



Public Health Measures to Combat the Menace of Drug Abuse

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Abstract

Drug abuse is defined as self-administration of a drug for non-medical reasons, in such amount and periodicity which may impair the ability to function adequately and which may result in social, physical, or emotional harm. A wide range of biological, genetic, medical, social, and environmental factors have influenced people from the community for the drug abuse. Drug abuse tends to affect the individuals from the middle-aged and later years of life substantially, the aftermaths of use not only results in adverse health consequences, but even affects the quality of life, family inter-dynamics, and burdening of the health system. Owing to the adverse impact on all age-groups of the society, it is of prime importance to design and formulate an effective community based and a holistic strategy to address the needs of the drug abuser and their family comprehensively. Multiple measures have been proposed to assist families, health professionals, schools and other community workers with identifying at risk youth and aid in reducing or eliminating risk factors through prevention and treatment programs. To conclude, although, the problem of drug abuse is complex and of significant magnitude, implementation of targeted interventions in different settings, well-supported by the dedicated team of health workers can definitely reduce the problem of the disease comprehensively.

Keywords: Drugs; Drug abuse; Pharmacist; Health; World Health Organization

Introduction

Drug abuse

Drug abuse is defined as self-administration of a drug for non-medical reasons, in such amount and periodicity which may impair the ability to function adequately and may result in social, physical, or emotional harm [1]. Drug or substance abuse has been recognized as a major public health problem across the globe [2]. Owing to the multiple aspects of the drug abuse such as the magnitude, the range of consequences, the types of substances consumed, the psychosocial correlates, and the impact on the health care delivery system, it is a problem of great public health significance [3,4]. Furthermore, the problem of drug abuse has been typically associated with adolescents and individuals in the economic productive age-group, that indirectly casts a significant impact on the quality of life of the individual and on the economic growth of the country [2,4,5].

Magnitude of the problem

The World Health Organization has estimated that more than 225 million individuals or one in every twenty adults have consumed an illegal drug once in the year 2010 [4]. The public health concern of drug abuse does not recognize any boundaries and affects all the persons irrespective of their socioeconomic status or their belonging from a developed or developing country [1,3,4]. In addition, globally more than fifteen million persons are indulged in drug abuse and the problem of injectable drug abuse has been reported in more than 145 nations [6,7]. In fact, it was reported that in the year 2011, almost 22 million people have consumed an illicit drug within a span of one month in the United States alone [8]. Furthermore, the problem of drug abuse not only runs in families, but is significantly influenced by the environmental factors - influencing attitudes toward drug use and serving as a source of drugs of abuse [9,10].

The multidimensional determinants

A wide range of biological, genetic, medical, social, and environmental factors have influenced people for the drug abuse [11,12]. These multidimensional factors include parameters such as genetic predisposition [11,13]; childhood behavioral problems [14];

adverse childhood events like physical / emotional / sexual abuse or neglect [15]; problem family or broken family [1,16]; family conflicts and quality of parenting - strict parents [16,17]; presence of drug abuse in parents [1,14,16,17]; peer pressure / adolescents' curiosity / pleasure seeking / low levels of self-confidence or self-control [14,16]; socioeconomic status [6,14,17]; history of academic failures [6,17]; history of antisocial and aggressive behavior [1,9,10]; pre-existing psychological disorder in individual or family members [16,18]; increase in prescriptions for neuropsychiatric medications like opioids / stimulants / sedatives [19,20]; weak legislative measures [6,14]; rise in the sale of non-prescription or over-the-counter drugs [21]; and no effective strategies to curb new drugs usage that are sold through internet [22]. In fact, a theory of planned behavior has been proposed to determine factors that can influence a person for drug abuse or smoking [23].

The public health consequences of the drug abuse on the individual and the society

As already discussed, drug abuse tends to affect the individuals from the middle-age group substantially, the aftermaths of drug abuse not only results in adverse health consequences, but even affects the quality of life and family inter-dynamics [24,25]. Substance abuse has produced a significant impact on health and social dimensions like poor academic performance [26]; increase in the incidence of school dropouts [6]; rise in cases of juvenile delinquency [27]; aggravated cases of familial disharmony [26]; enhanced cardiovascular risks [28]; psychological morbidities like depression and adjustment disorders

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[13,29]; more frequent adoption of high risk behavior [26,30]; HIV / AIDS infection [13,26]; cerebro-vascular accidents [31]; metabolic complications in elderly [32]; drug-abuse related deviant or criminal activities [26]; favors trauma recurrence and reduces the trauma-free period [29,33,34]; casualties due to interpersonal violence [26]; and rate of admission in hospitals owing to drug overdose or infections from needles [24,35]. In addition, drug abuse imposes a substantial economic burden on the country because of the added direct and indirect medical and non-medical expenditures [25].

Drug abuse: Identified challenges or perceived barriers

Although, multiple strategies have been implemented in different countries to counter the menace of drug abuse, but the outcomes have not been encouraging enough. Evaluation studies have revealed multiple bottlenecks in the current strategies such as poor political will; lack of target oriented measures; socio-cultural barriers; low level of community awareness about the adverse consequences of drug abuse; inadequate strategies; loopholes in the current legislative measures; no counseling on substance abuse by the outreach workers; lack of tested screening tools; lack of follow-up services; and resource limitations, in the exacerbation of the problem [1,6,25,36-38].

Proposed measures

Owing to the adverse impact on all age-groups of the society, it is of prime importance to design and formulate an effective community based and a holistic strategy to address the needs of the drug abuser and their family comprehensively. Multiple measures such as identifying the socio-cultural and psychological determinants that may determine the use of illicit drugs [24,39]; creating awareness about drug abuse and their adverse consequences through aid of appropriate mass media tools [6,38]; delivering customized information suitable to the target audience in a culturally sensitive manner [40]; developing family prevention programs in the form of multi-dimensional family therapy and individual cognitive behavioral therapy [41,42]; enabling community to address the issues of substance abuse through training programs [43]; promoting free education and implementing innovative strategies to minimize the rates of school drop-outs [40,44]; inculcating self-confidence in school students [16]; employing nurses in schools to safeguard the students [45]; facilitating community and school prevention campaigns [17]; advocating timely and complete management of drug abuse victims [46]; sensitizing clinicians to identify patients at risk for nonprescription drug abuse [21]; strengthening preclinical assessment to predict substance abuse liability [47]; encouraging exercises as a potential treatment for drug abuse [48]; developing a standardized strategy to monitor response to treatment [48]; building mechanisms for tracking and monitoring prescription drug abuse [38]; improving data collection on drug overdose fatalities [6,38]; capacity building for the tools and methods desired for toxicological screening [49]; involving all stakeholders including the pharmacists to work together as a team [7,50]; fostering linkages between local, national and international agencies in the field of development, organization, monitoring and evaluation of treatment and other services [7]; formulating strategies in collaboration with international agencies to monitor the sale of over-the-counter drugs and through internet [22]; and enforcing stricter penalties for individuals who are involved in trade of illicit drugs [1,6]; have been proposed to assist families, health professionals, schools and other community workers with identifying at risk youth and aid in reducing or eliminating risk factors through prevention and treatment programs.

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