



Focusing on Abuse, Not Use, In Drug Education

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Focusing on Abuse, Not Use, In Drug Education

Running Head: Focusing on Abuse

For Peer Review Only

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Abstract

How societies deal with drug taking is premised on how drug abuse is defined and on distinguishing disordered drug abuse from non-disordered drug use. The Epidemiologic Catchment Area Study revealed that only 20.27% of consumers of illicit drugs in the US experienced a period of abuse at some time during their drug use history, while among illicit drug users the current prevalence of substance abuse disorders was 4.19%. Our data from the DRUGNET survey shows that there are many consumers of illicit drugs who are not only free from substance use disorders, but who are well-adjusted and productive members of society and whose scores on the General Well-Being Schedule did not differ from US national norms. The persistent failure to differentiate use from abuse where currently illicit drugs are concerned undermines effective primary prevention of the addictive disorders we are really concerned with. **Typical** programs have ignored this reality, which helps explain the failure of most drug education. Adolescents soon recognize the inaccuracies and exaggerations, which undermines the credibility of drug education and limits its effectiveness. **The purpose of this paper is to offer a more realistic strategy for drug education that focuses on the prevention of abuse rather than prevention of any and all use.**

Focusing on Abuse, Not Use, In Drug Education

Since President Nixon declared “War on Drugs“ in 1971, citing drugs as “public enemy number one”, **this War’s** emphasis on criminalization and supply reduction has proven to be largely a failure. Not only has it failed to positively impact problems of drug abuse but it has led to growing negative sequelae, including, but not limited to, a global black market, corruption at all levels of government, environmental degradation, an ever expanding reach of law enforcement, wasted fiscal and human resources and a broad global assault on civil liberties (**Drucker, 1999; Global Commission on Drug Policy, 2011; Nadelmann, 1989**). Despite the expenditure of over a trillion dollars (Drug Policy Alliance, 2011) fighting this “war”, millions of Americans continue to use illicit drugs **as shown by the annual National Survey on Drug Use and Health (Substance Abuse and Mental Health Services Administration, 2011)**.

The way in which professionals and societies deal with substance abuse is premised on how abuse is defined. The War on Drugs is founded on the belief that “any use is abuse” where illicit drugs are concerned. This assumption is not consistent with medical and scientific definitions as contained, for instance, in the Diagnostic and Statistical Manual of Mental Disorders (DSM) or the International Classification of Diseases (ICD). The Committee on Drug Use in the Workplace of the Institute of Medicine (Normand, Lempert, and O'Brien, 1994) defined these concepts as follows:

Drug taking can be classified into one of three categories: (1) use, (2) abuse, and (3) dependence. *Use* is defined as the limited, controlled consumption of a

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3 drug (in terms of frequency and quantity) without significant toxic, adverse
4 physical, or psychological consequences to the user (Glantz, 1992). Regular
5 use of prescribed medications, legal drugs such as nicotine, caffeine, and
6 alcohol, and certain illegal drugs can lead to physiological dependence. This
7 simply means that the abrupt cessation of drug taking produces a set of
8 symptoms called a withdrawal syndrome. The presence of physiological
9 dependence does not necessarily imply abuse or dependence in the behavioral
10 sense. *Abuse* is defined as a level of drug use that typically leads to adverse
11 consequences (physical or psychological). Drug use at this level is not
12 necessarily associated with any particular frequency but is associated with use
13 in quantities sufficient to result in some toxicity to the user, and the patterns of
14 use usually have some characteristics of psychopathological behavior.
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16 *Dependence* in the behavioral sense is defined as a level of drug use that has
17 significant adverse physical and psychological consequences. This level of use
18 is characterized by the consumption of toxic doses of the drug that impair the
19 user's ability to function and is also characterized by a compulsive desire to use
20 a drug repeatedly. (p.2)

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22 **Evidence from the Epidemiologic Catchment Area Study (Anthony & Helzer,**
23 **1991), a multi-site community study sponsored by the National Institute of Mental**
24 **Health, revealed that only 20.27% of consumers of illicit drugs in the US had**
25 **experienced a period of abuse at some time during their drug use history. Among**
26 **consumers of illicit drugs the current prevalence of substance abuse disorders was**
27 **found to be only 4.19% . The data from our DRUGNET survey (Nicholson, White &**

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3 **Duncan, 1999), an online survey of otherwise healthy adults who were recreational**
4 **users of illicit drugs, showed that there are many consumers of illicit drugs who are**
5 **not only free from substance use disorders, but who are well-adjusted and**
6 **productive members of society. Drug users responding on the DRUGNET survey**
7 **had scores on the General Well-Being Schedule, a validated measure of stress and**
8 **general mental health, which did not differ from US national norms.**

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18 The **thesis of this paper is that** failure to differentiate use from abuse undermines
19 prevention efforts. It sets for prevention the impossible task of promoting a drug-free life
20 and discouraging developmentally normal adolescent risk-taking behavior. As it was
21 expressed by the Royal Society Commission on Illegal Drugs (2007), “. . . whether we
22 like it or not, drugs are a fact of life – and have been for millennia. They are not going to
23 go away. The notion of a completely or almost completely drug-free United Kingdom is
24 a chimera” (p. 311). **D’Emidio-Caston and Brown (1998) found that students exposed**
25 **to drug education themselves identify the failure to distinguish between use and**
26 **abuse as being one of the reasons why drug education fails.**

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39 **Drug education, influenced by the War on Drugs mentality, has also failed in**
40 **both its goals of preventing drug experimentation among youth and significantly**
41 **reducing public health crises with drug addictions (Beck, 1998; Brown & Kreft,**
42 **1998). The focus of this paper is on examining an alternative to this “war” as it**
43 **pertains to drug education, particularly in school settings.**

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51 This insistence on preventing all drug use leads to reliance on the telling of what
52 Trebach (1987) named “prophylactic lies,” which Roy (1999) defined as “silence,
53 selective information, and exaggeration bordering on lies . . . as strategies to deter people
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3 from using drugs”. **In other words, students are repeatedly exposed to patently false**
4 **information about drugs and their effects in the hope that this will scare them away**
5 **from using drugs. These authors feel, however, that it is more likely to reduce the**
6 **credibility of educators when the students learn they have been lied to. This loss of**
7 **credibility then discredits any other efforts at educating those students about drugs.**
8 **As Moore and Saunders (1991) describe it,**

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Young people dutifully attend these classes and are then re-subjected to a
world where drug taking is the norm rather than the exception. They see and
experience the costs and benefits of drug use. Stories of the terrible side effects
of drugs ring hollow alongside their own and others' experience of drugs.

The leading example of the failure of the current approach in the United States is
the Drug Abuse Resistance Education (DARE) program, currently implemented in more
American schools than any other approach, with an average of three quarters of a billion
dollars spent on its provision annually (McNeal & Hanson, 1995). Since its inception
evaluations have been consistent in demonstrating the ineffectiveness of both the original
("old DARE") and revised versions of the program. See, for example the meta-analyses
by Ennett, Tobler, Ringwalt, and Flewelling (1994) and West and O'Neal (2004), **which**
document the negative results of evaluations of DARE. Despite roughly two decades
of implementation the reality is still that DARE doesn't work. As West and O'Neal
(2004) conclude "Given the tremendous expenditures in time and money involved with
D.A.R.E., it would appear that continued efforts should focus on other techniques and
programs that might produce more substantial effects." **Nevertheless, DARE remains**
the most widely adopted drug education in the U.S..

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3 **We argue that it is not only the techniques and programs that need to be**
4 **changed but the broader goal of drug education itself. In the words of Marsha**
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6 **Rosenbaum (1996),**
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10 **The expectation that adolescents will not experiment with altered states of**
11 **consciousness is unreal at best. Championing abstinence has thus led to**
12 **the inevitable failure of programs that have made this their primary goal**
13 **because some form of drug use is nearly universal, and certainly integral**
14 **to American culture.**
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22 **These authors believe that this unrealistic premise has been carried on much**
23 **too long. The sad fact, particularly in the U.S., is that the failure to differentiate use**
24 **from abuse has been one of the bedrocks of drug education since its origins in**
25 **alcohol abstinence education a Century ago (Beck, 1998). Our proposal is rooted in a**
26 **major paradigm shift in drug education that has been advocated by some (e.g.: **Duncan &****
27 ****Gold, 1982 & 1983; Home Office, 1984; Duncan, Nicholson, Clifford, Hawkins, &****
28 **Petosa, 1994; Rosenbaum, 2004; Steiker, Poku & Poku, 2010) for more than thirty**
29 **years. In the words of Duncan, et al. (1994),**
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40 **It is the shift from a strategy of use-prevention to a strategy of abuse-**
41 **prevention or harm-reduction. This new paradigm expands and transforms**
42 **traditional concepts of the purposes and methods of drug education. It can**
43 **serve as a model for a more rational and comprehensive organization of**
44 **prevention resources likely to yield the greatest benefit to society. (p. 281)**
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53 **In reality the traditional use-prevention programs have seldom taken on the**
54 **historically impossible task of eliminating the use of all drugs. Therefore, they have never**
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come close to the goal of eliminating all the risks related to drug consumption. As we will discuss in this **paper**, harm reduction makes a focused effort to eliminate or reduce some but not all possible risks associated with drug consumption. Harm reduction (**Home Office, 1984**) focuses on both the greatest risks and those most amenable to change.

Instead of attempting to eliminate all drugs, traditional education programs have dichotomized drugs into legal versus illegal, or those without abuse potential (i.e., "soft drugs") versus those with abuse potential (i.e., "hard drugs") – in many ways simply a moral judgment between good drugs and evil drugs. Goodstadt (1989) warned that such dichotomies "result in ambiguities and problems," since drugs in both categories can be abused and since all drugs are illegal under some circumstances. In contrast, "Harm reduction is a policy of preventing the potential harms related to drug use rather than trying to prevent the drug use itself" (Duncan, et al., 1994, p.281). In arguing the harm reduction position, Jonas (1991) asserts that current policy is binary as to drugs - licit and illicit - and unitary as to solutions - abstinence. A harm reduction policy, on the other hand, would be unitary as to drugs – **treating all drugs as capable of both being used and abused --** and multimodal as to solutions – **offering a variety of strategies for preventing or dealing with any problems that might arise.**

There have been a number of harm reduction drug education curricula developed and given limited, but hopefully increasing, implementation. Examples include Rosenbaum's (1996 & 2002) *Safety First*; Cohen's (2002) *Delta 1* and *Delta 2*; Brown, D'Emidio-Caston, and Benard' s (2000) *Resilience Education*; Cohen and Kay's (2004) *New Primary School Drugs Education Pack*; McBride, et al.'s (2004)

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3 *School Health and Alcohol Harm Reduction Project, and Steiker, Poku, and Poku's*
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5 **(2010)The Dialogue. Based on such pioneer efforts and our own work over decades**
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8 **in the field** we propose that drug education should be part a broad effort to promote a
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10 healthy lifestyle, which includes the prevention of drug abuse. The purposes of drug
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12 education in this context should be to:

- 15 1. provide students with accurate information about drugs and drug consumption,
- 16 2. develop students decision making skills regarding drug consumption, and
- 17 3. reduce the risk of hazardous drug consumption and dependence.

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22 Historically, various drug education programs have provided elements of the
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24 aforementioned purposes but have mixed them with hyperbole (**“this is your brain on**
25 **drugs”**), scare tactics (**“Meth mouth” or the implied threat inherent in using police**
26 **officers as teachers**), overgeneralizations (**“meth users become prostitutes” or**
27 **presenting ex-addicts as examples of what drug use will lead to**), and outright untruths
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29 (**“try it once and you are addicted” or “marijuana causes cancer”**). This has been the
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31 case because these programs have been wedded to an abstinence only goal and enmeshed
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33 with the War on Drugs. Just as the War on Drugs keeps making the same policy mistakes,
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35 such as focusing on the criminalization of drugs and drug takers, drug education
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37 programs continue to offer the same mantra of “no drug use” and retreads of the same old
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39 approaches. The history of drug education reminds these authors of the adage, commonly
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41 attributed to Albert Einstein, that “insanity is doing the same thing over and over and
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43 expecting a different result”.

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What would be some of the specifics of a harm reduction drug education
program? **That remains to be determined in a curriculum development process once**

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3 **the goal of harm reduction and abuse prevention rather than use reduction has been**
4 **accepted.** To begin with, **however, we would suggest that the following topics might**
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6 **be covered:**
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- 11 • history of human drug consumption;
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- 13 • commonly taken drugs and their effects;
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- 15 • purposes for which drugs are consumed
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 - 17 • drugs as a response to adolescent angst,
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 - 19 • alternatives to drug consumption;
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 - 23 • hazards of any drug consumption and means of risk reduction, including
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 - 25 • self-assessment of risk,
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 - 27 • personal rules related to drug taking behavior;
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 - 30 • drug dependence – its extent, nature, impact and treatment.
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32 In support of these purposes and topics, **and considering the trajectory of**
33 **adolescent development**, we would further urge that drug education should also include
34 or be coordinated with education in communications skills. In particular, it would be
35 valuable for students to learn more about the expression of and talking about feelings,
36 asking for help, and offering help to others. Another important topic to be covered, **as**
37 **Rosenbaum (1996) and others have suggested**, is normal development and the issue of
38 the common stresses and strains of adolescence, such as the feeling of “differentness” and
39 the desire to “fit in” with their peers. Some other important related topics that **might** also
40 be included are: problem-solving and decision-making skills; self-awareness and
41 assessment of personal strengths and weaknesses; and assessing media and popular
42 culture claims regarding drugs.
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3 Perhaps as important are the things such an approach should not include. A harm
4 reduction approach to drug education would not make use of **the** scare tactics **whose**
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6 **failure in existing efforts we have already discussed above.** By this we mean, in part,
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8 that it would not exaggerate the hazards of drug taking or make unfounded claims about
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10 their risks. There would be no place in such a program for the well meaning
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12 “prophylactic lies” that often seem to be the mainstay of so much current drug education.
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18 Harm reduction oriented drug education would not engage in preaching or
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20 moralizing about drugs or drug taking. This starkly differentiates the approach we
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22 advocate from most current drug education, even those that use a relatively “soft sell”
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24 approach to their moral messages. We do not propose a program that would use police
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26 officers as classroom teachers, as does DARE, and it probably would be the rare police
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28 officer who could be a useful guest speaker. Treatment professionals or former drug
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30 abusers might be useful resources in some cases but should not be used in an attempt to
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32 frighten the students with tales of the “horrors” of addiction. Committed advocates of
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34 A.A., N.A., or other abstinence only treatment approaches would have no likely role in
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36 the approach we propose.
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41 A harm reduction approach cannot be prescriptive of any one choice regarding
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43 drug taking. We argue that it should not take any general position of preferring
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45 abstinence for anyone over the choice to use responsibly. To say that abstinence is the
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47 only truly safe and therefore ultimately preferred choice is equivalent to saying that the
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49 goal of all traffic safety programs should be the elimination of driving. Just as traffic
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51 safety is best enhanced by teaching people the knowledge and skills that will make them
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53 less likely to be in an automobile accident, drug education should teach students to
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3 minimize the risk of any adverse outcome from any future drug consumption. Our
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5 approach would be focused on the identifiable risks of overdose, infection, dependence,
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7 legal consequences, etc. and how those risks can best be avoided or reduced.
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11 Almost every human being engages in some form of psychotropic drug use --
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13 whether of cocaine or caffeine, of heroin or alcohol, of black market drugs or of those
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15 sold in convenience stores and pharmacies. Failure to prepare young people to make
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17 choices about which drugs they use, when, where, and how is irresponsible and simply
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19 telling them not to or trying to scare them away from doing so has never worked.
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23 The current approach could be described as a half-century of lost opportunities.
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25 We have spent the better part of fifty years trying to control normal behavior. We should
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27 be focusing on the prevention and treatment of drug abuse. The global War on Drugs and
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29 its reflection in drug education strategies wastes resources that could be more effectively
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31 utilized.
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35 As public health advocates and educators we must also be honest with ourselves
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37 about our own role in the present situation. Abstinence programs such as DARE have
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39 been the norm for American school children these past decades and were widely
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41 supported by health educators, school teachers, academics, and other concerned
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43 professionals. Where were the questions about efficacy? Did we ask for the science
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45 behind what was being done? Or did we, as the old saying goes, take the money and run?
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48 **We would hope harm reduction oriented programs would receive rigorous scientific**
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50 **evaluation and would be modified or abandoned based on the results of such**
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52 **evaluations.**
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3 As the decades went by and drug consumption and drug addiction remained
4 widely prevalent what motivated us to keep quiet? **Admittedly, challenging established**
5 **social dogma can be difficult, dangerous and risky** (e.g., the civil rights struggles in
6 the US **or the recent “Arab Spring”**) but how long can we, as public health
7 professionals, accept the dismal status quo? How long will society accept our continuing
8 failures? Examples such as majority support for legalization of marijuana in the US
9 (Newport, 2011) and the recent report of the Global Commission on Drug Policy (2011)
10 are evidence that change is possible and that demand for it is developing.
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15 Normative use aside, there are real risks associated with the abuse of currently
16 illicit drugs. Quoting from the Royal Society (2007) again:
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20 . . . all illegal drugs, like all other psychoactive substances including alcohol
21 and tobacco, carry risks. Some people die as a result of their misuse of drugs,
22 many more are made ill, some of them very ill, and drug use can compound, as
23 well as be caused by, problems of mental health. Drug use and crime are
24 closely associated. The cumulative costs to society, including in purely
25 monetary terms, are enormous. (p. 2)
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29 We can do far more to assuage these problems if we focus our prevention efforts
30 on the real problem – drug abuse. Fundamentally, the “War on Drugs” has exposed our
31 young people to ill-conceived and ineffective curricula while it should have provided
32 them with the knowledge and skills needed to live in a world where drugs are pervasive.
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36 As stated in a different context by *The Economist* (2011),
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40 Misdiagnosis is not, in itself, malpractice. Everyone, be they doctors or central
41 bankers or politicians, makes mistakes. But when the misdiagnosis involves
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3 ignoring some symptoms and persisting in treatments that aren't working, it is
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5 not so easily excused.
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8 **How much longer will we tolerate the “malpractice” of the War on Drugs**
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10 **approach to drug education? These authors, with over seventy-five years combined**
11 **experience in drug education, are quite frankly tired of struggling in vain,**
12 **particularly in the U.S., with new varieties of drug education that continue to pursue**
13 **a goal of use prevention. The continuing waste of time and resources in trying to**
14 **prevent all drug use** is even more of an abomination considering the tremendous pain
15 and suffering that continues to result from drug abuse itself and our misguided past
16 attempts at prevention. Surely after this absurdly long “war on drugs” we have learned
17 enough to do better. **Recognition that drug education as constituted under the War**
18 **on Drugs has been a failure is not a new observation (Duncan & Gold, 1982; Brown**
19 **& Kreft, 1998). Nor is identification of the goal of use prevention as the greatest flaw**
20 **in current drug education (Chng, 1981; Duncan & Gold, 1982). Nor is the proposal**
21 **that drug education should take a harm reduction approach (Duncan, Nicholson,**
22 **Clifford, Hawkins, & Petosa, 1994; Beck, 1998). But the abstinence approach**
23 **continues to dominate the field of drug education and is even tacitly accepted in a**
24 **some of the rhetoric by advocates of harm reduction and harm reduction education**
25 **(Reuter, & Caulkins, 1995; MacCoun, & Reuter, 1997; McBride, et al., 2004;**
26 **Canadian Paediatric Society, 2008; Steiker, Poku, & Poku, 2010). We argue that it is**
27 **long past due for leaders in our field to demand a shift to an approach that focuses**
28 **on preventing the real dangers of abuse rather than on the socially demonized use of**
29 **some drugs.**
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8 Declaration of Interest

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27 REFERENCES

28
29
30
31
32 **Allott, R., Paxton, R., and Leonard, R. (1999). Drug education: a review of British**
33 **Government policy and evidence on effectiveness. *Health Education***
34 **Research, 14(4), 491-505.**

35
36
37
38 American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental*
39 *Disorders* 4th ed. Washington, DC: author.

40
41
42
43 Anthony, J. C., & Helzer, J. A. 1991 Syndromes of drug abuse and dependency. In L. N.
44 Robins & D. A. Regier (Eds.), *Psychiatric disorders in America* (pp. 116-154).
45 Free Press, New York.
46
47
48
49

50
51 **Beck, J. (1998). 100 years of "Just Say No" versus "Just Say Know". Reevaluating**
52 **drug education goals for the coming century. *Evaluation Review*, 22(1), 15-45.**
53
54
55
56
57
58
59
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- 1
2
3 **Brown, J. H., D'Emidio-Caston, M., & Benard, B. (2000) *Resilience Education*.**
4
5 **Thousand Oaks, CA: Sage.**
6
7
8 **Brown, J. H., and Kreft, I. G. G. (1998). Introduction To the Special Issue : Zero**
9
10 **Effects of Drug Prevention Programs: Issues and Solutions. *Evaluation***
11 ***Review*, 22(1), 3-14.**
12
13
14 **Canadian Paediatric Society (2008). Harm reduction: An approach to reducing**
15 **risky health behaviours in adolescents. *Paediatric Child Health*, 13(1), 53-60.**
16
17
18 **Chng, C. L. (1981). The goal of abstinence: Implications for drug education. *Journal***
19 ***of Drug Education*, 11(1), 13-18.**
20
21
22
23
24 **Cohen, J. (2002). *Delta 1 : Drug education learning and training activities for 11-14***
25 ***year olds / key stage 3 : A developmental drug education programme for use in***
26 ***schools, youth clubs and other settings*. London: DrugScope.**
27
28
29
30
31
32 **Cohen, J. (2002). *Delta 2 : Drug education learning and training activities for 14-18***
33 ***year olds / key stages 4/5 : A developmental drug education programme for use***
34 ***in schools, youth clubs and other settings*. London: DrugScope.**
35
36
37
38
39 **Cohen, J., and Kay, J. (2004). *The New Primary School Drugs Education Pack: The***
40 ***Essential Guide to Developing an Effective, Whole-school Approach to Drug***
41 ***Education*. Liverpool: Healthwise.**
42
43
44
45
46 **D'Emidio-Caston, M., and Brown, J. H. (1998). The other side of the story: Student**
47 **narratives on the California drug, alcohol, and tobacco education programs.**
48 ***Evaluation Review*, 22(1), 95-117.**
49
50
51
52
53 **Drucker, E. (1999). Drug prohibition and public health: 25 years of evidence. *Public***
54 ***Health Reports*, 114(1), 14-29.**
55
56
57
58
59
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1
2
3 Drug Policy Alliance (2011). Forty Years of Failure. accessed October 28, 2011 at
4
5 <http://www.drugpolicy.org/facts/new-solutions-drug-policy/forty-years-failure>
6
7

8 **Duncan, D. F., and Gold, R. S. (1982). *Drugs and the Whole Person*. New York:**
9
10 **John Wiley & Sons.**

11
12 **Duncan, D. F., and Gold, R. S. (1983). Cultivating drug use: A strategy for the**
13 **Eighties. *Bulletin of the Society of Psychologists in Addictive Behaviors*, 2(3),**
14 **143-147.**
15
16
17
18

19
20 Duncan, D. F., Nicholson, T., Clifford, P., Hawkins, W., and Petosa, R. (1994). Harm
21 reduction: An emerging new paradigm for drug education. *Journal of Drug*
22 *Education*, 24(4), 281-290.
23
24
25
26

27 Ennett, S.T., Tobler, N.S., Ringwalt, C.L., and Flewelling, R.L. (1994). How effective is
28 Drug Abuse Resistance Education? A meta-analysis of Project DARE outcome
29 evaluations. *American Journal of Public Health*, 84(9), 1394-1401.
30
31
32
33

34 Glantz, M. 1992. A developmental psychotherapy model of drug abuse vulnerability. In
35 *Vulnerability to Drug Abuse*, eds. M. Glantz, and R. Pickens, pp. 389-418.
36
37 Washington, DC: American Psychological Association.
38
39

40
41 Global Commission on Drug Policy (2011). *War on Drugs: Report of the Global*
42 *Commission on Drug Policy*. Rio de Janeiro: Centro Edelstein. accessed October
43
44 28, 2011 at <http://www.globalcommissionondrugs.org/Report>
45
46
47

48 Goodstadt, M. S. (1989). Drug education: The prevention issues. *Journal of Drug*
49 *Education*, 19, 197-208.
50
51
52

53 **Home Office (1984). *Prevention: Report of the Advisory Council on the Misuse of***
54 ***Drugs*. London: Her Majesty's Stationery Office.**
55
56
57
58
59
60

1
2
3 Jonas, S. (November 12, 1991). Panel discussion on the topic, "Should public health
4 adopt a harm reduction drug control strategy?" at the annual meeting of the
5
6 American Public Health Association, Atlanta, Georgia.
7
8
9

10 **MacCoun, R., and Reuter, P. (1997). Interpreting Dutch cannabis policy: reasoning**
11 **by analogy in the legalization debate. *Science*, 278(5335), 47-52.**
12
13

14
15
16 **McBride, N.; Farrington, F., Midford, R.; Meuleners, L.; and Phillips, M. (2004).**
17 **Harm minimization in school drug education: Final results of the School**
18 **Health and Alcohol Harm Reduction Project (SHAHRP). *Addiction*, 99, 278–**
19 **291.**
20
21
22
23
24

25
26 McNeal, R.B., and Hanson, W.B. (1995). An examination of strategies for gaining
27 convergent validity in natural experiments: D.A.R.E. as an illustrative case study.
28
29 *Evaluation Review*, 19, 141–158.
30
31

32
33 Moore, D., and Saunders, B. (1991). Youth drug use and the prevention of problems.
34
35 *International Journal on Drug Policy*, 2(5), 3.
36

37 **Nadelmann, E. A. (1989). Drug prohibition in the United States: costs,**
38 **consequences, and alternatives. *Science*, 245(4921), 939-947.**
39
40

41
42 Newport, F. (2011). Record-High 50% of Americans Favor Legalizing Marijuana Use.
43
44 Gallup Daily News, Oct. 17, 2011. accessed online Oct. 28, 2011 at
45
46 [http://www.gallup.com/poll/150149/Record-High-Americans-Favor-Legalizing-](http://www.gallup.com/poll/150149/Record-High-Americans-Favor-Legalizing-Marijuana.aspx)
47 [Marijuana.aspx](http://www.gallup.com/poll/150149/Record-High-Americans-Favor-Legalizing-Marijuana.aspx)
48
49
50

51
52 **Nicholson, T., White, J., and Duncan, D. F. (1999). A survey of adult recreational**
53 **drug use via the World Wide Web; The DRUGNET Study. *Journal of***
54 ***Psychoactive Drugs*, 31(4), 415-422.**
55
56
57
58
59
60

- 1
2
3 Normand, J., Lempert, R. O. and O'Brien, C. P. (Eds.) (1994). Under the Influence?
4
5 Drugs and the American Work Force. Washington, DC: National Academy Press.
6
7
8 **Reuter, P., and Caulkins, J.P. (1995). Redefining the goals of a national drug policy:**
9
10 **Recommendations of a working group. *American Journal of Public Health,***
11
12 **85(8), 1050-1063.**
13
14
15 Rosenbaum, M. (1996). *Kids, Drugs, and Drug Education, A Harm Reduction Approach.*
16
17 Hackensack, NJ: The National Council on Crime and Delinquency.
18
19
20 **Rosenbaum, M. (2002). *Safety first: A reality-based approach to teens, drugs, and***
21
22 ***drug education. San Francisco: Drug Policy Alliance.***
23
24
25 Roy, D. (1999). Injection drug use and HIV/AIDS: An ethics commentary on priority
26
27 issues. In Canadian HIV/AIDS Leegal Network, *Injection Drug Use and*
28
29 *HIV/AIDS: Legal and Ethical Issues. Background Papers.* Montreal: Canadian
30
31 HIV/AIDS Clearinghouse.
32
33
34 Royal Society for the Encouragement of Arts, Manufacturing and Commerce,
35
36 Commission on Illegal Drugs, Communities and Public Policy (2007). *Drugs –*
37
38 *Facing Facts.* London: author.
39
40
41 Steiker, L. H., Poku, D., and Poku, D. (Nov. 21, 2010). The Dialogue: Non-abstinence
42
43 Based Drug Prevention for and by High School Youth. Presented at Eighth
44
45 National Harm Reduction Conference, Austin, Texas.
46
47
48 **Substance Abuse and Mental Health Services Administration (2011). Results from**
49
50 **the 2010 National Survey on Drug Use and Health. Rockville, MD: author.**
51
52
53 Trebach, A. S. (1987). *The Great Drug War.* New York: Macmillan.
54
55
56
57
58
59
60

1
2
3 West SL, O'Neal KK. (2004). Project D.A.R.E. outcome effectiveness revisited.
4
5 *American Journal of Public Health.* 94(6), 1027-1029.
6
7

8 World Health Organization (2006). *International Statistical Classification of Diseases*
9 *and Related Health Problems* (10th Rev.). Geneva, Switzerland: author.
10
11 <http://www.who.int/classifications/apps/icd/icd10online/> (accessed April 25,
12
13 2008)
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
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32
33
34
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