

Kava use in Australia

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Abstract

The use of the traditional South Pacific beverage kava by Australian Aboriginal communities is discussed. There are few systematic data on the effects of kava, although there has been recent concern regarding its health consequences. The role of the traditional context in minimizing any adverse effects of kava is discussed. It is suggested that government intervention in prohibiting kava use is probably inappropriate particularly with our current state of knowledge.

Introduction

In 1982, the powdered root of the plant *Piper methysticum* was imported into Australia from Fiji by an Arnhem Land (Northern Territory) Aboriginal community [1]. The drink made from this root, commonly known as kava, has been used throughout the South Pacific, including much of Melanesia, Polynesia, and Micronesia, since prior to contact with Europeans. It is still used extensively in Tonga, Fiji, Vanuatu and Samoa. Kava is well known to possess psychotropic qualities, most typically a mild soporific or narcotic-like effect associated with muscle relaxation [2]. Following its introduction, the use of kava quickly spread to a number of other communities in Arnhem Land.

In many Australian Aboriginal communities, excessive alcohol use, and in particular the social disruption associated with it, has been a major problem for many years. The rationale for the seemingly extraordinary action of introducing a new intoxicant into Aboriginal communities was that, in South Pacific societies, kava use has not been associated with the high levels of social disruption, violence, and physical illness that are commonly seen in communities where alcohol is used extensively [3]. It was hoped that kava would supplant alcohol in Aboriginal communities, thereby acting to reduce some of these health and social problems [4]. Because of these problems, a number of Aboriginal

communities have banned the use of alcohol in recent years. In these communities, the use of kava in a 'ceremonial' fashion was found to be useful in providing a social focus for individuals who would otherwise travel from the community to drink alcohol [1].

Recently, the issue of kava use by Australian Aboriginal communities has begun to receive wide coverage in both the scientific and the popular press, primarily because of reports that kava may be adversely affecting the health of regular users [5]. This attention has highlighted the general lack of scientific knowledge that we have concerning the effects of kava use.

Research and clinical knowledge about kava

Despite much anecdotal information in the anthropological literature, including many early observations [6], there has been little research on the effects of kava on human functioning. The information that exists on the pharmacology of kava is mostly derived from animal studies. These studies have shown that the active compounds in kava, in particular those that are lipid-soluble, reduce motor activity, and have analgesic, anti-convulsant, and hypnotic properties [7, 8]. In addition, kava has well documented local anaesthetic properties, experienced by most drinkers as numbness around the tongue and lips.

There are few research data on either the acute or chronic effects of kava on human cognition, perception, or complex behaviours. Anecdotal reports suggest that users feel their cognitive processes to be largely unimpaired, although they may experience poor co-ordination in the limbs with moderate to high doses. One recent, but isolated, study with students found no effect of two different doses of kava on reaction times measures in a letter recognition task [9]. It remains uncertain to what extent drinking kava impairs the ability to operate machinery, drive a car, or to work efficiently. The extent to which kava and other drugs, particularly alcohol, interact to affect performance or cognitive functioning is important to know given that there are reports that kava and alcohol are sometimes used together [1, 4], but again the data are lacking. We also need to know if, as with alcohol, regular and/or heavy kava users place themselves at risk for cognitive impairment.

From the drug dependence point of view, we know little if anything about whether tolerance develops to the effects of kava, or whether or not cessation of kava use after a period of regular use leads to a withdrawal syndrome. Marshall [10] suggests that a withdrawal syndrome does not occur in users in the South Pacific, although he reports that some individuals experience 'craving' for the social aspects of drinking kava. Individuals who consume large doses of kava on a regular basis are apparently well known in some societies, but nevertheless considered deviant [11]. It has been reported that a minority of kava drinkers (around 20%) in Arnhem Land communities use kava on a daily basis [1]. However, there do not appear to be any reports of the consequences of these individuals ceasing kava use. Thus, it is uncertain at this stage whether or not questions about dependence of the type associated with alcohol and opioid drugs are even relevant to kava use, either in its traditional context or among Aboriginal users.

A recent report [5] has provided the first systematic data on the health consequences of regular kava use in Australian Aboriginals. Relative to non-users, Aboriginal kava users showed a number of adverse health consequences, including indications of liver and kidney dysfunction, shortness of breath, weight loss, blood abnormalities, as well as the scaly rash and bloodshot eyes frequently reported in users in South Pacific islands [11]. The extent to which kava use in this group interacts with other factors such as poor nutrition is uncertain. It is possible, however, that the very large amounts of kava reportedly consumed in the Aboriginal communities, relative to Pacific island societies, is a major factor in these health consequences.

There are reports in the anthropological literature of coma and death associated with kava use in South Pacific societies [3]. It is accepted also in some societies

that excessive kava consumption is both personally harmful as well as socially disruptive. For example there is some suggestion that kava use may be harmful during pregnancy or be associated with sterility. However, as Brunton [3] points out, it is unclear whether or not these beliefs are based in a rationalization of the social order rather than actual health consequences.

Nevertheless, problems associated with kava use in South Pacific societies are apparently uncommon since they arise primarily from deviations from normal drinking behaviour. The evidence from South Pacific societies appears to suggest that kava can be used regularly in a safe manner, without necessarily leading to severe physical or social problems [11]. Although it was the apparently benign nature of kava use in South Pacific societies which led to its importation into Australia, the role played by the social context of kava use in these societies was not taken into consideration. Yet this is probably the major reason for the relative lack of problems associated with kava use in South Pacific societies.

Kava use in countries such as Vanuatu and Tonga performs the function not only of a personal psychotropic, but is also a part of ceremonial life and cultural tradition. In these societies there are often strong incentives to drink kava at particular times of the day, in the context of a ritualized kava circle, which also performs social and information exchange functions [12, 13]. Even when kava is drunk in relatively urbanized settings, as for example in the large number of kava 'bars' in Port Vila, Vanuatu, there remain many of the traditional rituals and social customs that occur in village settings [14]. Among Tongans, Fijians, and Samoans living in Australian cities, kava drinking is still practised, albeit in a more limited fashion, as a means of social and cultural interaction [12].

The introduction of kava into Australian Aboriginal society exemplifies a naive view of drug effects which gives little consideration to the social context in which the drug is used. This naive view is that a given drug is harmful or not harmful, as though this were always a function of its chemical properties. Such thinking underlies the way illicit drug use is often represented by the media, and in some cases acted upon by governments.

Reports of kava use in Aboriginal communities suggest that although there have been attempts to incorporate some of the social and ritual aspects of South Pacific kava [15], the two patterns of usage show little similarity. Kava is reported to be often drunk in very large amounts, over an extended period and also sometimes in combination with alcohol [4, 12, 15]. In fact, it is hardly surprising that kava, taken out of its more usual context, is used by Australian Aboriginals primarily for its psychotropic effects [1], and most often in a manner consistent with previous alcohol use.

The excessive, and quite possibly harmful, use of kava by Aboriginals in this way has been seen as an example of "the principle of alien poisons" [13]. This is the notion that substances that are harmless in their traditional context may become harmful if used outside of this context. Not surprisingly, the excessive use of kava by Aboriginals is consistent with the way in which other consumables (including alcohol) are treated, that is, consuming whatever is at hand [13]. Yet, there is some suggestion that even in Aboriginal communities using kava, its use is associated with a greater degree of social cohesion than is the use of alcohol [1]. Moreover, recent surveys [1] suggest, that kava use in Arnhem Land has recently declined, both in terms of the amount drunk and the number of individuals using kava.

Recognition of the cultural displacement of kava is undoubtedly important in interpreting its impact in Aboriginal communities. However, it is not possible to fully evaluate the extent to which this factor is responsible for any harm that might be produced by kava use until we fully understand the relative contributions of other factors such as diet and drug use history.

The response to kava use

Inevitably, when public awareness regarding recreational use of a particular drug begins to increase, there comes a point at which governments feel compelled to act. Typically (as, for example, with 'designer' drugs such as Ecstasy), the Australian response is foreshadowed by the response in the USA. However, kava use in South Pacific societies is more analogous to the use of alcohol in our society, rather than illicit drug use. In many South Pacific societies, kava use is not only sanctioned, but is also an integral part of social interaction. Indeed, in Vanuatu the use of kava has grown since independence, encouraged by the government as a way of reaffirming their traditional culture.

Perhaps because of this background, the response in Australia has so far been low key. This is indicated by the fact that, for the purpose of importation into Australia, kava is classified as a foodstuff rather than a drug. The most significant restriction on kava has taken place in Western Australia where, in response to reports of adverse health consequences associated with kava use [5], the government has acted to limit the availability of kava by prohibiting its sale and supply under the Poisons Act (1964), but without actually banning its use [16].

The question of a response to kava use in Australia was examined by the discussants during a Symposium on Kava held in 1988 [17]. Despite a diversity of views on many of the matters dealt with during the symposium, there was general agreement by the discussants (who included researchers from diverse fields

such as anthropology, psychology, medicine, and pharmacology, as well as representatives of Aboriginal, Tongan, and Fijian communities) that it was not appropriate to impose extensive government restrictions on the use of kava.

The argument against banning kava has a number of different aspects. Firstly, it may be that, in the long term (as appears to be the case in the short term), kava is indeed a more benign substance than alcohol. If this is the case, then it would be inappropriate to ban a substance which may reduce harm. Certainly, there is evidence that kava use has been associated with a decrease in alcohol consumption in some Arnhem Land communities [1], just as it has been in post-independence Vanuatu [19].

Secondly, recognizing the role that kava plays in Aboriginal society is, as Gerrard [15] points out, essential to successful action or policy. It is unlikely that kava use will spread into the wider community to any significant extent, at least in the foreseeable future (it is, apart from anything else, generally considered quite unpalatable). Therefore, it is probably more appropriate for Aboriginal communities themselves to formulate and implement their own policies regarding kava use, just as some communities have done with alcohol. A number of Arnhem Land communities have already taken this option [1]. As well, delegations from Aboriginal communities in the Kimberly region of Western Australia have visited Arnhem Land communities where kava is used. Their view has generally been that the introduction of kava into their communities should be discouraged [18]. Given the existence of such self-regulatory activity, it can be questioned whether a government policy as such is necessary.

The most appropriate role for government agencies might be to assist in providing support for improved education, health, and social conditions to ensure that any harmful consequences are minimised in those communities which opt to continue kava use. Given that currently, no kava is grown in Australia, it might also be useful for a government agency to oversee the importation and sale of kava, so that supply and pricing are not manipulated to maximize profits or to set up monopolies.

Thirdly, the introduction of kava into Australia provides a rare opportunity to approach a drug issue in rational terms, albeit on a limited scale. It must be very seldom that communities are able to consider their response to the arrival of a new non-medical drug, unfettered by existing policies and prejudices. In the context of the current debate in Australia on the legalization of heroin and other illicit drugs, such an approach might provide a model for a more rational approach to drug legislation in the wider community.

Given our present state of knowledge, we are inevitably left with more questions than answers about

kava. Nevertheless, the issue of kava use is important, if only for the influence it may have in moderating the harm produced by alcohol in Aboriginal communities. The advent of HIV infection in intravenous drug users has recently shifted emphasis away from prohibition and more towards a hazard reduction model of drug use policy. This approach recognizes that, for a variety of reasons, drug use will occur and that the most rational response for both governments and health care workers is to attempt to minimize the damage caused. In this context, it is essential that research be aimed at providing data on the short and long term consequences for kava use so that an appropriate harm reduction oriented policy can be formulated.

References

- [1] Alexander K, Watson C, Fleming J. Kava in the North: a research report on current patterns of kava in Arnhem Land Aboriginal communities. Darwin: Australian National University North Australia Research Unit Monograph, 1987.
- [2] Pfeiffer CC, Murphree HB, Goldstein L. Effect of kava in normal subjects and patients, *Psychopharmacol Bull* 1967;4:12.
- [3] Brunton R. A harmless substance? Anthropological aspects of Kava in the South Pacific, In: Prescott J, McCall G, eds. Kava: use and abuse in Australia and the South Pacific. National Drug and Alcohol Research Centre, Monograph No. 5;1989:13-25.
- [4] Cawte J. Parameters of kava used as a challenge to alcohol, *Aust NZ J Psychiatry* 1986;20:70-76.
- [5] Mathews JD, Riley MD, Fejo L et al. Effects of the heavy usage of kava on physical health: summary of a pilot survey in an Aboriginal community, *Med J Aust* 1988;148:548-55.
- [6] MacPherson J. The use of narcotics and intoxicants by the native tribes of Australia, New Guinea, and the Pacific, *Syd Uni Med J*, 1921;May:108-22.
- [7] Duffield AM, Jamieson DD, Chemistry and pharmacology of Kava, In: Prescott J, McCall G, eds. Kava: use and abuse in Australia and the South Pacific. National Drug and Alcohol Research Centre, Monograph No. 5;1989:1-12.
- [8] Shulgin AT. The narcotic pepper—the chemistry and pharmacology of Piper methysticum and related species, *Bull Narcotics* 1973;25:59-74.
- [9] Russell PN, Bakker D, Singh NN. The effects of kava on alerting and speed of access of information from long-term memory. *Bull Psychonomic Soc* 1987;25:236-37.
- [10] Marshall M. An anthropological view of drugs in Oceania, In: Lindstrom L, ed. *Drugs in Western Pacific Societies*, Lanham: University Press of America, ASAO Monograph 11, 1987:13-49.
- [11] Lemert EM. Secular use of kava in Tonga, *Q J Stud Alcohol* 1967;28:328-41.
- [12] Cowling W. Kava and tradition in Tonga, In: Prescott J, McCall G, eds. Kava: use and abuse in Australia and the South Pacific. National Drug and Alcohol Research Centre, Monograph No. 5, 1989:40-9.
- [13] Gregory RJ, Cawte JE. The Principle of Alien Poisons: contrasting the psychopharmacology of kava in Oceania and Australia, In: Prescott J, McCall G, eds. Kava: use and abuse in Australia and the South Pacific. National Drug and Alcohol Research Centre, Monograph No. 5, 1989:29-39.
- [14] Huffman KW [Vanuatu Cultural Centre]. Personal communication, 1989.
- [15] Gerrard G. Use of kava in two Aboriginal settlements, In: Prescott J, McCall G, eds. Kava: use and abuse in Australia and the South Pacific. National Drug and Alcohol Research Centre, Monograph No. 5, 1989:50-8.
- [16] *Western Australian Government Gazette* (No. 67), Western Australian Government Printer, 8 July, 1988.
- [17] Prescott J, McCall G, eds. Kava: use and abuse in Australia and the South Pacific. National Drug and Alcohol Research Centre, Monograph No. 5, 1989.
- [18] Drury C, Torres M, Parker G, Gordon P. A Kimberly view of kava—from an Arnhem Land visit. *Aboriginal Health Worker* 1987;11:25-31.
- [19] Rothwell N. Kava: a pacific ritual. *Pacific Islands Monthly* 1988;Feb:16-18.