

**FEASIBILITY STUDY FOR AN EVALUATION OF  
A SCHOOLS-BASED, PEER-LED INTERVENTION  
TO REDUCE PUPIL PROBLEM DRINKING:  
THE 'TEENAGE ALCOHOL PROJECT' (TAP)**

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## SUMMARY

There is increasing public and political concern regarding underage drunkenness and associated problems which include anti-social behaviour, accidents, violence, and unsafe sexual behaviour. In the WHO HBSC surveys, undertaken every 4 years since 1986, the incidence of reported drunkenness among adolescents in Wales is consistently higher than in any of the other participating countries in Europe. However, there is no reliable evidence to suggest that any current programmes used with young people to prevent alcohol misuse are effective. The Teenage Alcohol Project (TAP) was jointly funded by the Alcohol Education and Research Council and the Wales Office of Research and Development. The project was an exploratory trial that aimed to develop and evaluate a peer-led, schools-based intervention to reduce the incidence of binge drinking. TAP was not designed to identify the effectiveness of the intervention, but aimed to identify whether the intervention was of sufficient promise to merit a further large scale effectiveness trial.

The TAP intervention was based on ASSIST, a peer-led anti-smoking intervention which was found in an earlier exploratory trial to have some effect on smoking uptake among adolescents. The subsequent large-scale trial of this intervention, funded by the Medical Research Council and led by researchers in CISHE and the University of Bristol, is producing exciting results that are being prepared for publication. The ASSIST and TAP interventions are unlike the majority of peer-led interventions, in which typically older students are trained to deliver classroom-based sessions to an audience of younger children. In TAP, the most influential students were identified using a peer nomination questionnaire completed by all students in the year group. These students were then given two days specialist training off the school premises, on the risks associated with alcohol misuse, and on the peer supporter role that they were asked to take on. As peer supporters, the students were asked to have conversations with their friends and wider peer group, to informally diffuse the messages they were given in the training. They were asked to do this over a nine-week period, during which TAP trainers visited each intervention school on three occasions to provide support and encouragement, and to review the diaries of conversations that peer supporters were asked to maintain over this period.

Nine secondary schools participated in the TAP project. In three, the intervention was delivered to Year 8 pupils, and in three others, to pupils in Year 9. In three further schools, pupils in Year 8 and 9 did not receive the intervention, but were asked to complete questionnaires on their knowledge and behaviour regarding alcohol, which were compared to those of pupils in the six schools receiving the intervention, at six-month follow-up. In the nine study schools, 1920 students were eligible to take part in the study. At each of the three data collection sweeps, response rates of 94.7% or higher were obtained.

The intervention was found to be feasible and acceptable to schools and students: 199 students were invited to attend peer supporter training, of which 146 did so, equivalent to 15% of pupils in each of the target year groups. 117 of these peer supporters attended at least two of the three follow-up sessions, and 106 handed in a completed diary of conversations. Year 9 students were less likely to agree to participate in training, and less likely to complete diaries, than their Year 8 counterparts. In data collected immediately after the end of the intervention period, 42% of students in intervention schools reported that they had talked with a peer supporter, of whom 87% had thought about consequences of drinking and 53% said that they had cut down on drinking. In terms of the primary outcomes of the study, the intervention had no preventive effect on reported frequency of drinking and drunkenness. Indeed, those in the intervention group were more likely than control group students to report 1 or more episodes of being seriously drunk and regretting it in the 3 months prior to the six-month follow up (odds-ratio 1.53, 95% confidence interval 1.13, 2.08).

The process evaluation built into the study had identified that two days training had not been sufficient to satisfactorily cover the more complex alcohol message. Whereas in ASSIST, the message regarding the risks associated with smoking was clear and the message for the peer

supporters to convey in their conversations was relatively straightforward – don't smoke – in TAP the messages were more complex. TAP did not aim to discourage drinking *per se*, but focussed on regular binge drinking, and the health risks associated with drunkenness. Peer supporters were not asked to promote abstinence among their friends and wider peer group, but to promote a more sensible approach to alcohol and discourage regular binge drinking and drinking to get drunk. Interviews with peer supporters suggested that they had not fully taken on board this more complex message, and that it was difficult for them to convey such a complex message in their conversations.

In summary, evidence from the TAP project does not justify investment in a larger scale trial. As in ASSIST, the 'peer-supporter' approach has been found to be feasible and acceptable to schools and pupils, but the duration of the training was not sufficient to prepare the 'peer supporters' to undertake their role effectively.

## INTRODUCTION

### Study background

There is increasing public and political concern regarding underage drunkenness and associated problems which include anti-social behaviour, accidents, violence, and unsafe sexual behaviour. In the WHO HBSC surveys, undertaken every 4 years since 1986, the incidence of reported drunkenness among adolescents in Wales is consistently higher than in other participating countries in Europe. In 2002, 59% of 15-year olds in Wales reported having been drunk on 2 or more occasions, higher than in any of the other 35 countries except Denmark (Clements et al, 2004).

Effective interventions to reduce underage problem drinking rank high in public priorities for service-provision. A research prioritisation exercise undertaken by the Health & Social Care Research Support Unit SE Wales indicated that both health and social care agencies on the one hand, and members of the public in user and community groups on the other hand, all accorded high priority to research on effective interventions to reduce underage problem drinking. It was as a result of this prioritisation exercise that a collaboration between Pontypridd and Rhondda NHS Trust and Cardiff University was formed, which led to the development of this project.

A systematic review of alcohol misuse prevention for young people (Foxcroft et al. 1997) was unable to find reliable evidence of effectiveness for any of the thirty-three programmes whose evaluations were included. Although these disappointing results are partly the result of inadequacies in evaluation methodology, they are also likely to reflect an unresponsiveness of pupils to classroom-based health promotion, since systematic reviews of school-based interventions to reduce smoking prevalence also report limited successes (Sowden et al 2003; Thomas 2002). However, this overall lack of evidence of effectiveness is unlikely to bring to an end schools-based health promotion work on problem drinking: schools-based health promotion will continue to take place. So it is an urgent matter to identify schools-based programmes that work.

There is currently a lot of interest in health promotion circles in peer-leader approaches to health promotion. Probably the best known example of this approach is the US 'gay heroes' study of sexual health promotion undertaken by Kelly et al. (1997). Mid Glamorgan Health Authority (and Bro Taf as the successor authority) funded a schools *smoking* intervention based on the peer leader approach, with Prof Kelly acting as an unpaid consultant. The intervention was subjected to an exploratory trial funded jointly by MRC and the Wales Office of R&D for Health & Social Care, with promising results: smoking uptake was significantly reduced in the 'intervention' schools, as opposed to the 'control' schools, among the highly vulnerable group of 'experimenters' and 'ex-smokers' (Bloor et al. 1999). The smoking intervention was then the subject of an application to MRC to conduct a 'gold standard' second-phase RCT evaluation (ASSIST study). MRC's Health Services & Public Health Research Board gave the application an 'Alpha A' rating and recommended to MRC Council that the application be funded under Council's 'Health of the Public' programme. Council agreed funding and

the trial began on 1/2/01 (Starkey et al 2005). A full randomised, controlled trial evaluation such as this is very expensive (ASSIST is just being completed at a cost of £1.5M). Such trials should not be undertaken without first-phase feasibility work to provide indications of possible success, to estimate effect sizes and attrition rates, and to provide data on which to further refine the intervention.

## **Aim and objectives**

The aim of TAP was to duplicate the approach followed in the earlier peer-led smoking intervention, by initially conducting a small-scale feasibility study, rather than prematurely conducting a larger trial. The project was an exploratory trial that aimed to develop and evaluate a peer-led, schools-based intervention to reduce the incidence of binge-drinking. The project was not designed to identify the effectiveness of the intervention, but aimed to identify whether the intervention was of sufficient promise to merit a further large-scale effectiveness trial.

The specific objectives of TAP were:

- to develop and deliver an intervention programme to reduce adolescent binge-drinking
- to assess the acceptability of the intervention to schools and pupils
- to test recruitment procedures and estimate attrition rates
- to provide a crude estimate of the effect of the intervention
- to undertake a process evaluation of the intervention

A further objective of TAP was added early in the project. The original plan for the study was to implement the intervention in Year 9, but evidence from the feasibility study of the smoking intervention, and from the main ASSIST trial, suggested that Year 8 pupils were more receptive to the intervention. Thus, the additional objective was:

- to identify which is the best target age group for the intervention.

## **Intervention programme**

The TAP intervention was modelled heavily on the ASSIST (anti-smoking) intervention. The large scale trial of ASSIST is producing exciting results that are currently being prepared for publication (Moore et al 2005). The ASSIST and TAP interventions are unlike the majority of peer-led interventions, in which typically older students are trained to deliver classroom-based sessions to an audience of younger children. They instead adopt an alternative model of peer education in which young people are asked to disseminate information or messages to their peers through informal contacts, most likely with friends and others with whom they are socially connected. Thus, the informal processes by which peer influence operates to promote both negative and positive health behaviours are harnessed to promote positive health messages. The role is therefore not restricted to that of a peer educator, but is a wider role involving support, influence and role modelling: thus, the term ‘peer supporter’ is more appropriate (Audrey et al 2004).

This model of peer support fits well with ‘diffusion of innovation’ theory, which attempts to explain how new ideas and practices spread within and between communities through interpersonal communication. According to this model, behaviour change is initially propelled by ‘early adopters’ who are often popular or well-regarded individuals (Rogers 1995). Kelly and his colleagues (1997) used this approach, in which they refer to these individuals as popular opinion leaders (POLs), with the aim of reducing unsafe sexual practices among men attending gay bars in small mid-Western towns in the United States. Popular men, identified by people working in the bars, were recruited and trained as peer educators to endorse changes in sexual behaviour and sexual norms. The evaluation showed a reduction in reported high-risk behaviour in intervention bars with no change reported by

the control communities. However, attempts by Elford and colleagues to reproduce this effect in London and Glasgow were unsuccessful (Hart & Elford, 2003) but Kelly (2004) suggested that this was because these interventions had not included all the key elements of his approach. He identified nine core elements which are central to the POL model:

1. Intervention is directed to an identifiable target population in well-defined community venues.
2. Ethnographic techniques are systematically used to identify segments of the target population and to identify those persons who are most popular, well-liked and trusted by others.
3. 15% of the target population found in the intervention venues are trained as POLs
4. The programme teaches POLs skills for initiating messages to friends and acquaintances during everyday conversations
5. The training programme teaches POLs characteristics of effective behaviour change communication messages targeting risk-related attitudes, norms, intentions, and self-efficacy. In conversations, POLs endorse the benefits of safer behaviour and recommend practical steps needed to implement change.
6. Groups of POLs meeting together weekly sessions that use instruction, facilitator modelling and extensive role-play exercises. Groups are small enough to provide extensive practice opportunities.
7. POLs set goals to engage in risk reduction conversations with friends and acquaintances in the target population.
8. POLs conversational outcomes are reviewed, discussed and reinforced at subsequent training sessions.
9. Logos, symbols or other devices are used as 'conversation starters' between POLs and others.

Each of these nine elements were present in the TAP intervention programme, which was developed during the first eight months of the project. The intervention development was led by Lin Cooper, employed as health promotion specialist on the project, in conjunction with LM, MC and two external consultants, Sue Allerston of Education Support and Inspection Services, and Zoe Lancelott of Gwent Alcohol Project. The intervention consisted of five key stages:

- identification
- recruitment
- training
- support
- acknowledgement.

### ***Identification***

Using an anonymous and confidential 'peer nomination questionnaire', the most influential pupils from the relevant year groups i.e. Year 8 or Year 9 in the intervention schools were identified. All pupils in these schools were asked to nominate those whom they judged to be influential, according to a series of concepts such as leadership, approachability and trustworthiness. To recruit a critical mass of approximately 15% of each year group to be peer supporters, the 17.5% of each year group with the most nominations were therefore invited to the peer supporters recruitment meeting. The main contact at each school reviewed the list of nominated pupils, and was given the opportunity to excluding pupils who were known to be extremely disruptive, or were currently suspended or subject to some other form of disciplinary action that was not compatible with their participation in the training.

### ***Recruitment***

All pupils identified as potential ‘peer supporters’ were invited to an initial meeting within school, to familiarise them with the general aims of the TAP intervention and their proposed role within it. In order for them to attend the actual training programme, both parental consent and their own assent were required in writing. No distinction was made, at this stage, between drinkers and non-drinkers and it was made clear that their participation was voluntary and could be withdrawn at any subsequent stage.

### ***Training***

A series of two-day, professionally-led, training events were delivered in school time but away from school premises – one for each individual intervention school. The programme aimed to be a pupil-centred, experiential learning process through which participants developed the requisite knowledge, skills, confidence and motivation to informally encourage peers to have a responsible attitude towards alcohol and avoid binge-drinking. Other key features of the programme were its informal style, group work approach and low pupil/trainer ratio.

### ***Support***

Three in-school follow-up sessions were conducted over a nine-week period following the initial training event, during which ‘peer supporters’ were encouraged to engage their peers in conversations about alcohol. These sessions were professionally-led and designed to provide pupils with ongoing assistance in their role as ‘peer supporters’, once they were back in their normal school environment. Throughout the nine-week post-training period, ‘peer supporters’ were asked to maintain a record of their informal conversations about alcohol in a diary. This enabled study staff to both monitor the intervention efforts being made and to intervene with additional advice or training where necessary.

### ***Acknowledgement***

All pupils in study schools who took part in the data collection were given a certificate to acknowledge their role in the programme evaluation. Additionally, all ‘peer supporters’ who successfully carried out their role were rewarded, upon completion of the intervention, with a certificate of achievement and a gift voucher.

## **Research setting**

The Teenage Alcohol Project was jointly funded by Wales Office of Research & Development for Health and Social Care (WORD), and the Alcohol Education & Research Council (AERC). The lead applicant was Dr Meraj Hasan, Consultant in Child Psychiatry at the Pontypridd & Rhondda NHS Trust. The research was conducted by a team based at Cardiff University School of Social Sciences, led initially by Professor Mick Bloor, but led for the majority of the project period by Professor Laurence Moore. This followed Professor Bloor’s full-time secondment to an externally funded research centre, and his subsequent appointment in April 2004 to a Chair at the Centre for Drug Misuse Research at the University of Glasgow. Co-applicants Hamilton-Kirkwood and Black both changed their professional role due to organisational restructuring, and did not contribute strongly to the project. Co-applicant Bennett was a member of the trial management group, along with Hasan, Bloor, Moore and Chalder.

Secondary schools in the former Bro Taf and Gwent Health Authority areas were invited to participate in the project. Schools were excluded if they were already participating in the ASSIST study, or in other peer-led alcohol or drug projects.

## **METHODOLOGY**

The evaluative element of the Teenage Alcohol Project combined quantitative and qualitative approaches in an effort to determine the intervention's success in terms of i) outcome and ii) process.

### **Ethical approval**

The Wales Multi-centre Research Ethics Committee (MREC) was asked to give ethical approval of the study protocol. However, the MREC deemed that the study did not fall within its remit. We therefore asked the MREC to ethically review the protocol, which they kindly agreed to do. All comments made by the MREC in its review, which particularly related to issues of participant consent, were acted upon.

### **Outcome Evaluation**

#### ***Research design***

The study was designed as a pilot cluster randomised controlled trial, with schools as the unit of randomisation. As such, it involved the comparison of a number of schools in which the TAP intervention was delivered with an additional sample of schools where no intervention work took place. To identify the best target age group for the intervention, participating schools were either:

- allocated to have the intervention delivered to Year 8 pupils or
- allocated to have the intervention delivered to Year 9 pupils or
- assigned to a control condition across both Year 8 and 9.

All participating schools were asked to continue with their normal provision of alcohol education within the Personal and Social Education (PSE) curriculum, irrespective of treatment group status. Eligible pupils in the 'intervention' schools also received the nine-week TAP intervention programme. In order to minimise 'contamination' from 'intervention' to 'control' schools (or vice-versa), participating schools were asked to refrain from discussing their involvement with outside parties, and from disclosing their trial status to other participants.

Information relating to recruitment and retention rates were collected for both the data collection procedure and intervention programme at varying points during the study. Data relating to the effect of the intervention were collected using a confidential, anonymised self-completion questionnaire at baseline, immediately post-intervention and at six-month follow-up, specifically developed to capture data on participants' knowledge of, attitudes towards and experience of alcohol and drunkenness. Prior to its administration in study schools, the research instrument had been piloted twice in comparable secondary schools outside the project catchment area. No interim findings were made available and final results only conveyed after completion of the study.

### ***Study population and random allocation***

State maintained secondary schools within the Bro Taf and Gwent Health Authority areas were identified as potential study participants according to the following pre-defined inclusion criteria:

- mixed ability
- mixed sex
- of reasonable size
- English-speaking
- not being already involved in similar research activity and
- having a deprivation score (percentage entitled to free school meals) of at least the national average

Schools which responded positively to the invitation to participate were scrutinised according to the following pre-defined list of matching criteria:

- geographic location
- year group
- year size
- free school meal entitlement and
- academic attainment.

Three groups each consisting of three schools were then identified from among the schools willing to participate. The grouping aimed to satisfy two conditions. First, that within each group there should be a range of schools in terms of these criteria. Second, that between groups, the groups should be broadly comparable in terms of the mean and distribution of the criteria. Computer generated numbers were then used to allocate each of these groups to one of the study arms. Researchers were blinded to the identity of the schools / groups being recruited / randomised by the use of unique identity numbers throughout the recruitment / randomisation process.

### ***Outcome measures***

The primary outcome measures were collected by means of self-completion questionnaire, with the primary follow-up being the six-month follow-up:

- drinking frequency defined as “drinking 2-3 times a week” or more
- feeling the effects of alcohol defined as “having been a little bit drunk 1-2 times” or more in the last three months
- drunkenness defined as “having been seriously drunk 1-2 times” or more in the last three months
- regretted drunkenness defined as “having been seriously drunk and regretted it 1-2 times” or more in the last three months.

Secondary outcomes were concerned with discussions about alcohol and discussions with peer supporters measured at immediate post-intervention data collection sweep, and drinking intentions at six-month follow-up. Attempts were made to measure reported consumption of alcohol over the week prior to each data collection. A questionnaire was developed and piloted, using a 7-day drink diary. This set of questions was included in each of the data collection sweeps. However, analysis of the data indicated that the number of individuals for whom drink diary responses were incomplete, or for whom the reported consumption was greater than could be reasonably assumed as a true maximum, was high. Analyses, blind to intervention group, which compared the reported units from the drink diary to responses to the other alcohol consumption variables suggested that there was substantial error in the consumption estimates from the drink diary. Units consumed was therefore not included

as a secondary outcome in the trial analysis plan. Subsequent analysis of differences in units reported between the two groups were highly sensitive to assumptions made about missing and unreliably high estimates (although these are not reported here). This supported the decision not to include consumption in units from the 7-day drink diary as a secondary outcome variable.

### ***Data collection methods***

In order to maximise the quality of data and response rates, a ‘user friendly’ data collection approach was employed. Wherever possible, data collection occurred during school time under ‘exam conditions’ in hall settings. The purpose of the study was fully explained to pupils at the beginning of each session, as was the procedure for completing the questionnaire itself. Pupils were given the opportunity to ask questions and to refuse to take part in any or all of the data collection activities. Pupils absent from any session were encouraged to complete the TAP questionnaire within a two-week period, as part of a call-back visit to schools by project staff. These ‘absentee’ sessions followed the same format as the main data collection sessions, although they were often conducted in smaller, classroom environments.

To ensure confidentiality and anonymity, sessions were supervised by a team of project staff who provided assistance with queries and gave additional support to those pupils with limited literacy skills or other special needs. Whilst teaching staff were invited to be present during data collection for discipline purposes, they were asked to play a passive role, referring any queries from pupils to project staff. To further emphasise the importance of confidentiality and anonymity, pupils were asked to place their completed questionnaires in sealed envelopes before returning them directly to project staff.

### ***Sample size***

The original protocol proposed a sample of Year 9 pupils drawn from six schools – three per treatment group. Assuming an average year size of one hundred and fifteen pupils, this would have provided approximately seven hundred individual research subjects, dependent upon consent and completion.

However, in order to strengthen the power of the study and enable the identification of the most appropriate age group for the intervention, the number of participating schools was increased from six to nine – three schools involving only Year 8 pupils, three schools involving only Year 9 pupils and three schools involving both Year 8 and Year 9 pupils. Furthermore, schools interested in participating in the study had year sizes greater than that assumed in the proposal. Thus, the revised planned sample size was approximately eighteen hundred, dependent upon school year size, consent and completion rates. This was more than 2.5 times greater than that planned in the funded protocol.

### ***Analysis***

All data were initially entered and cleaned using SPSS and subsequently imported into Stata for analysis. For each of the primary outcomes, the effect of the intervention was estimated in Stata using random effects logistic regression models, with school as random effect. For each outcome, the models included the original stratifying variables as covariates. Models were estimated with and without year and baseline measures as covariates. Standard errors and confidence intervals for descriptive statistics for primary and secondary outcomes were calculated using design weighted survey estimators in Stata, which accounted for school-level clustering.

## **Process Evaluation**

### ***Research design***

Process evaluation activity focussed primarily on assessing two aspects of the TAP intervention programme; firstly, the feasibility of delivering it in its prescribed form and secondly, its acceptability to participants. Data were collected from all key stakeholders at strategic points throughout the study using a number of different research methods including observation, self-completion questionnaires and semi-structured interviews.

### ***Study population***

All study schools were included in one or more aspects of the process evaluation.

### ***Sampling***

The sampling frame comprised of:

- liaison teachers from the six ‘intervention’ schools
- trainers involved in delivering the intervention programme
- nominated pupils who successfully completed their training as ‘peer supporters’
- nominated pupils who failed to complete their training as ‘peer supporters’
- six ‘intervention’ schools as observation sites for the intervention programme.

For the ‘peer supporters’ who completed their training, a stratified random sample of 20% of all those initially targeted (n=140) was selected to participate in an interview, taking into account the students’ school and sex. It was envisaged that a sample of 20% would be a manageable number of interviews to carry out in the time allocated for fieldwork and hopefully provide a broad and balanced cross-section of young people’s views. The stratification by school and sex intended to account for any differences in opinion between boys and girls and also differences according to the school the peer supporters attended. The aim was to have approximately twenty-eight interviews with the young people who were initially recruited as peer supporters.

The selection procedure for the interviewees took an inclusive approach, with the emphasis upon including all one hundred and forty ‘peer supporters’ who completed the two-day training event and indicated their willingness to attend the subsequent follow-up sessions. No distinction was made at this stage between those ‘peer supporters’ who qualified / did not qualify for a gift voucher according to follow-up attendance or diary completion. On this basis, a total of twenty-eight ‘peer supporters’ were invited to participate in the interviews. For practical reasons, no substitution was made in the event of any ‘peer supporter’ not wishing or not able to participate in the face-to-face interview.

An additional set of interviews was conducted with ‘peer supporters’ who dropped out of the intervention programme. Assuming that any individuals who completed the TAP training event were deemed to be ‘peer supporters’ (regardless of whether they attending subsequent follow-up sessions or completed their diary) there were four distinct ways in which an individual might have ‘dropped out’ of the ‘peer supporter’ training programme:

- Parental / guardian refusal of consent
- Refusal of consent prior to initial recruitment meeting
- Opting out prior to Day 1 of the training programme
- Opting out prior to Day 2 of the training programme

For this set of interviews, a purposive sample including one male and one female from each school, where applicable was selected. In addition to this group of eleven interviewees, all pupils who were excluded from the ‘peer supporter’ training programme, either by the school staff or TAP trainers,

were invited to interview. This provided a further six interviewees. In total, seventeen individuals were selected and invited to interview.

***Focus of enquiry***

The focus of data collection and analysis in the process evaluation was to identify:

- perceived strengths of the intervention programme
- perceived weaknesses of the intervention programme
- suggested changes to the intervention programme.

***Data analysis***

Audio-taped interview material was transcribed prior to being manually coded into a number of *a priori* themes. Data from the observation notes and self-completion questionnaires were systematically examined with reference to the three focus areas.

**RESULTS**

**School recruitment and pupil response rates**

***Number of schools recruited to data collection***

Forty-nine out of a possible one hundred state secondary schools in the Bro Taf and Gwent Health Authority areas were identified as meeting the study selection criteria, and were approached to participate in the study. All replied to the initial invitation letter and seventeen agreed to be considered for inclusion. The reasons given for declining to participate are listed below in Table 1. The seventeen schools agreeing to participate were considered in terms of the stated matching criteria and a final sample of nine schools selected, all of whom agreed to be randomised to any of the three treatment arms.

*Table 1: Reasons given by schools for non-participation*

REASON	(n)
already involved in alcohol / drug focussed health promotion activities	5
already involved in other research activities	5
experiencing staffing difficulties or internal restructuring	10
scheduled to have OFSTED inspection in coming academic year	2
unhappy with research methodology	1
never received details of project	1
predicted time-tabling difficulties	8

***Number of schools completing data collection***

No school withdrew from the study after recruitment and as a result, all nine study schools successfully provided baseline, immediate post-intervention and six month follow-up data.

***Number of schools recruited to the intervention programme***

All nine schools recruited into the study agreed at baseline to be randomised to any of the three treatment arms. This resulted in six schools being recruited to participate in the intervention programme.

***Number of schools completing the intervention programme***

No school withdrew from the study after recruitment and, as a result, the intervention programme was successfully delivered to all six ‘intervention’ schools.

### ***Number of pupils recruited to data collection***

From the nine participating schools, a total of one thousand nine hundred and twenty young people were eligible to take part in data collection at baseline. This comprised 98.6% of all those on the school roll within the appropriate year groups. Of these, 95.8% (n=1840) returned a baseline questionnaire. Table 2 provides further detail of this baseline study cohort in terms of eligibility and response, according to year and treatment group. The overall response rate was extremely high and the number of pupils ineligible due to parental opt-out or pupil refusal was very low, irrespective of year or treatment group.

*Table 2: Baseline study cohort in terms of eligibility and response*

	Total	Parental opt-out		Pupil refusals		Eligible pupils		Absent pupils		Responding pupils	
		(N)	(%)	(N)	(%)	(N)	(%)	(N)	%	(N)	(%)
Year 8 intervention	493	2	0.4	0	0	491	99.6	16	3.3	475	96.7
Year 8 control	497	9	1.8	5	1.0	483	97.2	22	4.6	461	95.4
Year 9 intervention	503	3	0.6	5	1.0	495	98.4	31	6.3	464	93.7
Year 9 control	455	4	0.9	0	0	451	99.1	11	2.4	440	97.6
TOTAL	1948	18	0.9	10	0.5	1920	98.6	80	4.2	1840	95.8

### ***Number of pupils completing data collection***

After initial recruitment, pupils were able to participate in a further two data collection waves. The first of these took place immediately after the delivery of the intervention programme. One thousand nine hundred pupils were eligible to participate in the immediate post-intervention data collection sweep and 96.1% of them did so (n=1825). Table 3 provides further detail of the study cohort in terms of eligibility and response, according to year and treatment group at immediate post-intervention. Once again, the overall response rate remained very high, despite the number of 'absentee' subjects in the Year 9 intervention group being slightly higher than that of the other groups.

*Table 3: Immediate post-intervention cohort in terms of eligibility and response*

	Total	Parental opt-out		Pupil refusals		Eligible pupils		Absent pupils		Responding pupils	
		(N)	(%)	(N)	(%)	(N)	(%)	(N)	%	(N)	(%)
Year 8 intervention	489	2	0.4	0	0	487	99.6	16	3.3	471	96.7
Year 8 control	490	9	1.8	5	1.0	476	97.1	8	1.7	468	98.3
Year 9 intervention	500	2	0.4	7	1.4	491	98.2	41	8.35	450	91.6
Year 9 control	450	4	0.9	0	0	446	99.1	10	2.2	436	97.8
TOTAL	1929	17	0.9	12	0.6	1900	98.5	75	4.0	1825	96.1

The final data collection sweep took place six months after the delivery of the intervention programme and involved 94.7% of the 1858 pupils eligible to participate. Due to the timing of this data sweep, pupils had moved from Years 8 and 9 into Years 9 and 10 respectively. Table 4 provides further detail of the study cohort in terms of eligibility and response, according to year and treatment group, for this six-month follow-up.

*Table 4: Six-month follow-up cohort in terms of eligibility and response*

	Total	Parental opt-out		Pupil refusals		Eligible pupils		Absent pupils		Responding pupils	
		(N)	(%)	(N)	(%)	(N)	(%)	(N)	%	(N)	(%)
Year 9 intervention	484	2	0.4	0	0	482	99.6	22	4.6	460	95.4
Year 9 control	483	9	1.9	5	1.9	469	97.1	15	3.2	454	96.8
Year 10 intervention	483	3	0.6	9	1.9	471	97.5	45	9.6	426	90.4
Year 10 control	440	4	0.9	0	0	436	99.1	16	3.7	420	96.3
TOTAL	1890	18	1.0	14	0.7	1858	98.3	98	5.3	1760	94.7

## Participation in the TAP intervention

### *Number of pupils recruited to the intervention programme*

One hundred and ninety-nine pupils from the six ‘intervention’ schools were invited to an initial peer supporter recruitment meeting. Of these, ten were considered unsuitable to participate by their school and excluded at the outset, whilst a further thirty-seven declined to take part. None of the parents/carers of invited pupils withheld their support. As a result, 76.4% of pupils originally invited to be ‘peer supporters’ were eligible to attend the two-day training event (n=152). This constituted some 15.3% of the total pupils within the relevant year groups in all six ‘intervention’ schools and equated to the critical mass of 15% suggested by Kelly as being necessary for successful implementation.

### *Number of pupils completing the intervention programme*

One hundred and forty-six young people attended the two-day course, although six were subsequently excluded due to inappropriate or disruptive behaviour. 95.9% of the attending pupils (n=140) therefore completed the two-day training event and consented to undertake the role of a ‘peer supporters’. As part of their ongoing commitment to the programme, ‘peer supporters’ were required to attend at least two of the three follow-up sessions and submit a diary of their peer conversations to project staff at the end of the nine-week intervention period. 83.8% of the ‘peer supporters’ (n=117) successfully attended the requisite number of follow-up sessions and 90.6% of these (n=106) handed in a ‘peer supporter’ diary.

## Sample characteristics

Table 5 summarises the baseline characteristics of the nine participating schools, according to geographic location, year size, location, free school meal entitlement (FSM) and academic attainment (AA).

*Table 5: Characteristics of participating schools at baseline*

SCHOOL	LOCATION (LHA)	YEAR 8 SIZE (N)	YEAR 9 SIZE (N)	FSM <sup>a</sup> (%)	AA <sup>b</sup> (%)
<b>Year 8 intervention schools:</b>					
Blackwood Comprehensive School	Caerphilly	188	-	19.4	51.5
Bedwas High School	Caerphilly	115	-	20.8	36.7
Hartridge High School	Newport	181	-	31.5	21.9
<b>Year 9 intervention schools:</b>					
Brynmawr Comprehensive School	Blaenau Gwent	-	145	20.3	51.4
Duffryn High School	Newport	-	190	42.3	26.6
Ogmore Comprehensive School	Bridgend	-	148	21.4	31.7
<b>Control schools:</b>					
Bryntirion Comprehensive School	Bridgend	172	157	19.4	43.5
Heolddu Comprehensive School	Caerphilly	122	137	22.5	40.7
Llanedeyrn High School	Cardiff	189	146	26.5	27.8

*a* Free school meal entitlement score represents the percentage of pupils at a school deemed entitled to a free school lunch following means testing by the Local Education Authority.

*b* Academic attainment score represents the percentage of pupils in Year 11 at a school who successfully achieved five or more passes at grades A-C in GCSE examinations

Table 6 summarises the baseline characteristics of the study participants, in terms of sex, age, family affluence score and alcohol drinking behaviour. The table indicates reasonable balance between the

intervention and control groups. The most noticeable difference is that, among Year 8, the intervention group students were more likely to report having ever drunk an alcoholic drink, and to have ever been seriously drunk.

*Table 6: Characteristics of study respondents at baseline*

	Year 8		Year 9	
	Intervention (N=475)	Control (N=461)	Intervention (N=464)	Control (N=440)
Sex, n male (%)	259 (54.5)	242 (52.5)	231 (49.8)	229 (52.0)
Mean age $\pm$ SD	12.2 $\pm$ 0.4	12.3 $\pm$ 0.4	13.2 $\pm$ 0.4	13.2 $\pm$ 0.4
Mean family affluence score $\pm$ SD	3.4 $\pm$ 1.4	3.3 $\pm$ 1.4	3.3 $\pm$ 1.4	3.5 $\pm$ 1.4
Ever had an alcoholic drink (%)	68.7%	61.9%	82.5%	83.1%
Drink alcohol 2-3 times/week or more (%)	6.0%	4.6%	8.0%	9.4%
Ever been seriously drunk 1-2times or more (%)	21.5%	14.9%	39.0%	39.0%

## Outcome measures

The primary outcome measures were collected by means of self-completion questionnaire, with the primary follow-up being the six-month follow-up:

- drinking frequency defined as “drinking 2-3 times a week” or more
- feeling the effects of alcohol defined as “having been a little bit drunk 1-2 times” or more in the last three months
- drunkenness defined as “having been seriously drunk 1-2 times” or more in the last three months
- regretted drunkenness defined as “having been seriously drunk and regretted it 1-2 times” or more in the last three months.

Secondary outcomes were concerned with discussions about alcohol and discussions with peer supporters measured at immediate post-intervention data collection sweep, and drinking intentions.

### *Immediate post-intervention*

Among students in ‘intervention’ schools, 42% of those completing the immediate post-intervention survey reported that they had talked with a ‘peer supporter’ about alcohol. Of these, 87% reported that this helped them think about the consequences of drinking alcohol, and 53% reported that it had helped them cut down on drinking alcohol. In both ‘intervention’ and ‘control’ schools, students were asked how often they talked about alcohol with their friends from school; in ‘intervention’ schools, 39.5% (95% CI: 32.0, 47.5) of pupils reported that they did this sometimes or every day, compared to 30.4% (25.8, 35.5) in ‘control’ schools (p=0.05).

### **Primary outcome measures**

Table 7 indicates that at six-month follow-up, there was no evidence to suggest that the intervention had had a beneficial effect on the primary outcomes. In Year 8, the alcohol drinking behaviours were all more common among the ‘intervention’ group pupils than those in the ‘control’ group. Among Year 9 pupils, the frequency of the three variables relating to drunkenness were higher among the ‘control’ group. The 95% confidence intervals for the estimates in Table 7 are wide, since they take account of school-level clustering and are based on data from three schools in each case, which were purposively selected in the pre-randomisation grouping of schools to represent a range of school characteristics.

*Table 7: Reported drinking behaviour at six-month follow-up*

	Year 8		Year 9	
	Intervention % (95% CI)	Control % (95% CI)	Intervention % (95% CI)	Control % (95% CI)
Drinking 2-3 times a week or more	15.2 (7.6 to 28.3)	10.3 (3.4 to 27.1)	18.7 (11.2 to 29.7)	18.6 (14.8 to 23.2)
A little bit drunk 1-2 times in past 3 months	50.6 (43.9 to 57.2)	43.5 (24.8 to 64.3)	61.6 (46.2 to 75.0)	64.3 (54.7 to 73.0)
Seriously drunk 1-2 times in past 3 months	29.2 (23.6 to 35.6)	23.4 (8.6 to 49.6)	36.8 (24.3 to 51.4)	43.8 (32.6 to 55.8)
Seriously drunk and regretted 1-2 times in past 3 months	16.3 (13.6 to 19.3)	9.6 (3.9 to 21.9)	19.5 (10.2 to 33.9)	21.5 (16.3 to 27.9)

Table 8 presents the results of the primary analysis to identify an intervention effect. All of the models adjust for variables used in the pre-randomisation grouping of schools and, therefore, much of the school-level variance that contributes to the wide confidence intervals in Table 7 is accounted for. If the intervention had had an effect in preventing frequency of drinking and/or drunkenness, then the odds-ratio would be less than one (i.e. lower odds of frequent drinking / drunkenness in the intervention group than in the ‘control’ group). The odds ratios are estimated using data from both school years. For each of the primary outcomes, there is no suggestion of a preventive effect of the intervention. For frequency of serious drunkenness, the unadjusted model gives an odds-ratio of 0.98, but once adjusted for baseline frequency of serious drunkenness and year group, the odds-ratio is 1.15. For the first three outcome variables, the adjusted models all suggest a tendency for increased frequency of drinking / drunkenness among the ‘intervention’ group, although in all cases the magnitude of this effect is limited and is not statistically significant. However, in the case of the frequency with which pupils report that they have been seriously drunk and regretted it in the last three months, there is a statistically significant effect, with ‘intervention’ group pupils more likely to report this occurring at least once in the last 3 months. Reference to Table 7 indicates that this effect is most apparent among Year 8 pupils. If we calculate the proportion of pupils who reported having been seriously drunk in the last three months who reported that they regretted it, the proportions are 55.8% and 52.9% among Year 8 and Year 9 ‘intervention’ pupils respectively, and 41.0% and 49.1% among the respective Year groups in the ‘control’ schools.

Table 8: Logistic regression models of intervention effect: primary outcomes

	Odds ratio of being in intervention group (95% confidence interval)	
	Unadjusted	Adjusted for baseline measure and year group
Drinking 2-3 times a week or more	1.18 (0.89, 1.56)	1.20 (0.88, 1.64)
A little bit drunk 1-2 times or more in past 3 months	1.21 (0.87, 1.68)	1.24 (0.97, 1.59)
Seriously drunk 1-2 times or more in past 3 months	0.98 (0.73, 1.33)	1.15 (0.89, 1.49)
Seriously drunk and regretted 1-2 times or more in past 3 months	1.34 (1.03, 1.76)	1.53 (1.13, 2.08)

### Secondary outcome measures

Drinking intentions measured at six-month follow-up were included in the analysis plan as secondary outcomes. Table 9 indicates that the differences between pupils in ‘intervention’ and ‘control’ schools were patterned in a similar way to the primary outcomes – intentions to drink alcohol, get a little bit drunk and get seriously drunk in the next two weeks were all higher in the ‘intervention’ than ‘control’ group among Year 8, and lower among Year 9. These differences were to some extent due to the differences at baseline, which are adjusted for in the models presented in Table 10. The models find no statistically significant difference between the groups, although they indicate greater intentions to drink alcohol and to get a little drunk among the ‘intervention’ group, but reduced odds of intending to get seriously drunk.

Table 9: Reported drinking intentions at six-month follow-up

How likely is it that you will do each of the following in the next two weeks?	Year 8		Year 9	
	Intervention % (95% CI)	Control % (95% CI)	Intervention % (95% CI)	Control % (95% CI)
Drink alcohol	46.5 (41.3 to 51.7)	42.5 (24.0 to 63.3)	56.8 (39.0 to 73.0)	61.8 (55.3 to 67.9)
Get a little bit drunk	28.1 (27.2 to 34.9)	18.4 (7.5 to 38.5)	35.9 (21.8 to 53.0)	43.5 (38.7 to 48.6)
Get seriously drunk	9.4 (7.0 to 12.4)	9.2 (3.8 to 20.6)	14.6 (9.5 to 21.8)	17.8 (11.0 to 27.4)

Table 10 Logistic regression models of intervention effect: drinking intentions

	Odds ratio of being in intervention group (95% confidence interval)	
	Unadjusted	Adjusted for baseline measure and year group
Drink alcohol	1.10 (0.79, 1.53)	1.07 (0.84, 1.36)
Get a little bit drunk	1.17 (0.93, 1.46)	1.22 (0.94, 1.59)
Get seriously drunk	0.89 (0.55, 1.46)	0.82 (0.57, 1.16)

## Process Evaluation

### *Sample characteristics*

The final sample included:

- all six liaison teachers from the six ‘intervention’ schools
- all four trainers involved in delivering the intervention programme
- twenty-three pupils who had successfully completed their training as ‘peer supporters’. These individuals were drawn, as a stratified random sample, from the one hundred and forty pupils who had assumed the role of ‘peer supporter’. Five further pupils were invited to give feedback as part of the process evaluation but were absent from school on the day of the interviews.
- nine pupils who were invited to train as ‘peer supporters’ but failed to do so. These individuals were drawn, as a purposive sample, from the fifty-two pupils who were nominated as potential ‘peer supporters’ but did not complete the intervention programme. Eight further pupils were invited to give feedback as part of the process evaluation but declined to do so.
- three of the ‘intervention’ schools as observation sites for the intervention programme.

### *Main findings*

Due to the limited space available in this report, it is not possible to present a full analysis and interpretation of the multiple sources of data collected in the process evaluation. Instead, we will summarise the main findings under each of the three focus areas of enquiry in the process evaluation.

- **perceived strengths of the intervention programme**

The peer nomination process successfully identified pupils who were suitable for the role of ‘peer supporter’, were different to the groups that would have come forward through volunteering or teacher selection, and in most schools were drawn from friendship groups across the whole year group.

The use of external venues and trainers was appreciated by the pupils, who felt privileged to have been selected. The training programme was highly acceptable to pupils, trainers and teachers, in terms of venues, content and delivery.

Very few pupils refused to participate in the intervention training and few of them subsequently dropped out.

The follow-up sessions were felt by trainers and pupils to be very worthwhile. Quality and quantity of diary completion was good.

Most ‘peer supporters’ felt able to talk to other pupils in everyday conversations about alcohol and sensible drinking.

Many pupils reported that during the training, and to a lesser extent during the follow-up period when they were attempting to have conversations with their Year group, they had increased their circle of friends.

- **perceived weaknesses of the intervention programme**

A number of ‘peer supporters’ thought that the training did not provide sufficient information transferral or skills practice and development for them to effectively carry out their role as a ‘peer supporter’. This finding was often linked to the opinion that the training programme was too short or due to the fact that pupils already had a certain amount of knowledge about alcohol prior to the intervention. A number of ‘peer supporters’ had difficulties in initiating

conversations with some members of their year group. Others had difficulty in getting peers to listen to what they had to say.

Trainers felt that it was very difficult to get through the training programme within the two days allocated. It was sometimes necessary to cut out certain planned activities, and to reduce the time allowed for other crucial elements that could not be dropped.

Trainers and pupils remarked on the time lost and frequent distractions during training due to misbehaviour of a small minority of pupils. This was more common among Year 9 students.

Trainers attending follow up sessions felt that the core message of TAP, the focus on reducing regular, frequent binge-drinking, was difficult for the students to convey in their conversations. Some 'peer supporters' also reported this, which is linked to the expressed difficulty in getting other pupils to listen to what they were saying.

- **suggested changes to the intervention programme**

Pupils and trainers suggested that the two days allowed for the training were not sufficient. In particular, more time was needed to develop and practice methods to approach and have conversations with other pupils. Three or four days may be necessary.

Assessment of pupils' existing knowledge may help improve information transferral sessions and reduce the time required for these sessions.

'Peer supporters' may be helped in delivering the complex harm-reduction message if they had detailed literature to refer to and give to the pupils that they are talking to.

Some trainers felt that hotel venues were not always suitable for training, especially when busy with other meetings, whose delegates would not tolerate noise from the training sessions.

## DISCUSSION

The conduct of the research project has been successful, exceeding the scope of activities detailed in the original research proposal, and achieving very high response rates to quantitative and qualitative data collection components. Although funded to test the feasibility of the intervention in three schools, with three 'control' schools, the project has actually succeeded in implementing the intervention and all data collection procedures in six 'intervention' schools and three 'control' schools. In terms of the number of pupils participating in the study, the achieved eligible sample of one thousand nine hundred and twenty pupils was much greater than the seven hundred planned in the proposal. This greatly increased scale of study has been achieved within the planned budget, but has meant that the project has been a very busy one. However, this has not led to sacrifices in terms of data quality.

There are definite challenges associated with undertaking research in school settings and these were clearly reflected in the reasons cited by schools for non-participation in the study. Efforts to maintain school involvement over the study period were made, following principles laid down by Peterson et al (2000). These principles place emphasis on securing maximum commitment from participating schools with minimal effort on their part. In practice this involved developing a positive working relationship between school and study staff through regular verbal and written contact, using designated staff members to liaise between study and school, advance planning of all key milestones with two-way agreement on final dates, flexible timetabling of study requirements taking into account individual school circumstances wherever possible and open communication of study progress by newsletter.

The research team worked hard to build strong relationships with schools and pupils, and to develop mutual trust and clear communication of research requirements and assurances regarding

confidentiality. The reward for this effort is that no schools dropped out of the study, all data collection activities took place (although occasionally not at the time originally planned), and exceptionally high response rates were obtained.

The specific objectives of TAP were:

- to develop and deliver an intervention programme to reduce adolescent binge-drinking
- to assess the acceptability of the intervention to schools and pupils
- to test recruitment procedures and estimate attrition rates
- to provide a crude estimate of the effect of the intervention
- to undertake a process evaluation of the intervention
- to identify which is the best target age group for the intervention.

Each of these objectives has been achieved, and will now be discussed in turn.

#### ***To develop and deliver an intervention programme to reduce adolescent binge-drinking***

The programme developed was heavily based in its approach on the successful ASSIST anti-smoking intervention (Audrey et al 2004), and followed the principles set out by Kelly (2004). However, only a minority of the detailed content of ASSIST could be transferred to the TAP intervention, and it was therefore necessary to identify and develop alcohol-specific activities to include within the framework and approach of the programme. The process evaluation did not identify any specific problems with particular activities, suggesting that the content of the training programme was, at least, satisfactory. A copy of the intervention manual is available from the authors on request.

However, there was a consistent view from trainers and many of the ‘peer supporters’ that the two days allowed for the training was insufficient. ‘Peer supporters’ experiences in many of their conversations, and the observations of the trainers conducting follow-up sessions, supported the view that the ‘peer supporters’ had not been fully prepared for the role they were being asked to take on. This contrasts with the successful ASSIST intervention. However, the anti-smoking message is relatively straightforward both for trainers to convey to peer supporters in two days, and also for the ‘peer supporters’ to convey in their conversations with peers. The message is “cigarettes are bad for you – don’t smoke”. In contrast, the focus of TAP was on preventing regular binge-drinking, a much more complex message which could be characterised as “alcohol is fine in moderation, and even the occasional episode of mild drunkenness is not particularly problematic. However, drinking to get drunk on a regular basis is harmful in the long-run, and more particularly in the short run where it can lead to many other risks”. It would appear from the process and outcome data that the TAP intervention did not succeed in getting this complex message over to many of the ‘peer supporters’, and certainly did not gear them up to convey this message to their friends and peers.

#### ***To assess the acceptability of the intervention to schools and pupils***

On a more positive note, the TAP project found the intervention to be acceptable to schools, addressing an issue of great concern to them and doing so in a way that did not unduly disrupt the school routine. Teachers were appreciative of and impressed with the professional content and implementation of the programme. Similarly, students of both genders responded well to the intervention, with low levels of refusal and drop-out among selected peer supporters, and high levels of completion of training, follow-up activities and diaries.

#### ***To test recruitment procedures and estimate attrition rates***

This pilot trial has demonstrated that a full-scale trial would be feasible, and has obtained various measures that will be useful in planning such a trial. It was not difficult to recruit sufficient schools, even though recruitment was restricted to schools serving relatively deprived catchment areas. As with ASSIST (which involved fifty-nine secondary schools) no schools dropped out of the study. Response rates among students were very high, although this required three return visits to some schools to administer the questionnaire to ‘absentees’.

### ***To provide a crude estimate of the effect of the intervention***

Although this exploratory trial was not designed to provide a precise estimate of the effectiveness of the TAP intervention, the single most important consideration in deciding whether or not a full-scale trial is warranted is to identify whether or not the intervention was having any impact on binge-drinking behaviour. A weakness of the study design in this regard is the short-term follow-up period, of only six months. The ‘diffusion of innovation’ theory underlying the intervention suggests that ‘peer supporters’ messages, and associated changes in knowledge, beliefs and normative behaviours, would ripple out, leading to a magnified effect as time progresses. Such an effect was found in the ASSIST study at one-year follow-up (Moore et al 2004). Furthermore, the incidence of binge-drinking behaviour increases with age and, thus, a longer term follow-up has less sparse data, allowing reported behaviours to be linked to shorter time periods than the previous three months, increasing validity and reliability. Linked to this, the focus of the TAP intervention was the prevention of frequent, regular binge-drinking, which manifests itself as a major public health problem during later adolescence; the true test of the intervention would be whether it has a long-term effect on prevalence and incidence of binge-drinking at ages sixteen and above.

However, the findings from the TAP project are fairly conclusive, in that there was no suggestion of a preventive intervention effect on any of the primary outcomes. There was a consistent finding across all primary outcomes and two of the secondary outcomes, that reported drinking frequency, drunkenness and intentions to drink were higher at six-month follow-up in the intervention group than in control, in models that adjusted for baseline measures. For only one variable was this statistically significant, which was reported frequency of having been seriously drunk and regretting it. This may be interpreted as suggesting that pupils in ‘intervention’ schools were more likely to regret being seriously drunk – an effect not on behaviour but on increased awareness that the behaviour was problematic. This suggestion of perhaps a small effect on pupils’ awareness that getting seriously drunk was not a positive behavioural choice is supported by the apparent (but non-statistically significant) protective effect on their intentions to get seriously drunk in the next two weeks. However, this would be to over-interpret the results. A more conservative and appropriate interpretation is that there was no consistent or statistically significant evidence of an intervention effect, and that if anything the intervention was associated with an increased likelihood of self-reported drinking, drunkenness and regretted episodes of drunkenness. There is therefore no case for taking the research forward into a full-scale trial of the intervention.

### ***To undertake a process evaluation of the intervention***

The process evaluation reinforced the data from participation rates of the ‘peer supporters’ and the immediate post-intervention data collection in suggesting that the intervention was acceptable to pupils, was viewed positively by ‘peer supporters’, and that ‘peer supporters’ were generally able to carry out the role that they had been trained for. However, it does not seem to have had any effect on pupils’ drinking behaviour or intentions.

The process evaluation identified a number of factors that may explain the lack of success of the TAP intervention, which was disappointing given the success of the ASSIST intervention in having an impact on pupils’ smoking behaviour. Most particularly, the greater complexity of the core message of the TAP intervention meant that it was difficult to successfully convey this message to the ‘peer supporters’ within the time allowed. Furthermore, the time left within the training events to develop and practice skills required for conversations with friends and peers was insufficient, further limiting the potential for ‘peer supporters’ to successfully convey the complex message to other students. There may be, of course, additional factors that explain the contrasting fortunes of the ASSIST and TAP interventions. These may include the wider cultural, social and political context where, on the one hand, smoking is fairly consistently (although not universally) portrayed in a negative light – adult smoking prevalence declining, tobacco advertising banned, smoking heavily restricted – whilst on the other hand, apart from drinking and driving, normative behaviour, media portrayal and government action regarding alcohol are mixed and generally promote alcohol as a normal and acceptable part of adult life. The TAP study was not designed to investigate the importance of these

contextual factors. Thus, whilst acknowledging the possible importance of these external factors, the main factors suggested by the process evaluation for the disappointing results of the TAP project are the greater complexity of the message and the insufficiency of the time allocated for training.

### ***To identify which is the best target age group for the intervention***

In the feasibility study for the ASSIST anti-smoking intervention, it was found to be more difficult to recruit pupils from Year 9 than Year 8. In TAP however, this difference between the year groups was not found. During training, a handful of Year 9 pupils were disruptive, but the vast majority of Year 9 pupils were just as motivated to take on the ‘peer supporter’ role as those in Year 8. In terms of the impact of the intervention, there is a slight suggestion that there was a preventive effect in Year 9 that was not present at all in Year 8. The statistically significant finding of an increased likelihood of intervention pupils reporting that they had been seriously drunk and regretted it in the previous 3 months was largely driven by Year 8 pupils (separate models for each year not reported here). Thus, there was no clear indication that one year group was a better target age-group for the intervention than the other.

## **CONCLUSIONS**

This project has demonstrated the value of undertaking a small-scale exploratory trial before undertaking a more expensive large-scale trial. The results from ASSIST demonstrated the efficacy of the peer supporter intervention approach, while the acceptability of the intervention and response of the students suggested that the TAP intervention had successfully translated that approach to the subject of problem drinking. However, this exploratory trial, with its nested process evaluation, has found no evidence of a preventive intervention effect, and has identified the likely reason for the failure to reproduce the results of ASSIST in this context.

Further research is required on validated measures of alcohol consumption suitable for use in large scale trials of young adolescents. Studies of interventions to prevent problem drinking in adolescents will also require longer term follow-up.

However, the major conclusion of this study is that the TAP intervention should not be taken forward in its current form for evaluation in a full-scale trial. While the ‘peer supporter’ intervention approach may still be viable in this context, a much more intensive training programme will be required, with a longer period of instruction to convey the complexity of the message to ‘peer supporters’, and increased training and role-play to enable them to have more effective conversations with their peers. It is not yet known whether this would be effective, and more intensive intervention would be more costly – thus attenuating its likely cost-effectiveness; further research will be required here.

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## **APPENDIX A – Individuals consulted**

### **Teaching staff:**

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Sally Sewll & Barbara Calligan - Brynmawr Comprehensive School  
Sue Rivers & Nicola Thomas - Blackwood Comprehensive School  
Beverley Pearce - Bryntirion Comprehensive School  
Nick Beynon & Mike Wiltshire - Duffryn High School  
Glyn Watkins & Paul Evans - Hartridge High School  
Sue James - Heolddu Comprehensive School  
Eirion Thomas - Llanedeyrn High School  
Russell Cornelius & Hilary Thomas - Ogmore Comprehensive School.

### **Intervention training staff:**

Lin Cooper – Cardiff University  
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Sue Allerston – Education Support and Inspection Services.

## **APPENDIX B – Study staff**

### **Research staff:**

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