

Influences on how children and young people learn about and behave towards alcohol

A review of the literature for the Joseph Rowntree Foundation (part one)

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How families, friends, and advertising and the media influence the ways children and young people learn about and behave towards alcohol.

The often excessive use of alcohol by young people is a major concern for policy-makers, communities, parents and many young people themselves. This excessive use of alcohol does not suddenly occur. By the time they start to drink alcohol, children have well-developed attitudes, expectations, and intentions about alcohol, acquired and developed through a process of socialisation. This report looks in detail at the influences on children and the effect these have on their alcohol use.

The report examines:

- key family processes and structures which influence the development of knowledge, attitudes and subsequent behaviour;
- processes of peer selection and mutual influence;
- the influence of marketing and cultural representations of alcohol;
- other major forces such as country, ethnicity and race, religion, school, community, socio-economic status, and other cultural factors.

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Preface

The present review is part of a much larger and more comprehensive review, available online and for downloading from the University of Bath website (Velleman, 2009a) (<http://www.bath.ac.uk/health/mhrdu/>). This review relates to the first two thirds of that larger review. The larger review provides many more references and descriptions of studies, and readers who wish for more detail will be able to find it in that larger document.

There is a separate review (Velleman, 2009b) relating to the third part of the larger review, looking at what success preventative interventions based on the ideas within this present review have had, and providing an overall set of conclusions.

Executive summary

By the time they start to drink alcohol, children already know a great deal, and have well-developed attitudes, expectations and intentions about alcohol. This knowledge and these attitudes, expectations and intentions, have been acquired and developed through a process of socialisation, involving significant influence from parents and other family members such as siblings, peers, advertising and media representations, and other important influences such as school, community, and religious and cultural influences.

Children learn about alcohol from an extremely young age. As with many other areas, this learning follows a developmental trajectory. They learn a great deal from the media and other representations, but basic attitudes and intentions will *initially* be most influenced by parents, although knowledge and expectancies will not necessarily be so predominantly influenced by them. Children may learn a great deal about alcohol, and acquire expectancies of what will happen if they drink, from the media or from other adults. However, their attitudes and intentions towards this knowledge and these expectancies will be initially primarily determined by their families – especially their parents, but including a host of other important family influences as well, such as grandparents and siblings, depending on how these other family influences are considered by the family subculture.

Key family processes and structures that have been shown to influence the development of knowledge, attitudes and subsequent behaviour towards alcohol include ‘parenting style’: responsive parenting (parents who expect a lot from their children, and provide them with a sense of self-efficacy), consistent child management practices (balancing the two dimensions of ‘care’ and control’) involving having clear and consistent rules (which are enforced) and high levels of parental supervision or monitoring (i.e. knowing where children are and what they are doing), parental modelling of appropriate alcohol use, and clear and open communication of both expectations about alcohol use (or non-use) and

potential disapproval if expectations are not met; as well as a number of other areas including family cohesion, more family support, higher levels of family bonding (including family regularly eating an evening meal together, five or more times per week), a child liking or being satisfied with relationships with a parent, a child wanting to be like a parent, and a high level of family co-operation. Sibling behaviour is also important: older siblings’ *willingness* to use substances, and their *actual* substance use, are both robust predictors of their younger sibling’s later use.

Although there is less consensus about the influence of peers, it is clear that although peers are influential, a key peer process is peer selection: it is not so much that young people are *influenced* by their peers but that they select like-minded peers and that a process of *mutual influence* occurs.

The direct (advertising) and indirect (media representations, product placements, etc) marketing and cultural representations of alcohol have also been shown to exert a very significant influence on the development of young people’s knowledge, attitudes and subsequent behaviour, with well-designed longitudinal studies showing that the advertising and marketing of alcohol are significant factors in the rise in consumption of alcohol by young people. Not surprisingly, young people who see, hear and read more alcohol advertisements and endorsements are more likely to drink and to drink more heavily than their peers.

When looking at the relative weight that each of these major aspects have, there are more contradictory results and less consensus.

In terms of the relative weight of family versus peer influences, it is clear both that peers do exert a significant influence, but that (as mentioned above) peer selection is a major factor, and that the family has an important role in enabling young people to *select who their peers are*. Even after initial experimentation with alcohol or drugs has occurred, parental influence may exert itself indirectly through choice of friends by the adolescent, and through their level of self-

esteem, which again is predicted by both family and school climates. Family and peer groups have become increasingly recognised as mutually influential and interdependent, and rather than searching to determine which influences dominate the likelihood of substance use in young people, a more productive approach may be to examine how these two forces interact. It seems likely that there has been an overemphasis on overt peer *pressure* (and how to overcome that) as opposed to seeing the process (and hence the skills needed by young people) as being far more complex than that simplistic analysis. Also, adolescents' susceptibility to various sources of interpersonal influence has been found to vary at different stages of involvement with substances, with the influence of parents being strongest (even crucial) preceding initiation into adolescent use. The transmission of cultural values from parent to child seems to be important and younger adolescents who are still non-users are more susceptible to the influence of their parents as models and sources of authority; young people who enjoy a more positive relationship with their parents may be less influenced by substance-using peers, and consequently be less involved in drug-using activities. Similarly, the family can continue to be a moderating influence throughout adolescence and even young adulthood, and parents usually affect *long-term* goals and values as well.

There has been only a small amount of work looking at the relative weight of family, peer and media/marketing/advertising influences. It is generally accepted that frequent exposure to persuasive alcohol portrayals via a huge range of media, both in direct advertising and via indirect means, has a major impact on children's developing knowledge, attitudes, intentions and then subsequent behaviour. Although findings are somewhat mixed, it is also generally accepted that the impact of these portrayals can be mediated by the range of parental and family factors reviewed above, and that especially parental reinforcement and counter-reinforcement of messages, open communication, parental monitoring and clear rules can help to offset some of these media socialisation effects. It can be concluded that the influence of these media and other global socialisations are massive, and have impacted on the influence

that these parental and family relationships have, especially with children/young people where family controls are less apparent.

These influences are also affected by other major forces, notably country, ethnicity and race, religion, socioeconomic status, culture and other societal and cultural factors.

Country

It has been known for some time that drinking patterns are highly influenced by culture. This occurs at many levels: there is an overall national culture, which determines what the collective norms are for drinking behaviour, and within that overall culture there are various subcultures within which a young person will grow up, which will further impact on their knowledge, attitudes and later drinking behaviour. The national drinking culture plays a prominent role in setting norms and expectancies around drinking, including expectations about age of initiation into drinking and about expected quantities and frequencies of drinking, as well as behaviours to be exhibited when drunk. Nevertheless, national drinking cultures also change, and recent findings have suggested that a general pattern of earlier-initiated, frequent, low-quantity, low-problem alcohol use by young people in Mediterranean countries compared to older-initiated, less frequent, higher-quantity, higher-problem use in Scandinavian countries (with the UK being somewhere in the middle of these two patterns) is changing. This data also shows a major change in the drinking of young people within the UK, with a strong rise in consumption levels: this drinking by UK teenagers has altered much more drastically than in other European countries. Historically, national culture also determined the relative likelihood of women and girls drinking and getting drunk, with rates for males far exceeding rates for females. This too is changing in the UK: recent figures show that, in the UK, Ireland and the Isle of Man, teenage girls are more likely than teenage boys to have consumed alcohol in binges. Internationally too, young people seem to be developing a more globalised view of drinking, which mirrors the globalisation of youth culture, fuelled by common media (the marketing of television programmes and films worldwide,

the globalisation of music, etc) and an internet that has few cultural and national barriers. This, coupled with the increasing globalisation of alcohol advertising and marketing, means that many young people are modelling their drinking behaviour not on their parental or cultural stereotypes, but on a view of heavy drinking that is not rooted within their own culture. This in part explains why so many young people no longer drink the beverages traditional to their country or region (wine in France, ale in the UK, spirits in Scandinavia) but increasingly drink bottled lagers, and alcopops and their successors (premixed spirit-based drinks). Nevertheless, although there are strong national cultural differences in terms of when, how and how much young people should drink, and although there is an increasing globalisation of young people's drinking behaviour, the influence on these behaviours of family and peer factors is generally similar across countries.

Ethnicity and race

The limited amount of research in the UK into ethnic variation in drinking attitudes and behaviour among adolescents suggests that some non-White groups are less likely than White groups to drink alcohol, and to drink frequently. There is some evidence to suggest that Black African and Black Caribbean young people drink at somewhat reduced levels compared to their White counterparts, and that those from the Indian subcontinent, especially those from the more Muslim areas such as Pakistan, Bangladesh and Bengal, but also including Hindu and Sikh young people, drink at a very much reduced rate and hold much less favourable attitudes to drinking alcohol than their White counterparts. Almost all work supports this finding that those from the Indian subcontinent drink the least and have the least favourable attitudes to drinking. Most work suggests that White young people report higher levels of substance use, those originating from the Indian subcontinent report lower levels, and Black African and Black Caribbean young people lie between the two extremes. There is conflicting evidence, however, about Black Caribbean youth, suggesting that in some cohorts, Black Caribbean, and those of mixed race, seem at highest risk of regular

drinking, even more than White young people. It also seems likely that familial, religious and peer influence is closely correlated with ethnicity, with factors independently associated with a lower risk of regular drinking being: born outside the UK, Muslim religion and higher family social support. Nevertheless, the vast majority of studies of ethnicity and drinking suffer from two severe problems: they confuse race and ethnicity, and they frequently pool a wide range of ethnic groupings and races into one 'minority ethnic' grouping.

The various family, peer and media factors described above are influenced by ethnic grouping in a variety of ways, although almost all of this research originates from outside the UK, with most coming from the US. Although it is problematic to generalise from the US (where issues of ethnicity are dealt with very differently from the UK and hence the experience of being part of a minority ethnic group will probably be different too), these studies do demonstrate that, at least for minority ethnic groups in the US, many of the same factors identified in the earlier parts of this review are equally important and independently associated with a lower risk of regular drinking: *family factors* such as:

- parental monitoring
- perceived consequences
- maintaining intimacy and connection to the family
- family cohesion
- family connectedness
- family supervision
- low sibling willingness to use
- parental attitudes toward their child's alcohol use
- parent and adult-relative provision of alcohol (for older children)

- drinking with a parent (again for older children) and
- greater levels of family social support;

individual factors such as:

- better decision-making skills
- higher self-efficacy
- lower peer pressure susceptibility
- more positive attitudes about school
- prior school success
- negative drinking expectancies
- having low normative expectations of peer drinking, and of adult drinking;

and *peer factors* such as:

- having few friends who drink.

Nevertheless, some studies have shown that the effects of some of these factors differ across some ethnic groups, suggesting for example that the parents of African American children in the US more frequently speak to their children about alcohol and substance use than Caucasian parents, and establish clear rules for drug use, including contingent consequences for breaking the rules.

Religion

There has been even less research in the UK on the relationship between religion and attitudes and behaviour towards alcohol than there has been on ethnicity. What little research there has been suggests that *religious identification* is a significant indicator of whether people drink or not, and indeed is often more important than other cultural or social factors. For those who do consume alcohol, religious identification is associated with less risky drinking. There is a consensus that being a Muslim means that individuals are significantly less likely to drink, although some studies also report that

people holding any of the religions prominent within the Indian subcontinent have a markedly lower alcohol consumption than do British White people (presumably mainly non-practising Christians or those not affiliated to any religion). There is also some suggestion that young people from the Indian subcontinent may be drinking more than previous generations, and that drinking patterns among young 'non-White' (and Jewish) teenagers may be changing alongside those of their White peers. Nevertheless, great caution needs to be adopted in interpreting the research on the relationship between ethnicity and religion, mainly due to the lack of sophistication shown by many researchers over different religions and ethnic statuses.

On the other hand, the research into the impact of *religiosity* within any one ethnic group on alcohol consumption shows greater consensus. Although much of the research in this area has come from the US, where religion in general plays a more dominant role in people's lives than in the UK, there are still generalisable findings. Religiosity and active religious involvement appear to have a protective effect on young people's drinking. Religious attendance seems to predict decreases in the quantity and frequency of alcohol use. Religion seems to provide resilience against teenage alcohol use; and teenagers showing greater religious involvement (eg frequency of attendance at religious services) and stronger religious values (eg belief in relying on their religious beliefs to guide day-to-day living) have a lower risk of alcohol use. Others have also looked at religiosity as a protective factor against other risks, finding that religious affiliation, organisational religious activity and self-rated religiousness were all associated with lower rates of smoking initiation; that religious coping predicted a significant reduction in number of drugs used, frequency of drug use and problems associated with drug use; that parents thought that church involvement was important in preventing high-risk behaviours; and that religious identity is inversely associated with regular smoking.

As well as studies looking at the direct relationship between religion or religiosity and alcohol, there have also been a few studies looking at how these variables interact with the various family, peer and media factors described above. These studies suggest that familial, religious and

peer influences are all closely correlated with ethnicity; and that mostly Moslem young people show lower levels of substance use, including drinking, coupled with higher levels of religious and familial, and lower levels of peer, involvement, as compared to White, Black African and Black Caribbean young people, most of whom may be presumed to be either Christian, or of no fixed or practicing religion. Other studies have shown that religious *attendance* predicts decreases in the quantity and frequency of alcohol use even in the presence of peer, family and school variables; but that peer, family and school influences are of more importance than religious *salience* ('How important is your religion?') in relation to later decisions to use alcohol, implying that, for religious salience but not for religious attendance, the range of influences discussed earlier in this review are more important.

Socioeconomic status

There is very little primary research into the impact of socioeconomic status or social class on young people's drinking: either their learning about it or their subsequent drinking behaviour. Evidence from periodic national surveys of drinking shows that although the heaviest male drinkers are in the higher income brackets, there is evidence to show that problem drinking is twice as common in the poorest socioeconomic groups. There is some evidence that binge drinking is most prevalent among young men in manual occupations who had not pursued their education beyond secondary school, and that heavy sessional drinking and heavier weekly drinking are positively associated with living in a working-class school catchment area. One major systematic review showed that there is little consistent evidence to support an association between lower childhood socioeconomic status and later (mis)use of alcohol: it concluded that there was little robust evidence to support the assumption that childhood disadvantage is associated with later alcohol use/abuse, although it stressed that the *lack of evidence* to support an association between socioeconomic status in early life and later alcohol use cannot be taken as *confirming the absence of an association*.

Culture

In many ways, 'culture' can be seen as an overall term for many of those elements described above – country/nationality/regional, ethnicity, religion, socioeconomic status, class and income level; and as such many of the conclusions already reached are apposite here too. One further area is that of cultural norms, which describe ways in which alcohol should or should not be used: there are many culturally distinct patterns of drinking between Northern and Southern Europe, in different Asian countries, with indigenous people, and within Latin America and Sub-Saharan Africa. As in other areas of social behaviour, how each individual sits within the overall group, and within their subgroup(s), will determine to a large extent whether they acquiesce with the group or cultural norms, or whether they decide to do something different – which in terms of society's attitudes to young people and their decisions to 'be different' to their parents' is often seen as youthful rebellion (leading to regular 'moral panics' about their behaviours). Another area is that of 'place' or geographical location: the dynamics of neighbourhood and the ways in which the social history and linked physical characteristics of areas of residence may have a significant influence on how people drink alcohol. The one study in the UK that has looked at this identified clear differences in tolerance thresholds and expectations of appropriate behaviour between the urban and rural areas it investigated. Because the authors found that 'home' was increasingly where young people learned to drink, they argued that young people's drinking habits need to be understood and addressed in relation to their parents' attitudes to and use of alcohol, and the wider changing nature of intergenerational relationships and parenting practices.

Other societal or cultural factors

Sport and other extracurricular activities (such as membership of youth groups/teams) have been found to be important. In general, young people involved in extracurricular activities including sport are less likely to have problems with alcohol or to be involved in risky drinking (binging, high-

frequency drinking, drinking outdoors); conversely, young people who do not become involved in such activities are more likely to initiate alcohol use early. Young people who are higher on a variety of measures (use of time [religion], family communication, peer role models, making responsible choices, good health practices [exercise/nutrition], aspirations for the future, community involvement) are all less likely to use alcohol or drugs.

Risk and protective factors for problem drinking

The review has focused primarily on the normal development of drinking among young people and the influences that act upon this process. This has highlighted that some processes act as protective factors for young people, tending to slow down any initiation into drinking and the development of heavier drinking styles; and other processes tend to increase the risk that young people will initiate drinking earlier and /or will move into heavier or more risky drinking styles. The review has concentrated on risk and protective factors related to family relations, peer relations and the impact of the media and alcohol marketing, as well as examining the influence of a variety of cultural and social contexts. There is, however, a range of further risk and protective factors that operate at the individual (or group) level, which are outside of the scope of this review. These further risk factors include genetic predisposition and childhood sexual and physical abuse. There are also a number of other factors that are both outcomes (of some of the family and other processes discussed in the body of the review), and are in turn also serious risk factors for later risky drinking and alcohol-related problems, including antisocial behaviour in either school or home, truancy, delinquency, poor academic performance and poor integration into school.

There is also a range of further protective factors outside of the scope of this review (having a higher intellectual capacity, living in a community where there is a sense of caring and mutual protection, having a sense of humour, having an easy temperament and disposition) and a range of outcomes (of some of the family and other

processes discussed) that act as further protective factors against the development of problematic drinking. These include having high levels of self-monitoring skills and self-control, having family responsibilities, observing traditions and rituals (cultural, religious, familial), having a successful school experience, having a hobby or a creative talent or engagement in outside activities or interests and having strong bonds with one's local community.

The role of culture and ethnicity in the initiation and maintenance of drinking

Each of these issues described above cannot be examined in isolation. There is a clear need to address the more complex questions of the meaning and value of drinking of alcohol in the lives of 12- to 17-year-olds; and one of the key tasks of adolescence in the UK is to learn how to use alcohol appropriately. This task will be influenced by the cultural, religious, national, ethnic and other issues outlined above, and above all of these, it will be influenced by the family, peer and media influences reviewed earlier.

As children grow, the primary influences usually change, away from parental influence and more towards societal influence as a whole, and then towards peer influence; but parental and family factors (monitoring, management, communication and so on) hold huge sway over how much influence these other factors have, and at which stages they will start to predominate.

Similarly, as young people grow older, their involvement in various aspects of their community (religion, sport, community activism, etc) also play a prominent role in their relationship towards alcohol, again heavily influenced by the same parental (and later peer) factors already discussed.

The findings summarised in this review have important implications for policy and preventative programmes and interventions, which may allow the increase in youthful (and national, adult) alcohol consumption (overall and in terms of bingeing) to be curtailed. These issues are covered in a second review (Velleman, 2009b).

1 Introduction

Drinking and intoxication: a cause for concern

There is considerable current concern in the UK and elsewhere about young people's drinking. Research shows that over half of 8-year-olds and more than three quarters of 10-year-olds have tasted alcohol (Cameron *et al.*, 2003). By age 11, one fifth of secondary school pupils report having had at least one alcoholic drink and by age 15, this figure has risen to over four fifths (Clemens *et al.*, 2008). However, it is the *amount* consumed by young people that is of particular concern. Jefferson *et al.* (2007) show that, at age 15–16, nearly half of young people drink alcohol on a weekly basis and around a quarter report drinking to intoxication regularly. Binge-drinking habits continue into young adulthood, with more than a third of 16- to 24-year-olds reporting that they drink over the sensible drinking daily limits (Jefferson *et al.*, 2007).

Although in the UK significant numbers of young people have not drunk alcohol (OFCOM/ASA, 2007), the increase over the past 10–15 years in average weekly consumption of young people has raised particular concern. The National Centre for Social Research and the National Foundation for Educational Research (NCSR/NFER, 2007) showed that the average weekly consumption among 11- to 15-year-olds who had drunk alcohol in the previous week increased consistently from 5.3 units in 1990 to 10.4 units in 2000 and to 11.4 in 2006. Some of the biggest increases occurred in the youngest of these children, with boys aged 11–13 drinking 43% more units in 2006 than in 2000, and girls aged 11–13 drinking 82% more units (Alcohol Concern, 2007a).

The European School Survey Project on Alcohol and other Drugs (ESPAD) has examined drinking among representative samples of 15- and 16-year-old teenagers in the UK and other European countries every four years since 1995 (Hibell *et al.*, 1997, 2000, 2004, 2009). A comparison between teenagers from the UK and other European

countries shows that UK teenagers and those from Ireland, the Netherlands, the Isle of Man, Malta, Sweden, Denmark and Norway are the most likely to engage in binge drinking (defined as five or more drinks in a row). In the 2003 study, the UK ranked equal third out of 35 countries (Hibell *et al.*, 2004).

Given the concerns expressed about alcohol consumption among children and young people, it is important for policy and prevention to understand the processes by which children and young people gain knowledge about alcohol and its effects and how they come to adopt drinking behaviours that may prove harmful.

The review

This review examines the major socialising influences on children and young people as they learn about alcohol and begin to drink. The review focuses on the UK although in other countries there is also concern about children and young people's alcohol consumption (eg the US: CDCP, 2006; SAMHSA, 2007). The review draws on a body of international research that spans a wide age range from infants aged 6 months to young people in their twenties (24 years old).

The review begins by considering the research on children's knowledge about alcohol and their attitudes, intentions and expectations towards alcohol. It then considers the process of socialisation and how children learn about alcohol among other things. The discussion concentrates on examining the four main socialisation vehicles that influence the development of drinking habits and patterns among children and young people – families, peers, schools and the media – and how these combine to encourage or restrain children from first drinking and, for some young people, going on to drink problematically. Understanding how knowledge, attitudes and behaviours are formed is important in developing effective interventions targeting behaviour. Taking account of the cultural and social contexts that may have both direct and indirect effects on the acquisition

of knowledge and drinking behaviours, is equally necessary in considering why some young people develop problematic drinking patterns and others do not and the review therefore summarises research findings for some of these main cultural and social variables.

2 Setting the scene: children's knowledge, attitudes, expectations and intentions

This chapter examines research findings on children and young people's knowledge about alcohol and its effects and how attitudes, expectancies and intentions to use alcohol develop and change. Finally, the chapter looks at the links between expectancies, intentions and behaviour.

Children know a lot

Young children in the UK know a great deal about alcohol, drinking behaviours and the appropriate social contexts for the use of alcohol. More than 35 years ago, Jahoda and Cramond (1972) showed in research in Scotland that many young children were familiar with the names of alcoholic drinks. At age 6, about 40% of children were able to identify at least one alcoholic drink by smell alone, rising to 75% by age ten. By age 8, most children could differentiate between alcoholic and non-alcoholic drinks. Jahoda and Cramond (1972) also showed that the vast majority of children could correctly recognise drunken behaviour on a film sequence, with practically all children claiming to have seen 'people like that' in real life.

Also in Scotland, Jahoda *et al.* (1980) showed that approximately half the children in their youngest age group (4 to 5½ years) could give an appropriate 'alcoholic' label to pictures of bottles and this proportion showed no significant increase among 5½- to 6½-year-olds. Children were then asked to explain the difference between two groups of pictures – 'alcoholic' and 'non-alcoholic' – and again roughly half could correctly differentiate between the groups. For 4- to 6½-year-olds there was no significant relationship between these responses: appropriate bottle labelling gave no indication as to whether the child could offer an explanation for the groupings. Among 6½- to 7½-year-olds, however, there was an increase to about

two thirds of correct responses to both tasks and the relationship between their correct scores also became significant, indicating that the two tasks had become linked in the structure of children's cognitive processes in this older age group.

These findings were replicated and the ages at which they were found lowered in subsequent research. Jahoda *et al.* (1980) showed that 3-year-old children have acquired knowledge and attitudes regarding alcohol and cigarettes, and Bloom and Greenwald (1984) reported that children aged about 6 years in their US sample knew what alcohol was. Zucker *et al.* (1995) also showed that such identification from photos was apparent in most children aged 3. Similar results have been shown in many countries, for example in Australia (Cameron *et al.*, 2003, children aged 8–12) and New Zealand (Casswell *et al.*, 1988, children aged 8–9), and in much other research from the US (Hahn *et al.*, 2000, children aged 3 and aged 5–6; Andrews *et al.*, 2003, children aged 5–9). Such findings have also been reported over a considerable time period (eg Penrose, 1978; Noll and Zucker, 1983; Spiegler, 1983; Greenberg *et al.*, 1985; Gaines *et al.*, 1989).

Knowledge is generally assessed verbally, so there are age limits for asking children these questions. Dalton *et al.* (2005) used role play to explore children's knowledge. Using props and dolls, they invited individual children aged 2–6 to act out an adult social evening by selecting items including beer and wine from a miniature grocery store; nearly two thirds bought alcohol. Rather than random buying, it is more likely that their behaviour implied some level of knowledge about the products as children were more likely to buy beer or wine if their parents drank alcohol at least monthly or if they viewed PG13- or R-rated movies. The authors concluded that children's play behaviour suggested that they were highly attentive to the use

and enjoyment of alcohol and that they have well-established expectations about how alcohol fits into social settings (Dalton *et al.*, p 854).

Another innovative way of understanding knowledge (first used by Jahoda and Cramond, 1972) is examining children's responses to the smell of alcohol (again, their ability to differentiate alcohol from other smells suggests a differentiation in knowledge). Fossey (1993) showed that young children (in three age ranges: 5½–6½, 7½–8½ and 9½–10½) could identify alcohol on the basis of smell. This knowledge is also apparent at much younger ages. Noll *et al.* (1990), working with very young children aged 2½–6 found that even her youngest respondents (aged 2½) were able to correctly identify alcohol by smell alone alongside other familiar odours such as popcorn and Play-Doh. Mennella and Beauchamp (1998) showed that this knowledge is present at even earlier ages. Six- to 13-month-old infants responded differentially to toys, identical in appearance but different in scent; each toy was unscented, scented with ethanol or scented with a non-ethanol-based vanilla. Infants with more exposure to ethanol (inferred from questionnaires about parental alcohol intake) mouthed an ethanol-scented toy more compared with less exposed infants; this did not occur on exposure to the vanilla-scented or unscented toy.

Knowledge is not purely confined to naming substances and understanding some of their effects. The role-play experiments (Dalton *et al.*, 2005) described above showed that children aged 2–6 had a sophisticated understanding of the contextual, motivational and normative aspects of alcohol usage.

Summary points

- Babies and young children have knowledge of alcohol.
- They can detect and differentiate it from other substances.
- They have expectations and understandings of alcohol's social uses.
- Children's knowledge increases with age.

Children have clear attitudes

An 'attitude' is largely agreed to be a blend of beliefs, values and feelings that exerts an influence on a person's response to people, objects and situations. Some have suggested that two other components are part of attitudes: expectations about the object and intentions to act towards the object. This review examines these separately below.

Many studies have found that even very young children have quite clear attitudes towards alcohol, although these attitudes become more complex with increasing age. Jahoda and Cramond (1972), for example, showed that children's attitudes towards alcohol were formed early (certainly by age 6), and that they changed over time, becoming increasingly unfavourable with rising age. However, attitudes to their own (future) drinking became more mixed with increasing age – at age 6, most children said that they would not drink alcohol when they were older; but by age 10, many were less sure about this.

Children have clear expectations and intentions

Associations and expectancies

A number of writers have argued that attitudes are strongly linked to 'expectancies' – that is, that children's expectations of whether they are likely to drink in the future, and of what might happen if they do (whether they will like drinking, whether it will make them more attractive, popular, etc) are a good measure of their underlying attitudes towards alcohol.

Indeed, much research has shown that such expectancies do not only influence attitudes towards alcohol and the likelihood of drinking alcohol; they also influence the *effects* of that alcohol. Several placebo studies have demonstrated that merely believing that they have had a drink leads people to behave in ways that they would normally expect to behave when under the influence of alcohol (Fillmore and Vogel-Sprott, 1998; Goldman *et al.*, 1999). Accordingly, a great deal of research over the past three decades has been undertaken into expectancies.

The impact of parents' drinking on children's associations and expectancies are demonstrated by findings from a study with quite young children. Mennella and Garcia (2000) focused on children aged 3.8–6 to determine whether a response to the odour of alcohol (beer) was related to the drinking habits of their parents. They found that children's preference for the odour of beer varied as a function of the 'escape drinking' of their mothers alone or both parents. Children living in a household in which one or both parents drank alcohol to escape were significantly more likely to *dislike* the odour bottle containing alcohol compared with children whose parents did not drink to escape. This difference between the groups was odour-specific. Additional analyses revealed that the fathers of children who rejected the beer odour reported drinking significantly more than the fathers of those liking the odour. The authors concluded that some early learning about alcohol is based on sensory experiences related to children's experiences at home and the emotional context in which their parents use alcohol, adding support to the effect of parental alcohol use on children's expectancies about its use.

The study by Dalton *et al.* (2005) discussed above showed that even very young children had well-established expectations about how alcohol fits into social settings, illustrating that the use of alcohol was both appropriate and normative. These expectations appeared to be linked to children's observations of adult, especially parental, behaviour. Other studies show that children as young as 8 have clear ideas about the appropriateness and the effects of drinking; and that these expectancies tend to become more positive as children get older. Cameron *et al.* (2003) argue that this transition is far more than a simple shift from negative to positive, and suggest that, as young people grow up, they entertain gradually more complex alcohol-related expectancies and are increasingly aware of both positive and negative consequences of consumption. The authors tested these ideas by examining expectancies in children aged 8, 10 and 12 and found that, consistent with an 'ambivalence model' of alcohol use, children endorsed *both* positive and negative alcohol expectancies.

Many researchers have found that, not surprisingly, expectancies are influenced by parental example. Wiers *et al.* (1998) studied alcohol-related expectancies (and alcohol use) in 'children of alcoholics' (COAs) and controls, aged 7–18. The researchers hypothesised that younger COAs (elementary school age) would hold more negative expectancies due to aversive learning, whereas older COAs would hold more positive expectancies due to a more favourable response to alcohol. They further suggested that the critical variable with respect to the change from more negative to more positive expectancies would be the child's own initiation of alcohol use. The results of their study (which was cross-sectional and could not therefore directly demonstrate the changes that they were looking for over time) provided suggestive evidence in favour of their hypothesis: elementary school-aged COAs had stronger negative expectancies than controls, as did older COAs who had not yet started drinking; but older COAs who had started drinking showed more positive expectancies.

Intentions

It seems logical to assume, and has been borne out by research (eg O'Callaghan *et al.*, 1997) and theory (drawing on the theory of reasoned action: Ajzen & Fishbein, 1980; and the theory of planned behaviour: Ajzen, 1988, 1991), that future intentions to use a substance are related to attitudes and expectancies.

Andrews *et al.* (2003) examined the relationship between behavioural intention and subsequent behaviour among 5- to 9-year-olds. They found age and sex differences in children's stated intentions to drink (as did Jahoda and Cramond, 1972, and Cameron *et al.*, 2003). Intentions to drink increased with age and boys were more likely than girls to intend to drink alcohol when older.

A further interesting idea was introduced by Spijkerman *et al.* (2004), who suggested that intention and expectations would also be influenced by how much children liked the overall 'idea' or 'prototype' of being a drinker. They found that positive relations were observed in adolescents between drinker prototypes and adolescents' intention and willingness to drink in the future. Furthermore, regression analyses showed that

prototypes of weekly-drinking peers explained a significant part of the variance in intention and willingness to drink.

Summary points

- Children's expectations of whether they are likely to drink in future and the consequences of this are considered to be a good measure of underlying attitudes to alcohol.
- Such expectancies influence attitudes towards alcohol and the likelihood of drinking. They also influence expectations of the *effects* of alcohol; after drinking people behave in ways they expect to behave when under the influence of alcohol.
- Very young children have well-established expectations about social uses of alcohol as appropriate and normative behaviour.
- Children's expectancies about alcohol become more positive as they grow older and more complex as they start to drink, and they become increasingly aware of both negative and positive consequences of consumption.
- Many expectations and changes in them are linked to observing adult behaviour and children's own drinking behaviour.
- Changes in expectancies are mirrored by changes in intentions becoming more favourable as children grow older.
- Children's intentions and expectations are influenced by how much they like the overall social image or 'prototype' of being a drinker.

3 Expectancies, intentions and drinking behaviours

The previous chapters have demonstrated the relationships between children's knowledge, attitudes, expectations and intentions, but what of their impact on actual drinking?

Christiansen *et al.* (1989) showed how alcohol expectancies could predict adolescent drinking one year later. They found strong longitudinal predictions between expectancy scores at year 1 and both quantity/frequency and a measure of 'problem drinking' in year 2. As the authors say,

It is noteworthy that the longitudinal predictive power of expectancy in this sample compares favourably with concurrent prediction results reported in earlier studies.

(Christiansen *et al.*, 1989, p 97)

Padget *et al.* (2006) summarise the relationship between age, expectancies, intentions and behaviour, arguing that attitudes towards alcohol use are typically negative when children are aged about 6–8, becoming less so with age. They suggest that children of this age and older non-drinking students, both tend to associate alcohol use with negative, unpleasant effects, while older children (aged 9–13), and especially those beginning to drink alcohol at these ages, tend to associate alcohol use with positive, arousing effects. They argue that intentions to use alcohol also increase with age and constitute an early warning sign for subsequent initiation of use.

Donovan *et al.* (2004) showed that alcohol expectancies measured at a very much earlier age also predicted adolescent drinking. They report the results of a study of 400 intact families, each at baseline with a 3- to 5-year-old son, where their outcome variable was age of onset of regular drinking of that child. Early child expectancies about adult alcohol use were measured by using 'alcohol-use schemas' in which children were asked to state whether adults were drinking alcoholic or non-alcoholic drinks in drawings

of social situations. Alcohol expectancies were indicated by the proportion of alcoholic beverages assigned to the male adult figure. The strength of these child alcohol-use schemas correlated significantly with parental alcohol consumption and parental 'alcoholism', both assessed by parental report when children were younger. These alcohol-use schemas assessed at ages 3–5 significantly predicted early onset of drinking some nine years later (as did parental alcohol use and parental alcoholism, although importantly, child alcohol schemas predicted early drinking onset even when the effects of parental alcoholism were statistically removed). These findings indicate that early child alcohol expectancies are precursors of later alcohol use; they counter the view that early drinking experiences are shaped solely by peer influences and modelling occurring in middle childhood and adolescence. The findings indicate that very early cognitions and expectancies about alcohol, acquired at least partly through early learning at home, are part of a causal pathway that may lead through early-onset drinking to problem alcohol use later on in life.

There is also a relationship between beliefs about the safety or harmfulness of an activity, and both intentions and later behaviour. Martino *et al.* (2006) showed that children's beliefs about the probable consequences of alcohol use played a causal role in the initiation and development of adolescent drinking. Those believing that alcohol had more negative consequences were less likely than others to drink. Adolescents with favourable attitudes towards alcohol were more likely to drink.

Oei and Morawska (2004) developed a cognitive model of binge drinking, which linked together the influence of alcohol expectancies and drinking refusal self-efficacy.¹ These authors suggested that research into binge drinking needs to be theoretically driven, but that there is a lack of good psychological theory on which to base this research. They developed a cognitive model

using the key constructs of alcohol expectancies and drinking refusal self-efficacy to explain the acquisition and maintenance of binge drinking. They suggested that the four combinations of alcohol expectancies (positive vs negative) and drinking refusal self-efficacy (high vs low) can explain four drinking styles: normal/social drinkers (positive expectancies, high refusal self-efficacy), binge drinkers (negative expectancies, high refusal self-efficacy), regular heavy drinkers (positive expectancies, low refusal self-efficacy) and problem drinkers or 'alcoholics' (negative expectancies, low refusal self-efficacy). They argued that, since both alcohol expectancies and drinking refusal self-efficacy are cognitive constructs, they are therefore modifiable: suggesting that this cognitive model could facilitate the design of intervention and prevention strategies for binge drinking.

Norman and Conner (2006) also bring a more theoretical slant by considering the utility of the Theory of Planned Behaviour (Ajzen, 1988, 1991) as a framework for predicting binge drinking among young people. According to the Theory of Planned Behaviour, the proximal (or most central) determinant of behaviour is the individual's intention to engage in the behaviour. Intention is determined by three constructs:

- the individual's attitude towards the behaviour, reflecting an overall positive or negative evaluation of the behaviour;
- the individual's perception of the social pressure from important others to perform or not perform the behaviour (ie subjective norm);
- the individual's perception of the ease or difficulty of performing the behaviour (ie perceived behavioural control), which covers the influence of internal (eg skills) and external (eg constraints) control factors.

Using a sample of 398 undergraduate students, Norman and Conner (2006) found attitude to be the strongest predictor of binge-drinking intentions, which were, in turn, predictive of binge-drinking behaviour. The authors suggest that their findings have a number of important implications for theory-based interventions to promote more appropriate

drinking behaviour. They suggest that interventions could target attitudes towards binge drinking by focusing on the negative consequences and by challenging the positive consequences associated with binge drinking. Given that the attitude–intention and intention–behaviour relationships were weaker under high levels of past behaviour, it may be important to inculcate such beliefs before drinking patterns become well established. They suggest that interventions should attempt to alter the social environment in order to reduce the influence of external pressures to engage in binge drinking. This may be achieved directly by changing drinking environments such as pubs to encourage activities other than the simple consumption of alcohol (such as eating) or by reducing the promotion of cheap drinks such as 'happy hours'. Alternatively, wider social attitudes towards binge drinking could be changed through the promotion of appropriate models of alcohol consumption in the media.

A further study (Spijkerman *et al.*, 2007) examined the issue of drinker prototypes mediating relations between peer and parental drinking behaviours and norms, and subsequent adolescent alcohol use. This study took into account the reciprocal relationship between drinker prototypes and alcohol consumption, and investigated these issues in adolescents with and without drinking experience, using longitudinal data from 1,956 Dutch adolescents (aged 12–16). They found significant effects of drinker prototypes on future alcohol use among both drinking and abstaining adolescents. Among drinking adolescents, the impact of peer and parental norms on adolescents' alcohol use was mediated by drinker prototypes. Among adolescents with no drinking experience, drinker prototypes also affected future alcohol use, although these effects were less important than the direct impact of peer and parental drinking. They concluded that prototypes mediate the influence of peer and parental norms on adolescents' alcohol use, especially in adolescents who already have drinking experience.

Summary points

- Research shows that young people develop alcohol expectancies (beliefs about the effects of alcohol) before ever having direct experience with alcohol.
- Beliefs/cognitions about how alcohol will actually affect young people are strong predictors of both intentions to later use alcohol and actual future alcohol consumption.

- Despite changes in knowledge, attitudes and intentions, most children do not commence drinking independently during primary school years. Changes in attitudes and intentions continue with more significant changes in behaviour at secondary school.

In summary: knowledge, attitudes and behaviour

- Most preschool children and babies can identify alcoholic beverages and have already developed certain cognitive concepts and schemas about drinking behaviours.
- The formation of knowledge about alcohol use emerges very early, certainly within the preschool years and parental drinking practices are associated with these early formative beliefs.
- The acquisition and elaboration of knowledge about alcohol use continues through primary school years with increasing knowledge about drinking behaviour and alcoholic drink content.
- Children's intentions to drink alcohol increase with knowledge and are significantly related to parental drinking practices: the more parents drink, the more likely children are to express an intention to drink.
- There are significant age differences in the development of alcohol expectancies and alcohol expectancies are related to levels of alcohol consumption.
- Alcohol expectancies become increasingly positive with age and, by age 10, most children believe that drinking results in positive outcomes (eg higher levels of acceptance, liking by peers, being in a good mood with positive feelings about oneself).

4 How children acquire knowledge and attitudes about alcohol

Knowledge, attitudes, expectancies and intention to drink – as well as drinking behaviour – relate to *socialisation* and it is important to consider this process to understand the ways in which knowledge, attitudes and behaviours emerge and are shaped. The question then arises as to whether learning about alcohol and drinking behaviour is any different from learning about other things!

The process of socialisation

What constitutes socially acceptable behaviour varies culturally and within social groups. Socialisation is a fundamental process by which children learn about living in their culture, and the kinds of behaviours expected by society, through a range of socialising agents such as family, friends, school, peers and the media.

Bandura's (1969, 1977) Social Learning Theory suggests that observational learning, and the resulting imitation, are central processes within socialisation. Essentially, everyone, especially children and young people, is continuously exposed to behaviours labelled as more or less socially acceptable or unacceptable. Initially, children learn via observation and modelling of these behaviours and subsequent reinforcement from parents and close family. At school, other influences (peers, teachers, etc) also become increasingly important and, throughout, media representations impact on what is learnt, directly via television, radio, videos, DVDs, reading materials, etc, and indirectly via advertising, product placements, sponsorships and other forms of indirect marketing.

This socialisation process, started in infancy and continued through early education, continues further during the development phases of puberty (Petersen, 1993). In this stage, a series of interlocking major shifts occur, both in attitudes and intentions, and in cognitions and reasoning.

These shifts in thinking show themselves especially in the ability to think in terms of abstractions (such as democracy and liberty) and in the growth of 'adolescent egocentrism' (Elkind, 1967). Hormonal changes (Buchanan *et al.*, 1992) coupled with societal expectations (delivered via intense media representations, and adult and peer expectations) combine to influence adolescents' interests and beliefs; for example in romantic and sexual relationships, in the importance of peers, or in the well-documented common 'delusion' of being invincible and invulnerable (Kaplan, 1993; Greene *et al.*, 1996). Evidence suggests that, by the teenage years, the influence of socialisation far exceeds that of physiological and hormonal changes. For example, increasing interest in romantic and sexual relationships and sexualised behaviour is nowadays believed to occur much earlier through media influences and the resulting sexualisation of childhood (Levin, 2005; APA, 2007).

During development, children are socialised into the expectation that, during adulthood and maybe as younger teenagers, they will start to consume alcohol. This socialisation process reflects the attitudes and beliefs shared by society at large. Zucker and colleagues (eg Greenberg *et al.*, 1985) found that even preschool children already held shared beliefs about alcohol use, attributing alcoholic beverage consumption more to adults than children, and more to adult males than adult females.

The work of Harnett *et al.* (2000) provides a useful insight into children's attitude towards alcohol and how and why these change. Their work on drinking styles (albeit with an older age group, starting at age 16) suggests that attitudes towards drinking change as lives change and as different socialisation mechanisms exert an influence at different life stages, such as the work environment, whether or not they have a family, the importance of changing peer groups, etc. They suggest that there

are 'childhood drinking styles', in which all aspects of the drinking occasion are controlled by adults. These most commonly take the form of 'wine at table' with parents, involving moderate amounts of alcohol at certain prescribed moments, although another childhood drinking style ('brought up with it' drinking) is a regular and normal practice situated in the context of everyday life rather than just being occasional. These are replaced by 'adolescent drinking styles', which describe situations in which individual drinking is, for the first time, organised by, and exclusively practised with, members of the peer group rather than among family or community members.

Summary points

- Young children are socialised into expectations to consume alcohol at some stage and acquire attitudes towards alcohol and its social context. Preschool children attribute alcoholic beverage consumption to adults, and more to adult males than to adult females.
- This socialisation process is influenced initially by observation and modelling on family and significant others' behaviour, by other influences from school and peers, as well as by the impact of direct media exposure and more subtle marketing aimed at younger audiences, especially young teenagers.
- Attitudes adopted towards drinking by children change as lives change and as they move from an adult-controlled drinking environment (parents, family events) into a self/peer-controlled environment.

Is learning about alcohol different?

It is likely that the processes underlying children's developing understanding (knowledge, attitudes and then subsequent behaviour) about alcohol are similar to the processes underpinning their general acquisition of knowledge. Some elements may be

specific to alcohol but it is important not to make alcohol into an entirely 'special case'.

The starting point must be:

- What is known from developmental psychology about how children acquire knowledge?
- What is known from developmental psychology about how children acquire attitudes and how these attitudes change and what, therefore, can be generalised from this to allow us to develop our understanding of attitudes towards alcohol as a specific case?

There appear to be multiple influences. This is not a new finding – in the early 1950s, Kurt Lewin (1951) suggested in his influential *Field theory in social science* that all behaviour was a function of the interaction between the person and their environment. Hence, the wider range of factors related to the individual, their family and wider networks, their environment and culture, will all impact on the development of knowledge and attitudes and resulting behaviours.

That being the case, babies learn about things even before birth (Jones, 2001; Ilari, 2003; Parncutt, 2006); and from birth onwards they learn at a very rapid rate through interactions in different social contexts with different social groups via *socialisation*, the process outlined earlier. Some of these influences are:

- visual and auditory observation, through family and others, watching television, etc, from which they gradually develop schema enabling them to organise these observations (Derry, 1996);
- experience – touching things, tasting things, etc;
- direct education – initially family and then later others specifically instructing, possibly in response to questions, once language starts to develop, and often as a result of formal educative experiences.

Hence, developmental psychology suggests that babies, children and adolescents (and indeed adults) learn via a number of direct and indirect

mechanisms such as parental modelling, peer modelling and media representations, as well as via more formal educative experiences, all influenced by biological states. The fundamental processes are the same although the effects of these mechanisms may vary due to social, ethnic, economic, religious or cultural variables.

There is nothing particularly different about how children acquire knowledge about alcohol! But studies reviewed above examining children's knowledge of alcohol do *not* tell us *how* children learn about these things. Most studies rely on visual stimuli such as brief films, suggesting that children may learn about alcohol and its social uses via personal observation of parents or other adult/child figures using alcohol, but also from observing media representations on film and television. Young New Zealand children in Casswell *et al.*'s (1988) study held clear, mostly negative concepts about alcohol and cited television and parents or siblings as main sources of information.

However, knowledge and attitudes can be acquired in many ways and children's perceptions of how they acquire them are not necessarily correct; neither is direct questioning necessarily the best method of discovering them.

An alternative technique outlined earlier is the examination of children's ability to discriminate alcohol from other substances by smell. Many babies and young children could identify alcohol by smell, implying some direct experience with alcohol; this could not have come from media representations alone.

In considering attitudes, the answer is the same. Attitudes to alcohol are formed in the same ways as other attitudes, via multiple influences from parents, family, peers, the media and wider socialisation processes.

Many authors have drawn attention to parental influences on attitude formation, both directly and via the behavioural examples that parents set. Interestingly, early studies (Penrose, 1978, in the US; Jahoda *et al.*, 1980, in Scotland) found no evidence that parental drinking (revealed by parents' self-reports) was related to either knowledge or attitudes found in children aged 4–7.

However, later studies, which examined more obviously problematic drinking among parents, found different results. Zucker *et al.* (1995) showed

that children's knowledge and beliefs about alcohol use among adults are affected by parental patterns of alcohol use. Children of 'alcoholics' could correctly identify specific alcoholic beverages and a greater number of alcoholic beverages than children of 'non-alcoholics'. There was a trend for children of 'alcoholic' men to attribute more alcoholic beverage use to male adults than did children of 'non-alcoholics'; and differences in these children's attributions of alcohol consumption were predicted by their parents' current consumption levels. Zucker *et al.* (1995) suggest that these results provide evidence that alcohol schemas are detectable in early childhood and are more common in children from alcoholic homes. Zucker and colleagues (Donovan *et al.* 2004) showed similar results from a nine-year longitudinal study. Mennella and Garcia (2000) similarly found that knowledge and attitudes about alcohol come from experience with parents.

As shown above, there is an influence of parental behaviour on the development of attitudes, expectancies and subsequent behaviour. Brody *et al.* (2000) explored children's internalisation of their parents' alcohol-use norms and their own subsequent alcohol-use behaviour. Their sample included families with a child aged 10–12 at the first assessment and data was obtained in three waves at one-year intervals. Parents' alcohol use norms were assessed at time 1, children's alcohol-use norms at time 2 and children's drinking behaviour at time 3. Brody *et al.* (2000) report that the link between parents' alcohol-use norms and children's drinking behaviour was mediated through the children's own norms, which they acquired from their parents. They further showed that father–child relationship processes moderated the links between fathers' and children's norms, and between children's norms and subsequent alcohol use.

The effects of puberty and adolescent development are also seen in changing attitudes to alcohol. Because these changes combine to increase adolescents' interest in romantic and sexual relationships, alcohol at this stage is seen as being extremely helpful for several reasons, including 'Dutch courage' as an excuse for risky behaviour and for enhancing the sex act (IAG, 2007, p 13). The desire to become older, and be seen as

older, means that many young people imitate adult behaviours, such as drinking, smoking and sexual behaviour, all of which are strongly linked. In a study by Engels and Knibbe (2000), a main reason for drinking among young people was to assist them in starting relationships. Teenagers who consumed alcohol at ages 14–15 were more likely to be involved in an intimate relationship at the age of 17, and drinking in social settings significantly predicted the likelihood of having a partner three years later. Bars, pubs and clubs are thus seen by adolescents as a place to form new relationships, which also influences their experience of the consumption of alcohol.

The conclusion then has to be that children's knowledge about, and attitudes towards, alcohol stem from the same sources as their knowledge about other commodities and related behaviours: a mixture of observation, experience, media and education.

In summary, the above sections have demonstrated that children learn about (and develop attitudes towards) alcohol and drinking behaviour from a number of distinct sources. Three key questions arise from this conclusion:

- What is known about the impact of these different influences (parents and other family members, peers, the media and alcohol marketing) on young people's attitudes towards drinking and on their drinking behaviour?
- What is the relative weight of these different influences on attitudes and behaviour towards drinking?
- What impact do variables such as national or regional drinking cultures, ethnicity/race, religion, socioeconomic status and other cultural factors have on the main socialisation mechanisms examined in this review?

These influences are examined in the chapters that follow.

5 The impact of parents, peers, the media and alcohol marketing

Parents and the family

Parental and family factors that influence the initiation or prevention of substance use behaviours have recently been reviewed by Velleman *et al.* (2005) and are summarised here. They conclude that there are seven areas in which the family context influences the child's substance use behaviour:

- family relations versus structure;
- family cohesion;
- family management;
- family communication;
- parental modelling of behaviour/parental supervision;
- parent/peer influences;
- parental attachment and the influence of siblings.

These areas will be examined further here. Although the focus is primarily on alcohol, a range of substance-use behaviours are included, as there are strong commonalities in the processes described. The larger review (Velleman, 2009a) provides more comprehensive references for statements made below.

Family relations versus structure

Much is known about how families influence children's learning about and subsequent behaviour towards alcohol. Relational aspects (eg cohesion, discipline, communication) of families seem to have a greater influence than structural aspects (eg single-parent families, family size, birth

order), although a significant correlation is often found between structural and relational aspects; for example children drinking at a younger age from single-parent families have reduced family support (Hellandsjo Bu *et al.*, 2002).

Family cohesion

Family cohesion, liking or satisfaction with one's parents, wanting to be like one's parents, a high level of family cooperation, higher family support and higher levels of family bonding are all shown to have positive effects on age of initiation to alcohol, and subsequent levels of alcohol use.

Studies from the US (CASA, 2004, 2005, 2006, 2007) have suggested that regularly eating an evening meal together as a family (five or more times per week) is one of the most significant protective factors and may be a powerful indicator for many reasons: it may act as a proxy for family cohesion and bonding, family communication can take place and the time available to be spent outside the family on alcohol-related activities is reduced.

Family management

Insistence on regular evening meal attendance is related to family management practices, the importance of which has been demonstrated by research. Child management practices that are consistent and contingent (that is, rewards and punishments are given for specific behaviours) can increase family attachment and cohesion, and decrease disruptive and delinquent behaviours among children.

Parents who are responsive, who expect a lot from their children and who provide a sense of self-efficacy tend to have offspring who are less likely to engage in a range of potentially problematic behaviours including alcohol use (Baumrind, 1989; Lamborn *et al.*, 1991; Steinberg *et al.*, 1994). An important issue is parents being able to balance the

two dimensions of 'care' and 'control' coupled with parental expectations. Excessively authoritarian and permissive parenting are both associated with earlier onset of alcohol use (Baumrind, 1985). Parental expectations are also important: having (and communicating) clear expectations is a sign of authoritative parenting, whereas not having (or communicating) such expectations is a sign of over-permissive parenting.

Expectations also link with rules, which seem again to have strong preventative effects, providing they are not associated with excessively authoritarian parenting. Parents who prohibit adolescents from drinking alcohol at home tend to lower adolescents' alcohol involvement (Yu, 2003). Parental imposition of strict rules on drinking seems to prevent adolescents from starting to consume alcohol heavily and frequently (van der Vorst *et al.*, 2005) and that having clear rules decreases the likelihood of drinking in adolescence, primarily by postponing the initiation into drinking (van der Vorst *et al.*, 2006). Providing rules about drinking decreases the likelihood of adolescents' drunkenness and reduces drinking frequency (although this is the case more for boys than for girls (Engels and van der Vorst, 2003) and some studies suggest that these rules may be related to more frequent drinking in girls (Marsden *et al.*, 2005).

Many parents are unsure about imposing their authority, worrying that they may do more harm than good by imposing rules on their children. In fact, adolescents are significantly more likely to legitimise parental authority regarding alcohol than parental authority regarding conventional or contemporary issues (eg choice of friends, clothes or music: Jackson, 2002). If the adolescent does not legitimise parental authority, this is associated with a greater likelihood of intending to drink (among abstainers) or of drinking more. Again, this issue links back to parenting style: adolescents are most likely to accept parental authority when parents have an authoritative parenting style, whereas adolescents exposed to permissive, authoritarian and indifferent parenting are all more likely to deny parental authority regarding alcohol use.

Interestingly, the setting of rules does not need to be specific to the substance behaviour in question. A series of studies (Dalton *et al.*, 2002;

Sargent *et al.*, 2004; Dalton *et al.*, 2006) has examined the relation between parental restrictions on their children watching films and adolescent drinking. The findings are outlined here and more fully detailed in the larger review (Velleman, 2009a). These have shown that, after controlling for factors such as age, sociodemographics, parenting style, social influences and characteristics of the adolescent, children who were completely restricted from viewing R-rated movies were significantly less likely to drink compared with those who had no or partial restrictions on viewing R-rated movies. These effects of parental rules and monitoring of children's film viewing occur irrespective of parental monitoring of non-media-related behaviours. It seems clear that, by exerting control over media choices, parents may be able to prevent or delay drinking in their children.

The other side of rules that restrict behaviour is approval of that behaviour. Parent and adult-relative provision of alcohol, and drinking with a parent, as well as perceived consequences, are all protective of underage drinking. However, providing alcohol for an adolescent's party is associated with increases in use and binge drinking. The context and level of supervision are clearly important variables. Parental provision may enable the establishment of child-parent dialogues on alcohol and the moderating of youth consumption, but it should be noted that utilising parents in this way requires parents being supported to ensure that they develop only moderate drinking behaviours in their children and drinking only when appropriate. If these provisos are taken into account, then there is evidence that parental initiation, alongside parental modelling and parental supervision, may reduce the risks of heavy or inappropriate drinking in mid-adolescence (age 15/16), although probably not in younger children (aged 12).

It has been suggested that parents who lack effective family management skills are less well equipped to protect their children from negative peer influence. Poor parenting skills tend to be passed from one generation to the next, and parents can feel overwhelmed.

Family communication

There is no point in having rules if they are not communicated. A low level of communication

between parent and child, poorly defined and poorly communicated expectations of a child's behaviour, and high levels of negative interaction or family conflict are all found to be predictive of an increased risk of substance misuse. Ineffective communication can increase scolding or criticism, making it more likely that adolescents will initiate or continue substance use. Conversely, regular communication of parental warmth and affection, support for child competencies, presentation of clear prosocial expectations, monitoring of children and consistent and moderate discipline can inhibit problem behaviour in children (eg Coie *et al.*, 1993; Yoshikawa, 1994).

The quality and level of family communication generally are important, so too is communication within the family about substance use. Parents are often embarrassed about raising these issues, or are unsure of their legitimacy, as outlined above. They may believe that they have effectively raised these issues with their children, while children may be unaware of this (Hogg *et al.*, 1996; Quinn, 1996). Lessons can be drawn from the smoking literature here, where the timing of smoking-specific communication seems to be important: if parents initiate smoking-specific communication before the child experiments with smoking, this is more likely to be effective; if they wait until after the child has started, more frequent parental communication about smoking is associated with more smoking (Engels and Willemsen, 2004; Harakeh *et al.*, 2005).

Reiterating an earlier point, the better the quality of parent-child communication, the less likely adolescents are to smoke. The implication is that merely talking frequently to a child about future substance use is less important than whether or not these discussions take place in a constructive and respectful manner and whether or not the child appreciates it (van der Vorst *et al.*, 2005). Similarly, parental disapproval of behaviours has a preventative effect (as long as it is done using a positive parenting style) (Sargent and Dalton, 2001; McGee *et al.*, 2006). Maintaining disapproval is important: adolescents who perceived their parents becoming more lenient over time about smoking were significantly more likely to become established smokers. It seems that open parent-child communication about alcohol and drug use

and clear guidelines for use (or non-use) can curb alcohol use among adolescents (Cox *et al.*, 2006).

Parental monitoring and supervision

Parental monitoring or supervision of children (ie knowing where children are and what they are doing) is hugely important in preventing or delaying the onset of youthful substance use.

Age of initiation of drinking is important for many reasons. Research in the US has found that the earlier the age at which people begin drinking, the more likely they are to become alcohol dependent later in life (Grant and Dawson, 1997; SAMHSA, 2005). Those who begin drinking as teenagers are also more likely to experience alcohol-related injuries and to be involved in alcohol-related violence, than those who begin drinking later (Hingson *et al.*, 2000, 2001). Age of first use also strongly predicts *regular* alcohol, tobacco and marijuana use, and the age at which experimentation begins is decreasing (SHEU, 2007).

Supervision leads to a very significantly delayed onset, often measurable in terms of years. Higher levels of monitoring have been shown to protect children against use and misuse, even when exposed to peers who used a variety of drugs. Parental monitoring and supervision is related both cross-sectionally and longitudinally to adolescents' alcohol use, and monitoring prevents adolescents who have commenced drinking from drinking more heavily (although monitoring has a stronger effect on boys than on girls). The European School Survey Project on Alcohol and Other Drugs (ESPAD) (Ledoux *et al.*, 2002) in both the UK and France showed that parental knowledge of the whereabouts of their offspring on Saturday evenings was the strongest factor in both countries, predicting heavier substance use across all substance use variables (eg alcohol consumption in the past 30 days and past year, binge drinking, number of times drunk, other licit and illicit substance use). The influence of parental supervision may be direct, in protecting children from substance use, or indirect, in reducing a child's contact with substance-using peers.

Parental modelling

Parental modelling is also a major influence: children often do what parents do, not what they say. However, many of the effects outlined above hold true despite parents modelling behaviour that they do not wish their children to follow. Parent modelling of drinking is strongly related to greater adolescent alcohol use (Forney *et al.*, 1989; Ary *et al.*, 1993; Hellsandsjo Bu *et al.*, 2002; Seljamo *et al.*, 2006). There is an indication that the observed, actual frequency of parental drinking is more important than parents' attitudes and norms for drinking, reinforcing the idea that it is parental modelling rather than a transfer of drinking norms that is important (Yu, 2003). It is most likely that children observe parental drinking and from that, learn their parental norms about expected adult drinking (Brody *et al.*, 2000). They then internalise these norms, which come into operation when the adolescent subsequently starts to drink. However, despite the research evidence, parents do not have a strong sense of the importance of parental influence and modelling of behaviour on subsequent behaviour in their children.

Siblings

Although research into the family concentrates on parental or whole family variables, siblings are important too. Research has shown that older siblings' *willingness* to use substances, and their *actual* substance use, are both robust predictors of their younger sibling's later use, even after controlling for membership in a shared peer group and for parental 'alcoholism'. Older siblings' substance use is also a robust predictor of peer substance use and low older sibling willingness to use substances is associated with less evidence of peer influence. Some research suggests that both older sibling and peer modelling/substance use are more strongly related to adolescent substance use than parental alcohol use. However, older sibling influence is stronger among same-gender sibling pairs who are closer in age and from higher-conflict families. There is also a reciprocal influence, where younger siblings influence older ones, although these effects are significant only for sibling pairs close in age (Ary *et al.*, 1993; Windle, 2000, Pomery *et al.*, 2005; Trim *et al.*, 2006; van der Vorst *et al.*, 2007).

Summary points

It seems clear that the following are all vital areas:

- parenting style – a balance between the two dimensions of 'care' and 'control' where 'care' includes parental support, nurturance, attachment, acceptance, cohesion and love; and 'control' includes parental discipline, punishment, supervision and monitoring. This balance means being responsive, expecting a lot from children, but also being authoritative, as opposed to permissive, authoritarian, or indifferent;
- the utilisation of rules and consequences, where having clear alcohol-specific rules is related to delayed onset of drinking;
- clear and open communication of expectations about alcohol use (or non-use) and potential disapproval if expectations are not met;
- parental warmth;
- parental self-efficacy;
- parental supervision or monitoring, which can delay the onset of drinking;
- spending significant time together as a family;
- parental modelling of the behaviours expected of, or wished for, from their children;
- parental control of early drinking experiences;
- siblings' (lack of) willingness to drink and actual drinking.

Family factors that are protective of children, in terms of their age of initiation into and development of behaviour towards alcohol, are also found in

more general reviews of the influence of resilience and protective factors. Harrop *et al.* (2006) showed that family-level protective factors have been consistently found across a wide range of reviews of different outcomes.

Role of peers

Although there is strong evidence that family factors are important, there is also strong evidence that peer relationships are a major influence. There is a strong association between adolescent use of alcohol, tobacco and drugs, and contact with similarly using peers. There is, however, also evidence that the role of peer pressure declines with increasing age; children's accounts suggest that the role of peer pressure declines substantially as children get older and that the decision to experiment with drugs is increasingly a matter of personal choice (McIntosh *et al.*, 2006).

A key issue is the extent to which effects of peers are due to *peer pressure or influence* versus *peer selection*, that is, do substance-using peers *influence* young people to take up and go on to use substances, or do young people *select peers* in order to enable themselves to be influenced by them. There is increasing evidence that both these influences are at work, and many researchers agree that estimates of peer influences on adolescent drug use may be grossly exaggerated if the effects of selection of friends are not adjusted for (Kumpfer and Turner, 1991; Coggans and McKellar, 1994; Aseltine, 1995; Bauman and Ennett, 1996). Although most studies do support both of these processes, some studies suggest that similarity in drinking behaviour among adolescent friends is more related to peer influence than to peer selection (eg Sieving *et al.*, 2000).

In the previous section, it was shown that sibling behaviour has a major impact on peer influence, with several studies showing that peer and sibling substance use are strongly related to adolescent substance use, and that sibling substance use is a predictor of peer substance use.

Other work has looked specifically at the influence of one's 'best friend', finding that best friends' drinking behaviour is related to adolescents' drinking both cross-sectionally and longitudinally. Again, much of the relationship

between alcohol use and friendship is explained by young people actively selecting similar friends, and then these friends influencing them, rather than friends themselves exerting a really strong and independent influence.

A methodological problem, however, is that accounts of social functioning are usually based on adolescents' self-reports, which might not present an accurate picture. Research has also examined social networks, looking at three types of attribute within peer networks: social embeddedness, social status and social proximity to substance users. Findings suggest that adolescents who are less embedded in the network, with greater status and with closer social proximity to peer substance users are more likely to use substances. The authors concluded that having friends in the network, being liked but not too well liked and having fewer friends who use substances are the most likely to protect from early substance use (Ennett *et al.*, 2006).

Other social network research has shown that the highest levels of smoking and drinking are found in adolescents who were scored highest (by their classmates) on sociability and self-confidence, and relatively low on aggression-inattentiveness, achievement-withdrawal, and emotionality-nervousness, suggesting that perceived beneficial functions of substance use are not only in the eyes of the individual drinker or smoker. The conclusion from this research is that it *is* the young people who are seen as cool who smoke and drink most (Engels *et al.*, 2006)!

In the context of peer relationships, alcohol has been found to boost confidence among young people in more intimate relationships. Getting drunk was the most frequently cited motivation to increase confidence in social and sexual situations among underage young people aged 14–17 (Coleman and Cater, 2005).

Nevertheless, much of the work examining peer influences provides contradictory results, and there does not appear to be the consensus over peer influence that there is over parental, sibling and family influence. In many studies, the size of the effects of peer influence is not high, suggesting that selection may account for much of the similarity in substance use between adolescent friends.

Summary points

- There is a strong association between adolescent use of alcohol, tobacco and drugs, and contact with similarly using peers.
- The role of peer pressure declines with increasing age.
- Peer effects are due to both peer pressure/influence and peer selection.
- Much of the work examining peer influences provides contradictory results and there is a lack of consensus over peer influence.

Relative weight of family vs peers

It is clear that both parental and peer factors are important, both for expectations/attitude formation and for subsequent commencement of drinking. However, there is little consensus over the relative importance of parental versus peer factors. Some studies show that parental factors generally have the same strength as peer factors; others suggest that family factors have only about half the effect of peer ones.

Many researchers conclude that parents can influence their children's drinking, but their influence has more impact if the adolescent is not involved in a drinking-conducive peer environment. It has also been suggested that the process of becoming an adolescent drinker involves an active rejection of parental influence rather than a passive movement away from parents' attitudes and beliefs – a process that is accelerated by association with peers who drink.

It is now generally accepted that the influence of parents and peers is not necessarily independent or oppositional, rather, both are moderated by one another. Many studies have shown that the family has an important role in enabling young people to *select their peers*: if they select peers who are themselves less likely to use substances, powerful parental influence is at work. For example, one study showed that family environment can exert significant indirect effects on adolescent alcohol

use *through* peer influence, and through self-efficacy and stress; and that parental expectations are independently highly important (Nash *et al.*, 2005). Another study showed that positive drinking expectancies in adolescents were significantly associated with drinking initiation only among teenagers who believed that their parents did *not* hold strong expectations for them *not* to drink (Simons-Morton, 2004). One conclusion is that parental expectations of adolescent alcohol use is a major influence, with greater parental disapproval associated with less involvement with friends and peers who drink, less peer influence to drink, greater self-efficacy for avoiding alcohol use and lower subsequent drinking and related problems. Parental influences moderate peer-influenced drinking behaviour, such that higher levels of perceived parental involvement are associated with weaker relations between peer influences and alcohol use and problems.

There is good evidence for the interdependent influences of family and peers and that family and peer groups are mutually influential and interdependent in determining the likelihood of substance use among young people (Parke and Ladd, 1992; Duncan *et al.*, 1995, 1998; Donovan, 2004; Martino *et al.*, 2006). Once experimentation with alcohol has occurred, parental influence may exert itself indirectly through the adolescent's choice of friends (Wood *et al.*, 2004; Nash *et al.*, 2005). Further, choices of positive or negative peers are influenced by self-esteem, which is itself predicted by both family and school climates. It seems likely that emphasising the power of peers may lead to the underestimation (by both parents and young people) of parental effects on children.

It is also the case that peer influence may be a less important determinant of adolescent substance behaviour than is commonly assumed (Bauman and Ennett, 1996). Further, adolescents' susceptibility to sources of interpersonal influence varies at different stages of substance involvement, with non-drinking adolescents being more readily influenced by parents and sources of authority (Pearce and Garrett, 1970; Gerrard *et al.*, 1999; Simons-Morton, 2004; Duncan *et al.*, 2006). Early drinking experiences within a family environment may introduce appropriate behaviours regarding use (Pearce and Garrett, 1970; Simons-Morton,

2004). The family can be a moderating influence throughout adolescence and young adulthood (Krosnick and Judd, 1982; Brook *et al.*, 1985; Foxcroft and Lowe, 1991; Guo *et al.*, 2002; Wood *et al.*, 2004; Duncan *et al.*, 2006) and although parental influences decrease as adolescents mature, parents may also affect *long-term* goals and values (Sebold, 1986; Wilks, 1986; Oygard *et al.*, 1995). The strongest conclusion that can be drawn is that, although direct models of parental versus peer influence show a reduced impact of parental and family variables, and an increased impact of peer ones, the indirect protective effects of parental involvement on adolescent substance use is still important. Data from cross-sectional and prospective studies, in samples spanning early to late adolescence, have demonstrated that parental involvement can impact on and reduce peer influences, albeit with some variability according to gender and peer environments (eg Gerrard *et al.*, 1999; Marshall and Chassin, 2000; Wood *et al.*, 2004; Wood, 2007).

This interaction between family and peer influences is similarly found for other risk-taking behaviours, including illicit drug-taking and smoking, and other behaviours such as sexual behaviour, driving, health and lawbreaking.

Summary points

- Results over the relative weight of peers versus family influences are contradictory.
- There is evidence that the family has an important role in enabling young people to *select their peers*: if they select peers who are themselves less likely to use substances, powerful parental influence is at work.
- Once experimentation with alcohol has occurred, parental influence may exert itself indirectly through the adolescent's choice of friends.
- Choice of positive or negative peers may be influenced by self-esteem, predicted by both family and school climates.

- Family and peer groups are mutually influential and interdependent in determining the likelihood of substance use among young people.
- Emphasising the power of peers may lead to underestimation of parental effects on children.
- Peer influence may be a less important determinant of adolescent substance behaviour than is commonly assumed, as alcohol use appears more normative than shown in surveys.
- Adolescents' susceptibility to sources of interpersonal influence varies at different stages of substance involvement. Non-drinking adolescents may be more readily influenced by parents and sources of authority.
- Early drinking experiences within a family environment may introduce appropriate behaviours regarding use. The family can be a moderating influence throughout adolescence and young adulthood, although parental influences decrease as adolescents mature. Parents may also affect *long-term* goals and values.

Media and alcohol marketing

Media and advertising images, and stories about celebrities and others drinking and taking drugs, help define how society views alcohol and other substance use; as noted earlier, such socialisation processes are of major importance in defining attitudes and future behaviour.

It is clear that there is a major impact on young people's attitudes and behaviour towards alcohol from the media (film, music, magazines, etc), advertising and marketing. The Independent Advisory Group on Sexual Health and HIV (IAG, 2007), in its recent report *Sex, drugs, alcohol and young people*, stated that:

- The positive media coverage of ‘celebrity’ behaviour involving sex, drugs and alcohol acts as an encouragement to young people.
- Alcohol advertising is widely accessible to all who can read. Merchandising for alcohol manufacturers’ sponsorships is accessible to small children.
- Some alcohol advertising is targeting young people.

Research in the UK and other countries including the US shows that alcohol marketing and promotion involves enormous and ever-increasing financial budgets, a trend that looks set to continue (Snyder *et al.*, 2000; van Dalen, 2003; Casswell and Maxwell, 2005; Kessler, 2005; CAMY, 2006). In the UK, more than £200 million was spent on alcohol advertising in 2004, with a 2.5% annual increase, implying that by 2007 almost £220 million per year would be spent (MORI, 2005). Additional promotion and marketing budgets are estimated to be worth more than three times that figure; for example, drinks brands are being increasingly promoted through sponsorship of sports and music events, many of which have strong youth appeal. Similar trends are evident internationally. The comprehensive review (Velleman, 2009a) gives a more detailed account of expenditure on marketing and promotion in the US and other countries.

The recently published UNICEF (2007) report records that the UK is at the bottom of the league table of 21 countries for child well-being and that children in the UK have the highest incidence of risk-taking behaviour: among other risks – more have been drunk two or more times at age 11, 13 and 15 than in any other country. UNICEF is not the only international body concerned about the possible impact of marketing on the UK’s youth drinking. Issues related to both direct advertising and indirect marketing and their influence on young people’s drinking and attitudes towards drinking have been reviewed by Jernigan (2001), Martin *et al.* (2002); Hastings *et al.* (2005), Anderson and Baumberg (2006) and Hastings (2007). Well-designed longitudinal studies in these reviews have shown that the advertising and marketing of alcohol are significant factors in the rise in alcohol

consumption by young people. Not surprisingly, young people who see, hear and read more alcohol advertisements and endorsements are more likely to drink and to drink more heavily than their peers.

Advertising and ‘direct’ marketing

Snyder *et al.* (2006) in the US showed that, for young people aged 15–26:

- for each additional alcohol advertisement viewed per month, there followed a 1% rise in the average number of drinks consumed by respondents;
- young drinkers (even those under the legal drinking age of 21) in regions with greater alcohol advertising expenditures drank more than those in regions with less expenditure;
- each additional dollar spent per capita raised the number of drinks consumed by 3%;
- in markets with heavy alcohol advertising of more than US\$10 per capita per month, alcohol consumption increased over time and reached a peak of 50 drinks per month by age 25.

These findings indicate that alcohol advertising contributes to increased drinking among young people – undermining the notion, often argued by the industry, that advertising only leads to brand switching.

This is not only the case in the US: Alcohol Concern (2007b) has shown that most alcohol adverts appear before the 9pm watershed in programmes when large numbers of children are viewers: 11% of the audience was shown to be between 4 and 19 years old – representing 1,126,000 young people. Many adverts are shown from 3pm to 5pm, when most children return from school; and during programmes where a significant share of the audience includes children, for example *Home and Away* and *The X-Factor*. A popular soap programme such as *Coronation Street*, not directed specifically at children, may attract more than one million of them. It is clear, then, that alcohol advertising has a significant effect and is continuing to rise.

How does alcohol advertising have this effect? Content analyses of the appeals used in alcohol advertisements suggest that drinking is portrayed as being an important part of sociability, physical attractiveness, masculinity and femininity, romance, relaxation and adventure. Many alcohol advertisements use rock music, animation, image appeals and celebrity endorsers, which increase their popularity with underage television viewers. Not surprisingly, then, alcohol commercials are among the most likely to be remembered by teenagers and the most frequently mentioned as their favourites.

The work by Grube (Grube, 1993, 2004; Grube and Wallack, 1994; Grube and Waiters, 2005) over many years is particularly important in linking children's awareness of alcohol advertising and their knowledge of alcohol. Grube found that children who were aware of advertising had increased knowledge about beer brands and were more likely to view alcohol positively. In one study, the more children aged 7–12 liked alcohol advertisements, the more likely they were to have experimented with alcohol; in another study, among 13- to 14-year-olds, adolescents with greater exposure to advertisements in magazines, at sporting and music events and on television were more 'advertisement aware' than those with less exposure, as were teens who watched more television, paid attention to beer advertisements and knew adults who drank. Beer advertising awareness was dramatically higher among boys than among girls, and was associated with drinking only among boys.

Again, this work is not confined to the US. Work in the UK in the 1980s demonstrated that young people are increasingly adept at interpreting the cultural messages contained in alcohol advertisements; 88% of 10- to 13-year-olds and 96% of 14- to 17-year-olds were aware of alcohol advertising; 76% of these could identify three or more advertisements with the brand name masked, and even 10- to 12-year-olds were adept at interpreting the messages, images and targeting of alcohol advertisements (Aitken *et al.*, 1988b). Aitken *et al* concluded:

In essence, the more aware, familiar and appreciative young people are

of alcohol the more likely they are to drink both now and in the future.

(Aitken *et al.*, 1988, p 303)

These results correspond to some of the findings from a recent UK study (Hastings *et al.*, cited in Duffy, 2007) into the effect of advertising on underage drinking, where the authors found that 13- to 14-year-olds revealed a preference for drinking certain brands – for instance, the alcopop WKD was viewed as 'cooler' than Bacardi Breezer. Hastings *et al.* was quoted in a recent story in the Scottish Sunday Herald as saying:

Children are full of comments on brands; they know that Carling sponsor Celtic and Rangers and make comments on everybody knowing what Carling is.

(Duffy, 2007)

Grube and others have continued to explore the role of desirability, identification and scepticism as mediators of how alcohol advertising influences underage drinking. They have found that individuals progressively internalise advertising messages, and then employ them in eventual decisions about behavioural choices. Desirability of media portrayals of alcohol use predicted the desire to emulate those portrayals ('identification') that predicted liking of beer brands and positive alcohol expectancies. There was no significant relation between scepticism about alcohol advertising and alcohol use, implying that scepticism about adverts and understanding what they are trying to achieve does not protect against their effects.

However, parental guidance of television viewing affected scepticism and desirability as well as positive alcohol expectancies in beneficial ways. Parental guidance also directly and negatively affected youths' decisions to choose beer-themed items and to drink alcohol. These findings strongly suggest that parents can help counter media effects and influence children's alcohol expectancies by teaching them to improve their information processing and critical skills.

The paragraphs above have shown that advertising increases knowledge of and attitudes towards alcohol. There is also a relationship with behaviour. For many years now, studies have

found significant relationships between young people's exposure and attention to alcohol advertisements (television and magazines) and their drinking behaviour. There are also strong age effects: one qualitative study in the UK found that familiarity with, and appreciation of, alcohol advertisements increased rapidly between 10 and 14 years of age; 15- to 16-year-olds enjoyed them and were adept at deducing from them complex symbolism and imagery (eg masculinity, sociability and working-class values). They also found differences between underage drinkers and non-drinkers; drinkers enjoyed alcohol advertising more and were significantly better at recognising brand imagery (Aitken *et al.*, 1988a, 1988b). These findings were replicated in a quantitative study, where 8- to 15-year-olds' perceptions of advertising desirability and appeal increased steadily, whereas identification with portrayals (the degree to which individuals wanted to emulate portrayals) levelled off after age 11–12. Positive expectancies (perceived social benefits associated with drinking) also increased with age, particularly between the ages of 11 and 15. When demographics and age were controlled, desirability predicted identification, and both predicted expectancies. Expectancies correlated with alcohol pre-drinking behaviour and predicted risky behaviour, both of which were also correlated. The results again provide cross-sectional support for the view that beliefs and desires developing by age 8–9 then prime children for future decisions regarding alcohol use (Austin and Knaus, 2000).

These studies show that the degree to which children like a set of advertisements influences how much they expect to drink at age 20. Hastings *et al.*, in a review of longitudinal studies, conclude that:

Overall, consumer studies – especially the more sophisticated recent ones – do suggest a link between advertising and young people's drinking. In essence, the more aware, familiar and appreciative young people are of alcohol advertising, the more likely they are to drink both now and in the future. Following up young participants who report high levels of exposure to alcohol advertisements, but

who did not yet drink, has shown that they are more likely to do so in the future.

(Hastings *et al.*, 2005, p 303)

Many studies have shown a relationship between level of awareness of beer advertising and greater knowledge of beer brands and slogans, increasingly positive beliefs about drinking and higher intentions to drink as an adult. These intentions seem to influence actual behaviour: in one study, young men with a higher recall of alcohol advertising at age 15 consumed larger volumes of beer at age 18 (Connolly *et al.*, 1994); in another, beer brand allegiance and liking of alcohol advertisements at age 18 was correlated with beer consumption at age 21 (Casswell and Zhang, 1998); in another, exposure to in-store beer displays predicted drinking onset for non-drinkers after two years, and exposure to advertising in magazines and beer concession stands at sports or music events predicted frequency of drinking after two years (Ellickson *et al.*, 2005).

There appear to be more beer adverts aimed at young people, but research has also found effects for other television advertising, showing that an increase in viewing television programmes containing alcohol commercials was associated with a 44% increased risk of beer use, a 34% increased risk of wine or liquor use and a 26% increased risk of engaging in three-drink episodes a year later (Stacy *et al.*, 2004).

Evidence for the effects of advertising also comes from international and economic modelling studies. Countries with partial restrictions on advertising have lower alcohol consumption rates and lower motor vehicle fatality rates than countries with no restrictions; and countries with complete bans on television alcohol advertisements have even lower alcohol consumption rates and motor vehicle fatality rates than countries with partial restrictions. Despite difficulties in using these methods to examine alcohol usage in young people, it has been estimated that the complete elimination of alcohol advertising could reduce adolescent monthly alcohol use by about 24% and binge-drinking participation by about 42%. The size of the effect was similar to a doubling of the price of alcohol, which was estimated to reduce adolescent

monthly alcohol use by 28% and binge drinking by 51% (Saffer and Dave, 2006).

This is reinforced by members of the advertising profession themselves: one key informant study in New Zealand, which included advertising agency creative directors, market researchers and communication/education experts, showed that 69% of them believed that alcohol advertising on television and radio would encourage 13- to 17-year-olds to drink (Thomson *et al.*, 1991, cited by Hastings *et al.*, 2005).

Indirect marketing

Socialisation via the media is not of course only about direct advertising: there are many more subtle forms of advertising – media representations in films, television programmes, mentions on popular records, on the Internet, sports promotions and sponsorships, the growing influence of ‘branding’ and the importance that a brand name attracts. Casswell and Maxwell (2005, p 344) have described the ‘brand’ as being the ‘dominant feature of contemporary marketing’, with it ‘becoming in effect the “real product”’. This is particularly evident in youth culture, where brand affiliation has become important in the construction of self-identity’.

As outlined above, increasingly alcohol producers’ spending goes not on direct advertising, but rather on ‘below-the-line’ expenditures designed to embed brand names and products in the everyday activities of the target audience. In the language of the marketers, these activities are designed to make the product an integral part of the lifestyle of the target user and to create an intimate relationship between the user and the product. Hastings *et al.*’s (2005) review examines these media, concluding that:

examining all these variables in isolation is likely to underestimate the power of modern marketing, where integration and strategic synchronicity are key. Just as all forms of advertising are harnessed in an ‘integrated marketing communications mix’ (Hutton, 1996) so marketing communications also form just part of the overall marketing mix.

(Hastings *et al.*, 2005, p 306)

Alcohol is also marketed subliminally via sponsorship and product placements. Television, radio, film and popular music are all sources through which young people may learn about alcohol and act as potential influences on their drinking and drinking problems.

Mosher and Johnsson (2005) presented a case study of ‘branding’ development by looking at ‘flavoured alcoholic beverages (FAB)’ or alcopops, arguing that these sweet and relatively low-alcohol-content drinks are designed for ‘entry-level’ drinkers. Research has demonstrated their popularity among underage drinkers, particularly teenage girls, and the use of marketing practices that appear to target young people. Evidence of the various strategies employed by drinks manufacturers to target young people is provided in the larger review (Velleman, 2009a). Mosher and Johnsson (2005) suggest that total marketing requires promoting the marketing message and its placement in the media, using ‘measured media’ (eg television, radio, print and outdoor advertising) and ‘unmeasured media’ (eg the Internet, product placement, such as in the movies, and sponsorship of sporting events and concerts). They highlight an increase in spending on measured media among FAB producers in the US and significant rises in sales over the same period. The expenditure on unmeasured media is at least double or triple that of measured media.

Music

One analysis of popular youth music found that 17% of lyrics across all genres contained references to alcohol (Roberts *et al.*, 1999). Alcohol was mentioned more frequently in rap music (47%) than in other genres. A common theme is getting intoxicated or high, although drinking is also associated with wealth and luxury, sexual activity, and crime or violence. Product placements or brand name mentions occurred in approximately 30% of songs with a reference to alcohol and are especially common in rap music (48%). From 1979 to 1997, rap music song lyrics with references to alcohol increased fivefold (from 8% to 44%); those exhibiting positive attitudes rose from 43% to 73%; and brand name mentions increased from 46% to 71% (Herd, 2005). A similar pattern was found for music videos where alcohol use was found more

frequently in music videos with sexual content than in videos with no sexual content. Both the content, which has been shown to glamorise the use of alcohol, and the advertisements surrounding the music videos, have a potential to make drinking alcohol more enticing to young viewers (Roberts *et al.*, 2002).

Use of alcohol by adolescents has been associated with higher levels of music video exposure. One study showed a 31% increased risk of drinking initiation over 18 months for each hourly increase in watching music videos (Robinson *et al.*, 1998). Studies of other groups of young people have produced similar results (eg Wingood *et al.*, 2003; van den Bluck and Beullens, 2005). It should be noted that these findings are drawn mostly from studies carried out in the US and may not generalise to other countries.

Television and film

Studies have shown that people who are seen drinking on television seem to be drinking alcohol most of the time and content analyses indicate that alcohol is shown or consumed in most films. One study found a reference to alcohol every 6.5 minutes in their sample of 50 programmes on British television, with a prominence of alcohol consumption especially in fictional series (Pendleton *et al.*, 1991). Another study in 1999 found that 92% (185) of the 200 most popular US movies for 1996–97 contained images of drinking (Roberts *et al.*, 1999). When six British soap operas were examined, 86% of all programmes contained visual or verbal references to alcoholic beverages. While alcohol consumption predominated over other drinks, there were almost no references to the hazards of drinking (Furnham *et al.*, 1997). A Dutch study found that 60.8% of 528 programmes on Dutch television contained a reference to alcohol: in 80% of these, alcohol was prominently and favourably featured as tasting good, relaxing or creating a pleasant atmosphere (van Dalen, 2003). These portrayals were often of young people drinking, with underage alcohol use occurring in approximately 9% of the films reviewed in one study (Roberts *et al.*, 1999). Even 47% of children's animated feature films depicted alcohol or drinking, while none contained overt health warnings about alcohol use. Good or neutral characters accounted

for most of the drinking portrayals (Thompson and Yokota, 2001).

Drinkers have been found to be depicted more positively than non-drinkers in a content analysis of 100 films spanning 50 years (McIntosh *et al.*, 1999). Drinkers were rated as having higher socioeconomic status, being more attractive, having more romantic and sexual involvements and being more aggressive than non-drinkers.

Studies of the effects of exposure to depictions of drinking in films or television on youth are rare, but television viewing is found to be related to initiation of drinking, with each hourly increase in television viewing associated with a 9% increased risk for initiating drinking during the following 18 months. As this review has summarised above under family factors, restricting exposure to 'R'-rated films has highly significant effects on reducing the probability that adolescents will commence drinking.

Product placement

The use of alcohol is often associated with a brand, with specific brand names of alcohol beverages clearly visible on screen – a process known as 'product placement'. Paying for products to be placed in films, television, books and video games is a form of indirect marketing, which embeds alcohol in the daily lives of young people. Media placement decisions are the result of extensive market research and the use of standard market research databases to assess the demographic profiles of the audiences for various media vehicles, and the effectiveness of such vehicles in delivering target audiences to firms interested in placing advertising in them. Many adolescents are 'brand-conscious' and tend to be most aware of and favourably disposed towards product placements, most keen on movies and perceive that both their parents and their peers are similarly brand-conscious.

In one study in the Netherlands, 81% of the 528 programmes investigated used product placement. In 80% of the situations showing alcohol on television, it appeared in a favourable light (ie its taste, relaxing effect and companionable atmosphere created temptation and sexual contact), with negative aspects of its consumption

mentioned in only 9.2 % of the references (van Dalen, 2003).

Sports and other sponsorship, and newer media

The alcohol industry has been effective at linking its names and products with many sports, including many high-profile ones such as soccer (Carling Cup) and rugby (Heineken Cup) in the UK.

Alcohol sponsorship, like commercial sponsorship, has expanded across the world in all the key areas of youth culture: music, sport, dance, film and television. Anderson and Baumberg (2006) argue that sponsorship brings a number of potential benefits to the sponsor. It can provide a means of avoiding regulations on direct advertising. It can easily reach favoured market segments inexpensively (young men are both the keenest sports fans and the heaviest drinkers) and these consumers are less critical of it than of traditional advertising. Further, sponsorship of large international sports events allows a company's brand to cross borders into countries where direct alcohol marketing may be severely restricted or even banned.

In 2002 in The Netherlands, eight of the top 20 most active sponsors of youth events (festivals, etc) were brands of alcohol: Bacardi was second and Heineken was third on the list. Monitoring expenditure on this kind of activity is problematic. It is also difficult to combat these youth-targeted marketing strategies because the self-regulatory codes usually state that more than a certain percentage of participants must be under a certain age before a complaint is accepted. Even were it possible to monitor the proportion of those aged (for example) under 18 at a pop festival, the percentage rule would still make it possible to reach an enormous number of very young people without the rule being broken.

These more insidious forms of marketing have increased hugely over the past decade, through use of the Internet, the adoption of diverse cultural celebrations and holidays and the expansion of sponsorship from sporting events to popular music concerts as alcohol marketing opportunities, to events in which alcohol plays a central role, thereby embedding products in young people's lifestyles and practices. The rapid rise of information

technology and, in particular, the Internet has given manufacturers a new promotional opportunity. Sophisticated websites have been created using technology to produce interactive arenas with impressive graphics and eye-catching animation. Research on alcohol portrayals on the Internet has focused on youth access, exposure to alcohol marketing and the potential attractiveness of commercial alcohol websites to youth. Research has not addressed the content of non-commercial websites that focus on alcohol products or drinking cultures. Similarly, no study has addressed the potential effects on consumption by youth of exposure to alcohol portrayals and Internet promotions. What is clear is that commercial alcohol websites are easily accessible to youth, and are often accessed from search engines through non-related keyword searches for games, entertainment, music, contests and free screensavers. Content analyses of websites registered to large alcohol companies revealed that young drinkers are targeted through a glorification of youth culture that offers humour, hip language, interactive games and contests, audio downloads of rock music and community-building chat rooms and message boards. Overall, these sites were found to promote alcohol use; few included any information on the harm done by alcohol.

Viral marketing techniques are also popular, encouraging users to introduce friends to Internet sites, including features that permit users to send e-mail and mobile phone text messages to friends. One large US beer company (Anheuser-Busch) is pioneering other new media marketing. In April, it signed a deal with Mobi-TV, a leading provider of television content to cellphone users, to broadcast 18 beer advertisements per hour (Advertising Age, 2006). Little research has been done to date on the impact of such marketing on young people.

Wakefield *et al.* (2003) summarise their view of the role of the media in influencing youth smoking, looking at the results of empirical studies on cigarette advertising and promotions, antismoking advertising, product placement in movies, on television and in music media and news coverage about smoking. They conclude that

- the media both shape and reflect social values about smoking;

- the media provide new information about smoking directly to audiences;
- the media act as a source of observational learning by providing models which teenagers may seek to emulate;
- exposure to media messages about smoking also provides direct reinforcement for smoking or not smoking;
- the media promote interpersonal discussion about smoking;
- the media can influence ‘intervening’ behaviours that may make teenage smoking less likely;
- antismoking media messages can also set the agenda for other change at the community, state or national level.

These same conclusions are likely to apply to alcohol.

Summary points

Findings from this review, and all the previous ones undertaken, are that:

- well-designed longitudinal studies show that the advertising and marketing of alcohol are significant factors in the rise in consumption of alcohol by young people;
- young people who see, hear and read more alcohol advertisements and endorsements are more likely to drink and to drink more heavily than their peers.

Relative weight of family, peers and the media/marketing

Within research undertaken to separate out the effects of family versus peer influences, only a small proportion examines the additional influence of the media, marketing and advertising.

One study of factors influencing drinking expectations found that the amount of exposure

to alcohol advertising did not influence alcohol outcome expectancies, after taking into account more immediate social influences. The authors concluded that:

although advertisements expose adolescents to social models of drinking, young people are likely to be influenced more strongly by their peers, parents and important adults with whom they have a relationship than by people they do not know and perhaps do not care about.

(Martino *et al.*, 2006, p 980)

Another study examined the role of interpretation processes and parental discussion on the media’s effects on adolescents’ use of alcohol. It showed primarily positive and indirect effects of media exposure on drinking behaviour (controlling for grade level, ethnicity, gender, household income and education levels), which operated through a number of intervening beliefs, especially expectancies. Direct associations, primarily with exposure to late-night talk shows, were small. Parental discussion also affected behaviour indirectly, operating through expectancies, identification and perceived realism. The appeal of products with alcohol logos, which was higher among the younger students and predicted by expectancies, sports viewing and late-night talk shows, predicted actual drinking behaviour (Austin *et al.*, 2000). It is possible to conclude that the potential risk of frequent exposure to persuasive alcohol portrayals via late-night talk shows, sports, music videos, and prime-time television for underage drinking can be moderated by parental reinforcement and counter-reinforcement of messages.

Overall summary of the impact of parents, family, peers and the media

It is clear from many reviews of both risk and protective factors that the taking up of substance use and the development of problematic use is affected by a huge number of influences, of which the factors associated with the family are highly important. This has implications for interventions aimed at preventing substance use and misuse.

Parental alcohol use has consistently been shown to be positively associated with adolescent use of alcohol: when first using alcohol, most young people are with parents or other family members at home, especially early initiators. As we have seen, besides directly influencing young people's alcohol use, family substance use may also exert an indirect effect through its impact on family relations and parenting practices. According to many models of the risk factors for problem behaviour, low family involvement and poor parenting practices place children at high risk of engaging in problem behaviours. Similarly, in family socialisation theory, a key dimension is parental control (also referred to as discipline, punishment, supervision and monitoring). Research suggests that poor parental monitoring and discipline are associated with higher adolescent alcohol use, and that poor relationships with parents predict substance use. Family cohesion has been found to play a protective role in suppressing levels of alcohol consumption among youth.

Although family influences and parenting practices account for a considerable amount of variance in the prediction of young people's alcohol use, it has long been recognised that the family represents only one of several interrelated social contexts affecting the development of alcohol use, other substance use and problem behaviours. The literature reviewed above suggests that the influence of peers on adolescent alcohol use is at least equal to that of parents and other family members. Association with drinking peers, with drug-using peers or with those behaving in ways defined as antisocial, alongside peer encouragement to use alcohol, are shown to influence adolescent alcohol use. As children age, they spend more time with friends compared to family, increasing the potential for negative peer influences. There is some evidence that peer influence on youth becomes greater with age and is particularly influential in the early stages of substance use. On the other hand, as reviewed in previous sections, there is a strong reciprocal interaction between family and peer influences, with the family having an important influence on who young people select as their peers, including often influencing them to select peers who are themselves less likely to use substances, and less

likely to misuse substances once experimentation with alcohol has occurred. Adolescents' susceptibility to sources of interpersonal influence varies at different stages of substance involvement. Non-drinking adolescents may be more readily influenced by parents. The family can be a moderating influence throughout adolescence and young adulthood, and although parental influences decrease as adolescents mature, there is also evidence that parents may affect *long-term* goals, values and peer selections. In summary, family and peer groups are mutually influential and interdependent in determining the likelihood of substance use among young people.

The research evidence in general suggests that frequent exposure to persuasive alcohol portrayals via a huge range of media, both in direct advertising and via indirect means, has a major impact on children's developing knowledge, attitudes, intentions and subsequent behaviour. Although findings are somewhat mixed, it can be argued that the impact of these portrayals is mediated by the range of parental and family factors reviewed above, and that especially parental reinforcement and counter-reinforcement of messages, open communication, parental monitoring and clear rules can help to offset some of these media socialisation effects.

6 The impact of cultural and social contexts

As stated at the beginning of this review, the focus is on the impact of the main socialising agents – the family, peers and the media – on children and young people’s development of knowledge, attitudes and drinking behaviours. However, there is a multiplicity of other variables that influence socialisation processes and the socialising agents and, as a result, affect the ways in which children and young people learn about alcohol and develop drinking behaviours. Factors such as national and regional drinking cultures, level of education or the substance use of parents, ethnicity/race, religion, socioeconomic status and other ‘subcultural’ associations will have considerable influence on the development of young people’s knowledge, attitudes and behaviour. Moreover, a constellation of other ‘problem behaviours’ are related to adolescent alcohol and other drug use: concurrent use of more than one substance, being in trouble with the police, perceived poor academic performance and low future academic expectations, lack of religious belief, coming from a non-intact family, favouring peer over family opinion, and suspension from school. Increased risk of alcohol and drug use has been associated also with poor social coping skills, inappropriately shy or aggressive classroom behaviour, affiliation with deviant peers, perception of approval for drug use (NIDA, 1997), and general antisocial behaviour (eg Jessor and Jessor, 1977; Hawkins *et al.*, 1987). A later section, on protective factors (and Velleman 2009a) provides more detail.

While much of the research examined in the review so far may be generalised, at least to the Western world, the impact of these cultural and social factors may be more localised. The following sections provide a brief summary of research on some main cross-cutting influences: national and regional drinking cultures, academic achievement, ethnicity/race, religion, socioeconomic status and involvement in sport and extra-curricular

activities (see Velleman, 2009a, for a more detailed discussion).

National and regional drinking cultures

There is evidence to suggest that drinking patterns are highly influenced by national and regional culture. Although the overall national culture determines the collective norms for drinking behaviour, there are various subcultures that will further impact on young people’s knowledge, attitudes and later drinking behaviour. The term ‘cultural recipes’ has been used to describe ways in which alcohol should or should not be used, describing ‘the where, what, when and how of alcohol use that is socially sanctioned’ within a culture or social group (Roche, 2001, p 6). Historically in Mediterranean cultures, for example, young people were more likely to drink and drink more often than their counterparts in other regions, but they were less likely to drink excessively, to get drunk or to display otherwise problematic drinking behaviours. In contrast, young people in Scandinavia were more likely to start drinking when older, and then to drink in a problematic and risky way. In most countries, girls were less likely than boys to drink or to get drunk. These and other findings suggest that culture plays a prominent role in setting norms and expectancies around young people’s drinking. In the UK, regions show significant differences for drinking patterns and quantities; in England, for instance, more of the adult population regularly visits a pub or bar in the North of England than in the South, and binge drinking (heavy single-occasion drinking) among adults in England is more prevalent in Yorkshire and the Humber, the North West and North East than in other regions (Deacon *et al.*, 2007).

The dynamics of neighbourhood and the ways in which the social history and linked physical characteristics of areas of residence may have

a significant influence on health behaviour, including drinking, have received little research attention. However, one UK study, exploring drinking behaviour from this perspective, identified clear differences in tolerance thresholds and expectations of appropriate behaviour between the urban and rural areas the researchers investigated. They showed (among other relevant findings) that home was increasingly where young people learned to drink, arguing that young people's drinking habits should be understood and addressed in relation to parental attitudes and alcohol use, and the wider changing nature of intergenerational relationships and parenting practices (Valentine, 2007).

But national and local drinking cultures also change; data cited at the start of this review shows a strong rise in alcohol consumption levels by young people within the UK and increasing drinking, including binge drinking among girls (eg Hibell *et al.*, 2004). These findings concerning changing national, regional and local drinking patterns are very important. Historically, young people's drinking used to follow that of their parents' generation, and that of the general culture. Due to the processes of socialisation discussed earlier, young people grew up with knowledge, attitudes and intentions about their future alcohol use, which related to the dominant cultural representations of drinking. This is how drinking cultures are transferred from generation to generation: young people in France or Italy learn that alcohol is consumed with a meal; their compatriots in Scandinavia learn that alcohol is consumed on a 'night out' where people get very drunk, etc. The process of learning to drink independently is one of learning how to drink in these culturally prescribed ways.

However, the changes occurring in young people's drinking in the UK and elsewhere represent a different process. Here, young people are not attempting to learn how to drink like their parents and, by extension, to follow culturally prescribed patterns of alcohol consumption. Instead, they seem to be developing a more globalised view of drinking, which mirrors the globalisation of youth culture, fuelled by common media, with few cultural and national barriers, coupled with increasing globalisation of alcohol advertising and marketing. This means that many

young people model their drinking behaviour not on parental or cultural stereotypes, but on a view of drinking rooted outside their own national culture. As a result, it has been argued, there is a rise in heavy drinking and bingeing across many countries, and a trend towards globalised drinks and brands, away from more traditional beverages (ESPAD study – Hibell *et al.*, 2004).

At the same time, there is also a relationship between national cultural determinants and family structure and process variables examined earlier in this review. Some research comparing the UK and France suggested that family is more influential than national differences. In both countries, children from non-intact families, those who were unsatisfied with their parental relationships and those who were less closely monitored were more likely to be heavy substance users. The main national difference was that paternal relationships are highly significant among French young people, and much less so in the UK (Ledoux *et al.*, 2002).

Summary points

- Drinking cultures are not uniform across the country, but are embedded within wider historical, socioeconomic and cultural contexts.
- It is possible to conclude that, although there are strong national and regional cultural differences, and although there is increasing globalisation of young people's drinking behaviour, the influence on these behaviours of family and peer factors is generally similar across countries.

Academic achievement

Poor academic achievement and low educational aspirations are associated with drinking and alcohol-related problems. Level of *parental* education also relates to adolescent substance use, even when controlled for gender, ethnicity and family structure: the more educated the parents, the less likely the children are to use, at any age range. Higher parental education is positively related to parental support, higher self-esteem,

and perceived control, and inversely related to a range of negative life events. Family bonding also has a relatively strong positive association with educational commitment, and adolescents with a higher educational commitment tend to drink less often and use smaller amounts (reviewed in Velleman, 2009a). One recent research review from the US (Bachman *et al.*, 2008) concluded that adolescents who do well in school are less likely to drink, smoke or take drugs. That review also reported longitudinal data, which tracked a national sample of more than 3,000 young people over an eight-year interval, extending from ages 13–14 through to young adulthood (average age 22). This study showed that patterns of educational success or failure are well established for most adolescents (in the US) aged 13–14, while drug use has only just begun to emerge, suggesting that when more opportunities for substance use do emerge, students performing well are less likely to engage in such behaviours than poorer performers. At ages 14 and 16, alcohol use was most likely among poorer-performing students; but by age 20, college students had surpassed their less-educated age-mates in their use of alcohol, especially in occasions of heavy drinking. Heavy drinking was found to be clearly linked to students' college lifestyle: they were more likely to live away from home and to delay getting married and having children than their non-college-attending peers. However, drinking at college did not itself predict use after college: in their thirties, college-educated adults had become slightly less likely than average to drink heavily (Bachman *et al.*, 2008).

Summary points

- Lower school commitment, lower parental education, perceived poor academic performance and low future academic expectations are linked with an increased risk of drinking.
- Family bonding has a relatively strong positive association with educational commitment.

Ethnicity/race

A limited amount of research into ethnic variation in drinking behaviour has been carried out in the UK and there are considerable problems of methodology, which make the findings difficult to interpret. For instance, race is a category that can be defined by physical characteristics, utilising traits that include skin colour, eye colour, hair type, etc; conversely, ethnic identity can be understood as 'persons who share the same distinct culture or who are descendants of those who have shared a distinct culture and who identify with their ancestors, or their culture or group' (Isajiw, 1999, p 19). But racial and ethnic categories are not homogeneous and understanding substance-use patterns around such a framework is inherently flawed: within-group differences may often exceed between-group variations. (see reviews by Velleman, 2009a; Hurcombe *et al.*, in press).

With those caveats in mind, research has shown that, among *young adults* (aged 18–40), Black men and women and Sikh men drink at not dissimilar levels to White Britons, whereas other Indian groups, and in particular those from Bengal and Pakistan, drink at far lower levels. Among *adolescents*, some non-White groups were less likely than White groups to drink alcohol, and to drink frequently. Some evidence suggests that Black African and Black Caribbean young people drink at somewhat reduced levels compared to White young people. However, most research indicates that young people from the Indian subcontinent, especially Muslim areas such as Pakistan, Bangladesh and Bengal, but also including Hindus and Sikhs, drink at very much reduced rates and hold much less favourable attitudes to drinking alcohol than their White counterparts. There is conflicting evidence about other ethnic groups, with some suggestion that Black Caribbean groups and those of mixed race seem at highest risk of regular drinking. It also seems likely that familial, religious and peer influences closely correlate with ethnicity. These findings are based on studies by Denscombe (1995), Measham (1996), Karlsen *et al.* (1998), Harrington (2000), Best *et al.* (2001), Purser *et al.* (2001), Stansfeld *et al.* (2003), Stillwell *et al.* (2003) and Rodham *et al.* (2005).

Although no research has been found in the UK examining how family, peer and media factors described earlier are influenced by ethnic grouping, some US studies have looked at this. Despite problems in generalising from the US, these studies demonstrate that many of the same family, peer and individual factors identified earlier on in this review are equally important for minority ethnic groups in the US (Heath *et al.*, 1999; Griffin *et al.*, 2000; Li *et al.*, 2000a, 2000b; Bray *et al.*, 2001; DiClemente *et al.*, 2001; Rai *et al.*, 2003; Foley *et al.*, 2004; Clinton-Sherrod *et al.*, 2005; Pomery *et al.*, 2005; Sale *et al.*, 2005).

Religion

There has been even less research in the UK on the relationship between religion and attitudes and behaviour towards alcohol. Religion, like ethnicity, has very different connotations in the US than in the UK and needs to be treated cautiously. One national survey in the US (Mason and Windle, 2002) found that religion is a prominent influence in the lives of many children, indicating that 93% of adolescents (aged 13–17) reported affiliation with a religious group or denomination: this is very different to the experiences of the majority of young people within the UK. Nevertheless, research from the US and elsewhere can still provide some pointers in understanding the role of religion in the development of alcohol and other substance use. The subsections below look briefly at religious identification in ethnic groups, at religiosity and at how family and peer factors are influenced by religion.

Religion and ethnicity

Findings from the UK suggest that religious identification is a significant indicator of alcohol use among men (aged 18 years or more) from a variety of minority ethnic groups and is more important than other cultural or social factors. Among drinkers, religious identification is associated with less risky drinking (Purser *et al.*, 2001).

There is a consensus that those identifying as Muslim are significantly less likely to drink regularly; and research among 15- to 16-year-olds in Leicestershire, England, shows some differences in *attitudes* between Hindus, Sikhs and Muslims

(with Muslims exhibiting particular sensitivity to their religion's proscription of drinking alcohol). However, the reported levels of *drinking* by Hindus, Sikhs and Muslims were fairly similar but markedly lower than that of White 15- to 16-year-olds (Denscombe, 1995). Work from other countries among adolescents has also shown that non-drinkers were often from 'non-Western immigrant' backgrounds, and that religion played an important role in the lives of non-drinkers (eg Norway: Pedersen and Kolstad, 2000).

Researchers and commentators seem less clear about religion and culture within the Indian subcontinent. Among South Asians, religion may encourage alcohol abstinence but this view is simplistic and ignores huge variations in nationality, culture and religion contained within this seemingly uniform group (Newburn and Shiner, 2001). A continuum of acceptance of alcohol can be seen, ranging from Sikhism (where alcohol is relatively acceptable) through Hinduism (where alcohol is allowed in moderation) to Islam (where alcohol is proscribed religiously, but some cultural and social norms may make it more acceptable, especially if drunk privately).

A range of acceptability has similarly been found among immigrant groups from the Indian subcontinent in the UK (Cochrane, 1989) in which young Muslims also described themselves as non-drinkers despite occasional more hidden drinking. The larger review (Velleman, 2009a) and a forthcoming review on alcohol and ethnicity (Hurcombe *et al.*, in press) give a more detailed account of these issues.

While most research into religion (as opposed to religiosity) and alcohol has concentrated on the interrelationships with minority ethnic groups, there has been a small amount of more qualitative and reflective writing about the role of alcohol in Judaism and Christianity. In Judaism, drinking alcohol is seen as a joyful experience while abstinence was seen as sinful in biblical times, and abstinence or temperance are frowned upon in Judaism. Within Judaism, alcohol (wine) is central to many – even most – religious and cultural ceremonies, and all Jewish children are introduced to a sip of wine at an early age within the family, as part of the Sabbath ceremony. Three themes at the heart of Jews' relationship to alcohol are evident:

The drinking of alcohol (wine) is central to many rituals and traditional ways of signifying events; drinking alcohol is enshrined both in traditional ritual and religion, and in family life and family rituals; drinking alcohol is normally controlled: there is the controlled consumption of a limited amount of alcohol, within a family, religious and cultural context.

(Velleman, 2002, pp 44–45)

It is suggested that Judaism celebrates the *controlled use* of alcohol. However, there is good evidence that rates of alcohol problems are rising among Jews, probably for several reasons:

- changes in the strength of the traditional family;
- the breakdown of religion and tradition and its educative place in the culture;
- religion and accompanying cultural practices becoming increasingly distant and irrelevant from normal secular life;
- an increase in beer drinking, which is not a traditional alcoholic drink.

There has also been research into various Christian groups that hold different positions on drinking alcohol. Adolescents from proscriptive groups such as Baptists are found to have both higher rates of abstinence and higher rates of binge drinking than adolescents from other Christian groups (Kutter and McDermott, 1997). It seems likely that forbidding alcohol does constrain early drinking, but non-followers may lack close role models of low-consuming adults and may therefore be less well equipped to know how to drink moderately. Other studies unrelated to religion also show that young people without experiences of observing moderate drinking, without specific directives concerning drinking and no practice in learning how to drink moderately were more likely to acquire alcohol-related health and social problems (Wilkinson, 1970; Weiss, 2001).

Religiosity

Some research has examined the degree of religious affiliation (religiosity) within an ethnic group

to look independently at the role of religion. Both religiosity and active religious involvement appear to have a protective effect on young people's drinking.

In a longitudinal study examining the effects of religiosity on adolescent alcohol use and alcohol-related problems, Mason and Windle (2002) showed that religious attendance predicted decreases in the quantity and frequency of alcohol use even in the presence of peer, family and school variables, and that religious 'salience' (or personal importance) was associated negatively with later decisions to use alcohol (although this association became non-significant when controlling for peer, family and school influences). Another US study (Heath *et al.*, 1999) found that African American adolescents were less likely to become teenage drinkers if they showed greater religious involvement (defined as frequency of attendance at religious services) and stronger religious values (eg belief in relying on their religious beliefs to guide day-to-day living).

How family and peer factors are influenced by religion

While some studies have examined the direct relationship between religion and alcohol, few studies have explored the interaction of these variables with the various family and peer factors described above. One study of 12- to 15-year-olds from four ethnic groups in inner London found that familial, religious and peer influences were all closely correlated with ethnicity. Compared with young White people, young Bangladeshi people, in particular, showed lower levels of peer and higher levels of religious and familial involvement and lower levels of substance use including drinking. Black African and Black Caribbean young people lay between the two extremes (Karlsen *et al.*, 1998).

Summary points

- Caution needs to be adopted in interpreting the findings, mainly due to problems in identifying and defining different religions and ethnic status.
- There is little UK research – most research findings are from the US.

- Limited research into the relationship between religion, ethnicity and drinking behaviour shows that religious identification is a significant indicator of whether people drink or not and is often more important than other cultural or social factors.
- Religious identification is associated with less risky drinking. Being a Muslim means that individuals are significantly less likely to drink, for example, and some studies report that members of religions prominent within the Indian subcontinent have markedly lower alcohol consumption than British White people.
- There is some suggestion that young people from the Indian subcontinent may be drinking more than previous generations, and that drinking patterns among young 'non-White' (and Jewish) teenagers may be changing alongside those of their White peers.
- Religion seems to provide resilience against teenage alcohol use; teenagers showing greater religious involvement and stronger religious values have a lower risk of alcohol use.
- Research (mainly from the US) indicates that familial, religious and peer influences are all closely correlated with ethnicity.
- Religious *attendance* predicts decreases in the quantity and frequency of alcohol use even in the presence of peer, family and school variables; but peer, family and school influences are more important than religious *salience*.

Socioeconomic status

There is very little primary research into the impact of socioeconomic status or social class on young people's drinking, other than from periodic national

surveys of drinking. Although the heaviest male drinkers are in higher-income brackets, evidence shows that problem drinking is twice as common in the poorest socioeconomic groups: one study found that men aged 25–39 in the unskilled manual group were 10 to 20 times more likely than men in professional classes to die from alcohol-related causes, and excess drinking is also higher among socially excluded men: around 30% of homeless people are problem drinkers and around 40% of homeless men have been reported as 'high-risk' drinkers (Thom, 2003).

With young people, there is evidence that binge drinking is most prevalent among young men in manual occupations who have not pursued their education beyond secondary school, and, among 15-year-old school attendees, is most prevalent among those living in a working-class school catchment area (Measham, 1996). A recent systematic review of socioeconomic status in childhood and later alcohol use concluded that there was little consistent evidence to support an association between lower childhood socioeconomic status and later (mis)use of alcohol (Wiles *et al.*, 2007).

Sport and other extra-curricular activities

Sport and other extra-curricular activities have been found to impact significantly on attitudes and behaviour: in general, young people involved in extra-curricular activities including sport are less likely to have alcohol problems, although evidence exists that youths participating in sports may be more prone to risky drinking practices. Young people who do *not* become involved in such activities are also more likely to drink earlier (Eccles and Barber, 1999; Nelson and Wechsler, 2001, 2003).

One research group suggested that participation in organised sport activities may delay the initiation of drinking and intoxication in younger teenagers and recommended that sports organisations should be included in drinking prevention programmes (Hellandsjo Bu *et al.*, 2002). Membership of youth groups is another extra-curricular activity found to interact with alcohol use in young people. Youth group/team membership

has been found to protect against risky drinking despite some association with bingeing and further evidence comes from a study examining protective factors, described as 'youth assets' (Oman *et al.*, 2004).

Summary point

In general, young people involved in extra-curricular activities including sport and youth groups are less likely to have alcohol problems and involvement in organised sport may delay the onset of drinking and intoxication.

Protective factors

Oman *et al.* (2004) examined protective factors, which they described as 'youth assets', in a sample of 1,350 adolescents and parents from a low-income, inner-city population. They examined nine youth assets, including non-parental adult role models, use of time (both groups/sports and religion) and good health practices (exercise/nutrition). They found significant positive relationships between several youth assets and non-use of alcohol and drugs, including the use of time (religion) asset, good health practices, aspirations for the future, and peer role models, as well as family communication. For example, youths with the peer role model asset were nearly 2.5 times more likely to report not drinking compared with youths without the asset, and those with the positive family communication asset were almost 2.0 times more likely. The community involvement asset appeared to serve as a protective factor from alcohol use only for youths living in one-parent households. Finally, females with the responsible choices asset were nearly 4 times more likely to report not drinking compared with females without the asset.

In sum, four assets were particularly important:

- use of time (religion);
- family communication;

- peer role models;
- responsible choices.

Youths possessing all the statistically significant youth assets were 4.44 times more likely to report non-use of alcohol and 5.41 times more likely to report non-use of drugs compared with youths who possessed fewer youth assets. These youth assets can all be seen as factors increasing a young person's resilience, which may protect them from risks they encounter.

Risk, protection and resilience have been highly researched over the past 30 years and reviewed many times, both generally in relation to alcohol and drug misuse prevention in young people, and specifically, in examining the particular circumstances of children living with one or more parents with substance misuse problems. Interestingly, the key issues from all of these reviews are strikingly similar and are summarised in Table 1 (see Appendix).

One study (Scales and Leffert, 1999) investigating resilience more systematically developed a scale of resilience factors (or 'developmental assets'), and looked in one population at how many young people had these factors. These resilience factors, and the percentage of children in that population having them, are shown in Table 2 (see Appendix). As Table 3 shows (see Appendix), there is a clear relationship between the number of resilience factors and a reduced chance of children acting in a risky fashion.

7 Conclusions

In summary, then, we know that children and young people are going to learn about alcohol, and that they do so from an extremely young age. We also know that they learn about alcohol from multiple influences and that this learning will follow a developmental trajectory. They will learn a great deal from the media and other representations, but basic attitudes and intentions will *initially* be most influenced by parents – and, of course, a host of other important family influences, such as grandparents, siblings, etc.

Knowledge and expectancies will not necessarily be so predominantly influenced by parents. They may learn a great deal about alcohol, and acquire expectancies of what will happen if they drink, from the media or from other adults. As children grow, so the primary influence may change, away from parental influence and towards society as a whole, and then towards peer influence; but again, parental and family factors hold huge sway over how much influence these other factors have on the development of knowledge, attitudes and behaviour towards alcohol, and at which stages they begin to predominate. Key family processes and structures shown to influence development include:

- responsive parenting;
- consistent child management practices involving clear and consistent rules that are enforced and high levels of parental supervision/monitoring;
- parental modelling of appropriate alcohol use;
- clear and open communication of expectations about alcohol use and potential disapproval when expectations are unmet;
- higher family cohesion, levels of family bonding and family cooperation;

- satisfactory child–parent relationships and children wanting to emulate parents;
- family support;
- sibling behaviour: older siblings' desire to use and actual use are predictors of younger siblings' later use.

Findings about the importance of peer influence are mixed, but it is clear that young people choose like-minded peers and that a process of mutual influence then occurs. The family plays an important role in enabling young people to select their peers and family and peer groups are increasingly recognised as mutually influential and interdependent. Peer pressure may have been overemphasised in the past and the process and skills needed by young people in negotiating their drinking appear to be complex.

As they grow older, young people's involvement in various aspects of their community (religion, sport, community activism, etc) also plays a prominent role in their relationship towards alcohol, again heavily influenced by the same parental (and later peer) factors already discussed.

Media and other global socialisation influences appear to be important and the direct and indirect marketing and cultural representations of alcohol are found to exert significant influences on the development of young people's knowledge, attitudes and behaviour towards alcohol and its consumption. The impact of media portrayals may be mediated by the parental and family factors already noted in offsetting some media socialisation effects. These influences may also affect family relationships especially with children/young people where family controls are less apparent.

Considerable *detail* about the influence of social and cultural contexts is still unknown (as outlined in sections in this report on ethnicity, religion, socioeconomic and other cultural factors) but a number of important findings emerge. Patterns of drinking in the UK are changing: a significant rise in

consumption levels among young people is evident, exceeding those of other European countries, with young females now outperforming males in getting drunk and 'bingeing'. Young people's choice of alcoholic drinks may be shifting away from more regional and national norms and may reflect the increasing globalisation of alcohol products targeted at them.

Research investigating ethnic variation in drinking attitudes and behaviours among adolescents is limited and there are significant methodological problems in identifying and defining ethnicity. Attitudes to drinking and alcohol consumption are often closely tied to ethnicity and religious beliefs and practices and religion may often be confused with cultural norms. Some research suggests that religious identification is found to protect against drinking among young people, especially those from the Indian subcontinent. However, evidence also suggests that some of these young people may be drinking more than previous generations.

While factors emerging from a psychological perspective such as family, peers and the media are all suggested as the most important influences on young people and their drinking, there are other factors that may be influential and which may mediate some of these findings. There is a lack of research that adequately examines the direct impact of socioeconomic class on how young people learn to drink, for example, but social class may mediate school achievement and parenting style, which in turn will influence attitudes and behaviour.

Similarly, there seem to be few insider accounts of what drinking means and represents to children and young people, particularly in the context of media representations. The positive values of drinking and media representations alongside alcohol's harmful effects need to be understood to target policies and interventions, appropriate to children and young people.

These findings have important implications for policy and preventative programmes and interventions, which may allow the increase in youthful (and national, adult) alcohol consumption (overall and in terms of bingeing) to be curtailed. These issues are covered in a second review.

Note

- ¹ Self-efficacy is a person's belief in their ability to succeed in a particular situation.

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Appendix

Table 1: Risk, protective and resilience factors for children

<p>General risk factors</p> <ul style="list-style-type: none"> • high levels of family disharmony; • the presence of domestic violence; • physical, sexual or emotional abuse; • inconsistent, ambivalent or neglectful parenting; • lack of an appropriate balance between ‘care’ and ‘control’ in upbringing; • lack of parental nurturing; • a chaotic home environment; • the absence of a stable adult figure (such as a non-using parent, another family member or a teacher); • parental loss following separation or divorce; • sibling’s (lack of) willingness to drink and actual drinking; • material deprivation and neglect; • the family not seeking help; • parent(s) who misuse drugs/alcohol or suffer from mental health problems. 	<p>Protective factors (continued)</p> <ul style="list-style-type: none"> • a good support network beyond this; • low levels of separation from the primary carer in the first year of life; • positive family environments; • characteristics and positive care style of parents (a balance between the two dimensions of ‘care’ and ‘control’, where ‘care’ includes parental support, warmth, nurturance, attachment, acceptance, cohesion and love; and ‘control’ includes parental discipline, punishment, supervision, and monitoring); this balance means being responsive, expecting a lot from their children, but also being authoritative (as opposed to permissive, authoritarian or indifferent); • utilisation of rules and consequences, including having clear alcohol-specific rules, and experiencing strong parental supervision or monitoring of behaviour related to those rules; • parents having high expectations of them, and clear and open communication of both expectations (in this case about alcohol use or non-use, but also generally for expectations) and potential disapproval if expectations are not met; • parental self-efficacy; • spending significant time together as a family; • parental modelling of the behaviours expected of or wished for from their children; • having family responsibilities; • family observing traditions and rituals (cultural, religious, familial); • being raised in a small family; • larger age gaps between siblings; • having a hobby or a creative talent or engagement in outside activities or interests (such as sport, singing, dancing, writing, drama, painting, etc) – anything that can provide an experience of success and/or approbation from others for the child’s efforts; • successful school experience; • strong bonds with local community/community involvement; • easy temperament and disposition; • self-monitoring skills and self-control; • intellectual capacity; • a sense of humour; • religion or faith in God; • positive opportunities at times of life transition; • living in a community where there is a sense of caring/mutual protection; • further, much research shows that, if family cohesion and harmony can be maintained in the face of substance misuse (or domestic violence or serious mental health problems), then there is a high chance that the child will <i>not</i> go on to have any problems.
<p>Substance-specific factors for children of substance misusers</p> <ul style="list-style-type: none"> • both parents being substance misusers; • substance misuse taking place in the home; • greater severity of the problem. • Parental drug (as opposed to alcohol) problem specific • exposure to and awareness of criminal activity (eg drug dealing); • presence of the child (although not necessarily in the same room) when drugs are taken; • witnessing someone inject drugs and seeing drug paraphernalia (eg lying around the home). 	
<p>Risk factors related to the individual</p> <ul style="list-style-type: none"> • early age of first alcohol/drug use (not sip); • concurrent use of any substance; • truancy; • having been suspended from school; • perceived poor academic performance; • low future academic expectations; • low commitment to school; • having been in trouble with the police; • poor coping skills; • a lack of religious belief; • friendship with deviant peers; • favouring peer over family opinion; • and conduct or antisocial behaviour problems, at home or at school. 	
<p>Protective factors</p> <ul style="list-style-type: none"> • the presence of a stable adult figure (usually a non-substance misuser); • a close positive bond with at least one adult in a caring role (including parents, older siblings and grandparents); • affection from members of extended families; 	

(continued)

Table 1: Risk, protective and resilience factors for children (continued)

Substance-specific factors for children of substance misusers	Substance-specific factors for children of substance misusers (continued)
<ul style="list-style-type: none"> deliberate planning by the child such that their adult life will be different; high self-esteem and confidence; a sense of direction or mission; self-efficacy; an ability to deal with change; skills and values that lead to efficient use of personal ability; 	<ul style="list-style-type: none"> a good range of social problem-solving skills; aspirations for the future; the young person feeling that they have/had choices; the young person feeling that they are/were in control of their lives; previous experience of success and achievement.

Sources: DrugScope (1999), Velleman and Orford (1999), Sutherland and Shepherd (2001), Velleman (2003), Mentor (2007), Velleman and Templeton (2007) and this review

Table 2: Developmental assets

EXTERNAL ASSETS	% with assets	EXTERNAL ASSETS	% with assets
<i>Support</i>		<i>Constructive use of time</i>	
1. Family support – family life provides a high level of love and support	64	17. Creative activities – young person spends three or more hours per week in lessons/practice in music, theatre or the arts	19
2. Positive family communication – young person and parents are able to communicate positively	26	18. Youth programmes – young person spends three or more hours per week in sports, clubs or organisations at school or in the community	59
3. Other adult relationships – young person receives support from three or more non-parent adults	41	19. Religious community – young person spends one or more hours per week in religious activities	64
4. Caring neighbourhood – young person experiences caring neighbours	40	20. Time at home – young person is out with friends ‘with nothing special to do’ two or fewer nights per week	50
5. Caring school climate – school provides a caring, encouraging environment	24		
6. Parent involvement in school – parents are actively involved in helping child succeed in school	29	INTERNAL ASSETS	% with assets
<i>Empowerment</i>		<i>Commitment to learning</i>	
7. Community values youth – young person perceives that adults in the community value youth	20	21. Achievement motivation – young person is motivated to do well in school	63
8. Youth as resources – young people are given useful roles in the community	24	22. School engagement – young person is actively engaged in learning	64
9. Service to others – young person serves in the community one hour or more per week	50	23. Homework – young person reports doing at least one hour of homework each school day	45
10. Safety – young person feels safe at home, at school and in the neighbourhood	55	24. Bonding to school – young person cares about their school	51
<i>Boundaries and expectations</i>		25. Reading for pleasure – young person reads for pleasure three or more hours per week	24
11. Family boundaries – family has clear rules and consequences, and monitors children’s whereabouts	43	<i>Positive values</i>	
12. School boundaries – school provides clear rules and consequences	46	26. Caring – young person places a high value on helping other people	43
13. Neighbourhood boundaries – neighbours take responsibility for monitoring young people’s behaviour	46	27. Equality and social justice – young person places a high value on promoting equality and reducing hunger and poverty	45
14. Adult role models – parents and other adults model positive, responsible behaviour	27	28. Integrity – young person acts on convictions and stands up for beliefs	63
15. Positive peer influence – young person’s best friends model responsible behaviour	60	29. Honesty – young person tells the truth, even when it is not easy	63
16. High expectations – both parents and teachers encourage the young person to do well	41	30. Responsibility – young person accepts and takes personal responsibility	60
		31. Restraint – young person believes it is important not to be sexually active or to use alcohol and drugs	42

Table 2: Developmental assets (continued)

INTERNAL ASSETS	% with assets
<i>Social competencies</i>	
32. Planning and decision making – young person knows how to plan ahead and make choices	29
33. Interpersonal competence – young person has empathy, sensitivity and friendship skills	43
34. Cultural competence – young person has knowledge of and comfort with people of different cultural/racial/ethnic backgrounds	35
35. Resistance skills – young person can resist negative peer pressure and dangerous situations	37
36. Peaceful conflict resolution – young person seeks to resolve conflict non-violently	44
<i>Positive identity</i>	
37. Personal power – young person feels control over 'things that happen to me'	45
38. Self-esteem – young person reports having high self-esteem	47
39. Sense of purpose – young person reports that 'my life has a purpose'	55
40. Positive view of personal future – young person is optimistic about his/her personal future	70

Source: Scales and Leffert, 1999

Table 3: Relation of assets to high-risk behaviour

Behaviour	% of young people demonstrating high risk behaviours for each range of assets			
	0–10	11–20	21–30	31–40
Violence	61%	35%	16%	6%
Alcohol use	53%	30%	11%	3%
Antisocial behaviour	52%	23%	7%	1%
Tobacco	45%	21%	6%	1%
School problems	43%	19%	7%	2%
Driving and alcohol	42%	24%	10%	4%
Illicit drugs	42%	19%	6%	1%
Depression	40%	25%	13%	4%
Gambling	34%	23%	13%	6%

Source: Leffert et al. (1998)

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