Parental Influence on Alcohol Use in Adolescents and Young Adults

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Brief evidence review for:
Current Evidence, Reference and Guidance on Addictions (CERGA) Group, NHS Grampian

Review Questions

1. Does parenting style influence alcohol consumption in adolescents and young adults, and if so in what way?

2. Do the children of parents prohibiting their children from drinking before age 18 have better long-term alcohol consumption outcomes than those children that are permitted a controlled level of alcohol in their home before the age of 18?

Key Findings:

1. There is now strong evidence from the international literature that parenting style (included parental bond and specific parental rules regarding alcohol) has a strong influence on risky drinking in adolescents and emerging adults.

2. A permissive parental attitude towards alcohol that may include drinking at home is associated with higher alcohol use.

3. An overprotective parenting style with strict rule have been found to be associated with higher levels of alcohol use.

4. Maternal parenting style is particularly important.

5. Other factors such as parental alcohol use (particularly mothers) and personality traits are also influential.

Background

Alcohol misuse by adolescents is often linked with teenage pregnancy, hospitalisations, and sexually transmitted infections (Cook et al., 2010), and is thus a major public health concern. Of interest is whether and how parents influence alcohol consumption as adolescents and whether this influences drinking patterns as young adults. In 2012 a review was conducted for CERGA on whether parents influence adolescent alcohol consumption by introducing children to alcohol within the home (MacLeod & Matheson, 2012). This study found some limited evidence summarised below:

1. There was a consensus across the studies identified which indicated that allowing adolescents alcohol at home was associated with future alcohol consumption by adolescents and/or that ‘strict’ parenting was recommended to moderate this.

2. Parental supply of alcohol for consumption with no supervision or supervision by another adult that was not the parent, was strongly associated with risky drinking.

The conclusion was that until further evidence shows otherwise, it seemed prudent to advise caution when considering whether to allow adolescents to drink alcohol within the home. Since 2012 there has been increased interest in this topic and many new studies have been published. It was therefore considered timely to update and extend the 2012 review.
Methods
CERGA’s reference database was used and cross checked with a MEDLINE search from September 2012 to January 2016. Search terms used were ‘alcohol’, ‘parent*’ and ‘adolescents’. The reference lists of relevant articles were also hand searched. Only English language articles were included. Studies of parents permitting or restricting alcohol to children/adolescents (aged 18 years or less) in the home environment and studies which looked at parenting style eligible for inclusion. Studies had to link parental allowance/restriction or parenting style to alcohol consumption outcomes. Studies solely looking at adolescents drinking alcohol at home without parental supervision were excluded, studies looking solely at parental drinking were excluded. Studies purely looking at the proportion of children/adolescents that had consumed alcohol without linking it to outcomes were excluded. Those covering children under the age of 16 years only (without later follow up) were also excluded.

Results
Twenty one papers were identified from the search of which ten were excluded using the exclusion criteria noted above. One was a review paper published in 2014 but which related to literature until the end of 2012 and therefore covered studies already included in the previous review. Thus 10 papers were identified for inclusion. These are summarised in table 1.
<table>
<thead>
<tr>
<th>Lead Author</th>
<th>Publication Year/Country</th>
<th>Study group/sample size</th>
<th>Title</th>
<th>Aims</th>
<th>Methods</th>
<th>Quality assessment (informal) (good/fair/poor)</th>
<th>Summary of findings</th>
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</thead>
<tbody>
<tr>
<td>Visser L.</td>
<td>2012 (data from 2001-2007)</td>
<td>The Netherlands/School students 11-16 years N=2230</td>
<td>The Impact of parenting Styles on Adolescent Alcohol Use: the TRAILS Study</td>
<td>To investigate the influence of parenting styles (over-protection, emotional warmth, rejection) in early adolescence on regular alcohol use in late adolescence</td>
<td>Prospective cohort study of Dutch adolescents. Recruitment via schools. Three data collection points at two year intervals (mean age 11 yrs, 13 yrs and 16 years). Structured questionnaires completed under classroom conditions for children. Parents completed data via home visit by researcher. Parenting measured via validated scale. Alcohol frequency and quantity measured. Divided into not regular drinkers and</td>
<td>Good. Large sample, validated tools, good participation rate (76% of those invited). Risk of bias low. Assessment of non-participants undertaken.</td>
<td>Parental over-protection associated with regular alcohol use. Emotional warmth associated with reduced regular alcohol use. Rejection had no significant associations. Baseline adolescent alcohol use and higher parental alcohol use were found to be predictive of adolescent alcohol use.</td>
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<tr>
<td>Name</td>
<td>Year (data from which)</td>
<td>Location</td>
<td>Sample Size</td>
<td>Age: mean age 20 years, SD 2.98</td>
<td>N=354</td>
<td>Methodology</td>
<td>Findings</td>
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<tr>
<td>Jurcik T.</td>
<td>2013</td>
<td>Montreal, Canada/</td>
<td>University students</td>
<td>How do drug and alcohol use relate to parental bonding and risk perception in university students?</td>
<td></td>
<td>To investigate the links between parenting patterns, risk perceptions and substance use (drugs and alcohol).</td>
<td>A cross sectional convenience sample from four locations in one University. Parental bonding was measured using the Parental bonding index (identifies four categories: i) optimal parenting, ii) affectionate constraint, iii) affectionless control, iv) neglectful. Both maternal and paternal parenting were assessed. Fair Limited sample size and, poor response rate (45.6% of those who initially agreed) Maternal parenting was of more significance than paternal parenting. Maternal “affectionless control” was associated with higher levels of alcohol drinking and problem drinking. It was also associated with use of illicit drugs.</td>
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<tr>
<td>Koning I</td>
<td>2013</td>
<td>The Netherlands/</td>
<td>School students age 16 years</td>
<td>A Cluster randomised trial on the effects of a parent and student intervention on alcohol use in adolescents four years after</td>
<td></td>
<td>To investigate the long term effects of a parent/student alcohol prevention program for high</td>
<td>Large RCT of an intervention at four time points. Only point 4 reported here when aged 16 years. Data was collected by structured questionnaire. Good although participation was only 36% of the baseline (4 years previously). Large sample The combined intervention (student and parent) significantly reduced the prevalence of heavy weekend drinking and the amount drunk. The</td>
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<tr>
<td>N=3490</td>
<td>baseline.</td>
<td>school students.</td>
<td>There were four groups: control, parent intervention, student intervention and combined intervention.</td>
<td>size.</td>
<td>effectiveness was a result of stricter parental rules around alcohol consumption and increased student self-control (both considered to be linked to the intervention.</td>
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<p>| Stafstrom M. | 2014 Sweden (data collected in 2007) | 15-18 year olds | N=4828 | Influence of Parental Alcohol Related Attitudes, Behaviour and parenting Styles on Alcohol Use in Late and Very Late Adolescence | To investigate whether drinking patterns among 15-16 yr old and 17-18yr olds are influenced by parenting style and parental alcohol related behaviours and attitudes | Cross sectional survey of two difference age groups. Survey was conducted in school in 22 municipalities in Southern Sweden. The questionnaire was anonymous and covered parenting style and whether parents allow drinking at home or provide alcohol for consumption elsewhere. This was related to adolescent ever use of alcohol and heavy | Good | High response rate *86.8%, wide geographical area covered and large sample size. | Authoritarian or neglectful parenting styles are associated with higher levels of episodic heavy drinking. Having parents who both have a university degree and parents that provide alcohol to their children was associated with higher levels of alcohol use. Findings suggest that for parents to moderate adolescent alcohol use they |
| Cleveland M. | 2014/ USA/ 18-22 yr olds and not attending college/ N=245 | Moderating Effects of positive parenting and maternal alcohol use on emerging adults’ alcohol use: Does living at home matter? | Two aims of relevance: i) To examine the main effects of positive parenting (i.e. warmth and supervision) on heavy alcohol use in their children ii) To investigate whether these associations are affected by living arrangements. | A cross sectional internet panel survey was undertaken to attempt to identify a representative sample. The sample was of those with no post-secondary education. | Good. Attempted to ensure representative sample and minimise risk of bias. Sample size moderate. | Higher maternal drinking was related to drinking levels in male offspring. Less maternal supervision resulted in more drunkenness in offspring. However maternal warmth was only of significance with females as was living arrangements. Female emerging adults that live at home are more likely to imitate mothers heavy drinking in the family context if there should not supply their children with alcohol and use an authoritative (high strictness/supervision and high acceptance/involvement) parenting style. |</p>
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<thead>
<tr>
<th>Author(s)</th>
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<th>Methodology</th>
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</thead>
<tbody>
<tr>
<td>Alati A</td>
<td>2014</td>
<td>Australia</td>
<td>Longitudinal cohort study over three time points which was part of a 30 year general population survey (The Australian Temperament Project). Data was collected via postal questionnaire and included alcohol use, parenting style, family stress and parental alcohol use.</td>
<td>Parental alcohol use and parenting style of discipline were the most important determinants of drinking trajectories. Harsh discipline was found to increase alcohol use in the low use group. Higher maternal and paternal drinking at 13.5 years was associated with being in the high risk group.</td>
</tr>
<tr>
<td>Janssen T</td>
<td>2014</td>
<td>Interaction</td>
<td>Prospective cohort study</td>
<td>Permissive parental</td>
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is lack of maternal warmth.
<table>
<thead>
<tr>
<th>Country</th>
<th>Age Group</th>
<th>Research Question</th>
<th>Methodology</th>
<th>Results</th>
<th>Notes</th>
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<tbody>
<tr>
<td>The Netherlands</td>
<td>13-16 year olds</td>
<td>between parental alcohol-specific rules and risk personalities in the prediction of adolescent alcohol use</td>
<td>impact of alcohol-specific parental rules and risk personality traits on prospective adolescent drinking. Risk personality traits were sensation seekers, impulsivity, anxiety sensitive and hopelessness over 2 years with 4 time points for data collection. Recruitment via fliers in schools with an e-mail link. Parental consent was required. Of 2200 invited to participate, 397 were recruited and 252 met the criteria of between 13-16 years and completing 2 data collection points. Data collection via online self-completion. Incentives provided (5EURs). Alcohol trajectories were estimated.</td>
<td>Self-selecting therefore a risk of bias. Structured validated tools used to assess personality and parental rules. Analyses (multinomial logistic regression) seemed rather convoluted and numbers in each sub-group was low.</td>
<td>rules on alcohol was associated with earlier onset of alcohol and heavier drinking trajectories. However parental rules did not have a moderating effect on those with risk personalities.</td>
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<tr>
<td>Pape H</td>
<td>2015 Data from 2006 Norway 14-17 year</td>
<td>Is drinking with parents associated with high-risk drinking among adolescents?</td>
<td>To determine if frequent or infrequent drinking with parents is associated with risky drinking</td>
<td>Cross sectional school based survey of 82 schools in Norway. 84% of schools invited agreed to participate. Classroom conditions. Structured questionnaire</td>
<td>Good. Large Sample and high participation rate, structured, validated questionnaire</td>
</tr>
<tr>
<td>Smorti M</td>
<td>2015</td>
<td>The parental bond and alcohol use among adolescents: the mediating role of drinking motives</td>
<td>To examine the relationship between supportive parenting, drinking motives and alcohol use. Drinking motive can be internal (e.g. coping, or external e.g. social acceptance)</td>
<td>Cross section survey via schools and universities in Northeastern Italy. Classroom conditions. A structured questionnaire included a measure of parental bond, drinking motives and alcohol use frequency and quantity.</td>
<td>Good Reasonable sample size, 93% completed the questionnaire.</td>
</tr>
<tr>
<td>McKay M</td>
<td>2015 UK (Northern Ireland)</td>
<td>12-16 year olds</td>
<td>N=1724</td>
<td>Parental rules and peer attachment, and adolescent drinking behaviours</td>
<td>To examine the relationship between alcohol drinking, parental attachment, parental rules and peer attachment.</td>
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</table>
Methodological Considerations

The volume and quality of the literature has increased considerably since the last review. The literature has focussed more on parental influence on adolescent drinking up to the age of 18 years with only two studies extending into adulthood (defined as >18 years for the purposes of this review as this is the legal age of alcohol use in the UK). Two studies included 18 year old but the remaining studies used 16 years as the oldest age group. This reflect the international literature at the legal drinking age in countries such as The Netherlands is 16 years. The literature had wide international coverage with the bulk of literature form Europe and Scandinavia but only included one UK study. Most studies used large sample, many were prospective and followed a cohort over time and all used structured, validated measures.

Discussion of Findings

Most of the study related to question 1 rather than question 2.

Does parenting style influence alcohol consumption in adolescents and young adults, and if so in what way?

All 10 included studies addressed this question in some way. Parenting was measured in different ways depending on study design. In some studies is was a straightforward assessment of parenting style or rules against drinking behaviour. Other studies tried to assess parenting style as a moderating influence alongside other factors such as personality type, drinking motives and stress at home. However all studies found parenting style was associated with adolescent drinking behaviour with stricter rules regarding alcohol use, and a supporting style associated with less alcohol drinking and/or less heavy/risky alcohol use. Overprotective parenting and a permissive attitude towards alcohol use was associated with greater alcohol use.

Other factors clearly had an impact, particularly parental alcohol use. Higher parental alcohol use was associated with more adolescent drinking however this review did not focus on this directly. A recent review (Rossow et al, 2016) suggested parental drinking influenced drinking in offspring.

Of particular interest is the gender differences that became evident. Most studies accounted for maternal and paternal parenting and behaviour separately as well as analysing male and female adolescent/ emerging adult drinking behaviour separately. Mothers had a considerably more prominent influence than fathers. This was also stronger in female offspring than in males. In other words females were more influenced by their mother’s parenting style (and drinking behaviour) than males.

Do the children of parents prohibiting their children from drinking have better long-term alcohol consumption outcomes than those children that are permitted a controlled level of alcohol in their home before the age of 18?
Only two studies addressed this question to some extent. Stafstrom et al (2014) found parental supply of alcohol was associated with more episodes of drunkenness. Similarly Pape et al (2015) found drinking with parents was associated with more episodes of drunkenness at 17 years.

Conclusion

Parenting style around alcohol use which included parental bond and specific parental rules regarding alcohol, had a strong influence on adolescent drinking behaviour that extended into young adulthood (to 20 years from the data available). Whereas the previous review recommended strict rules, the more recent evidence is more nuanced and suggests that rules alongside a strong, caring parental bond is protective against alcohol use. Both a permissive attitude towards alcohol that may include drinking at home and an overprotective parenting style have been found to be associated with higher levels of alcohol use. A strong maternal bond, particularly for females offspring, may be protective against heavy alcohol drinking.

References


Cleveland MJ; Reavy R; Mallett KA; Turrisi R; White HR. Moderating effects of positive parenting and maternal alcohol use on emerging adults' alcohol use: does living at home matter?. Addictive Behaviors. 39(5):869-78, 2014 May.


student intervention on alcohol use in adolescents four years after baseline; no evidence of catching-up behavior. *Addictive Behaviors, 38*(4), 2032-2039.


