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CLINICAL

Adolescent health in the 21st century

[1]C Currie, [2]L Watson, [3]P Rice
[1]Director, Child and Adolescent Health Research Unit, School of Medicine, University of St Andrews, St Andrews. Fife, UK; [2]Consultant in Public Health Medicine, Child Health Commissioner NHS Fife, Honorary Senior Lecturer in Public Health, University of St Andrews, Cameron Hospital, Fife, UK; [3]Honorary Consultant Addictions Psychiatrist, NHS Tayside, Chair, Scottish Health Action on Alcohol Problems, Edinburgh

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Correspondence to C Currie
Child and Adolescent Health Research Unit
School of Medicine
University of St Andrews
Medical and Biological Sciences Building
North Haugh
St Andrews
Fife KY16 9TF
UK

e-mail cec53@st-andrews.ac.uk

Predictions are always uncertain, and future patterns of disease and ill health are no exception. However, indications can be found in the 7th report from the Health Behaviour of School-Aged Children (HBSC) in Scotland launched very recently in Edinburgh.[1,2]

HBSC is a WHO Collaborative Cross-National Study, started 30 years ago, which is now conducted every four years in 44 countries. Its findings are used to inform policy and practice not only in relation to the current health status of adolescents but also, crucially, risk of ill health throughout the life course.

There is good news in Scotland: significant reductions over time in some behaviours such as smoking, alcohol consumption and early sexual intercourse. However, 14% of 15-year-olds still report that they currently smoke and 17% of boys and 11% of girls at this age consume alcohol at least once a week. Furthermore, 27% of 15-year-old girls report having had sex, down from 35% previously. Diet in Scotland is a longstanding and well-known health issue: 58% of 11-year-olds eat a meal with their family every day, 38% consume both fruit and vegetables every day and 25% consume cola or other sugary drinks at least once a day. This is all a long way from the recommended daily five portions of fresh fruit and vegetables, and a key area of current interest for policy makers.

What is the most worrying are the trends reported on girls' mental health. These show that the mental health and wellbeing of adolescent girls has been declining over recent years. Another notable feature is the gap between girls' and boys' mental health; for several outcomes this gap has been widening.

The somatic health complaints reported by girls increased sharply between 2006 and 2014.[3] This is seen especially among 15-year-olds, with almost 20% of 15-year-old girls having two or more such symptoms every week according to the latest survey, compared with 7% for 15-year-old boys. Psychological health complaints have also dramatically increased among 15-year-old girls over this time. These complaints include feeling low, irritable, nervous, dizzy, and having sleep difficulties. In 2006, around a quarter of 15-year-old girls reported two or more of these psychological symptoms weekly; in 2014 this had increased to 44% – by comparison, rates for 15-year-old boys are only 21%. Use of medicines by young people has also increased, for example, taking medication for headaches has risen significantly since this was first measured in the survey in 1994: among girls, from 28% to 64%; among boys, from 18% to 42% in 2014.

To place the declining mental health of girls in context, the HBSC Study also examines the social milieu in which they live their lives and are growing up – their family life, relationships with their peers, and their school environment.[4] For example, family life has changed significantly with more young people living in single parent and step-families than with both their parents. Family structure is known to be important to adolescent wellbeing; however, good support and positive communication have a very significant part to play. In this respect we find that communication with fathers seems to have improved, with more young people reporting it easy to talk with this parent about their worries in 2014. Life at school appears to be becoming more stressful in terms of the pressure from schoolwork. This is experienced particularly by girls – for girls the increase has been from 30% to 45% feeling pressured by schoolwork (some or a lot of pressure) and for boys the equivalent figures are 28% to 37%. There has been an increase in this perceived pressure over the past eight years and a widening gender gap. At age 15 the gap

between girls and boys is at its greatest – with 80% of girls compared to 60% of boys feeling pressure.

Another element contributing to girls' declining mental wellbeing may be coming from their self-perceptions of their looks and body size. While 24% of 11-year-old girls think they are too fat, this rises to 55% of 15-year-olds girls. This could be related to the finding from HBSC that girls use electronic media a lot more than boys and, by age 15, around 85% of girls spend at least two hours a day online. Many girls who say they are too fat actually have a body mass index within the normal range.

At the same time that mental health is worsening, young girls are spending relatively little time being physically active. Physical activity is considered to help in reducing stress and improving mood. Among 15-year-olds experiencing schoolwork pressures, time allocated to physical activity is low for many. Only 31% say they spend 2+ hours being vigorously active in a week and on a daily basis, only 11% spend at least 60 minutes being active, well below the recommended levels.

The issue of girls' mental health in Scotland is one of considerable concern from a public health and educational perspective. Mental health pervades all aspects of everyday life and efforts need to be made to address this growing problem. Scotland is not alone – in every country participating in the HBSC Study in 2010, girls' mental health was worse than boys' and declined with age on all measures. However Scotland had one of the highest rates of poor body image and rates of dieting. It also ranked second highest in rates of poor self-reported health among 15-year-old girls.[5,6] With some sources indicating that up to 75% of mental health illness in adulthood is manifest by age 24, this is a matter of importance. While resilience, emotional wellbeing and support for those with mental health issues in schools has had an increased profile in recent years, this is an area for development, encompassing how the family, community and different generations support each other in a more fragmented and more digital world. The marked differences between girls and boys for areas such as mental health and physical activity will need further consideration.

As already mentioned, one positive set of trends in adolescent health are those in substance use, including tobacco, alcohol and other drugs. The Scottish Schools Adolescent and Substance Use Studies have surveyed substance use in 13 and 15-year-olds since 1990, with use, exposure and knowledge of illicit drugs being surveyed since 1998.[7] In line with HBSC findings,[1] these sequential surveys show a decline in use of tobacco, alcohol and other drugs (predominately cannabis among illicit drugs) from a peak in the mid–late 1990s. The trends have been similar across all substances, suggesting that use is complementary rather than substitutional. In other words, when young people use tobacco they tend also to use alcohol and other substances. During discussions on alcohol and tobacco regulation, the risk of reduced access leading to increased use of other drugs is sometimes raised. Evidence from recent surveys suggests that this concern is misplaced.

For tobacco and alcohol, there has been a mix of public education and tighter regulation of availability. Public health programmes are vitally important and can build support for measures such as tobacco display bans, age checks and licensing sanctions against premises that sell to underage consumers – all of which have been implemented in Scotland in recent years.[8]

The main source of alcohol supply to 15-years-olds is now third party purchase, where alcohol is bought by someone of legal purchase age and passed on to a young person. Among those 15-year-olds who have had an alcoholic drink, less than 10% had purchased alcohol themselves. Several local alcohol partnerships in Scotland have run awareness campaigns aimed at adults, on the legality and risks of proxy purchase in response to this trend.

Within this generally encouraging picture there are some concerning trends. Of those 13 and 15-year-olds that are drinking, spirits are a significant part of the consumption pattern, especially among girls. In international comparisons,[9] this early exposure to spirits is a distinctive part of UK drinking culture. It may result in part from the lack of distinction between drinks categories in UK retailing: unlike in Australia, New Zealand and many states and provinces in North America where higher strength alcohol is not sold in grocery stores. Spirits are important because of the ease in consuming high quantities of alcohol. There is evidence of detrimental short term effects and concerns about longer-term neurodevelopmental effects.[10] While the trends in substance use in young people have been more positive than in other age groups for some years now, the physiological and social vulnerability of the young means that their needs should have high priority in national strategies on tobacco, alcohol and drugs.

Adolescents are also the parents of the future and may experience reproductive health consequences of adverse behaviours. In particular, maternal smoking, substance use and obesity increase stillbirth and other obstetric risks, maternal alcohol intake can result in foetal alcohol syndrome disorders, and excess alcohol or substance use can seriously affect parenting capacity. Alcohol, smoking and obesity can also all adversely affect future fertility, in addition to the individual disease associated risks which include heart disease, cancers, diabetes, mental health issues and addictions.

The levers to address these issues early are partly with national governments in line with the UN Convention on the Rights of the Child[11] but also within community planning systems.

On the local level, multi-agency Children's Services Planning covering local authority areas in Scotland has been in place for some time and is now required by law.[12] Health is a key partner, and can empower agencies including education, social work, and other sectors, to examine and prioritise health issues for young people within services and collectively. Targeted action at local authority level can successfully tackle difficult local issues with cultural components such as high teenage pregnancy rates and other health improvement work. Listening to, engaging with, and involving young people, and parents and carers where relevant, is crucial to the success of interventions.

Finally, the recent Royal College of Paediatrics and Child Health in Scotland Vision[13] claims that child health in Scotland is amongst the poorest in western Europe with 210,000 children in poverty, and calls for action on inequalities. This includes: better care and support for looked after children and young people who have experienced adversity and whose outcomes are less positive across a range of health and other measures, early intervention for families, financial inclusion services for families in need, and safer environments to promote physical activity.

To some degree, the origins of disease in adults at the population level lie in experience of early life but also in environment, behavioural patterns, mental wellbeing and experience of inequalities which are apparent in adolescence. Informed by reliable health survey data, physicians and public health leaders are well placed to advocate for positive changes to support improved lives for the future.

NOTE

Scotland's HBSC Study is conducted by the Child and Adolescent Health Research Unit (CAHRU), in the School of Medicine at the University of St Andrews and commissioned by NHS Health Scotland.

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