Brainy teens may be less likely to smoke, but more likely to drink and use cannabis

Patterns persist into adulthood, refuting notion that it's 'just a phase,' suggest researchers

Brainy teens may be less likely to smoke, but more likely to drink alcohol and use cannabis, than their less academically gifted peers, suggests research published in the online journal **BMJ Open**.

These patterns persist into adulthood, and would seem to refute the notion that academic prowess is associated with a greater tendency to 'experiment' for a brief period, suggest the researchers.

Smoking, drinking, and cannabis use are fairly common among teenagers. And the evidence suggests that these behaviours boost the risk of immediate and longer term health problems.

But the data on potential links between cleverness and substance use are somewhat mixed, and no study has tracked patterns with use of all three substances from early adolescence into early adulthood.

In a bid to rectify this, the researchers used data from a representative sample of more than 6000 11 year olds from 838 state, and 52 fee-paying, schools across England.

The teens' use of tobacco, alcohol, and cannabis, obtained through questionnaire responses, was regularly tracked until they reached the ages of 19-20.

Depending on their answers, use of tobacco and alcohol was categorised as persistent and regular; occasional and regular; and none. Alcohol use was further quantified by the number of times respondents had got drunk—with more than 52 times in a year categorised as hazardous drinking.

Cannabis use was categorised as early (13-17) or late (18-20) and as occasional or persistent.

Academic prowess was defined by results achieved in Key Stage 2, a national test taken at the age of 11, which assesses ability in English, maths, and science.

During their early teens, brainy pupils were less likely to smoke cigarettes than their less academically gifted peers, after taking account of potentially influential factors. And they were more likely to say they drank alcohol during this period too.

They were also more likely to say they used cannabis, but this wasn't statistically significant. But those of average academic ability were 25% more likely to use cannabis occasionally and 53% more likely to use it persistently than those who were not as academically gifted.

During their late teens, brainy pupils were more than twice as likely to drink alcohol regularly and persistently than those who were not as clever. These patterns were similar, but weaker, when those of average and low academic abilities were compared.

But academic prowess was associated with a lower risk of hazardous drinking.

As for the use of cannabis, clever pupils were 50% more likely to use this substance occasionally and nearly twice as likely to use persistently than those who weren't as clever. Similar patterns were seen for those of average academic ability.

This is an observational study, so no firm conclusions can be drawn about cause and effect.

And the results may not be applicable to pupils in fee-paying schools as a full set of data was only available for a third of the teens attending these schools, say the researchers.

They highlight other caveats, including the lack of detail on quantities of substances typically consumed, and the absence of data on cigarette smoking after the age of 16.

Nevertheless, they say: "Our finding that adolescents with high academic ability are less likely to smoke but more likely to drink alcohol regularly and use cannabis is broadly consistent with the evidence base on adults."

And they offer various possible explanations, including the link between braininess and openness to experience, and a more affluent/highly educated family background, which may make it easier to get hold of alcohol, for example.

But they conclude, the fact that alcohol and cannabis use among brainy pupils persisted into early adulthood, provides "evidence against the hypothesis that high academic ability is associated with temporary experimentation with substance use."