eye surgery. However, the common recreational cocaine use is geared toward experiencing euphoria, stimulation, feelings of confidence and wellbeing.