Social and health impacts of alcohol: A wake-up call for Christian educators?

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Cultural Contexts

Introduction

Australian culture is saturated with rituals involving the consumption of alcoholic beverages. Examples range from teenage birthday parties and Schoolies Week rites of passage, to nation-wide Melbourne Cup and New Year celebrations. A classic illustration was provided by the Sydney Morning Herald the day after the 2007 Melbourne Cup was run. On page five, a large coloured photograph depicted a well dressed man lying on the rubbish-strewn turf. A woman was standing over him, a glass in one hand, and with the other, pouring the contents of a bottle into his mouth. The caption read: "Champers [presumably Champagne] on tap."[1]

> *Is there room for a pluralist view about alcohol in Christian schools and homes, or is there a basis for abstinence?*

Such embarrassing alcohol-related behaviour by adults, is mostly ignored by the community and sometimes even accepted and affirmed in the context of festivities. Similarly, it appears binge drinking and demeaning behaviour by young people under the influence of alcohol are largely tolerated, although recent media statements by politicians—the Prime Minister being foremost, health officials, researchers and public commentators may signal a change in public perception.

Mixed messages

Alcoholic beverages on a wine list are commonly associated with fine dining and sophisticated social evenings. The Bible even has accounts of the use of wine—at the Wedding Feast at Cana, at the Last Supper, and Paul's advice for Timothy to "…use a little wine…" for the relief of a digestive ailment (1 Tim 5:23). While there may be some debate regarding the nature of the wine consumed (fermented or unfermented) and whether drinking of alcohol is *explicitly* forbidden in the Bible, it is incontrovertible that drunkenness and dissipation are clearly condemned in both the Old and New Testament. For some years now, the medical profession, also, has given comfort to our alcohol embracing culture by cautiously affirming that a glass of red wine a day may improve cholesterol profiles and help protect against the development of heart disease.[2]

Preparing young people to live Christian lives in a secular society whose social norms are interwoven with ritualist glass-/ bottle-/ can-in-hand activities, poses a serious challenge in terms of our duty of care as teachers and parents and what to teach about alcohol. Given the paucity in some state syllabi, much more could be done in the curriculum area. For example, in Personal Development, Health and Physical Education or similar subjects, there should be substantial and thorough treatment of *the inter-relationship between levels of alcohol consumption and violence, abuse, general negative risk-taking behaviours such as those involving motor vehicles, non/prescription drugs, sexual behaviour, and self harm*, among others.

Is there room for a pluralist view about alcohol in Christian schools and homes, or is there a basis for a definite view encouraging abstinence? An examination of some of the available facts about alcohol may help us to make an informed decision whether to consume it.

Marketing alcohol

Advertisements for beer and alcohol are everywhere in Australia. They are on television, in magazines and on billboards, while many films portray drinking alcohol as part of everyday living for all adults. We are getting a powerful message from these cleverly designed inputs—drinking alcohol is a wonderful part of life. And if you are not doing it, you are foolishly missing out and not part of the 'in crowd'.

The large manufacturers of alcoholic beverages spend hundreds of millions of dollars each year

researching and producing the images and messages that will best persuade us to buy their product. Their bottom line is to increase sales and thereby increase the profits to shareholders. It is difficult to see how the Federal Government's recently announced $50 million alcohol education program will make any significant difference to the volume of alcohol consumption, given the 'flood' of alcohol advertising by the industry, which is estimated to outspend the government by a factor of ten to one.

Some of the cleverest and highest paid minds in our country are employed to convince young people in particular, to start drinking alcohol. Manufacturers know that many people, once they start, will be alcohol customers for life and that means more sales, and more profits.

Alcoholic beverages marketing campaigns have been highly successful. For example, in Australia between 1993 and 2001, alcohol consumption in the general community increased by 10% over and above the already high levels.[3] Young women were particularly targeted by the alcohol beverage industry in the early 1990s. Through promoting discounted drinks for women and the development of fruit juice and cordial mixes to appeal to the female palate, female drinking rates have soared. The Women's Health Australia Study of 1996 found that of the 14,762 women surveyed (aged 18-23 years), 70% reported engaging in binge drinking, with 25% doing so weekly. Only 9% of the young women surveyed said they were non-drinkers.[4] During a decade of aggressive advertising, the alcohol industry successfully converted tens of thousands of young women to become drinkers. Most of these women then went on, by choice, to drink at levels that were harmful to their health, but which resulted in increased sales of alcohol and more profits for the industry.

The physiological effects of alcohol

What happens to the alcohol?

Of the alcohol consumed, 90-98% is oxidised to acetaldehyde (five times more toxic than alcohol) and 90-95% of that has to be detoxified in the liver by converting it to acetate (found in vinegar). It is not surprising that drinkers have the highest incidence of liver cirrhosis.[5] Of the remaining alcohol, 1-5% is excreted in urine and 1-5% is exhaled through the lungs—hence the breathalyser test for drinking.

Intoxication

When we drink alcohol it is absorbed directly through the stomach and intestinal wall into the bloodstream. It induces a greater level of intoxication in women than in men due to men possessing a higher percentage of water in their bodies (resulting in more dilution of the alcohol). For example, for the average male, one hour after drinking three glasses of wine, his blood is likely to contain about 0.05% alcohol. Women, however, will reach this peak level in a shorter time and women mid-cycle or on the contraceptive pill in an even shorter time, making them more vulnerable than males to the effects of alcohol.

Some serious health effects

Alcohol reacts with a number of the functions of our reproductive system. For example in males it inhibits testosterone production. In older men it causes impotence. It has been known for years that alcohol consumption causes impotence in men and delayed orgasmic response in women.[6] However, the alcohol industry has cleverly diverted attention from this fact by capitalising on our natural interest in sex and the role that alcohol can play in seduction by reducing our inhibitions. By using ads for alcoholic beverages which imply an association with sexual prowess, our attention has been diverted from the impotence effects. This further illustrates how our thinking and our behaviour can be manipulated by clever strategic marketing.

> ***"Our thinking and behaviour can be manipulated by clever strategic marketing"***

The feminising effect of alcohol has also been known for many years.[7] Alcohol stimulates conversion of testosterone to oestrogen and for men who drink heavily this can lead to feminisation as they get older. Yes, contrary to what the alcohol advertisements would have us believe, the more alcohol a man drinks the less of the maleness hormone, testosterone, a man's body produces. In fact, alcohol stimulates the liver to produce an enzyme that converts the male hormone testosterone to the female hormone oestrogen.[8] This is why males who drink heavily can develop 'breasts', lose hair and develop feminine patterns of fat deposition.

Alcohol and pregnancy

When a pregnant mother drinks, her baby is also exposed to the alcohol. Maternal alcohol consumption during pregnancy can lead to diminished muscular and nervous development and changed facial features. Alcohol consumption during human pregnancy can lead to the symptoms of foetal alcohol syndrome (FAS) in the child. These can include malformation of organs including the heart, central nervous system, genitals and the brain.[9] For nearly 20 years FAS has been recognised as the leading cause of intellectual impairment in Western culture.[10] In some communities maternal alcohol consumption is so common that these changed facial characteristics of the baby are considered normal. Melbourne Professor Jon Currie, heading a

committee of medical experts analysing scientific research from around the world, recently stated:

> We know alcohol is a toxin and we cannot find a limit at which it is safe during pregnancy, because even at relatively low levels there are still some studies showing developmental changes…. Not drinking provides you with the safest option.[11]

Test studies on rats and other animals have shown that maternal alcohol consumption can produce abnormal (feminised) sexual behaviour or impaired sexual ability in male offspring that is possibly explained by a testosterone mechanism.[12,13] This has potentially serious implications for men whose mothers drank alcohol during pregnancy, especially during the first trimester of pregnancy. Despite a number of research studies reporting the feminising effect of alcohol, this topic is rarely mentioned in the media.

"Researchers recently warned that educating the public that alcohol can be used as a coronary theraputic agent would create more damage than benefit"

Men who consume alcohol may also contribute to deformed offspring. As far back as the early 1930s—in a handbook for mothers and mothers-to-be titled *All about the baby*—a paediatrician observed that children of alcoholic fathers often showed various signs of both mental and physical degeneracy. She hypothesised this could be explained on the basis of the effect of alcohol in the blood on the sperm of prospective fathers.[14] Sixty years later, the Boston University School of Medicine reported to the American Association for the Advancement of Science that paternal exposure to alcohol had been found to affect the growth and development of the baby.[15]

Both animal and human studies have shown that alcohol can damage male sperm, decrease sperm count and cause testicular atrophy.[16] Studies using rats found that animals allowed to drink alcohol freely had smaller testes and degenerated sperm ducts which produced sperm with significantly reduced mobility and fertilisation rate.[17]

Effects on the brain

Alcohol can cause premature ageing of the brain and reports of brain damage in social drinkers are not uncommon. By middle age, even moderate drinkers have been found to have measurably atrophied brains. Alcohol induced brain damage is reported to develop faster in women, which again emphasises the increased vulnerability of women to harm from alcohol.[18]

Effects of alcohol on the heart

Promoting the heart health benefits of alcohol is another aspect of the alcohol industry marketing strategy. We regularly read articles in newspapers and magazines extolling findings of how beer and wines—particularly red wines, protect against heart disease. While in the context of very moderate drinking, these claims are probably true, similar heart-healthy benefits may be gained from drinking grape juice from dark purple grape varieties, according to Mayo Clinic cardiologist, Dr Martha Grogan.[19] *The benefit is not attributed to the alcohol* (ethanol), but to resveratrol, a substance in the seeds and skin of the grapes. The claims regarding the benefits of consuming alcohol (in various forms) are thus severely weakened. Furthermore, these claims are being subjected to closer scrutiny in symposiums and by researchers. A recent meta-analysis of 54 studies concluded:

> The studies judged to be error free found no significant all-cause or cardiac protection, suggesting that cardiac protection afforded by alcohol may have been overestimated.[20]

On the other hand, there is little doubt that habitual heavy drinking damages the heart muscle and leads to increased risk of heart disease. Similarly, the risk of hemorrhagic stroke grows with increased alcohol consumption.

After an extensive review of the research literature pertaining to alcohol and heart health, researchers at Heidelberg University recently warned that a regular daily administration of alcohol should not be recommended and educating the public that alcohol be used as a coronary therapeutic agent would create more damage than benefit. Any recommendation for alcohol to be used as protection against heart attack and ischemic stroke has the potential to cause damaging effects on various other organs.[21]

The alcohol-cancer relationship

Even moderate drinking can significantly increase the risk of cancer—particularly breast cancer, in women. A multitude of studies have now confirmed that alcohol is either a carcinogen (cancer causing agent) or cancer promoter. In 2006 the International Agency for Research on Cancer estimated that world wide, there were about 389,000 cases of cancer attributed to drinking alcohol each year resulting in around 233,000 deaths. Among women, breast cancer comprised 60% of alcohol-attributable cancers. The report's authors warn that the burden of alcohol-associated cancer appears to be substantial and needs to be considered when making public health recommendations on alcohol drinking.[22]

ALCOHOL AND THE COMMUNITY

Drink driving

We are well informed about the link between alcohol

and road accidents with Government sponsored campaigns and advertising to reduce drink driving. However alcohol still takes its toll. In Australia, each year about 400 people die and around 8,000 are hospitalised as a result of excess alcohol consumption. The financial cost to the Australian community of the hospital care alone for this particular alcohol caused trauma is estimated to be in excess of $1.3 billion.[23]

Alcohol, violence and crime

Alcohol consumption is a contributing factor in many violent crimes. It has also been linked with atrocities, according to former UK army officer Paul Wenck, who actively served in Northern Ireland, the first Gulf War and did peace keeping in Cambodia. For instance, there is evidence large-scale war atrocities committed in the Balkans and south-east Asia were 'alcohol fuelled', with perpetrators having been plied with liquor prior to the events.[24]

However, one of the most devastating aspects of alcohol use relates to its role in terrible crimes against women, especially rape and domestic violence. Alcohol is involved in approximately 55% of rapes and 50% of violence against women. The Australian Institute of Criminology survey of women in 2004 found that 29% of those surveyed reported that they had experienced physical or sexual violence before the age of 16 years. The 2005 Australian Bureau of Statistics survey found 1.47 million Australian women, i.e. 19% of all women aged 15 years + had experienced sexual violence, and 2.56 million Australian women, i.e. 33% of all women 15 yrs + had experienced physical violence.[25] On the basis of calculation, these statistics suggest that alcohol has been a major contributing factor in violence against more than a million Australian women.

In a survey of more than 2000 American couples, rates of domestic violence were almost 15 times higher in households where the husbands were often drunk as opposed to never drunk.[26] Recent U.S. Department of Justice statistics give a similar picture of the involvement of alcohol in intimate partner violence. Two-thirds of victims abused by a current or former spouse, boyfriend or girlfriend reported that alcohol had been a factor and about half of alcohol-related violence incidents reported to police involved current or former spouses, boyfriends or girlfriends of the offenders.[27]

Alcohol is not the *only* factor contributing to domestic violence, but it is involved as a *major* factor, acting as a powerful non-inhibitor by unlocking deeper feelings and frustrations. Strong evidence for the non-inhibiting role alcohol plays in domestic violence comes from a 2003 study by the Research Institute on Addictions at the University of Buffalo. The study of 270 men, with a predisposition for physical violence towards their female partners, found that on days when the men drank alcohol they were eight times more likely to be violent towards their partners compared to the days when they had no alcohol. Moreover, on days of heavy drinking, i.e. drinking six or more drinks within a 24 hour period, the chances of any male to female partner violence was 18 times higher compared to days of no drinking.[28]

Some effects of alcohol

- **Alcoholic drinks induce changes in mood; they also produce physical effects such as loss of coordination....**
- **Alcohol relaxes people's social inhibitions, but it is addictive; dependency on alcohol can seriously affect people's personal and professional lives.**
- **Prolonged consumption of alcohol is a cause of cirrhosis of the liver.**
- **The evidence that alcoholic drinks are a cause of cancers of the mouth, pharynx, and larynx, oesophagus, rectum (men), and breast is convincing.**
- **They [alcoholic drinks] are probably a cause of liver cancer, and colorectal cancer in women.**

World Cancer Research Fund / American Institute for Cancer Research (2007). *Food, nutrition, physical activity, and the prevention of cancer: A global perspective*. Washington DC: AICR, p.157.

> ***"One of the most devastating aspects of alcohol use relates to its role in terrible crimes against women"***

Alcohol and the socialisation of men

The tradition taken up by many men of drinking alcohol with mates has fostered a culture where male conversations and jokes in the workplace and pub regularly portray women as dumb, inferior and stereotype sex objects. Alcohol fuelled conversations of this kind deny women's legitimate feelings, can have a powerful influence on the attitudes of men towards women and sadly, as revealed by statistics, millions of women suffer as a result.

Alcohol and sexual behaviour

One of the results of more women drinking alcohol is the alcohol - sex connection. Alcohol reduces a woman's inhibition, and can be used by both men and women to facilitate casual sex before marriage.[29] This practice exposes young people to the very high

risk of contacting the insidious disease *chlamydia trachomatis* (CT), a sexually transmitted disease which can have no obvious physical symptoms and yet can have very serious long term consequences, if left untreated. Young females are particularly vulnerable to an ascending infection which can result in pelvic inflammatory disease (PID) which in turn may lead to tubal infertility. The disease can also make men sterile.

> ***I believe there is a very strong case for Christians to set an example by choosing not to drink alcohol***

The so called 'Safe Sex' education programs have encouraged responsible young people to use condoms for sex outside marriage. However the term 'Safe Sex' is in many ways misleading. For example, research studies suggest that condoms offer relatively little protection against the spread of CT, which in part explains why *chlamydia* infections have continued to rise to epidemic levels.[30]

A 2007 report for health professionals published on Medscape warns that currently, in the United States, more than 50% of all young adults aged 18 to 25 years have caught at least one of 25 types of sexually transmitted infections (STIs). The most commonly reported STI is *chlamydia*, with three million new cases diagnosed annually in the U.S. When left untreated, *chlamydia* infection increases a female's risk for pelvic inflammatory disease (PID), ectopic pregnancy, infertility, and HIV infection. Up to 75% of females and 50% of males exhibit no obvious symptoms, with 30-40% of all sexually active females reported as being infected with the disease. If left untreated, 40% of these females will develop PID, and 20% of those will then become infertile, while another 9% will develop life threatening complications during pregnancy.[31]

The incidence of infection is also increasing rapidly in Australia where, between 2000 and 2004, known *chlamydia* infections more than doubled with over 35,000 notifications. The largest increase in rates of infection has been in women aged from 15 to 29 years.[32] These young women are paying a high price for the casual sex promoted in magazines, films and videos.

Very few Australian teenagers would realise before they choose to go out and party, get drunk and have sex, that even if they use a condom, there is still a relatively high chance of becoming infected with disease, and that in the future they may end up being unable to have children. The care and treatment of these diseases that may extend into adulthood place a considerable burden on the public health care system. This is an example of a large social and financial cost, which is not usually included in the figures for the overall cost of alcohol to the community.

CONCLUSION

In this article I have attempted to illustrate how, in the big picture, when alcohol related health costs are totalled, the harm of alcohol abuse in the community is staggering. As Christians we are called to care for our community—to pursue wellbeing and peace. Alcohol consumption is a major source of emotional pain, sorrow and violence, as well as personal harm. The financial and healthcare burden imposed on the community is enormous. I believe there is a very strong case for Christians to set an example by choosing not to drink alcohol. It would be tragic if our example of drinking alcohol unwittingly encouraged others to take up drinking. Alcohol is an addictive drug and no-one knows beforehand whether they or their friends will become alcohol dependent.

For a large proportion of the population in general, and many Aboriginal and Torres Strait Islander indigenous communities in particular, alcohol is a curse and it is no surprise that the Bible records God's hatred for drunkenness and associated lifestyles (Galatians 5:19-21). I made the decision not to drink alcohol when I was 14 years old and, since then, have never drunk an alcoholic beverage. I choose not to support an industry that in my view, facilitates so much long-term misery and harm in the world. Salvation Army Major Mike Coleman presents us with a timely challenge:

> ...let's wake up to the facts of what's happening. As a society we have educated ourselves about tobacco and all the culture changed. Now it's time for alcohol to go under the microscope.[33] TEACH

Endnotes

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