EVIDENCE

Resilience and Protective Factors

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Resilience and Protective Factors

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Introduction

Adolescence is a period of transition when children are at higher risk for a number of behaviours including substance use. Alcohol use and misuse by adolescents and young adults is a major public health issue. A number of factors have been identified that protect adolescents or, alternatively, put them at risk for alcohol and drug use. These factors are concerned with different personal and environmental factors, e.g. the community, the school setting, family, peer group and individual characteristics.

Protective behavioural strategies (PBS) for drinking are behaviours that individuals engage in to reduce or limit alcohol consumption and related negative consequences, such as alternating alcoholic and non-alcoholic drinks. An emerging body of literature indicates that individuals who routinely engage in behaviours such as setting limits, pacing drinks, diluting beverages, and taking social precautions (e.g., walking home with friends) are at a lower risk of experiencing alcohol-related consequences

The rationale for identifying risk factors for alcohol and drug use among adolescents is to promote effective preventive interventions. These interventions should be aimed at reducing or eliminating risk factors and increasing protective factors. Using a risk and protective factor approach is one way of increasing awareness of the need for preventive efforts targeting adolescents and young adults. It provides public health planners and other key stakeholders with information about which aspects of youth development in young people to target with preventive efforts.

Resilience theory provides another approach to preventing initiation of substance use through improving adolescent mental well-being and resilience. There is much variation in the definition of resilience although, it is generally agreed that both the individual as well as environmental characteristics contribute to an individual's resilience and are critical for positive youth development and the avoidance of risk behaviours.

Resilience and Protective Factors

Protective Factors

Research has indicated the potential benefits of using protective behaviours which may neutralise the effects of negative risk factors. Borden et al. (2010) found that PBS moderated the binge drinking-alcohol problems relationship among students (n > 4,000). Patrick et al. (2011) explored the association between drinking motives and PBS among college students (n = 358), with results indicating that using protective strategies more frequently was associated with consuming fewer drinks. Ray et al (2009) conducted an online survey with freshmen college students who drank alcohol (n = 229). The study provided evidence that protective behaviours predict the experience of alcohol related consequences over and above alcohol use as well as identified attitudinal and cognitive variables that help explain why students engage in protective behaviours when drinking. A study by Benton et al. (2008) found the more students perceived other students to engage in protective behaviours, the more likely they were to engage in these behaviours themselves.

Vidourek and King (2010) conducted a survey with African-American young people and found that doing well at school, participating in school activities, attending church, and having parents/teachers talk about the dangers of alcohol and set/enforce rules regarding alcohol were associated with decreased recent alcohol use. They concluded that prevention interventions should encourage parents/teachers to engage young people in family, school, and community activities to deter alcohol use.

Shelton and Savon (2011) reported on results from the Health Survey for England, 2007, which indicated that alcohol-related risk factors for binge drinking included thinking it was acceptable to get drunk and protective factors included drinking a similar amount on more than one day compared with drinking on one day only (i.e. indicating binge drinking) for women, and disagreeing it was easier to enjoy a social event if they had a drink.

Cleveland et al. (2008) reported on survey data which indicated that risk factors were stronger predictors of substance use outcomes than protective factors. In particular, individual and peer risk factors were strongly related to lifetime and recent use of cigarettes, alcohol, and marijuana. Community risk factors had the strongest associations with substance use. Age-related differences suggested that family and community factors were more salient among younger individuals whereas peer and school factors were stronger among older adolescents. These differences were said to suggest that effective interventions to reduce adolescent substance use may need to emphasise different domains of risk and protective factors at different stages of adolescent development. In a similar vein, Ferguson and Meehan (2011) found that peer delinquency was the strongest correlate of youth substance use, even more so than family and neighbourhood. They also found that correlations between peer delinquency and substance use behaviour increased with age. They concluded that prevention and intervention strategies that focus on peers are potentially more likely to reduce youth substance use and improve peer relationships than those focused on other areas such as schools.

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Protective Factors (continued)

Cleveland et al. (2010) used survey data from adolescents (n = approximately 9,000) to explore the interaction between individual risk factors and social contextual-level protective factors in relation to problematic substance use. The results indicated that although individual risk, family, school, and community protective factors were associated with substance use; these protective influences differed according to the level of individual risk. That is, the beneficial influence of both family and community contexts dissipated at high levels of individual risk. These findings suggested that in some cases, the individual risk factors may be so strong that they partly overwhelm the benefit of residing in a protective context. This highlighted the important role that bonding to parents, schools, and communities play in preventing adolescent alcohol and drug use, and the need to consider multi-component strategies in preventing adolescent problem behaviours, specifically which may involve targeting young people with high levels of individual risk who also experience elevated family or community risk. That is, tailored intervention strategies that match the strategy with the individual's risk were suggested as being most effective in preventing adolescent alcohol and drug use. One such example is the Adolescent Transitions Program (Dishion & Kavanagh, 2003) which involves a screening procedure to identify high risk students and families and then delivers a multilevel family intervention within a school environment. This programme has been shown to reduce initiation of alcohol and drug use among both at-risk and typically-developing students even though the parent intervention component was relatively brief (an average of 5 hours over 2 years).

Bellis et al. (2010) conducted an English study on compliance with national guidance for alcohol consumption by children. Using survey data, results revealed that alcohol consumption was a cultural norm across all deprivation strata by age 15 years, with higher levels in the most affluent groups. The findings highlighted a strong association between family relationships and young people's alcohol misuse and also supported the hypotheses of the Social Development Model (as discussed later in the chapter) regarding the influence of parent-child interactions on young people's subsequent behaviour. The authors suggested that changing such well-established norms will require prolonged interventions, targeted at those most at risk. They also suggested a social marketing approach targeting parents who allow children to drink when they are not at home (as a parental presence was related to lower drinking levels in children), and that future programmes should target the families of young children, especially with respect to improving communication between parents and children. The authors highlighted the need to look beyond classroom-based education and to assess what other support is available for families, which would require multi-agency work to address a broad spectrum of support needs.

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Protective Factors (continued)

One key protective factor commonly studied in relation to children's substance misuse is parental monitoring. Parental monitoring is usually defined as parents' knowledge of the whereabouts and associates of their children, and is related to rule-setting. In research by Moore et al (2010) which involved analyses of questionnaire data from Welsh adolescents, parental monitoring was identified as the family functioning factor most consistently associated with drinking behaviour, and appeared to form one part of a parenting style of more general communication and regulation of children's behaviour. Findings indicated that increased parental monitoring was linked to a decrease in young people's alcohol misuse, thus highlighting the importance of developmentally appropriate support for parents with adolescent children, in order to maximise protective factors linked to family functioning. It was suggested that a multifaceted approach to alcohol misuse prevention including school-based education and broad-based parenting and family programmes may be most effective, and also that interventions need to address the broad determinants of alcohol consumption rather than focusing narrowly on raising children's awareness or increasing their knowledge about alcohol.

Resilience and Protective Factors

Early Onset

One known risk factor that is particularly relevant for underage substance use is age of first alcohol use. Research has consistently shown that an earlier age of first alcohol use is associated with increased potential for the subsequent development of a maladaptive pattern of alcohol use and alcohol dependence. Consistent with this possibility, studies with college students suggest that failure to use alcohol-specific skills to manage drinking behaviour may serve as a risk factor for the development of problems.

Wu et al. (2010) used data from the American 'National Survey of Parents and Youth (NSPY)' to investigate adolescent pathways to ecstasy use, and protective and risk factors related to this. The results indicated that early onset of marijuana use increased the risk of initiation of ecstasy use, as did the combination of tobacco and alcohol use. Thus, it was suggested that programmes succeeding in delaying the onset of use of substances such as tobacco, alcohol, and marijuana may thereby also help to delay the onset of ecstasy use. Additionally, close parental monitoring was negatively associated with ecstasy use initiation, suggesting that it may be protective against it. At the individual level, sensation seeking tendencies and positive attitudes toward substance use, as well as close associations with deviant peers, were also predictive of adolescent initiation of ecstasy use.

Palmer et al. (2010) conducted an online survey with students (n = 1,440) and found that an earlier age of first alcohol use was associated with heavier drinking and more negative consequences of drinking. An earlier age of onset was associated with less frequent use of alcohol-specific protective strategies, which in turn predicted heavier drinking and more alcohol-related problems.

Moore et al (2010) used a cross-sectional design (involving secondary analyses of questionnaire data from around 6,500 school children aged 11-16 years from Wales) to investigate the relationship between parental attitudes and behaviour and young people's consumption of alcohol. The results indicated that approximately three quarters of respondents reported having tried alcohol, most of whom had first tried alcohol aged 12 or under. As research has stressed the importance of effective timing of prevention activities (both in relation to development of family relationships, and young people's drinking practices) the authors suggested that substance misuse prevention programmes might usefully be offered whilst children are still at primary school before alcohol consumption (or regular consumption) starts.

Resilience and Protective Factors

Gender Differences

Gender is increasingly being studied for risk and protective factors underlying substance abuse and addiction. As such, Thompson et al (2009) indicated that intervention efforts to prevent problem drinking would benefit from being gender-specific. Lewis et al. (2009) conducted a web based survey with students (n = approximately 1,000) which indicated the importance of evaluating factors that are associated with use of PBS, especially gender-specific normative perceptions of PBS.

Labrie et al. (2011) conducted an online survey of heavy drinking college students (n = > 1,500) examining the extent to which protective behavioural strategies (PBS) mediated the influence of drinking motives on alcohol consumption. Results indicated that males reported greater levels of consumption than females, but females reported greater use of PBS than males. In addition, PBS were shown to largely mediate the relationship between motives and consumption. Thus, the authors concluded that PBS use leads to reductions in drinking despite pre-established drinking motives. They therefore suggested the potential value in standalone PBS skills training interventions in lowering alcohol use among heavy drinking college students.

In a similar vein, a study by Sutfin et al. (2009) which involved surveys of adolescents conducted during the summer preceding college enrolment found that females reported using protective behaviours more often than males, with protective behaviours being significantly related to fewer negative drinking-related consequences. A similar finding was reported by Glasgow Centre for Population Health, who conducted research with key informants and young adults on young people, gender and alcohol. They found that feminine drinking norms such as group cohesion, group solidarity and an ethic of concern in the face of risks were linked to harm reduction, with female drinking styles adapting to harm reduction advice.

Schinke et al. (2008) surveyed girls and their mothers (n = approximately 800), with findings suggesting that where adolescent girls go after school, how they view and think about themselves, who their friends are, what their mothers know about their whereabouts, and whether their families articulate non-use messages are associated with girls' use of alcohol, prescription drugs, and inhalants.

Resilience and Protective Factors

Gender Differences (continued)

Special Interest Article – Schinke et al (2009)

Schinke et al. (2009) highlighted that in order to address the growing prevalence and consequences of substance use among adolescent girls, new prevention approaches are needed. A promising direction for those approaches was said to be prevention programmes that engage adolescent girls and their parents, especially their mothers. However, there are limitations with these programmes in that many families lack access to traditionally delivered prevention programmes as they can be labour-intensive and so may not meet the needs of busy families. As such, it was suggested that an ideal intervention programme would be available on demand, at home, and delivered in a way that engages parents and children.

They conducted a randomised clinical trial involving over 900 mother-daughter dyads (with daughters aged between 11 and 13). Those involved in the intervention gained access to the prevention programme through the Internet or CD-ROM. Guided by family interaction theory, the prevention programme sought to change girls' risk and protective factors through mother-daughter interactions. They engaged in exercises to improve the mother-daughter relationship, build girls' substance use prevention skills, and reduce associated risk factors. The results provided support for a computer-delivered, mother-daughter programme for preventing substance use among adolescent girls. That is, two years after the programme, results favoured intervention girls relative to control girls on variables associated with lower risks for substance use, variables that can protect adolescent girls against substance use, and girls' substance use behaviour and intentions.

Limitations of the study included reliance upon self-reported data, the need for additional follow up measurements, and generalisability (delivering programme content by computer restricts the reach of the material to households equipped with personal computers, mothers in the sample were well educated and may not typify parents in need of family-involvement programmes to prevent adolescent substance use). Strengths of the study were said to be the intervention approach - combining gender-specificity, parent involvement, and computer delivery.

Resilience and Protective Factors

Gender Differences (continued)

A Spanish study also found sex differences related to risk and protective factors linked to adolescent drug use (Lopez Larrosa and Rodriguez-Arias Palomo, 2010). A survey of adolescents (n = 2440) found that males experienced more risk and less protective factors than females. The risk factors more closely related to drug use included availability of drugs in the community, favourable family attitudes to drug use, early start and use of drugs by friends, and perceived risk and favourable attitudes to drug use. In relation to alcohol use, social skills were an important protective factor.

Danielsson et al (2011) conducted a longitudinal Swedish study examining possible gender differences regarding risk and protective factors for heavy episodic drinking with 13 year olds, with follow-up 2 years later (n > 1,200). The strongest predictors for boys' heavy episodic drinking at age 15 were heavy episodic drinking and smoking 2 years previously. Drinking peers and smoking 2 years previously showed the strongest association for girls. The research also indicated that high parental monitoring and having a secure attachment to parents may have a protective effect when risk factors are present. The authors concluded that prevention should focus on strengthening the parent-child relation and focus on adolescents' ability to resist peer pressure and of limiting parental provision of alcohol.

Resilience and Protective Factors

Resilience

Ali et al. (2010) used data from the National Longitudinal Study of Adolescent Health (consisting of data from approximately 90,000 adolescents) to create indices of resilience to identify adolescents at risk of smoking, drinking alcohol, and using illegal drugs. The authors suggested that an adolescent's propensity for detrimental risky behaviour, and subsequent negative outcomes, related to environmental and personal factors, including resilience. Three manifestations of resilience were identified: overall-resilient, self/family-resilient, or self-resilient; with the overall-resilient being less likely to engage in risky behaviours. It was suggested that prevention programmes could be more effective and efficient if they were targeted to adolescents with specific needs, which can be identified by their type of resilience. Further studies have reported gender differences. Mistry et al (2009) conducted research on resilience and patterns of health risk behaviours and found notable gender differences in patterns of co-occurring health risk behaviour. They found that health risk behaviours tend to cluster indicating the need for interventions that address multiple health behaviours.

Much research into resilience factors has been conducted with college students. However, a study by Broome and Bennett (2011) involved restaurant workers (a group of employees who often have high rates of heavy drinking and problems with alcohol). The study evaluated reductions in drinking and associated problems at work, in connection with a prevention and education programme designed for young restaurant workers (called Team Resilience). The study employed a cluster-randomised trial design, with 14 of the 28 stores involved in the study receiving the Team Resilience training workshop (consisting of three 2-hour sessions held on 3 consecutive days). Sessions included group discussion, role-play and practice activities, and a learning game. The results were positive, indicating that workers in trained stores reported significantly greater decreases in recurring heavy drinking and work-related problems with alcohol than workers in control stores. In the intervention group, the odds of recurring heavy drinking declined by about 50% and the number of work-related problem areas declined by one third following training.

Hessler and Fainsilber (2010) found that the likelihood of using hard drugs was associated with deficits in emotion regulation and awareness of anger in both middle childhood and adolescence. In line with the stress vulnerability model, results suggested that when emotionally upsetting events occur, adolescents without strategies for understanding or getting over their negative feelings are at increased risk for using substances. In a similar vein, results indicated that destructive tendencies such as substance use may result from a lack of effective strategies for dealing with anger. Findings supported previous work that argue for risky behaviour intervention programmes to include components aimed at strengthening anger emotion-related skills (Nichols et al., 2008). Findings pointed to the importance of children's emotional competence for future intervention and prevention work, with one emphasis of such programmes being on building emotion regulation skills for handling anger. In addition, increasing young people's awareness of their emotions and their comfort around expressing feelings in appropriate ways may help protect them against different forms of risky behaviours.

Resilience and Protective Factors

Resilience (continued)

A Swedish longitudinal study found that individuals who presented substance misuse problems in adolescence were less likely to achieve resilience over the subsequent 25 years than a matched general population sample (resilience was defined as the absence of substance misuse, hospitalisations for physical illnesses related to substance misuse, hospitalisation for mental illness and law-abiding behaviour from ages 21 to 45 years) (Larm et al., 2010).

Hodder et al. (2011) undertook a non-controlled repeat cross sectional study with Australian adolescents to examine the potential effectiveness of an intervention approach to improve adolescent resilience and protective factor scores. The intervention was a three year multi-strategic approach in each of the three health promoting schools domains: curriculum, teaching and learning; ethos and environment; and partnerships and services. The results suggested that the intervention approach has the potential to decrease the extent of tobacco, alcohol and marijuana use across all students (although the need for a more rigorous controlled evaluation of the intervention was emphasised).

Resilience and Protective Factors

Behaviour Theory and Models

Social Development Model

The Cleveland et al. (2008) study provided support for the Social Development Model (SDM), which proposes that adolescent substance use is associated with factors across multiple spheres of influence.

The SDM provides a useful framework for understanding how contextual factors influence adolescent behaviour. Three criminological theories – social control, social learning, and differential association (which postulates that the skills, attitudes and values relating to anti-social behaviour are learned through interaction with others) – are incorporated by the SDM into a general theory of adolescent behaviour (Catalano & Hawkins, 1996). The SDM proposes that interactions with socialising agents such as parents, peers, and community institutions result in learning patterns of behaviour. Those behaviours that are rewarded or reinforced are maintained, whereas those that are ignored or punished are extinguished. A central concept in the SDM is the creation of social bonds between the adolescent and the socialising agents. The social bond involves attachment to others in the socialising unit, which ultimately leads to commitments and beliefs within the adolescent that are consistent with the values of the socialising agent (Catalano et al., 1996). Once established, the social bond inhibits behaviour that is inconsistent with these values and beliefs.

SDM allows for the changing weight of social influences through the life course. For example, whilst the principal influence on very young children would typically be the family, peers also become important in shaping older children's behaviour. Where children perceive limited closeness to family members, influence from peers may become greater than that of family members.

Jessor's Problem Behaviour Theory

The findings of Wu et al. (2010) generally supported Jessor's Problem Behaviour Theory, which states that the risk and protective factors related to adolescent risk behaviour are varied and may be classified into five conceptual domains, i.e., biology/genetics, social environment, perceived environment, personality, and behaviour (Jessor, 1991). Sensation seeking (personality) was found to be significantly predictive of adolescent ecstasy use. Two social environmental variables related to adolescents' family relationships (parental monitoring and living in a two-parent household) appeared to decrease adolescents' risks of ecstasy initiation. Peer deviance, also a social environmental variable, was found to be predictive of ecstasy use, while religious attendance (classified as a protective factor in the behavioural domain) decreased the risk of ecstasy initiation (Jessor, 1991). The authors concluded that their findings on the risk factors for ecstasy use (especially those that are modifiable) and on the related protective factors, can inform prevention programmes targeting youth use not only of ecstasy, but also of other drugs.

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Implications for Practice

A range of studies point to the need for multi-approach interventions that include a range of services

Findings point to the need for a multifaceted approach to alcohol misuse prevention including school-based education and broad-based parenting and family programmes. Prevention interventions should encourage parents/teachers to engage young people in family, school, and community activities to deter alcohol use as research has shown the important role that bonding to parents, schools, and communities play in preventing adolescent alcohol and drug use.

There is a need to look beyond classroom-based education and to assess what other support is available for families. This implies a requirement for multi-agency work to address a broad spectrum of support needs.

Changing such well-established norms will require prolonged interventions, targeted at those most at risk. Such public health interventions should ensure the effective provision of information on the potential benefits of abstinence or of complying with guidance on safer levels of consumption.

Also research has shown that health risk behaviours tend to cluster indicating the need for interventions that address multiple health behaviours.

Early intervention

Much research highlights the negative impacts on early onset alcohol use. As research has stressed the importance of effective timing of prevention activities (both in relation to development of family relationships, and young people's drinking practices) it has been suggested that prevention programmes might usefully be offered whilst children are still at primary school before alcohol consumption (or regular consumption) starts.

It has been suggested that programmes succeeding in delaying the onset of use of substances such as tobacco, alcohol, and marijuana may also help to delay the onset of ecstasy use.

It is important to tailor interventions, specifically for different age groups

Prevention programmes can be more effective and efficient if they are targeted to adolescents with specific needs, which can be identified by their type of resilience.

Research has indicated that early age onset of alcohol is associated with increased consumption. Palmer et al (2010) highlighted that those individuals with an early age of first use may fail to develop adequate skills to manage behaviour, so tailored interventions may need to focus on the development of such skills. These should take more of a harm-reduction approach than has been traditionally used as abstinence-based approaches would not be well suited to teaching these kinds of skills.

Resilience and Protective Factors

Implications for Practice (continued)

Such an approach does not preclude abstinence-based interventions among those who have not yet begun drinking, but does suggest the need to consider multiple options to meet the needs of the entire population. Those individuals with a later onset may already have adequate skills to manage their drinking behaviour, and so skills-based approaches may not be successful, as problems with alcohol for this group may be related to other risk factors (e.g. parental or peer influence,) that might be appropriate targets of intervention.

Effective interventions to reduce adolescent substance use may need to emphasise different domains of risk and protective factors at different stages of adolescent development (e.g. family and community factors among younger adolescents and peer and school factors among older adolescents).

Protective Behavioural Skills (PBS) training interventions and gender differences

We need to consider gender differences and tailor Protective Behavioural Skills interventions accordingly. Research has shown the importance of PBS and also that females reported greater use of PBS than males. There has also been shown to be gender differences in patterns of co-occurring health risk behaviour.

A promising development is prevention programmes that engage adolescent girls and their parents, primarily their mothers. It has been suggested that an ideal intervention programme would be available on demand, at home, and delivered in a way that engages parents and children. Research supports the value of a computer delivered programme.

Recognise that risk factors can be stronger predictors of substance use outcomes than protective factors

This is a complex area so a one size fits all approach will not work. For some, the individual risk factors may be so strong that they partly overwhelm the benefit of residing in a protective context. This points to the need to consider multi-component strategies in preventing adolescent problem behaviours, specifically which may involve targeting young people with high levels of individual risk who also experience elevated family or community risk. That is, tailored intervention strategies that match the strategy with the individual's risk may be the most effective approach in preventing adolescent alcohol and drug use.

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Implications for Practice (continued)

One such example is the Adolescent Transitions Programme (Dishion & Kavanagh, 2003). This involves a screening procedure to identify high risk students and families and then delivers a multilevel family intervention within a school environment. This programme has been shown to reduce initiation of alcohol and drug use among both at-risk and typically-developing students even though the parent intervention component was relatively brief (an average of 5 hours over 2 years).

Acknowledge importance of harm prevention

The value of harm prevention in relation to alcohol has also been emphasised. For example, Palmer et al (2010) highlighted that many of the negative effects of alcohol are dose dependent, with for example, heavier drinking being more damaging than a lower level of consumption. Thus, alcohol-specific strategies to limit levels of intoxication were perceived as valuable; if students do consume alcohol the goal would be to avoid excess. For example, certain strategies such as spacing drinks, turning down a drink, and using protection in sexual situations would still be helpful even if alcohol has been consumed. Thus, reducing levels of alcohol use, although imperfect, may be the best way to reduce alcohol-related harm among adolescents who have already begun to use alcohol.

Need to focus on parenting approaches

Much research points to the strong association between family relationships and young people's alcohol misuse (with consideration of the Social Development Model).

Research has indicated the need for social marketing approaches targeting parents who allow children to drink when they are not at home. Future programmes to reduce young people's alcohol misuse should target the families of young children, especially with respect to improving communication between parents and children.

Although many UK based interventions have been directed through the classroom, attention also ought to be paid to supporting parenting behaviours which reduce children's risk of alcohol misuse. Parents' influence may remain much stronger than that of friends into late adolescence, particularly where family relationships are perceived by the child as close. As such, prevention interventions need to address the broad determinants of alcohol consumption rather than focusing narrowly on raising children's awareness or increasing their knowledge about alcohol.

Additionally, close parental monitoring was negatively associated with ecstasy use initiation, suggesting that it may be protective against it.

Prevention initiatives to strengthen the parent-child relation and focus on adolescents' ability to resist peer pressure and of limiting parental provision of alcohol may be of benefit.

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Links to other Core Elements

Community Approaches

Education

Parenting Programmes

Harm Reduction - Alcohol

Harm Reduction - Drugs