young men and associated with binge drinking.

The relation between antisocial personality disorders and alcohol-related aggression may result from biological factors. As stated by Room and colleagues, alcohol alters the activities of several neurotransmitters, including γ-aminobutyric acid and serotonin. Both of these neurotransmitters have been associated with aggressive behaviour. An additional pathway by which alcohol triggers aggressive behaviour is by impairing the activities of higher reasoning brain regions allowing more basic or impulsive brain functions to dominate.1

Another dangerous trend recently identified in South America is the incorporation of young people and women into this drinking culture. This development raises concern, because women are more susceptible to the effects of alcohol use than men.

Drinking alcohol is associated with many serious medical, social, and legal problems that carry high human and economic costs. Detrimental consequences exist not only for the minority of alcoholics and heavy drinkers, but also for society as a whole. By affecting the most productive members of Latin American society, alcohol abuse is further compromising economic stability. The devastating effects of alcohol cannot be ignored; therefore implementation of policies affecting the most productive members of society is essential for society as a whole. By influencing the development of rote learning—ie, by the brain digesting thousands of examples and thereby shaping synaptic connections, a process usually referred to as neuroplasticity, Lundborg and Rosén made the link between age and the speed of synaptic change quite clear. They plotted the results of a test on tactile gnosis after peripheral nerve damage against age and found a striking reduction in plasticity during the second decade of life.2

Physiology and neuroscience can augment correlational data on several public-health effects of screen media. For example, the correlations between television viewing at age 1 and 3 years and attention deficit disorder at first grade, and between television watching at age 4 and 5 years and reading in third grade can be explained by a child’s need to process clear-cut spatiotemporal signals to form proper representations of objects and the outside world. If a 2-year-old spends 2 h per day watching television, a substantial part of his or her experience will consist of degraded input—ie, sounds and vistas that correlate poorly, let alone have the added benefit of touch, smell, taste, and visual depth. Such impaired input can only lead to impaired representations, and such impairment will increase the risk of attention dysfunction and dyslexia.3

To take another example, Hancox and co-workers found a clear correlation between television viewing at age 5–15 years and obesity in adulthood. Even though they were able to infer the direction of effect (does television make you fat or do fat people watch television?) from the prospective longitudinal study, the results were not clear cut.4

### Influence of violent media on children and adolescents

In their review on the influence of violent media on children and adolescents, Kevin Browne and Catherine Hamilton-Giachritsis (Feb 19, p 702)5 raise the question of why children and adolescents are more susceptible to media violence than adults. The effects of television are best understood in terms of rote learning—ie, by the brain digesting thousands of examples and thereby shaping synaptic connections, a process usually referred to as neuroplasticity. Lundborg and Rosén made the link between age and the speed of synaptic change quite clear. They plotted the results of a test on tactile gnosis after peripheral nerve damage against age and found a striking reduction in plasticity during the second decade of life.2

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data, investigations into the physiology of non-exercise activity thermogenesis, together with the well known observation that children lose muscle tone when sitting in front of a television screen, further clarify why television is fattening our children.

Finally, Robinson and colleagues\(^1\) moved beyond mere correlational data when they undertook a randomised study to reduce television viewing in one of two schools. After 6 months, children in the intervention school had a lower BMI and behaved less violently during break times (as measured by videos taken in the schoolyard).

I declare that I have no conflict of interest.

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could these be gallstones?

A 40-year-old woman was referred to the outpatient clinic with a 3-month history of recurrent severe right hypochondrial pain after fatty food. Abdominal ultrasound showed multiple 1–2 mm gallstones in the gall-bladder.

She had recently followed a “liver cleansing” regime on the advice of a herbalist. This regime consisted of free intake of apple and vegetable juice until 1800 h, but no food, followed by the consumption of 600 mL of olive oil and 300 mL of lemon juice over several hours. This activity resulted in the painless passage of multiple semisolid green “stones” per rectum in the early hours of the next morning. She collected them, stored them in the freezer, and presented them in the clinic (figure).

Microscopic examination of our patient’s stones revealed that they lacked any crystalline structure, melted to an oily green liquid after 10 min at 40°C, and contained no cholesterol, bilirubin, or calcium by established wet chemical methods.\(^3\) Traditional faecal fat extraction techniques indicated that the stones contained fatty acids that required acid hydrolysis to give free fatty acids before extraction into ether. These fatty acids accounted for 75% of the original material.

Experimentation revealed that mixing equal volumes of olive acid (the major component of olive oil) and lemon juice produced several semi solid white balls after the addition of a small volume of a potassium hydroxide solution. On air drying at room temperature, these balls became quite solid and hard.

We conclude, therefore, that these green “stones” resulted from the action of gastric lipases on the simple and mixed triacylglycerols that make up olive oil, yielding long chain carboxylic acids (mainly oleic acid). This process was followed by saponification into large insoluble micelles of potassium carboxyates (lemon juice contains a high concentration of potassium) or “soap stones”. The cholesterol stones noted on ultrasound were removed by surgery (figure).

A search of the internet reveals many health websites promoting so-called “gall-bladder flushing” or “liver cleansing” regimes. Some quote a Correspondence letter published in The Lancet\(^*\) on the subject. The 1-day purge usually consists of an overnight fast, then eating apples in the morning, taking only herbal tea through the day, and then in the evening a warm mixture of olive oil (2/3 cup) and fresh lemon juice (1/3 cup). Patients are instructed to then lie on the right side (although some say the left). It is claimed that the next morning the gallstones will pass in the stool.

We have shown that these flushing regimes for expelling gallstones are a myth, and that the claims made by some are misleading. The appearance of a letter in an establishment journal has been used to legitimise this practice for some time and the record should now be set straight.

We declare that we have no conflict of interest.

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