The Australian Psychological Society Ltd

Substance Use

A Position Statement prepared for The Australian Psychological Society

Prepared by the Australian Psychological Society's Psychology and Substance Use Position Paper Task Group and Psychology and Substance Use Interest Group

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Summary of Issues of Concern and Key Research Findings

Harmful alcohol and other drug (AOD) use has a major impact on the wellbeing of individuals, families and communities, and is a growing concern in Australia and internationally. There is considerable debate regarding the most appropriate responses to the prevention and treatment of harmful substance use at all levels: individual, family, community, national and international. As a profession and science, psychology has much to contribute to the understanding of substance use from theory, research and practice.

Substance use is not a new phenomenon. Throughout history, psychoactive substances have been used commonly and for a variety of purposes—from medicines to important components of rituals and ceremonies (Lang, 2004). Furthermore, "substance use is fundamentally a social act—we obtain, consume, and construct the experience of using alcohol or other drugs in relation to others" (Keenan, 2004, p.65).

The media, cultural and religious practices, workplaces, families and friends, as well as the legal and health care systems, are all part of the spectrum of influences creating our beliefs and actions associated with substance use. Discussion and debate of alcohol and other drug use must consider the wider context in which substances are used, as well as the characteristics of substances and individual users.

Prevalence

The prevalence and patterns of substance use are strongly related to a range of factors – including age, sex, cultural background, and social-environmental context – and these patterns vary for different types of drugs. Population trends in substance use are monitored by the Australian Institute of Health and Welfare (AIHW) and the following information comes from their most recent data collections for Australians aged 14 years and over (see AIHW, 2005; 2007).

The use of licit substances is the most prevalent type of substance use, and an accepted part of Australian and most other western societies. The vast majority of Australians use caffeine, through the consumption of tea, coffee, cola drinks and chocolate. The regular use of alcohol and tobacco by adults is acceptable to three out of four and two out of five Australians, respectively. Alcohol is consumed on a weekly basis by 41% of people aged 14 years and over and daily by 9%, and 17% use tobacco on a daily basis.

Some types of illicit substance use are also quite common. More than a third (38%) of the population has at some stage in their lifetime used a substance currently listed as illicit. Cannabis is the most commonly used illicit drug, having been 'ever used' by more than 34% of the Australian population over their lifetime, and used within the last 12 months by almost 11%.

The use of pain-killers/analgesics for non-medical purposes is reported by 6% of Australians. Almost 10% of people have 'ever used' amphetamines, and 8% have 'ever used' ecstasy. Each of these groups of substances has been used in the past 12 months by 3% of Australians.

The use of substances such as heroin and cocaine is rare; heroin has been 'ever used' by 1.4% of the population and 0.2% have used heroin in the past 12 months. In 2004, fewer than one in 20 persons reported ever having used cocaine, and only one in 100 had used this substance in the previous 12 months.

In contrast to common perceptions, much substance use has decreased. Tobacco use was significantly less in 2004 than 2001 for most age groups; cannabis use has significantly decreased from its peak use of 18% in 1998; and the use of amphetamines has reduced slightly from the 1998 peak of 3.7% to the current (12 month) level of 3.2%. In contrast, alcohol use has been steadily increasing over the past 10 years, and the use of ecstasy has gradually increased to the current 12 month level of 3.4%. Due to low prevalence, it is difficult to ascertain reliable changes in opiate use, although a decrease in deaths due to accidental opioid overdose is a positive trend. A worrying trend, however, is that the age of initiation to most types of alcohol and other drug use has decreased.

Harm

Not all substance use is harmful, but the use of any psychoactive substance has the potential to cause harm, and the likelihood of harm occurring increases with greater level of use. A wide range of harms is associated with substance use—physical, psychological, social, financial, legal—and these can be experienced by the individual user, their family and friends, work colleagues, and the wider community.

A common misperception is that it is the 'addictive' nature of certain substances that causes them to be harmful. The chemical nature of a substance and its addictive properties do not, on their own, determine the harm caused. The level of addictiveness does vary, however, between substances. Nicotine and heroin are the substances where use is most likely to lead to dependence, indicating the more highly addictive nature of these substances (Anthony, Warner, & Kessler, 1994). Nevertheless, use of these substances leads to dependence and serious problems in only a minority of cases (McAllister, Moore, & Makkai, 1991).

What constitutes harmful substance use has been the subject of much debate. A traditional view has been that drug-related harm is mostly related to drug dependence. While those who are dependent on substances generally do experience a wide range of harms, it is now recognised that a wider perspective needs to be taken, and harm can be associated with a single episode of use or intoxication.

An even more narrow view is that harm is associated mostly with illicit substances. This is certainly not the case. Prescription and over the counter drugs are frequently associated with harmful use, and the use of performance enhancing drugs in sport is a growing issue. Overall, the harm associated with licit substances is considerably greater than that associated with illicit drugs. For example, the estimated total social costs of substance use (in health, social and economic terms) added up to almost $35 billion in 1998-1999; of this, 61% of the harm was attributable to tobacco use, 22% to alcohol use, and 18% to illicit drugs (Collins & Lapsley, 2002).

Harmful substance use is associated with problems beyond those experienced by the individual and poses considerable harm to the wider Australian community. For example, it is estimated that for every one person who drinks alcohol in large and/or frequent quantities, at least four other people are negatively affected (Rumbold & Hamilton, 1998). Harmful substance use can have a major impact on families through neglect, violence, separation, and financial and legal problems (Dietze, Laslett, & Rumbold, 2004). It can affect work colleagues through absenteeism, loss of productivity, and work accidents, and the wider community through accidents and crime (Australian Bureau of Criminal Intelligence, 1998). Depending on the definitions used, up to 70% of crime is related to substance use (House of Representatives, 2003).

Co-morbidity

The harms that are due to the association between substance use and mental illness are of special concern. A range of studies and statistics reveal the inordinately high rate of substance use among people with both low and high prevalence mental disorders, to the extent that co-morbidity is the norm (e.g., AIHW, 2007). Of special note, suicide—a leading cause of death in Australia—is strongly related to co-morbid substance use, particularly alcohol use, and mental disorder (Nock et al., 2008).

Special mention of the effect of cannabis use on mental health is warranted because of the current debate around this issue. It is now evident that cannabis use can precipitate psychotic symptoms in some people who are predisposed to schizophrenia, but who might not otherwise manifest this disorder (Degenhardt & Hall, 2006). Furthermore, all harmful alcohol and other drug use is a major risk factor for relapse in all mental disorders (see Hall & Pacula, 2003). Although consideration of the misuse of prescription and over the counter drugs is beyond the scope of this paper, there are clearly heightened risks of harmful interactions between such drugs and other substances for people with mental illness.

Understanding substance use

Alcohol and other drug use can be understood only by recognising the contributions of the substance itself, the individual who takes the substance, and the environment in which the substance is taken. The social, cultural and even historical contexts in which a substance is taken can significantly affect both the experience itself and the consequences of substance use for any individual or group of people.

Theories of substance use abound; for example, Hester and Miller (1995) describe 13 different conceptual models for alcohol problems alone: moral, temperance, spiritual, dispositional, disease, educational, characterological, conditioning, cognitive, sociocultural, general systems, biological, and public health.

Understanding substance use requires a framework that can incorporate a wide range of biological, psychological, social and cultural factors. Psychology adopts a biopsychosocial model, which was first proposed by psychiatrist George Engel (1977) as a way of accommodating the interconnectedness of the mind, body and society. Emphasis on different components of this model varies according to the current political focus and research findings; for example, growing understanding of brain chemistry is contributing to advances in biological explanations (WHO, 2004).

In concert with the biopsychosocial model, a stages of change approach helps to account for both initiation and cessation of substance use. Stages of change comprise precontemplation, contemplation, preparation, action, and maintenance (Prochaska, DiClemente, & Norcross, 1992). Furthermore, lapses and relapses to previous behaviour can occur at any stage and relapse is viewed as a normal part of the recovery process (Werch & DiClemente, 1994).

People use substances for a wide range of reasons to varying degrees and in different ways across the life cycle. Substance use changes over time and there are clear developmental patterns—people who occasionally use a particular substance at one period of their life can become regular users at another period and be abstainers at yet another. For example, the use of alcohol follows this trend: young people are likely to be intermittent binge drinkers; middle-aged people are most likely to be regular moderate users; and older people tend to be abstainers (Andrews et al., 1999).

Adolescence is a life-stage of special interest for understanding substance use because it is during this period that first substance use usually occurs: mean age of initiation to tobacco use is 16 years; for alcohol use, 17 years; and for illicit substances, 19 years (AIHW, 2007). Adolescence is a period of risk-taking, experimentation and testing boundaries, and the experimental use of alcohol and other drugs can be part of this developmental process (Parker, Aldridge, & Measham, 1998). It is also a period when many mental health problems first emerge, often accompanied by harmful alcohol and other drug use.

In adulthood, recreational substance use is common; for example, most adults consume alcohol (84% in a year). In general, men use alcohol and other drugs more than women, and women's substance use patterns can be quite different to those of men. There are unique factors that impact on women's substance use, which are just beginning to be better understood (see Dore, 2002). Furthermore, special attention must be focussed on pregnant women, who can do considerable harm to themselves and their children though harmful alcohol and other drug use.

Substance use must always be understood within its social and cultural context. This is particularly relevant for Aboriginal and Torres Strait Islander peoples, who tend to be underemployed and marginalised within Australian society—both highly significant predictors of vulnerability to alcohol and other drug use (Spooner & Hetherington, 2005). The cultural stress, grief, trauma, separation, disadvantage, and physical illness that are disproportionately experienced by Aboriginal and Torres Strait Islander peoples also contribute to their high prevalence of substance use problems.

The use of performance enhancing substances in sport and exercise should not be overlooked, and a unique set of individual, social and cultural factors affects this growing area of concern (see Bahrke & Yesalix, 2002).

Reducing harm

As substance use is such an entrenched part of western culture, it is essential to minimise its harmfulness. In Australia and across the western world, control of substance use has been attempted, historically, through laws regarding the legality or illegality of certain substances. Generally, this has been politically/socially/culturally/economically driven, and has had little to do with the level of use or possible harms that the substances themselves might cause (see Lang, 2004).

Such prohibitionist approaches have been shown to have little long-term impact on the prevalence of substance use, and even less impact on the amount of harm associated with it. While effective prohibitions have resulted in temporary decreases in the use of targeted substances, their small gains have not been long-lasting and other consequences of prohibition have negated their impact (Lang, 2004). These other consequences include: supply sources find other destinations for their trade; supply sources eventually develop new supply routes into the original destination; and other substances fill the gap in supply. Consequently, little reduction in level of usage overall is achieved and other harms are introduced, including increased criminality of substance use and a lesser emphasis on the health-related harms.

Instead, comprehensive, multi-faceted prevention and treatment approaches must be adopted that acknowledge the complexity of human behaviour in relation to substance use and address the associated risk and protective factors. This requires a focus on supply reduction (strategies designed to disrupt the production and supply of substances), demand reduction (strategies designed to prevent the uptake of harmful use, including abstinence-oriented strategies to reduce use), and harm reduction (strategies designed to reduce harm for particular individuals and communities) (Ministerial Council on Drug Strategy, 2004).

Prevention

The term *prevention* refers to "measures that prevent or delay the onset of drug use as well as measures that protect against risk and prevent and reduce harm associated with drug supply and use" (Ministerial Council on Drug Strategy, 2004, p.5). Prevention can focus on the uptake of substance use, but is also relevant for people who are already experimenting with and using substances, where it can aim to divert people from progressing to *harmful* drug use. This can include abstinence as a goal, but also enabling people to use substances in ways that do not lead to dependence, disease, criminal sanctions, or death.

Prevention interventions for alcohol and other drugs in Australia have been, historically, somewhat arbitrary and focused on controlling access to substances and educating young people regarding the harmful effects. The success of these many and varied measures is widely debated (Wodak, 2000). Despite the expectation that 'education' will change people's behaviour, evidence shows that changing people's attitudes or knowledge about a health-related topic does not necessarily translate into behaviour change (Wallace & Staiger, 1998). In particular, simply presenting information or relying on scare and fear messages has been shown to be ineffective. For example, some knowledge-based drug education programs implemented in schools have actually *increased* drug use (Hawthorne, Garrard, & Dunt, 1995).

Attitudes and knowledge contribute to, but are only a part of, the complex set of biopsychosocial factors that influence substance use and other health-related behaviours. In a comprehensive review, Spooner and Hetherington (2005) list the main risk factors relating to harmful alcohol and other drug use as: genetic predisposition; drug use by mother in pregnancy; difficult temperament in early life; conduct and emotional disorders in the preschool and school years; and exposure to alcohol and other drug use in the high school years. These show that prevention needs to start pre-conception and operate throughout the lifespan and in multiple settings. Furthermore, evidence is revealing the common causal pathways to a range of negative outcomes, including crime, mental health problems, suicide, and harmful substance use, in terms of social determinants and risk and protective factors (Eckersley, Dixon, & Douglas, 2001).

A thorough review of the evidence for prevention of substance use in Australia revealed a wide range of effective prevention interventions targeted across the lifespan, but also a need for further research in this field (Loxley et al., 2004). Families, schools, workplaces, and communities were identified as appropriate settings for prevention. For example, for families, targeting parenting skills and parental alcohol and other drug use are particularly important approaches (Sanders & Markie-Dadds, 1996).

Treatment

Most people with substance use disorders do not attend specialist alcohol and other drug services and, instead, seek no help or are engaged with other services within the health, welfare, and criminal justice systems. Furthermore, up to 80% of people who experience drug-related problems resolve these without any formal treatment at all (Sobell, Ellingstad, & Sobell, 2000). It is essential to recognise the potential for self-initiated change and self-help (Granfield & Cloud, 1999), and the treatment role of a wide range of sectors and professional groups, including psychologists who do *not* specialise in alcohol and other drug treatment.

The treatment and management of alcohol and other drug problems is a diverse, dynamic and complex field (see Hulse, White, & Cape, 2002). Traditionally, many treatment approaches adopted disease models of addictive behaviours, which characterise the substance user as having a biological predisposition to be unable to control their behaviour. The disease model forms the basis of abstinence-based approaches, such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA). While there is some evidence of the effectiveness of these approaches, they have not been evaluated as widely as other treatment approaches and much evidence is anecdotal (McGovern & Carroll, 2003).

Treatment options now incorporate a growing number of evidence-based approaches based on psychological principles of behaviour change, such as cognitive behavioural therapy (CBT) and motivational interviewing (Proudfoot & Teesson, 2000; Gowing, Proudfoot, Henry-Edwards, & Teesson, 2001). A recent meta-analysis revealed that contingency management and CBT–based interventions have moderate to moderately strong positive effects (Dutra et al., 2008). Motivational interviewing (Miller & Rollnick, 2002) is a significant component of many treatment approaches and there is considerable evidence of the efficacy of this approach (see Burke, Arkowitz, & Dunn, 2002). Importantly, interventions need to be matched to a person's needs and stage of change at a particular time. There is also some evidence for what is called the 'equivalence paradox', whereby it appears that a common factor in effective interventions is an empathetic and positive relationship with the therapist (Orford, 1999).

Early intervention is a term that can be applied to interventions for people who are in the early stages of substance use—that is, experimentation or the contemplation and early action phases of the stages of change process. The aim is to intervene early in the process to prevent the development of a major substance use disorder and all its concomitant health, social and personal problems.

Treatment programs designed for people with more established substance use may be inappropriate for people early in the pathway to harmful substance use. It should be emphasised that programs facilitating interaction between young people experimenting with drugs and people with more established substance use behaviours are especially inappropriate, as such interaction may socialise young people further into drug-using and criminal sub-cultures. Young people in drug-treatment programs are not just younger versions of adults in drug-treatment: their issues and needs differ qualitatively and quantitatively, and youth-specific services are best able to meet those needs (Spooner, Mattick, & Howard 1996).

Substance use has biochemical impacts and there is, therefore, an important role for pharmacological interventions. Pharmacological interventions take three main forms: pharmaceutical assistance with the withdrawal process; blocking and aversive agents; and drug substitution therapies (see ADCA, 2003). Growing knowledge of brain chemistry makes the development of new pharmacotherapies a dynamic field. It is now evident that there is a role for both pharmacotherapy and psychological therapy and, where appropriate, their integration can be the most effective approach (Dutra et al., 2007).

Importantly, relapse is a normal part of the recovery process for substance use disorders. Very few individuals are able to achieve long-term behavioural change on the first attempt (Addy & Ritter, 2000). The key goals of relapse prevention training are to ensure a variety of skills and confidence to avoid lapses and to prevent lapses turning into relapses (Jarvis, Tebitt, & Mattick, 1995).

Co-morbidity, in terms of co-occurring mental health problems and harmful alcohol and other drug use, is the norm and must be taken into account for treatment. Assessment must routinely encompass both areas. Appropriate treatment approaches are currently being developed but, generally, treating both the mental health and substance use disorders concurrently and in an integrated manner is most effective. At times, however, treating the mental health problem (i.e., anxiety) will reduce the substance use issues (Teesson & Proudfoot, 2003).

Polydrug use is another common challenge to treatment. People who use multiple substances are more likely to have other problems and current treatment approaches are less successful (Dutra et al., 2008). Another major challenge is maintaining clients in treatment, as drop-out is often high. Completion of treatment interventions is associated with greater success (Baillie, Webster, & Mattick, 1992).

It must be strongly emphasised that people using substances in a harmful way usually experience social factors that impact on their substance use and mental wellbeing. Legal, financial, physical, and social problems are common. Homelessness can be a major issue that impacts on treatment effectiveness, and this is a particular vulnerability for those with co-morbid mental disorder. A holistic approach must be taken to treatment that encompasses the whole person—acknowledging their individual characteristics and unique set of social, cultural and environmental risk and protective factors.

A final word is needed to emphasise the highly personal and political nature of many issues in the alcohol and other drug field. As a consequence, there is considerable media attention, as well as the input of people with strong personal and often opposing views. It is, therefore, essential that the APS contributes a carefully reasoned, evidence-based and realistic view.

Statement of APS Positions

Prevalence

1) The vast majority of Australians use psychoactive substances. Patterns of use vary according to individual and environmental influences and type of substance.
   a. Legal substances such as caffeine, alcohol and tobacco are most widely used.
   b. Harmful use of prescription medication is common and often overlooked.
   c. Cannabis is the most commonly used illicit substance.
   d. While substances such as heroin and cocaine are perceived to be most harmful, their use is rare.
   e. The use of many substances has decreased in the last 5-10 years. The exception to this is alcohol and, to a lesser extent, ecstasy, where use has increased.

Harm

2) Not all alcohol and other drug use is harmful, but the use of any substance, legal or illegal, has the potential to cause harm.
   a. Harmful effects can occur from intoxication, regular use and dependence.
   b. Alcohol and other drug use can cause a wide range of harms to users themselves and also to families, friends, workplaces, and the community through accidents, violence, and crime.
   c. Legal substances including tobacco and alcohol are associated with the greatest overall harm in Australia.
   d. Harmful alcohol and other drug use is commonly associated with other mental disorders; this is the norm rather than the exception.
   e. Alcohol or drug use is a risk factor for precipitating and maintaining mental health problems and mental disorders.
   f. Harmful alcohol and other drug use is a significant risk factor for suicide, particularly harmful alcohol use.

Understanding substance use

3) People use alcohol and other drugs for a wide range of reasons, and there are many diverse theories and models of substance use—none of which fully capture its complex nature.
   a. The *biopsychosocial* model recognises the complex interactive contributions of biological, psychological, and socio-cultural factors to substance use.
   b. Identifying a person's motivation to change their substance use behaviour is helpful in understanding both initiation and cessation of alcohol and other drug use.
   c. Substance use patterns vary across the lifespan, with adolescence and early adulthood being life stages of particular risk for harmful use.
   d. It is essential to understand the social and cultural context of substance use. This is critical for all people, but is particularly salient for youth, Aboriginal and Torres Strait Islander peoples, and in the context of the use of performance enhancing substances.

Reducing Harm

4) Societal responses to substance use have been shown, historically, to be politically, socially, culturally and economically motivated; they are not related to the nature of the substance nor its level of use.

   a. On their own, prohibition responses do not lead to reduced substance use in the long-term because they ignore the adaptiveness of human behaviour in meeting needs and desires.

   b. A harm minimisation approach to alcohol and other drug harm is required, which includes minimising the supply of substances through law enforcement approaches and minimising the demand for substances through treatment and prevention.

Prevention

5) Effective prevention of harmful substance use needs to focus on social determinants and multiple risk and protective factors.

   a. The media has a clear role in prevention, particularly in educating the public and influencing social norms and public opinion.

   b. Prevention strategies should aim to prevent both uptake of substance use and progression to harmful substance use.

Treatment

6) Many people recover from harmful substance use without therapy, but there is now a wide range of effective treatments.

   a. Most people with substance use problems do not attend specialist alcohol and other drug agencies. Consequently, competencies in treating substance use problems need to be widely available among psychologists and other health professionals.

   b. There is no single superior approach to treatment for all individuals: different individuals respond best to different treatment approaches at different times and it is important to match clients to their stage of change to maximise treatment effectiveness and efficiency.

   c. Comprehensive assessment, including mental health assessment, is essential as substance use and mental health problems often occur together.

   d. Treatment approaches should consider the needs and engagement of other family members, including children, to improve outcomes for all those affected by an individual's problematic alcohol or other drug use.

   e. There are effective withdrawal and replacement pharmacotherapies for some substances, which can be important adjuncts to psychological treatments.

   f. Current evidence-based psychological interventions include contingency management, CBT, and motivational interviewing approaches. Other intervention approaches await evaluation.

   g. Relapse is an expected part of the treatment process and relapse prevention should be routinely incorporated. Relapse prevention needs to focus on enabling clients to identify and cope with risky situations for relapse.

   h. It is important to recognise that alcohol and other drug problems occur in social and cultural contexts, and treatments need to take these broader issues into account. This is best done through the adoption of a biopsychosocial approach that views people in treatment holistically.

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