

Food for court: diet and crime



Jury service

Another byeline

Viewpoints: Lie detectors

Magistrates from ethnic minorities

Last May, the Dutch Ministry of Justice presented to the Home Office their evaluation of research linking diet and antisocial behaviour. They reported that this was some of the best quality research the Dutch Ministry had ever evaluated, that this approach was so cost effective that it would allow them to improve services while achieving 18% cost savings that their government required. Curiously, the research had originated in the UK five years previously.

A simple explanation why diet affects behaviour is found in the existence of the human brain, which like any other part of the body requires nourishment to function normally. Nutrition is a meeting point of the physical and social worlds: the hardware and software of life so to speak, in which both are required for social functioning. Crucially, the physiological requirements of our diet are likely to be the most finite component of this equation, as they are derived from our evolution. Yet we somehow manage to de-couple the brain from behaviour by assuming that our behaviour is purely a matter of free-will. This clarity is important for the difficult task of sentencing but how exactly can we exercise free-will without involving our brains? How exactly can our brain function properly without an adequate nutrient supply? We are already aware of the perils of high dietary intakes of salt, saturated fat, hydrogenated fats and refined sugar etc but our standards of dietary adequacy have focused on health rather than considerations of brain function, cognition or behaviour. Scientists are now studying the effects of nutrient intakes in seemingly diverse conditions such as depression, dementias, schizophrenia, ADHD, learning difficulties and even antisocial behaviour. These seem to have increased considerably in recent times: their positive response to improved nutrition suggests that dietary changes may be partly responsible. This possibility is now attracting the interest of expert bodies such as the World Health Organisation.



Food for court

Bernard Gesch from Oxford University argues why nutrition should be part of criminal justice.

Evidence to reduce antisocial behaviour

There is a growing body of evidence that good nutrition can significantly reduce antisocial behaviour. This evidence comes with various degrees of sophistication, from dietary education, the replacement of unhealthy snack foods in prisons, through to double blind placebo controlled studies using nutritional supplements. There is much evidence of the role of essential nutrients in the brain which suggests how these effects might occur. Based on this evidence, the charity Natural Justice obtained the co-operation of the Home Office to conduct an empirical study to test whether poor nutrition is a cause of antisocial behaviour. To establish cause requires powerful double blind randomised studies that control for other explanations: these are rare in criminal justice. Discovering the causal pathways that result in differing propensities to offend should also provide an accurate basis for prevention. Our study at HMYOI Aylesbury (Gesch, et al, 2002) had a high statistical power of 92% and we chose prisoners because in custody all food sources were known. Many of the (18–21 years) volunteers

made poor food choices that resulted in them consuming diets that fell below government standards. We wanted to test what would happen to their behaviour if these nutrients were re-instated, although it could be argued that the real experiment was the default position where prisoners were not reaching the government's dietary standards. On a random basis, where neither the volunteers, prison staff or researchers in the prison knew who was getting which type, 231 volunteers were given either placebo or real capsules for up to nine months that contained broadly our daily requirements of vitamins, minerals and essential fatty acids. The number of proven offences committed by each participant was monitored and the result was that those who received the extra nutrients committed an average of 26.3 % fewer offences compared to placebos, which was statistically significant. The reduction was 37% for the most serious offences, such as violence, whereas those taking placebos again showed little change in their propensity to offend. Because of the randomised design, the differences in the rate of offending could not be explained by ethnic or social factors, or variations in

the administration of governor reports etc, so it could only be the nutrients in the capsules that caused the change in behaviour. These findings need replication. Nevertheless they may have potentially far reaching consequences as vitamins, minerals and fatty acids are essential irrespective of location, so this effect might be expected in any community when poor diets are consumed: hence it is not where you eat that is important but what you eat.

Diet is by no means the only influence on behaviour but we may have seriously underestimated its importance. Compared to the myriad of socio-economic problems found in deprived areas, nutrition may actually be one of the more straightforward factors to change through nutritious school meals for instance. This raises an important question about what might have happened to these young men if they had been better nourished in the community. There are now two studies demonstrating that better childhood diets appear to prevent a significant proportion of antisocial behaviour and crime in later life, which should result in fewer victims (Raine A, et al, 2003; Liu J, et al, 2004). These dietary studies need to be widely replicated before being rolled out so that magistrates have robust statistics about sentencing effectiveness. Our team has been invited to design larger randomised trials in the UK for prison populations, community sentencing, secure units and in schools but to date only £1,000 of government funding has been forthcoming since agreeing our findings in December 1998.

Diet in sentencing?

Including diet as a consideration of sentencing may seem daunting but our experience suggests it can be straightforward with good planning. From 1988–90 we conducted a pilot with around 20 young people, who were sentenced by juvenile and Crown Courts to supervision with specified activities that included diet, instead of being sent to custody. The terms for breaching the order were standard and made no mention of diet: the young person should attend the project and behave appropriately, as agreed with the court. Evidence of the offender's nutritional status from blood samples gave the

courts objective evidence that also helped to engage the offender who was not aware of these factors; presumably, they can only take active responsibility for them once they are made aware. In some cases the court chose to defer sentence to test response to the programme. On one of these occasions, such were the physical changes in the defendant that the bench were surprised it was the same young man! Some of the young people had spent half their lives in care or custody but were quickly able to return home where we worked to improve the diet of the whole family. Once the youngster felt better it became self-sustaining. The effect on family morale was evident as parents could once again look after their own children. Some of the magistrates privately expressed relief that they were able to do something about the succession of sick looking young people before them. This pilot study simply tested feasibility and the courts did use the approach.

Clearly, approaches that focus on causal factors are likely to be the most cost efficient. As the Dutch noted, the dietary approach seems to be very cost efficient. *The Economist*, of 29 June 2002, reported costs of the nutritional approach to be as little as 0.2% of that expended on custody. In comparison, the public costs of testing cognitive skills approaches in prisons in England and Wales was reported in *The Times* (18 November 2003) to cost £150,000,000 and was found to be ineffective (Cann, et al, 2003). That would have paid for the nutritional approach for the entire prison population for the next 40–50 years! In the US, faced with escalating costs, there has been some heart searching about Federal criminal justice policies: 'The effectiveness of most crime prevention strategies will remain unknown until the nation invests more in evaluating them.' (Sherman, et al, 1997). 'Progress is often thwarted by Government programmes and strategies that are not based on rigorous evidence.' (Baron, et al, 2003). This expert group recommended evaluation by randomised designs as the basis for strong evidence of efficacy to underpin criminal justice policy. This is because many longstanding US programmes did not work when tested more rigorously. It would be instructive to enquire how many programmes available to the

British courts have been tested this way. Ironically, the nutritional approach has been but has yet to be incorporated into programmes for offenders. There is also a need to assist the courts by addressing the paucity of appropriate evidence underpinning assumptions about what 'causes' people to offend before we can talk about 'prevention' or 'risk factors' in any meaningful sense. Without precise knowledge of cause and effect, pre-emptive involvement in the criminal justice system runs the risk of accelerating criminal careers through association, while intervening too late can also result in escalation. In marked contrast, the only risk of early intervention with a nutritious diet is better health!

Clinical studies suggest that nutrition is cheap, humane and highly effective at reducing anti-social behaviour. It is a complementary method that provides a constructive platform for conventional interventions. Any offender who can respond to an existing sentence also has to eat food.

References

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