

Paediatricians can reduce future alcohol-related morbidity and mortality

Aric Sigman 

In the UK, the legal drinking age at home is 5 years, and a significant proportion of parents here and in other European countries allow and even encourage their young adolescents to drink alcohol, believing that it will teach them responsible use or inoculate them against harmful drinking and dependency.

The attitudes, practices and policies regarding alcohol initiation and consumption by children and parents across the world today may contribute to a broad range of negative health outcomes throughout a child's lifespan, much of which are preventable, starting from childhood.¹

NEUROADAPTATIONS, NEOPLASTIC TRANSFORMATIONS

For example, delaying the age at which children and young people take their first drink, including small sips, may lower their risk of becoming problem drinkers now and later in life.¹⁻³ Also, the mechanisms are becoming clearer: preclinical research suggests that introducing children and adolescents to alcohol may sensitise the neurocircuitry of addiction by inducing neuroadaptations in brain regions involved in reward and addiction. A study in Proceedings of the National Academy of Sciences recently reported that a single-dose exposure to ethanol in young adolescent mice 'causes acute and lasting neuronal changes in the brain... induces plastic changes which in turn could contribute to the basis of ethanol dependence'.⁴ Adolescent alcohol exposure may also lead to changes in gene expression that could influence drinking behaviour in adulthood.⁵

Even at low levels of consumption, alcohol intake in adolescence, a stage when breast tissue is most susceptible to neoplastic transformation, may increase later risks of breast cancer. A recent large-scale British study concluded that even small amounts of daily alcohol intake are associated with structural pathological changes in major organ systems including

the brain, heart, aorta and liver and that 'there is not a "safe threshold".'⁶

Globally, alcohol remains the leading risk factor for premature mortality and disability among those aged 15–49 years: the harmful use of alcohol is described by WHO as 'a causal factor in more than 200 disease and injury conditions'. This includes 'staggering increases in liver disease mortality over the last 40 years, especially in the UK'.⁷ Alcohol consumption among adolescents is also a major growing problem in low-income countries.⁸

From the new possibility of intergenerational epigenetic programming via preconception paternal alcohol consumption and its potential effects on offspring growth and long-term metabolic programming, to Fetal Alcohol Spectrum Disorder, alcohol use disorders, increased risk of depression, accidents and injuries, and a myriad of additional diseases and related mortality—these potential health outcomes continue to be treated as separate issues, and therein lies the problem. It is time we join the dots and take a far broader and more long-term approach to prevent and reduce future alcohol-related morbidity and mortality, starting long before conception.

IMPROVED PAEDIATRIC VISIBILITY

A more visible position by the paediatric profession is required which wrests ownership from that of alcohol initiation being a cultural issue to being a formal medical issue presided over by paediatric medicine—not the national culture.

The current Royal College of Paediatrics and Child Health (RCPCH) Strategy 2021–2024 aims 'to shape policy around prevention targeting the leaders and policymakers who have the most power to make change—internationally, nationally, regionally and locally'. A concerted effort to address alcohol is the ideal candidate for such prevention initiatives and the paediatric profession can play a decisive role by, for example:

FOCUSING ON A PARENT-CENTRIC APPROACH

Most parents want to reduce health risks for their children, provided they

understand the rationale behind the advisory and a clear course of action is offered. For example, between 1996 and 2007, children in England exposed to passive smoking declined by nearly 70%. Declines were greatest in the 2 years immediately preceding legislation as the result of, it is thought, the public awareness campaigns on the impacts of passive smoking.

DISPELLING THE FRENCH FAMILY DRINKING MYTH

Raising awareness that early family introduction to alcohol may increase children's lifetime risk of alcohol problems rather than preventing them, and clearly advising a delay in the introduction of alcohol to children. While some may believe that the traditional French 'Mediterranean' approach has helped France avoid significant alcohol-related problems, WHO reported that alcohol consumption per person is higher, years of life lost is higher and alcohol-attributable fractions in overall mortality are 26% higher in France than in the UK.⁹⁻¹¹ The French government has already raised the legal drinking age and Public Health France recently announced its 'goal of denormalization ... with the aim of detrimentalizing the consumption of alcohol ... to reduce the morbidity and mortality associated with the consumption of alcohol in France'.¹²

HIGHLIGHTING FAMILY ROLE MODELLING

Explaining to families how examples can have influence. Child exposure to parental drinking has been associated with preteens' lifetime alcohol use and there is significant evidence suggesting the intergenerational transmission of alcohol habits and alcohol misuse through parental role modelling.¹³ A recent analysis found that across Europe the number of children living with at least one family member with a problematic drinking pattern is particularly high.¹⁴ Even before their first taste, 3 year-olds are beginning to learn about alcohol and about *why* their parents drink by, for example, associating alcohol odours with their parent's emotions, including their reasons for 'escape drinking'. The role modelling of self-medication through drinking should now be a component of parental education.

LOBBYING FOR INFORMATION HYGIENE

In a vast proportion of schools in Britain, and in many other countries, the alcohol education curriculum for pupils as young as 9 is found to consist of 'misleading and

Independent Health Education Lecturer, Brighton, UK

Correspondence to Dr Aric Sigman, Independent Health Education Lecturer, Brighton BN1 2NW, UK; aric@aricsigman.com

biased' information materials, including lesson plans, fact sheets and films, funded by the alcohol industry through their charities, youth education projects and education trusts. A new analysis by British researchers identified 'considerable conflicts of interest... such conflicted and misleading materials needs urgent attention from policymakers, practitioners'. Examples included 'All programmes promoted familiarisation and normalisation of alcohol as a "normal" eventuality'. 'Specific health harms were absent from some lessons. ... including misinformation about cancer ...and concepts like addiction are presented in limited ways ...most of the images used are benign in nature'.¹⁵ In 2022, a comprehensive study of corporate lobbying concluded that the alcohol industry targets both the US government and 'specific WHO processes... but also works to cast doubt on the integrity and narrow the operational capacities of the global health governance system itself'.¹⁶

The RCPCH and its international counterparts can help direct attention to where it is needed.

ADVISE THE GOVERNMENT TO RAISE THE LEGAL DRINKING AGE AT HOME FROM AGE 5

This is not intended to criminalise parents but as a signal to reset the alcohol cultural landscape through formal gesture. This could be accompanied by mandatory warnings on all alcohol products and health promotion materials stating that delaying the age of alcohol initiation may reduce children's lifetime risk of Alcohol Use Disorders, including binge drinking, while allowing or teaching under-age adolescents to drink may lead to brain changes that could increase their lifetime risk of AUDs and raising the later risks for a large number of diseases. Such measures are compatible with current National Health Service guidance that 'children and young people are advised not to drink alcohol before the age of 18. Alcohol use during the teenage years is related to a wide range of health and social problems.'¹⁷

Far from being a latter-day temperance approach to alcohol's cultural status, the recommendations above advance a modern, evidence-based approach to an issue that continues to bedevil children's long-term health and development. Small improvements in any of the above areas may prevent many diseases and save many lives.

The paediatric profession has the respect and the authority to tell society not what it is interested in hearing, but what is in its children's best interests.

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ORCID iD

Aric Sigman <http://orcid.org/0000-0002-8123-4508>

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