

# Who are the 11 year old drinkers?

Yvonne Kelly

December 2014

**Abstract** Alcohol drinking is recognised as a major risk factor for the onset of non-communicable disease. Among the vast majority of people initiation of drinking takes place during adolescence. The question remains open as to whether early initiation of drinking causes problematic alcohol use later in life, but clearly, drinking in youth is related to risky behaviours, the leading causes of death in young people and educational failure. In the UK, over the last decade there has been a decline in rates of drinking among adolescents. Despite this, hospital admissions due to alcohol among the under 18s remain a concern. Most prior studies have focused on drinking behaviours in mid and late teenage years with less known about the factors that influence drinking at the start of adolescence. In this paper we examine influences on the emergence of exploratory drinking in early adolescence. Objectives were: 1. to establish the importance of parental and peer drinking for reported drinking among 11 year olds; and 2. to assess the potential moderating role of parental supervision, family relationships and conflict on observed associations. To do this we analysed data from the large contemporary population based Millennium Cohort Study (MCS).

**Speaker** Yvonne Kelly, Professor of Lifecourse Epidemiology at UCL and Associate Director of ICLS. Her research interests include the causes and consequences of socioeconomic inequalities in child and adolescent health and development.

**Notes** ICLS hosted a policy seminar on Sleep & Health at UCL on 2 December 2014. The seminar was chaired by Richard Bartholomew, (former), Chief Research Officer, Children, Young People and Families Directorate, Department for Education and the presentations co-ordinated by Professor Yvonne Kelly, Associate Director ICLS. Transcripts from this event, including this paper, have been made available via the ICLS Occasional Paper Series. This series allows all (those who were or were not able to attend) to read an account of the presentation. Other papers in the series include:

**OP15.1 Why are early adolescents from poor families at increased risk of overweight and obesity?** Amanda Sacker, Professor of Lifecourse Studies at UCL and Director of ICLS.

**OP15.3 Diet quality and the factors that influence nutrient intake in teenage girls.** Laura Weston, NatCen Social Research & Eva Almiron-Roig Nutrition Surveys and Studies Group, MRC HNR.

**OP15.4 Stress resilience and inflammation in adolescence predict poor mental and physical health in middle-aged men.** Scott Montgomery, Professor of Clinical Epidemiology, ICLS, Örebro University Hospital and Karolinska Institute, Sweden



The International Centre for Lifecourse Studies in Society and Health (ICLS) is funded by the UK Economic and Social Research Council (ESRC) ES/J019119/1 (2013 – 2017). ICLS is a multidisciplinary research centre, directed by Professor Amanda Sacker, that supports research at UCL, University of Manchester, University of East London, Örebro University Hospital Sweden and Essex University. E: [icls@ucl.ac.uk](mailto:icls@ucl.ac.uk) W: [www.ucl.ac.uk/icls](http://www.ucl.ac.uk/icls) T: [@icls\\_info](https://twitter.com/icls_info)



# Who are the 11 year old drinkers?

Yvonne Kelly, December 2014

## SLIDE 1

*It is very interesting to look at the very beginning of the adolescent period in terms of drinking behaviours because most of the research so far has been done in mid and later teenage years. Now, more broadly speaking, heavy alcohol consumption and binge drinking – as indicators of problematic patterns of drinking – are of course associated with a range of chronic diseases such as an increased risk of death from cardiovascular disease and cancer for example, as well as to other markers of what we might think of as wellbeing e.g. economic outcomes such as holding down a job. And most adults who drink start doing so in the second decade of life, around eighty per cent of adult drinkers started their drinking careers during their teenage years. Problematic drinking patterns e.g. drunkenness and regular drinking amongst mid and late adolescence are linked to a range of other risky behaviours such as drug use, cigarette smoking, unsafe sexual activity and they are also linked to increased risk of death from accidents and injuries.*

*There is literature which suggests that the earlier people start drinking during adolescence the more problematic are their drinking patterns across their lifecourses. But the problem with that literature is that it doesn't necessarily take account of the context around early drinking. So for example, the introduction in early adolescence of alcohol – in say the family setting at a celebration or with a meal – is really quite different from a scenario where young people might be drinking with their friends at parties or in a bus shelter. So different contexts around drinking probably have different meanings in terms of the long term*

UCL

### Exploratory drinking in early adolescence: findings from the Millennium Cohort Study

Kelly Y, Goisis A, Sacker A, Cable N, Watt R, Britton A

*consequences of those early drinking patterns.*

*Nevertheless the Department of Health guidelines are that 16s and under should avoid alcohol or should not drink. And on the one hand in the last decade or so we've seen quite a sharp decline in the proportion of young people who report drinking alcohol – which is good news – but then on the other hand, of those young people who do report drinking the actual amounts of alcohol, the quantities that they report drinking, have remained constant. And also hospital admissions due to alcohol remain a major concern in terms of public health.*

*What do we know about the influences on the things that shape drinking in adolescence? We know that what parents do and what their friends do – so what their peers do in terms of their drinking patterns are linked to the likelihood of young people drinking. And we also know from the literature that family relationships, parental supervision, parental support and monitoring and the young person's own attitudes and knowledge towards alcohol, have a bearing on whether or not they drink.*

*But pretty much all of this prior research comes from when we're looking at 14, 15, 18*

---

## SLIDE 1 ... CONTINUED

*year olds. So now, having MCS data available on the consumption of alcohol right at the very beginning of the adolescent period provides a good opportunity for us to look at whether some of these relationships, these associations, hold at the very beginning of the adolescent period.*

*And as we get further sweeps of MCS data –*

*when the cohort members are aged fourteen – we'll be able to look at the longitudinal relationships. So I need to say, right at the beginning, that the results I'm going to show you now are a cross-sectional analysis which does not allow us to sort out the direction and flow in terms of causal relationships.*

---

## SLIDE 2

*We had two main research questions. They were firstly to see whether parents drinking and friends drinking were influential in terms of drinking among eleven year olds, and secondly to look at elements of what's going on in the family e.g. family relationships and parental supervision on the one hand, and knowledge and attitudes of the eleven year olds towards alcohol, their expectancies towards alcohol e.g. whether they have positive expectations or negative expectations and their awareness of harm due to drinking. We wanted to look at those factors in relation to the likelihood of*



### Research questions

1. Are parents' and friends' drinking important influences on drinking among 11 year olds?
2. What is the role of perceptions of risk, expectancies towards alcohol, parental supervision and family relationships on the likelihood of 11 year olds drinking?

*eleven year olds drinking as well as factoring all these things into a multivariable analysis.*

---

## SLIDE 3

*The data is from the Millennium Cohort Study (MCS). The questions on drinking were asked of the cohort members themselves. So when the cohort members were aged eleven, through a self-completion questionnaire, they were asked if they'd ever had an alcoholic drink. At age eleven just under 14% of cohort members reported drinking.*

*Parents drinking was assessed on the basis of questions that they themselves answered about the frequency of their drinking and the quantity of alcohol that they drank when they drank. We categorised the parents drinking into three groups which are broadly based on the Department of Health's current guidelines around sensible drinking. Around 20% of mums were non-drinkers and 15% of dads. Over half of mums and dads fell into the light to moderate*



### Information on drinking

- Cohort member drinking: no/yes
- Parent drinking: frequency and quantity – None, light/moderate, heavy/binge
- Friends' drinking: no/yes/don't know

*category, so around 60% of mums and dads were light or moderate drinkers. And about a quarter of dads and just over a fifth of mums were heavy or binge drinkers.*

*Cohort members themselves were asked about their friends drinking. 78%, nearly all of them, said that no, their friends didn't drink. 8% said*

### SLIDE 3 ... CONTINUED

*that their friends did drink and 14% of eleven year olds surveyed said that they didn't know whether or not their friends drank. Okay, so*

*that's sort of an in-between answer because maybe they didn't want to say or maybe they really didn't know.*

### SLIDE 4

*This slide lists the variables – the factors – that we are taking account of in these models. The first line of these are background factors, things that we wanted to control for, things that were not necessarily causally related to drinking at age eleven e.g. gender, puberty, whether the child was first born, household income, whether there was a stated religion in the family, things to do with the eleven year old themselves, whether or not they had behavioural difficulties – which is assessed from long list of questions from the Strengths and Difficulties Questionnaire, whether they engaged in antisocial behaviours so these are things like being loud or rude in a public space, engaging in acts of vandalism, graffiti, especially around bus stops, setting fire to bins – that sort of very edifying behaviour – whether or not they played truant from school, and whether or not they themselves smoked cigarettes. About 3% of these eleven year olds reported being regular smokers.*

*The second line of covariant factors which come up in our models were those things that I was talking about to do with the family e.g. family relationships, parental supervision, whether or not there was conflict in the family e.g. whether or not there were frequent battles, and for the cohort member themselves, whether*

**UCL**

**Statistical models – adjustment made for**

Covariates:

- Gender, puberty, birth order, socioemotional difficulties, income, religion, antisocial behaviours, truancy, smoking
  
- Parental supervision, family relationships, perception of risk, and expectancies towards alcohol

*they were happy within their family.*

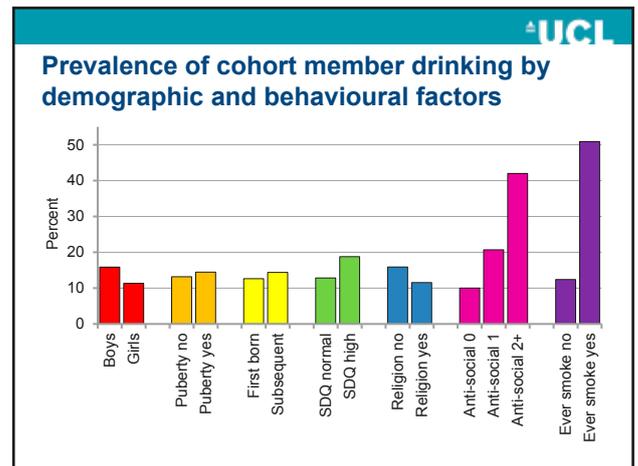
*Cohort members were also asked about their awareness of harm and risk of harm related to drinking one or two drinks daily. And they were also asked about their positive expectancies. So there were questions like – drinking alcohol makes you worry less, helps you relax, open up, talk about your feelings, helps with friendships and relationships.*

*Negative expectancies around alcohol were – if I was caught doing it I would be punished by my parents, drinking alcohol gets in the way of school work, would stop me from getting on with friends or would interfere with my relationships.*

*These were the factors that we took into account when we were trying to tease out whether there were associations between these factors and eleven year olds drinking.*

## SLIDE 5

This slide shows the distribution of eleven year olds drinking by some of those background and control variables. On the left hand side, by gender, you can see that boys were a bit more likely than girls – 16% versus 11% – to report drinking at age eleven. And you can see that as you work your way across the graph, children with behavioural difficulties – clinically relevant behavioural difficulties – were more likely to report drinking. As well as those who reported antisocial behaviours and smoking.



## SLIDE 6

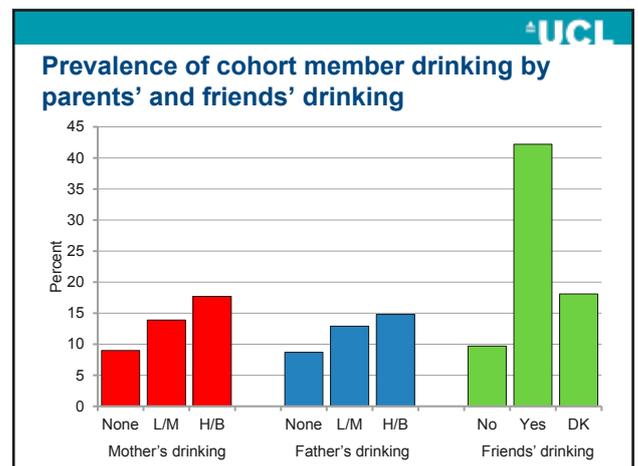
So back to our first research question: What was the association between parents drinking and friends drinking and the risk or the likelihood of drinking at age eleven?

**Research question 1**

Are parents' and friends' drinking important influences on drinking among 11 year olds?

## SLIDE 7

On the left hand side of the bar chart, mums, then dads, then friends drinking. And as you can see for mums as you move from none to light drinking to moderate to heavy binge drinking the per cents of eleven year olds roughly doubles from 9% up to 18%. Dads in the centre show the same shaped relationship but a bit less steep, so around 9% to 15%. With friends, if they answered that their friends drank over 40% of them reported drinking themselves and if they didn't know about 18% reported drinking themselves.

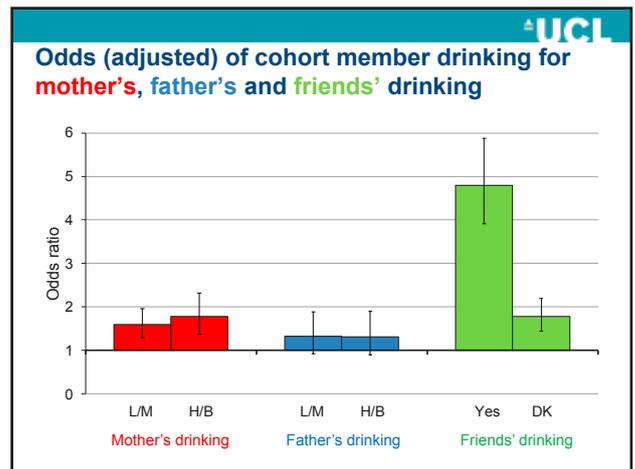


## SLIDE 8

But the question is – once we take account of all of those covariant factors, all the background, things to do with the child themselves, and all of the parental monitoring and family relationships variables – does this relationship survive?

This slide shows those fully adjusted relationships. And as you can see with the mums on the left hand side there there's about a 60% increased risk for children whose mums were light or moderate drinkers and an 80% increased risk if their mums were heavy or binge drinkers.

For dads it flattens out. Much of the excess risk associated with dads drinking appears to be explained by when we control for those covariant factors. However, dads aren't completely out of the picture. I will go on and



show why in a minute.

For friends drinking over a fourfold increased likelihood of cohort members drinking even when we take account of all of the background variables.

## SLIDE 9

Our second question – What is the role of perceptions of risk, expectancies towards alcohol, parental supervision and family relationships on the likelihood of 11 year olds drinking?

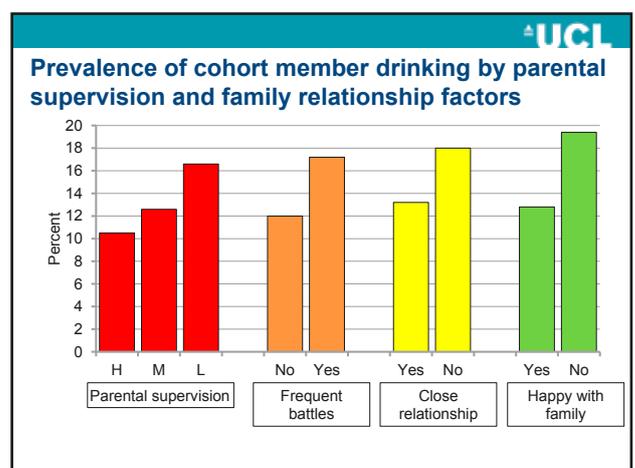
**Research question 2**

What is the role of perceptions of risk, expectancies towards alcohol, parental supervision and family relationships on the likelihood of 11 year olds drinking?

## SLIDE 10

So first of all I'll show some simple bar charts. Here on the left hand side going from left to right, from high to low parental supervision – this marker was derived from questions where parents were asked about unsupervised time. Parents were asked whether their children were left unsupervised on weekdays and weekends. And from those responses we constructed this composite variable.

You can see that as supervision moves from high to low. There is an increased prevalence – it's not



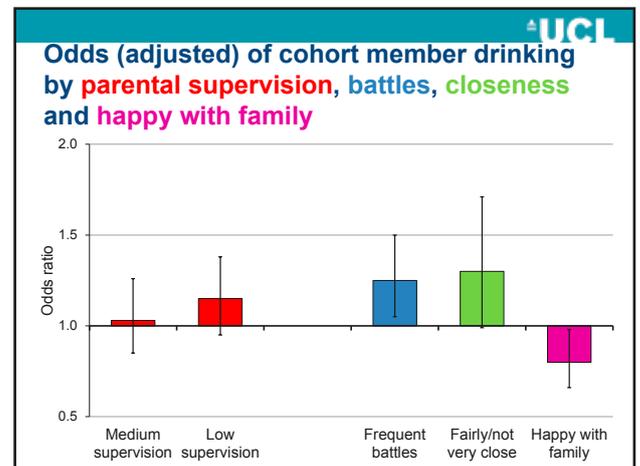
**SLIDE 10 ... CONTINUED**

very strong – but there is increased prevalence of eleven year olds drinking.  
 Frequent battles and mother-child relationship not being close are also associated with an

increased prevalence of drinking. The cohort member being happy within the family is associated with a reduced risk of drinking. Do these relationships survive in multi-variable models?

**SLIDE 11**

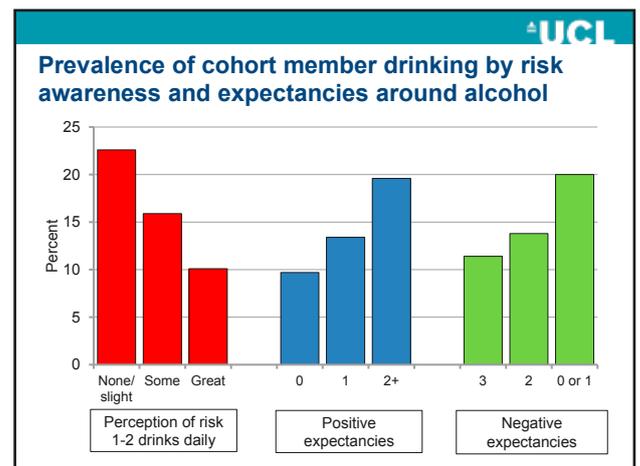
As you can see, frequent battles and happiness with family are both independently related to cohort member’s drinking. When we look at parental supervision in combination with father’s drinking we see that low levels of supervision and heavy/binge drinking by fathers is linked to higher than expected prevalence of drinking in 11-year-olds.



**SLIDE 12**

Moving now on the graph shows to markers of awareness and expectancies – which are perhaps reflecting the cultural norms around our cohort – with increasing awareness from left to right. Cohort members were asked to rate their awareness of drinking one or two drinks daily. And if they said there was no or just a slight risk you can see that they would be more likely to be drinking. Moving across to the some/great risk the percentage of the cohort members drinking decreases.

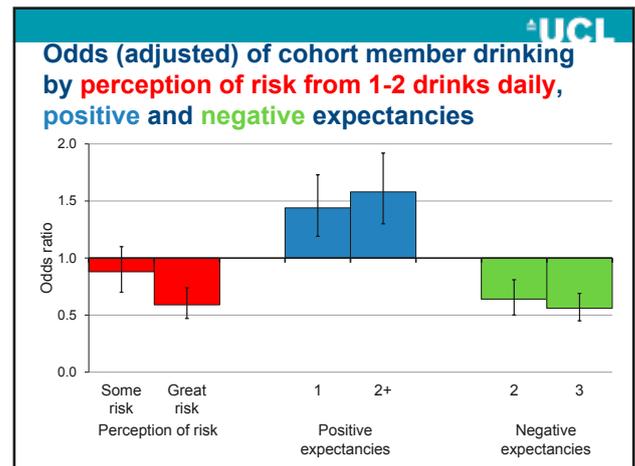
Looking at expectancies, with increasing positive expectancies there was increased prevalence of drinking and we see a similar picture as the number of negative expectancies decreases.



## SLIDE 13

*Do these relationships survive if we adjust for our covariant factors? This slide shows that for awareness of risk yes, they do. So increasing awareness of risk from one or two drinks daily is strongly associated with reduced likelihood of eleven year olds drinking. And rather like when we were looking at the combination of parental supervision and fathers drinking, when we look at the combination of heightened risk and mothers drinking we see that for eleven year olds who have a low perception of risk of one or two drinks daily and have heavy drinking mothers they are much more likely to be drinking.*

*Positive expectancies and negative expectancies*



*are both strongly related to the likelihood of eleven year olds drinking.*

## SLIDE 14

*The associations are cross-sectional, so we can't make strong statements around causality but the likelihood of eleven year olds drinking is strongly associated with whether or not friends drink and whether their mums drink.*

*Family relationships, perceptions of risk and expectancies around alcohol use are important too and these results would support interventions that are aimed at multiple levels of a young person's life or different domains of a young person's life.*

*It looks like the family environment is important and this finding supports the view that interventions and policies should incorporate the family as well as peers in school and community settings. The results also support the importance of cultural norms around alcohol, i.e. around awareness of risk and harm and about young people's expectancies to do with alcohol. Shifting cultural norms around drinking appears salient in terms of trying to promote further reductions in drinking among young people. And of course there will need to be complementary strategies to do with marketing, advertising and availability of alcohol.*

*A recent Cochrane Review (most of the*

### Summary

- Mother's and friends' drinking are associated with drinking among 11 year old children
- Family relationships, perceptions of risk and expectancies towards alcohol are important too
- Some evidence that perception of risk and expectancies towards alcohol moderate associations
- Support policies with holistic approach, involving families and peer groups: cultural norms, marketing and advertising, pricing and availability, age enforcements

*evidence was from the United States) suggested that very focused school based interventions around alcohol don't really cut the mustard. So rather like the conversation we had around obesity and the conversation we will have around other aspects of wellbeing and health in adolescence – where interventions worked they tended to be more generic in focus. Knowledge and cultural norming around alcohol would have to be built in, e.g. the power to say no to one's peers around drinking behaviours and other behaviours too. A narrow focus on alcohol is not likely to be effective.*

**SLIDE 15**

