Ian Macgregor has been a

regular and welcome visitor to the Unit for

many years, and has compiled a number of

papers using Health Related Behaviour data

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Restorative Dentistry,

	Males Sporting activity index				Females Sporting activity index			
	0	1–6	7–12	13+	0	1–6	7–12	13+
Frequency								
Once	35.5	30.5	22.5	20.4	18.0	13.9	12.1	8.5
Twice	58.6	63.4	69.1	66.9	68.4	70.1	69.0	67.8
Three or more	5.9	6.1	8.4	12.6	13.6	16.0	18.9	23.7
Sample	338	1918	1003	499	472	2079	784	317
Motivation								
Teeth to look nice	18.2	17.3	18.3	22.6	11.3	13.7	13.8	15.8
Avoid false teeth	10.6	9.9	10.2	8.1	4.2	4.6	4.1	5.4
Like fresh breath	12.6	12.1	11.3	12.5	8.4	6.1	7.6	9.1
Avoid toothache	29.9	30.7	25.5	22.8	25.2	27.9	27.6	24.5
Mouth feels clean	28.7	30.0	34.7	34.0	50.9	47.7	46.9	45.3
Sample	341	1808	939	456	477	2013	747	298

those from larger families, as well as the once-per-day brushers, appear to be motivated more by socially instrumental reasons, such as liking fresh breath and their teeth looking nice.

Preventative dental health reasons for toothbrushing are also associated with a generally more confident, controlling and long-term view of health. But the less socially confident also POLY UNS as a reason for toothbrushing, more perhaps because they fear the consequences of neglect rather than seeing a virtue in positive action. report this as a reason for toothbrushing, more

Recommendations

Advice for health educators: We have here a very comprehensive and broad pattern of back-ground factors that are linked to dental health behaviour. Readers might react with "I could have told you that", but in fact this is positive support of the strongest kind for relevance of the otherwise vague notion of 'lifestyle' to health education.

We suggest that these results imply that health education messages need to be carefully crafted for each constituency, with the ideal being one-to-one counselling - such as in a clinical setting.

Advice for dentists: Dental health advice needs to take account of this broad pattern of background factors, and at a clinical level toothbrushing advice may need to be couched in terms congruent with the individual patient's own motivation for toothbrushing and perceptions of

Toothbrushing practice: Our finding that most once-per-day brushers choose to clean their teeth in the morning before school suggests that dental health messages should include advice to brush the teeth before going to bed at

night, as well as other times.

These messages should not assume common motivation amongst young people, nor similar

Further research: This should be directed towards investigation of some of these relationships, through, for example, quantitative study using selected personality scales. A qualititative approach using interview techniques would be the best way of examining the cultural placing of these and other hygiene behaviours.

- 1. Macgregor, I. D. M., Balding, J. W. & Regis, D., *Toothbrushing in Adolescence.* University of Exeter: Schools Health Education Unit, 1994.
- 2. Tunstall, J., The British press in the age of 2. Histari, J., He British press in the age of television. In Christian, H. (ed.), The Sociology of Journalism and the Press. Stoke on Trent: University of Keele, 1982.
- 3. See also Beal, J. F. & Dickson, S., Diet and dental health. Health Education Journal 33, 8-

<u>Viewpoint</u>

Mary Brett: Hard facts about soft drugs?

The growing belief that soft drugs are not harmful needs to be attacked.

Researchers have

found damage to

system in human

components of

the immune

, various

subjects.

Vol. 11 No. 5, 1994

have been teaching biology at a secondary school in the Home Counties for 20 years, and am responsible for the health education programme. I am also a teacher governor of the school. Being aware that many youngsters in this region are tempted by soft drugs, I have for a long time taken an interest in this problem, and have read widely on the subject.

The joint Addiction Research Foundation/World Health Organisation (ARF/WHO)

Report published in 1981 (1), which is the subject of this contribution, remains, despite its date of publication, the single most important source of information and views on the effects of cannabis use. I believe very strongly that it is worthy of much wider publicity, especially since much of its content has been overlooked in such semi-official publications as the leaflets available to teachers and in doctors' surgeries. It is very important that everyone is made fully aware of the dangers of soft drugs: the complacency and growing belief that soft drugs are not harmful needs to be attacked.

Understating the dangers

We now know from recent surveys that many schoolchildren and students use marijuana rec reationally with no thought that it could be doing them any permanent damage. This is not surprising, since leaflets available in health centres, and many articles in the press, imply that apart from lung damage from the smoke (as if that were not enough) there is little evidence of any long-term effects on health.

This is just not true, and I have challenged the Institute for the Study of Drug Dependence (ISDD) upon the inadequacies of their marijuana facts sheet (2) which is distributed to schools to inform teachers. The ISDD fact sheet is based primarily on the ARF/WHO report, which deals with the adverse health and behavioural consequences of cannabis use. As correctly pointed out by the ISDD there have been no large-scale epidemiological studies of cannabis use, but there is ample evidence, quoted in the ARF/WHO report, to set alarm bells ringing.

Many experiments have been done on ani-

mals, and those done on primates, especially, give clear indications of effects that can be expected on human subjects. Why do we bother with animal experiments if the results are going to be ignored?

Psychiatric effects

The psychoactive ingredient in cannabis is THC (tetrahydrocannabinol). This compound is fat-soluble, and as such will accumulate in fatty tissues of the body, to be released into the blood-stream over a period of 5–8 days. The effects of THC are thus prolonged. Smoking only once or twice a week will ensure a permanent source of THC in the body, unlike alcohol, which is broken down in the liver at a rate of about one unit per hour. Some adverse psychiatric effects, lasting from a few days to several weeks, have been known since the turn of the century, when the therapeutic use of cannabis extract was com-mon and side-effects were frequently described in the clinical literature (3).

We read in the report: The animal studies, which revealed long-lasting impairment of learning ability after a period of chronic cannabis treatment, raise the clear possibility that residual long-lasting brain damage can be caused by cannabis. The report also shows that testosterone levels and sperm numbers are reduced in experimental rats and mice after administration of cannabinoids. This is substantiated in human subjects by a report from Kingston Hospital in Jamaica that 20% of male patients that had smoked marijuana for five years or more complained of impotence; and in another survey of 500 men between the ages of 18 and 30, many had significantly lowered sex-ual activity after 6–7 years of smoking.

The immune system system also appears to be adversely affected. There is consistent evidence from mouse and rat studies that doses of THC and pot, lower than those that alter behaviour, induce immunological defects. Several researchers have found damage to various components of the immune system in human subjects, and some cases of dormant genital herpes seem to have been reactivated after pot smoking.

Do children listen?

Respiratory and pulmonary toxicity have emerged as major clinical complications of chronic cannabis smoking, says the report. Marijuana smoke has been shown to cause chromosome aberrations in experimental animals.



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developed precancerous lesions in the lungs that would not normally be seen in tobacco smokers until they reach middle age.

I know that cynics among us will say that children do not listen when told of the dangers

of tobacco smoking, but at least they are given information that should enable them to make a choice. This is not yet the case with regard to cannabis, and they may well get the message that a few smokes in the week are safer than a few cigarettes every day.

Risk factors

I quote some short passages from the report that are relevant to my arguments.

- 'It is instructive to make comparisons with the study of other drugs such as tobacco or alcohol. With these drugs, 'risk factors' have been freely identified, although full causality has not yet been established. Nevertheless, such risk factors deserve and receive serious attention with respect to the latter drugs. It is puzzling that the same reasoning is often not applied to cannabis.'
- 'Adverse health effects are better prevented than treated. The development of educational programs designed to discourage hazardous cannabis use should be encouraged, and the results of such programs evaluated.'

Dr Robert DuPont, former Director of the US National Institute on Drug Abuse, has said: In all of history, no young people have ever taken marijuana regularly on a mass scale. Therefore our youngsters are, in effect, making themselves guinea-pigs in a tragic experiment. Thus far our

An analysis of 8,603 year 10 pupils from Health Related Behaviour Questionnaire data collected in 1992. The figures show the percentage of young people in each of the upper categories that had used the drug.

		Safe if used properly		Always unsafe		All pupils	
Drug	Boys	Girls	Boys	Girls	Boys	Girls	
Cannabis leaf	39	43	6	6	14	14	
Cannabis resin	46	47	6	6	14	12	
Amphetamines	15	19	5	6	5	6	
Solvents	19	18	7	9	7	9	
Barbiturates	6	8	2	3	2	2	
Ecstasy	17	17	3	3	5	4	

research clearly suggests that we will see horrendous results

It is time we gave our young people the benefit of these views.

1. Report of an ARF/WHO Scientific Meeting on Adverse Health and Behavioural Consequences of Cannabis Use. Toronto, Ontario, 1981 (ISBN

0.88868 062 7).
2. Factsheet No. 6: Cannabis. Local Government Drugs Forum (071 227 2813). 3. Ref (1), p. 30.

The Editor writes: We would welcome any con-The battor writes: We would welcome any con-tribution from readers with opinions to express in the 'cannabis debate'. David Regis, an SHEU staff member, made the following points.

- 1. Clearly, Mary Brett's contribution raises the issue of what medical information we take on trust, for the ISDD is a respected source of information. How are we to help young people through these debates when we are not sure
- 2. Knowledge and behaviour. Mary mentions the observation that health knowledge alone may not affect behaviour. Certainly it does not always, but it can — Edwina Currie's famous pronoucement about eggs and salmonella produced immediate and nationwide effects on be-

naviour.

Some possibly relevant information in our possession is presented in the accompanying table. It shows very clearly how young people's perceptions of a drug's 'safety' are linked to their own behaviour. For all drugs, the percent. age of users is much higher among the group that think the drug is safe if used properly (first column) than the group that believes that it is always unsafe (second column). The third column shows the percentage of all the young people surveyed that had used the All pupils

At first sight this suggests that knowledge influences the drug-taking habit: the ones with a more relaxed attitude towards the dangers involved are more likely to use them. Another interpretation is that if people really want to do something, they will consciously or subconsciously modify inconvenient facts to fit comfortably with their behaviour.

Index to Volume 11

Vol. 11 No. 5, 1994

Articles
Babb, H. & Sparkes, A., Pictures of health. 3, 33–37.

Babb, H. & Sparkes, A., Pictures of health. 3, 33—37.
Balding, J., Not GCSE but CXSEI 5, 70—71.
Balding, J. Not GCSE but CXSEI 5, 70—71.
Balding, J. & Shelley, C., A health-related pep at 7,852 very young people. 3, 43—47.
Ellison, P. & Wise, A., Active lifestyles: fighting the teenage switch-off. 4, 56–62.
Foxcroft, D. & Lowe, G., Can families be bad for your health? 1, 1–5.
Garner, G., "Oh, Dad — this is the best bit!" 2, 21—22.
Hayward, S., Facing the Urban Challenge. 4, 54–55.
Howieson, J., Developing positive attitudes: a school's 'Health Year'. 4, 49–53.
Macgregor, I. & Regis, D., Young people and toothbrushing: when and why? 5, 72–76.
Newton, J. A., Hughes, B. R. & Altman, D. G., Young people and skin cancer: challenging powerful images. 2, 17–20. images, 2, 17-20.

Images, 2, 17–20.

Noble, C., Recruiting the young smoker. 1, 5.

Williams, G., Introducing the Professional Development of Teachers Diploma. 3, 38–42.

Young, J. & Phillips, K., HIV/AIDS: sharing the voice of young people. 5, 65–69.

For the record. . . (Dr Peter Wallis). 1, 13 Light up! (Prof. Théodore H. MacDonald). 1, 12–13. Schools' excuses (Dr N. H. Bluett). 1, 13–14.

Notes and review

To objectives for American schools and their pupils in *Healthy People 2000*. 1, 14–15. Causes for Courses. 4, 62.

Causes for Courses, 4, 62.

The Chalkface Project, 2, 31

Experiments with Milk, 2, 30.

Fitness Fun: Promoting Health in Physical Education. 3, 37

Foundations for HIV/AIDS education. 4, 62.

Good Food Links — the Healthy Eating Game. 2, 31.

Health and Safety and the Computer User. 4, 62. The Inside Story. 3, 37. Not Behind the Bike Shed. 2, 31.

Sensitive Issues. 3, 37. Smoking in Schools, 2, 31.

Some recent National Dairy Council publications. 1, 12. Sport Examined. 2, 30–31. Yes, AIDS Again. 3, 37.

A Health Related Behaviour Questionnaire printout with commentary. 1, 10–11. Lifestyles: 200 pupils in your computer! 1, 6–8.

A new challenge, and a new version of the questionnaire. 1, 9.

ews from the Unit. 1, 16; 2, 32; 3, 48; 4, 64; 5, 80.

The Unit's group surveys. 4, 63

Viewpoint
Brett, M., Hard facts about soft drugs? 5, 77–78.

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