

HARM REDUCTION DIGEST 9

Kava in the Pacific Islands: a contemporary drug of abuse?

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Introduction

Kava is both the common name of a plant (*Piper methysticum*, 'the intoxicating pepper') and of a beverage derived from the stumps and roots of the plant. Kava has immense traditional significance to many of the peoples of the Pacific Islands. Melanesia is widely considered to be the home of kava and strongholds of kava drinking include Vanuatu and Fiji. All major Polynesian groups, except for the New Zealand Maori who lived in too cold a climate to grow the plant successfully, ritually consume kava. Two Micronesian Islands, Pohnpei and Kosrae, also include kava drinking in their custom [1]. This traditional use of kava is ritualized, and employed for purposes such as strengthening kinship ties and communicating with spirits.

In more recent times marked changes have occurred in the locations where kava is regularly consumed and in the patterns and purposes of consumption. The intention of this paper is to discuss some of those changes, their consequences and their implications for the future. It aims to communicate some of the concerns being expressed by people within Pacific Islands nations themselves, and lend support to these concerns by reporting recent research on kava drinking patterns in Port Vila, Vanuatu. Towards the end of the paper we raise the possibility of harm reduction policies and strategies being developed and implemented in the nations where kava is now being used problematically.

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Notes from the Editor

This Harm Reduction Digest discusses kava, a beverage consumed in some of the Pacific Islands nations. In the past, while traditional use of the drug was widespread, custom determined who could use kava and for what purposes, and negative impacts were minimized. However, in recent years, as part of the processes of modernization, major changes have occurred with regard to who uses kava, where and how it is consumed. Community leaders, health workers and ordinary members of Pacific Island nations are increasingly identifying harms they believe are being caused by kava, including physical health problems; dependence; impacts on family life and the work-place; and the linking of kava consumption to that of alcohol and cigarettes. David McDonald and Anita Jowitt present new data from a recent survey of kava drinkers and non-drinkers in Port Vila, Vanuatu, describe the extent and nature of the harms, and suggest some harm reduction approaches that have potential for preventing kava-related problems.

SIMON LENTON

What is kava? Kava is a drug with narcotic, hypnotic, diuretic and muscle-relaxant effects. The active ingredients of kava are unrelated to morphine or alcohol; they are a series of lactones called kavalactones found primarily in the plant's resin. A clear dose-response relationship is seen in both experienced and naïve drinkers.

The subjective and objective effects of drinking kava were described by Louis Lewin in his classic 1924 book, *Phantastica*, in the following terms:

When the mixture is not too strong, the subject obtains a state of happy unconcern, well-being and contentment, free of physical or psychological excitement. . . . The drinker never becomes angry, unpleasant, quarrelsome, or noisy as happens with alcohol. . . . The drinker remains master of his conscience and his reason. When consumption is excessive, however, the limbs become tired, the muscles seem no longer to respond to the orders and control of the mind, walking becomes slow and unsteady, and the drinker looks partly inebriated. He feels the need to lie down. The eyes see the objects present, but cannot or do not want to identify them accurately. The ears also perceive sounds without being able or wanting to realise what they hear. Little by little, objects become vaguer and vaguer. . . . [until] the drinker is overcome by somnolence and finally drifts off to sleep (quoted in [2], p. 225).

While the second part of this reasonably accurate description addresses the somatic effects of the drug, the first sentences describe kava's mood-altering properties. Although not generally referred to as a 'drug' in the Pacific Islands nations where it is grown and/or consumed, it is clearly a drug in that it has marked psychoactive properties and hence has at least some potential for harm. As with most drugs, there will be some people, in some circumstances, for whom obtaining the mood change caused by the drug has greater salience than avoiding the adverse consequences of its consumption.

As well as characterizing kava as a drug we refer, in this paper, to some patterns of kava consumption as 'drug abuse'. In this context we differentiate between drug use and drug abuse. 'Drug abuse' (or kava abuse), as we use the term here, has the meaning set out in the 10th Revision of the World Health Organization's International Classification of Diseases [3]: 'a pattern of psychoactive substance use

that is causing damage to health'. That damage (or harm) can be physical, mental, social or spiritual. 'Kava abuse' does not cover the use of kava where that use does not cause harm to the user or to others.

Contemporary patterns of kava use

Prior to extensive contact with Europeans, Pacific Islanders used kava mainly within ritualized circumstances. Among other things it was exchanged as a means of strengthening kinship ties, drunk in order to reaffirm rank within society and drunk in order to facilitate communication with the gods or spirits. One of the notable features of almost all kava rituals was that there were restrictions on who could drink kava, when, and in what quantities it could be drunk [4].

Now, however, kava drinking in a commercial or non-traditional environment has become a feature of some Pacific Islands. A traveller walking around in Suva (Fiji), Nuku'alofa (Tonga), Port Vila (Vanuatu) or Kolonia (Pohnpei, Federated States of Micronesia) is likely to see either fresh, dried or powdered kava roots being sold in the markets. Kava bars, at which one is welcome to purchase prepared kava to drink on the spot or to take away in a bottle, are also an increasingly common feature throughout the Pacific.

The contemporary use of kava has extended far beyond the tightly defined settings in which it was used traditionally. It is no longer primarily restricted to use for ceremonial or spiritual purposes. Instead it is being consumed much like alcohol in western countries, as a social beverage. New population groups are drinking kava. Particularly striking is the fact that women are now drinking kava quite openly in societies where the use of kava was previously restricted to men. Furthermore, young adults—teenagers—who, in a traditional setting, would not be allowed to drink kava now sometimes do so openly, both in the village and in the urban kava bars. Also important is that regions of the kava-consuming nations that traditionally did not use kava now have many people who are regular users.

This shift in kava drinking has been commented upon by various Pacific Islanders, usually in the context of being anxious about the effect that changing patterns of kava use is having on custom. Sereima Nasilisili of the University of the South Pacific in Suva

Table 1. Number of days per week that kava is drunk and length of time per visit on average spent at the kava bar Port Vila Vanuatu—number of respondents

Number of days per week	Length of time spent at the kava			
	1 hour or less	2–3 hours	4–5 hours	6 hours or more
1–2	14	31	6	0
3–4	2	12	11	3
5–6	2	9	5	3
7	2	4	2	4

quotes Fijian chiefs expressing concern that now there is a:

...no-care attitude towards the traditional drink ... The relaxation of yaqona [kava] rules are believed to lower the dignity once associated with tradition, as accessibility to the drink is opened to all instead of the elite defined by traditional society ... While yaqona drinking in traditional society was generally controlled by chiefs limiting the drink to certain social elite groups, accessibility of the drink is now determined by who can buy the yaqona (PACNEWS, 6 May, 1999).

Although there has been little research on the contemporary patterns of kava usage in the Pacific Islands, a recent study of kava drinking in Port Vila, Vanuatu by Jowitt & Binihi [5] supports the popular perception that contemporary urban patterns of kava use are far removed from their traditional roots. This study was based upon questionnaires that were distributed in early 1999. All the data gathered by these questionnaires are based upon self-reports. No steps were taken to validate the respondents' reports of their habits, particularly in respect of the levels of kava, alcohol and cigarette use. Forty-eight valid non-drinker questionnaires were completed, as were 115 valid kava drinkers questionnaires. The respondents were mainly ni-Vanuatu, as opposed to expatriate, and came from a wide spread of islands throughout Vanuatu. A gender balance was not achieved in the surveys, with about two-thirds of the respondents in the kava drinkers survey being male, and just over two-thirds of the respondents in the non-kava-drinkers survey being female.

Although the survey did not provide a completely accurate indication of the make-up of the kava drinking population in Port Vila, of 115 completed surveys less than 10% of respondents stated that 'customary purposes' was the prime motivation for drinking kava in commercial kava bars. The data gathered on the quantity of kava that the Port Vila drinkers consume also suggest that kava is no longer being traditionally constrained but is being used quite freely, at levels comparable to those which have raised medical concerns in Australia [6].

The only detailed study of the medical consequences of kava drinking was conducted by Mathews *et al.* among Aboriginal kava drinkers in Arnhem land, Northern Australia, more than a decade ago [6]. That study categorized different levels of kava use. Very heavy drinkers were defined as those who used 440 g/week of powdered kava. Heavy users used 310 g/week, and occasional users were defined as those who use 100 g/week. One hundred grams of dry powder is equivalent to about 500 g of the fresh root that is usually drunk in Vanuatu, and this quantity of fresh root will contain between 10 and 15 g of kavalactone resin [4, p. 200]. Although the amount of fresh kava that is used to mix prepared kava is not standardized among the kava bars in Port Vila, we estimate that approximately 1 kg of fresh root is used to make 10 small half-coconut-shell cups of kava. (Others have estimated that 1 kg of fresh kava as used in Vanuatu makes '6 good serves' of kava [7].) Based upon this estimate, 33% of the 115 kava drinkers surveyed by Jowitt & Binihi fell into the 'very heavy' users category as defined by Mathews *et al.*, 19% fell into the 'heavy' users category and 48% fell into the

'occasional' users category. As well as the total amount consumed, this study collected data on the time that people spend at the kava bar; see Table 1. It does not, however, take into account how many of those who spend less time in the kava bar take away kava to drink at home. Even without taking into account this facet of kava drinking, the data in Table 1 indicate that many people spend considerable periods of time drinking kava.

Problems associated with kava use

A range of public health problems are perceived by Pacific Islanders to be linked to the changing patterns of kava consumption. The most obvious of these, the drying and scaling of the skin among some heavy consumers of kava, is sometimes pointed to by health workers as a sign of possible underlying organ damage caused by the drug.

Pacific Islanders also point to what they refer to as an 'amotivation syndrome' associated with kava use, observed in both heavy and moderate drinkers. In previous years in western countries this concept was used widely with reference to cannabis. Nowadays it is generally not considered an accurate or useful way to characterize people's responses to that drug, as research has not been able to demonstrate that the characteristics identified as the 'amotivation syndrome' are, in fact, caused by cannabis use. Rather, many people who appear to lack motivation to engage in what middle-class society considers to be normal and appropriate social roles also smoke cannabis [8, pp. 149–50]. Nevertheless, reports come from Pacific Island nations in which it is argued that the continuous drinking of kava causes people to lose interest in other aspects of life to such an extent as to warrant the application of the label 'amotivation syndrome' to their behaviour. Kava is also sometimes used in the workplace, particularly in Fiji. Considering the soporific effects of the drug, it would not be surprising if this has observable adverse consequences in terms of workplace productivity and could, at least in part, explain the lack of motivation that people sometimes feel the day after drinking kava.

Community health personnel identify a dependence syndrome, referring to many drinkers as 'kavaholics'. When questioned, people generally suggest that the pattern of dependence is one characterized in the main by drinking kava habitually (for example, a habitual routine of going to the kava bar every afternoon after work), or feeling uncomfortable in the absence of the

drug. While a significant withdrawal syndrome is not systematically documented in the literature, and its presence is denied by some authorities (e.g. [4, pp. 59–60]), everyday observations in the Pacific, particularly among drinkers of kava made from fresh, rather than dried, rootstock, refute this. In other words, both the development of tolerance and the experience of a withdrawal syndrome during periods of abstinence are reported. Mild disturbance of sleep for a couple of days is the withdrawal sign most frequently reported.

Health workers also express concern about hygiene, primarily the transmission of disease through lack of cleanliness in the preparation and serving of kava at kava bars. It is certainly the case that people share kava drinking vessels and that the beverage is often prepared in less than hygienic conditions. Sometimes mentioned is the fact that people do not routinely wash their hands before mixing the kava and straining it, and that the drinking bowls are not adequately cleaned between customers.

Perhaps more significant are the concerns expressed by health workers, community leaders, women's groups, etc. as to the impact of kava drinking on family life. One media report quoted internet chatters at the Pacific Kava Bowl (<http://www.pacificforum.com/kavabowl>) saying that:

... faikava [kava parties] is destroying families ... All too often, I see fathers leaving their wives and children at home while he sits beside the tou'a (a woman who mixes kava) ... (Agence France Press, 7 August, 1997).

The officer in charge of the Department of Social Welfare in Kiribati is reported to have stated that:

in some cases, kava drinkers begin imbibing in the early evening and continue until dawn. On weekends, some drink kava continuously for 48 hours. Kava is becoming an excuse ... for some men to avoid family responsibilities such as fishing and other constructive work (PAC-NEWS, 16 March, 1998).

The financial cost of being a kava drinker is also identified as creating social problems. While kava is generally far cheaper than packaged alcoholic beverages, those drinkers who consume kava frequently and over extended periods inevitably spend money on the beverage that could be used in other ways, particularly in support of the family.

Another concern is the link between kava, alcohol and tobacco use. In some settings a kava drinking

Table 2. Perceived health effects of kava drinking Port Vila Vanuatu

Adverse health effects of kava drinking	Perceptions of kava drinkers (%)	Perceptions of non-kava drinkers (%)
Eat less	61	66
Smoke more	42	48
Nausea	24	27
Lazy/slow the next day	60	70
Dry Skin	48	91
Other	14	0

Columns do not sum to 100% as multiple responses to this question were elicited.

session will end with the people involved drinking perhaps one to three small bottles of beer. In Vanuatu, this practice has a specific word to describe it: *kale*. While this level of alcohol consumption is not, in itself, problematic, some people express concern that it normalizes the routine use of alcohol and in so doing provides an inappropriate model to youngsters. Furthermore, it seems that people virtually always smoke cigarettes while drinking kava; the use of those drugs seems to be intimately linked. Again, this sends an inappropriate message to young people as well as being problematic for the health of the smokers themselves and others in the immediate vicinity who would be subjected to the environmental smoke.

Although the above collects anecdotal reports on the problems associated with contemporary kava use, the groundswell of grassroots concern about kava use in the Pacific Islands cannot be denied. Very little social science research on the topic exists to support or refute these observations. The study by Jowitt & Binihi referred to above [5] does, however, support community concerns that the commercial consumption of kava creates both public health and social problems.

The adverse health impacts perceived by both kava-drinking and non-kava-drinking respondents in the Port Vila survey are detailed in Table 2.

It will be observed that both kava drinkers and non-drinkers have broadly similar perceptions of the health impacts of the drug, with similar proportions considering that kava drinkers eat less and smoke more than others, and have elevated levels of nausea. Interestingly, a far higher proportion of non-drinkers of kava than drinkers point to dry skin as a health

consequence; and (as one might expect) a higher proportion of the non-drinkers than the drinkers consider that drinkers are 'lazy/slow the next day'.

People classified as heavy or very heavy drinkers did not differ from occasional users in their perceptions of the health effects of kava. This does not mean that there is no dose-response relationship; indeed, Mathews *et al.* [6] documented its presence in a group of indigenous Australian kava users. The fact that heavy drinkers tended to deny some of the negative health impacts of the drug is a matter of concern.

This argument is supported by the number of kava drinkers surveyed who perceived kava to produce psychological dependence. In the Port Vila sample, heavier drinkers were slightly less likely than lighter drinkers to perceive kava to be 'addictive'. Of the drinkers who fell into the categories of heavy or very heavy drinkers as defined above, 44% believed kava to be 'socially addictive', 18% believed kava to be 'physically addictive', 8% believed it to be 'both physically and socially addictive' and 30% believed that it is 'not addictive'.

Although the data gathered by Jowitt & Binihi was on too small a scale to allow for a detailed analysis of how kava drinking relates to other drug use, it is interesting to note that a relationship exists between cigarette smoking, alcohol drinking and kava drinking. Only 34.5% of the kava drinkers did not smoke cigarettes at all, compared with 91.7% of the non kava drinkers; 73.9% of the kava drinkers reported that they drink alcohol, compared with only 31.25% of the non-kava drinkers. This suggests that kava drinkers have atypical cigarette and alcohol consumption profiles, hence research on the health effects of kava will need

Table 3. *Perceived effects of kava drinking on the family*

Effects of kava on the family	Drinkers agreeing with the statement (%)	Non-drinkers agreeing with the statement (%)
Takes \$ away	80	93
Reduces family time together	78	93
Reduces violence	20	9
Provides a family activity	20	9
Causes conflict	52	88

Columns do not sum to 100% as multiple responses to this question were elicited.

to take into account the potential confounders of cigarette and alcohol consumption.

The Port Vila survey also gathered data on the social effects of kava drinking. Some 82% of the kava drinkers surveyed and 89% of the non-kava drinkers agreed with the statement that ‘kava drinking adversely affects the family’. While it is popular lore that the drinking of kava reduces the level of crime, particularly domestic violence [9, p. 85], this survey suggests that the effects of kava drinking on the family unit are not particularly positive, as the data in Table 3 indicate.

Non-kava drinkers clearly perceive kava to have greater negative effects on family life than do drinkers, probably because they are the ones who remain at home while other family members go out drinking kava. (Two-thirds of the non-kava drinkers lived with at least one kava drinker.) Within each group, however, perceptions of the effects that kava has on the family do not vary markedly according to people’s gender, or any of the indicators of urbanization.

The comments made by participants in the study in response to the questions on how kava affects the family suggested that conflict is caused because of the amount of time that is spent in the kava bar (usually the amount of time that the husband spends away from the family) and/or because of the money spent at the kava bar. A number of the comments provided support personal observations that violence is sometimes the ultimate outcome of this conflict.

Some of the survey data also suggest that conflict over kava drinking is caused because of perceptions that men going to the kava bar too frequently encourage the women remaining at home to commit adultery. This source of conflict relates to the time that

men spend in the kava bar without their wives, and also the fact that heavy usage of kava may cause impotence [4, p. 136]. Additionally, because women go to kava bars in Port Vila, it is believed that there are more opportunities for both kava-drinking men and women to commit adultery. The kava-drinking women, who are stepping out of their customary role, were often perceived as being morally loose in comments on the questionnaires, and kava bars were seen by a number of respondents as being places where prostitutes are to be found.

These data suggest that, in Port Vila, where kava is indigenous and consumption was traditionally controlled, it is now being used in such a way as to cause serious negative impacts on some families. Given similar anecdotal reports from other places, it would appear that Pacific Island countries that have a culture of drinking kava commercially should consider the potential social impacts of kava to be an issue of concern that should be further investigated to see whether steps need to be taken to try to moderate the impact that kava drinking has upon society.

Harm reduction

Lebot, Merlin & Lindstrom [4] apply a delightful pun in the title of their seminal book *Kava: The Pacific Drug*, highlighting both its psychoactive and geographical attributes. They concluded that kava may well become ‘the world drug’ as it seems to meet deep human needs to use mood-altering substances, while having relatively few adverse consequences associated with its use. (The authors refer to the many therapeutic uses of kava in this context.) They are right on many counts: we have only limited empirical evidence of

serious physical or psychological consequences of the use of kava, and some of the social impacts of drinking kava are positive. This has certainly been the case with regard to patterns of use in the past when the drug was under strict traditional controls, and is still the case in many village and urban situations throughout the Pacific Islands nations. As we have demonstrated above, however, it is no longer the case among some of the region's urban populations, and the fact that the drug is now being used by new population groups (including women and young people) is a matter of concern.

It is particularly significant to note that relatively few acute problems linked to kava use are reported in the Pacific. The exception to this is in the context of family life: men spending excessive amounts of time and money at kava bars and, in doing so, neglecting family responsibilities. We rarely see problematic intoxicated behaviour, reflecting both the pharmacology of the drug and the social mores that proscribe problematic kava-induced intoxicated behaviour [10].

Developing initiatives to help the people of the Pacific Islands nations to understand more clearly the nature of kava consumption and its impacts is seriously impeded by the limited availability of structures and resources for the development and implementation of drugs policy in the region [11]. While drug abuse is far from the most important of the health and social development challenges facing Pacific Islands nations, the absence of effective policy structures concerning drugs in many nations and territories means that it is difficult to have drug use generally, and kava use specifically, addressed systematically. As is so often the case, responsibilities for drug policies and programmes are dispersed between the government and the non-government sectors; between national and international agencies; and, within nations, between agencies responsible for such areas as school and community education, medical treatment, health promotion, road safety, law enforcement, customs, agriculture, business development, etc. This creates a powerful force militating against the development and implementation of coherent national drug strategies. Nevertheless, the fact that we are seeing rapid changes in patterns of kava use, the population groups using, the types of harm linked to kava use and possibly the levels of harm, suggests that action is required.

The interventions which could be tried include both those that target whole communities and others more narrowly targeting current or potential problem

drinkers. They could focus on the health and/or social consequences of excessive kava use. The first of these could be acceptable because some of the health consequences of kava use (such as skin rash and lack of appetite) are apparent; the second certainly has high salience among families and community leaders in the region.

A wide spectrum of interventions is possible. One useful conceptual framework is that of Mrazek & Haggerty [12]. It suggests grouping interventions into three clusters:

Preventive: Universal—aimed at the society generally

Aimed selectively at individuals or groups who have elevated risks of experiencing harm

Aimed at high risk individuals such as people already known to be experiencing problems

Treatment: Case identification

Applying standard treatment for known problems

Maintenance : Reducing relapse and recurrence of problems.

Usually a range of interventions is needed, operating at different points on the spectrum. Clearly some interventions lie downstream, addressing risk factors and protective factors close to the experiences of harm, while others are found upstream, focusing on the society broadly within a primary prevention framework [13].

Before discussing the details of interventions that could potentially be implemented, we emphasize that the following discussion is intended to be illustrative only. The Pacific is littered with failed programs introduced by outsiders, based on experiences in other parts of the world. Interventions addressing kava need to be attuned to local cultures, needs, priorities, resources and processes. This said, however, we point to the broad utility of the public health approach to dealing with problems. In systems terms, the public health approach is one of:

- defining the problem and collecting data about it;
- identifying the causes, risk factors and protective factors linked to the problem;
- developing and testing interventions to find out what works in what circumstances; and
- disseminating new knowledge about what works so as to have an impact on a population-wide basis.

It is essential that health promotion interventions be developed on the basis of in-country research into the nature of the problems and what works best in what situations.

In the context of kava, then, what are the options, within Mrazek and Haggerty's schema, for harm reduction approaches?

In some nations, drug policies are shifting progressively from a primary focus on abstinence and 'just say no' messages towards a harm reduction orientation. In this context, harm reduction implies focusing on the consequences of drug use rather than on drug use itself. It is starting from the assumption that little is to be gained through a policy and practice orientation that says little more than that people should not use drugs. Far more is to be gained, in public health terms, from accepting that there will be some degree of drug use and identifying what techniques are available to minimize the harmful consequences of consumption. Reducing consumption is just one of a variety of responses (albeit an important one) which could have the effect of minimizing drug-related harm [14].

What might a harm reduction policy related to kava consumption in the Pacific Islands nations actually look like? Attention could be paid to levels and patterns of kava consumption. It is clear that, in traditional patterns of use of kava, the amounts consumed and the population groups consuming it were firmly controlled by the operation of customary laws. This process did not exclude intoxication, for example, but ensured that intoxication generally contributed to individual and/or group well-being, rather having harmful sequelae. As we have argued, however, contemporary consumption patterns in many settings do not have the effect of minimizing harm but, on the contrary, are harm-creating.

One approach to harm reduction would be the promotion of *responsible drinking guidelines*. This would involve determining and communicating information about 'responsible' and 'harmful' levels and patterns of drinking, and how these vary in different situations and among different population groups. The alcohol field provides intervention models: here some interventions focus on how to avoid intoxication (e.g. in the context of driving motor vehicles); others on how to avoid long-term organic damage to the body (e.g. the maximum number of standard drinks different population groups could consume over a week); while others address specific population groups (e.g. people with a family history of alcohol dependence) [15].

Corresponding recommendations have been made for cannabis [16].

A key impediment exists, however, to developing such an approach to drinking kava, namely the lack of information on safe, harmful and hazardous levels and patterns of consumption. Jowitt & Binihi's study, described above, provides some insights into this in the urban Vanuatu context, as did Mathews' [6] study in the context of an Aboriginal community in the Northern Territory of Australia. The huge diversity in the potency of beverage kava—it varies with type of kava plant used; whether fresh or dried; how stored; how prepared; etc.—means that the 'standard drink' concept is of little value on a Pacific-wide basis. As a result, the scales used could reflect subjective and/or objective signs of the impact of the drug on the body and/or on social functioning. Alternatively, within a particular geographical area where there is shared understanding of the potency of the kava used and of the volume of a standard drink, messages could indeed cover quantity/frequency measures such as 'N small coconut shells per day'. Systematic epidemiological research would readily produce dose/response information to be used in this context. In the interim, consensus positions could be developed in various localities through group discussions between objective observers of kava consumption and its consequences.

It is possible that such a process might lead to a 'safe level of consumption' message which might include the following:

A person is drinking too much kava if:

- it significantly affects the drinker's psychomotor coordination;
- serious kava-induced skin damage is occurring;
- the drinker worries about how much he or she consumes, the time spent in drinking, the financial cost, and/or other consequences of use;
- other people say that he or she is drinking too much kava, spending too much time in drinking and hence neglecting other responsibilities, spending too much money on kava, and/or that his or her drinking is causing other adverse consequences.

A second message might be that 'the drinking of kava is part of our culture and identity, but intoxication and neglect of family and other responsibilities is not'.

A third message might identify who should abstain, on health grounds. One such list has recently been published. According to Mack [17] the American Herbal Products Association's *Botanical Safety Handbook* '...suggests that kava not be used by women who

are pregnant or nursing, or by patients with endogenous depression'. He adds that 'Kava should not be taken by patients who are also taking benzodiazepines because the effects may be additive, leading to coma'. While these suggestions refer to kava as a neutraceutical in the US context, rather than as the Pacific Islands beverage, they serve to illustrate what this approach could look like.

Another potential intervention is *restricting the availability of kava*. This could occur through licensing its cultivation and/or sale, and even licensing consumption. Its price could be regulated and it could be taxed. Regulations could be introduced covering the maximum amount of beverage that could be supplied to a drinker at kava bars; people known to be problem drinkers could be barred. The number of sales outlets could be regulated (this happens now in some places with respect to kava bars) and quality control over the strength and purity of commercial kava could be introduced. Health regulations covering the preparation of the beverage, its storage and modes of supply to consumers could be introduced and enforced. While most of these control approaches would be culturally unacceptable at present (and we are not advocating them) they illustrate that a wide variety of interventions could be trialled, some focusing on the availability of kava and others on drinkers and key people in their social environments.

A number of *facilitating factors* exist, in some Pacific Islands countries, that would make feasible the development and implementation of a harm reduction approach to kava. The first of these is the widespread concern, documented here, about the assumed negative impacts of kava on individuals, families and communities. A second is the growth of the adolescent health and non-communicable diseases movements. Concern about kava fits neatly into both of these. Thirdly, it could be that a 'responsible use' policy has high salience and utility as, for many kava drinkers (including heavy drinkers), the goal of kava consumption is not intoxication; rather, people drink in the context of being sociable. It is easy to imagine a message which reinforces these positive features of kava but points to the potential negative consequences of certain patterns of consumption.

On the other hand, a number of *impediments* to the development and implementation of harm minimization policies exist. On balance, it could well be that the impeding factors are more powerful than the facilitating factors. The impeding factors include the following.

First, as noted above, few Pacific Island countries have national drug policies and strong, well-resourced agencies responsible for their development and implementation. This policy gap means that it is difficult to implement concerted approaches to any type of drug problem in the region.

Secondly, the lack of data referred to above on the social and health impacts of kava drinking is an impediment to understanding the nature of the problem and to developing interventions.

Thirdly, in some settings one appears to be criticizing, or at least cutting across, valued features of traditional and contemporary cultures when one comments about kava consumption. The issue is to shape the discussion in such a way that one is not, and is not seen to be, criticizing culture. Rather, the stance best adopted is one in which the focus is on the harm caused by some contemporary patterns of kava use, rather than on kava use as such.

Finally, and importantly, is the commercial aspect. Kava is a valuable cash crop providing income to individuals, families, communities and nations. It is an important source of foreign exchange for poor Pacific Islands nations. The recent boom in export sales, particularly to the USA, fuelled by interest there from the neutraceutical industry, will not be enhanced and continued, people feel, if publicity is given to the adverse consequences of kava use. This issue needs to be confronted head on.

Conclusion

The central theme of this paper is that some empirical research and widespread public opinion in the Pacific Islands region suggest that the changing family and community structures that have been caused by modernization have resulted in changed patterns of social control over kava use, changed patterns of use and changes in the population groups using. It is clear that these changes are producing adverse consequences of kava use and that a potential exists for these problems to be exacerbated. Kava is now a drug of abuse as well as filling positive traditional and modern functions. It is not a criticism of Pacific Islands cultures and traditions to argue against patterns of consumption that create harm to the consumers and/or to others within their social environments.

The problems appear to be increasing but no coherent policy response has been seen. Calls for prohibition, particularly from some Church leaders

and women's groups, have little support in the population at large and are unlikely to be responded to positively in the future. The central issue is for Pacific Islands nations and communities within them to develop policies and programmes to retain and strengthen the positive aspects of kava use and, at the same time, to minimize the harm linked to the changing population groups drinking kava and the changing patterns of consumption.

The reality is that governments tend not to act until problems become serious; they wait for communities to apply pressure. This means that, by the time the problems are serious enough for governments to act, opportunities for prevention have been missed. What is needed now is to develop and trial prevention programmes focusing (perhaps) on the amount of time people spend on drinking kava and the consequent neglect of families. Programmes could also focus (perhaps) on the adverse health consequences of certain patterns of kava consumption.

Both of these categories of interventions are dependent upon having available reasonable quality data demonstrating the extent and nature of the harms and exploring the causal factors underlying them. This places an obligation on biomedical, epidemiological and social researchers to provide information that facilitates understanding about kava and its impacts. (The exploratory Port Vila study reported here is one step towards filling this information gap.) Wealthy nations with interests in the region also have an obligation to support Pacific Islands nations and researchers to undertake this research. Australia, as a former Pacific colonial power, has a particularly strong historically based obligation to the region. More significant, however, is the fact that Australia benefits substantially from exporting alcohol and tobacco products to the Pacific, drugs which are causing serious harm in many Pacific Islands populations.

It seems imperative that policy makers and researchers from the wealthy nations engage in systematic discussions on kava with Pacific Islands regional organizations (including the World Health Organization and the South Pacific Commission) and with key people in individual nations. The goal would be to assist Pacific Islanders to develop and implement a work programme to produce a better understanding of the impacts of kava and the pathways open to them to institute policies and programmes that will prevent the exacerbation of kava-related harm while maintaining and, indeed, enhancing, the genuine benefits that kava contributes to Pacific Islands cultures and lifestyles.

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