Forth Valley ADP
Social Influence Programme

6 month follow-up results from the
2014 / 15 intervention

Theresa Campbell, NHS Forth Valley
Health Promotion Service
July 2015
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Acknowledgements

This programme of work would not have taken place without dedication and commitment from a number of partners.

The people who made it happen:

Helen Clapperton (Barnardo’s) delivered the intervention in the schools.

Jo Gibson, David Niven and Izzy Henderson co-ordinated the classes and timetabling in the schools.

Jane McDonnell (Barnardo’s) made a significant contribution to the development of the delivery materials.

Helen Winton advised on the Curriculum for Excellence.

Janet Moran set up the data and administration systems.

The class teachers of Alva Academy, Balfron High and Wallace High Schools who will continue with this work now that external facilitation has ended, and;

Lastly, but most importantly, the young people who took part in this evaluation.

The Funders:

Forth Valley ADP

Stirling and Clackmannanshire ADP

Tobacco Action Group

Sexual Health and Blood Borne Virus Group

The Robertson Trust

Continuation of the work in Forth Valley

A short training session to support school staff to continue with the programme is now available. Interest from wider partners is also welcome and arrangements can be made by contacting janet.moran2@nhs.net.
EXECUTIVE SUMMARY

CONTEXT: THE THEORETICAL MODEL OF CHANGE

A ‘social influence’ intervention requires two sets of survey data: firstly, pupils’ own attitudes and behaviours and, secondly, their beliefs about how their peer group would respond to each of the survey questions. This provides a measure of ‘reality’ (actual pupil responses) and one of ‘perception’. Perception is important for theoretical and practical purposes; it provides information about what pupils believe about peer group approval of the behaviours of interest and, by extension, how the group expects members to behave. Where important differences between reality and perception are found the theory predicts that, over time, negative behaviours will increase. This results as a consequence of pupils feeling pressure to conform to a false peer group norm. The theory also explains how the minority who regularly engage in the negative behaviours do so believing that they are just like everyone else; suggesting that greatest potential for change exists within this group. The change model therefore has the potential to prevent the uptake to negative behaviours as well as reducing negative behaviours among those who incorrectly believe themselves to be part of the majority. A fuller summary of the theoretical model is included as appendix 3 of the main report.

INDICATORS OF SUCCESS

There were 4 main indicators of the programme’s success:

- Evidence that errors in perception reduced
- Evidence that pupils’ own attitudes shift in a positive direction
- Evidence that pupils’ own risk behaviours reduced
- Evidence of delayed onset of risk behaviours (S2 only)

As an objective comparator for the last indicator, the Scottish Adolescent Lifestyle and Substance Use Survey – Forth Valley 2013 (SALSUS) data for S2 have been used. The 2013 survey sample was S2 and S4; a change from previous years when S1 and S3 were the target year groups. As a consequence, there was no comparator for S3.

INTERVENTION

Each participating class took part in 4 x 50 minute PSE (personal and social education) lessons, delivered one week apart, by an external project worker. Pupils participated in a similar programme during the previous school year. The cumulative effect of delivery over two years may be important in achieving behaviour change. A unique methodology was used for the intervention. Pupils gathered and analysed their own data in ‘real time’ then discussed and reflected upon its meaning in relation to their group norm. Differences between actual and perceived norms were then discussed. This ensured that ownership of
the results and any subsequent behavioural responses were seen as within pupils’ own locus of control.

ANALYSIS

No statistical tests were used in this report. The appropriateness of null-hypothesis testing (Fisher-type) statistics and the arbitrary p<0.05 significance levels are currently a matter of debate in academic circles (9). This report is therefore descriptive, and simply describes changes that took place in the target schools 6 months after the intervention, and with no intention to suggest that the results would generalise at this stage.

PARTICIPANTS

In total 192 pupils from 3 secondary schools in Forth Valley: Alva Academy, Balfron High School and Wallace High School, took part in this programme at baseline and 195 at follow-up. The additional pupils at follow-up were from the S2 cohort. The sample consisted of 2 year groups; S2, corresponding to 13 year olds, and S3, corresponding to 14 year olds.

REPORTING

Each participating school has been provided with a report containing its own data in the same format and detail as the current report. A report to each of the funders has also been made available.
EXECUTIVE SUMMARY OF S3 FINDINGS

PARTICIPANTS

Eighty four S3 pupils, mainly aged 14 years, participated in the intervention programme at baseline in October 2014, and numbers remained stable at follow-up six months later, in April 2015.

MEASURES

Pupils were asked about 5 behaviours: tobacco use, alcohol use, drunkenness, cannabis use, and use of New Psychoactive Substances/legal highs (NPS). In addition, 7 attitudes were probed: smoke free homes, drinking zero alcohol during pregnancy, wider impact of drunkenness, the safety of NPS, the legality of NPS, describing someone with sexualised language and, young people and sexual pressure. An additional question verified the truthfulness of pupil responses. Table 3, on page 7, lists all pupil responses by topic. A copy of the survey is included as appendix 1.

WAS THE INTERVENTION SUCCESSFUL IN REDUCING ERRORS IN S3 PUPIL PERCEPTIONS?

At follow-up, pupils reported fewer errors in perception on 3 of the 7 attitudes; drinking zero alcohol during pregnancy, drunken people only harm themselves and, the safety of NPS. Misperceptions reduced on all 5 behaviours.

WAS THE INTERVENTION SUCCESSFUL IN PROMOTING PUPILS’ OWN POSITIVE ATTITUDES?

Table 1, below, outlines the extent of the shift on all 7 statements and reported change.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baseline n=84</th>
<th>Follow-up n=84</th>
<th>Numbers reporting change.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPS legal (but not for human consumption).</td>
<td>14</td>
<td>47</td>
<td>33</td>
</tr>
<tr>
<td>NPS are not safe.</td>
<td>27</td>
<td>58</td>
<td>31</td>
</tr>
<tr>
<td>Language like ‘bros before hos’ (brothers before whores) is offensive.</td>
<td>3</td>
<td>32</td>
<td>29</td>
</tr>
<tr>
<td>Approval for smoke free homes.</td>
<td>15</td>
<td>31</td>
<td>16</td>
</tr>
<tr>
<td>People who get drunk only harm themselves</td>
<td>58</td>
<td>64</td>
<td>6</td>
</tr>
<tr>
<td>Pregnant women should never drink alcohol</td>
<td>81</td>
<td>84</td>
<td>3</td>
</tr>
<tr>
<td>Young people are under a lot of pressure to do something sexual before they are ready</td>
<td>46</td>
<td>58</td>
<td>12</td>
</tr>
<tr>
<td>more pressure</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion: while there was evidence of positive change on 6 of the 7 attitude questions, considerable scope for further improvement remains.
WAS THE INTERVENTION SUCCESSFUL IN REDUCING PUPILS’ OWN RISK TAKING BEHAVIOURS?

Table 2, below, lists reported behaviours and the degree of change on each measure.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baseline (n=84)</th>
<th>Follow-up (n=84)</th>
<th>Number Making change</th>
<th>Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smokers</td>
<td>11</td>
<td>4</td>
<td>7</td>
<td>64%</td>
</tr>
<tr>
<td>Alcohol users</td>
<td>20</td>
<td>11</td>
<td>9</td>
<td>45%</td>
</tr>
<tr>
<td>Drunkenness</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cannabis users</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>12.5%</td>
</tr>
<tr>
<td>NPS use</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>50%</td>
</tr>
<tr>
<td>I answered truthfully</td>
<td>83</td>
<td>83</td>
<td>0</td>
<td>99%</td>
</tr>
</tbody>
</table>

Conclusion: the intervention was successful in reducing the number of pupils reporting smoking, alcohol, cannabis and NPS use.

WAS THE INTERVENTION SUCCESSFUL IN DELAYING ONSET OF PUPILS’ OWN RISK TAKING BEHAVIOURS?

The most recent SALSUS survey for Forth Valley (2013) provided data for S2 and S4; a change from previous years when S1 and S3 were the target year groups. As a consequence, there was no recent comparator for S3 available.

CONCLUSION

There was evidence that the intervention has been successful across all 3 indicators although scope for further improvement on a number of attitudinal measures still exists.
<table>
<thead>
<tr>
<th>Table 3</th>
<th>Baseline Position n=84</th>
<th>Follow-up Position n=84</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smoking</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I disapprove of smoking in houses</td>
<td>15</td>
<td>31</td>
</tr>
<tr>
<td>I don’t smoke</td>
<td>73</td>
<td>80</td>
</tr>
<tr>
<td>I smoked once or twice in the last 30 days</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>I smoked weekly in the last 30 days</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td><strong>Cannabis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I never used cannabis in the last 30 days</td>
<td>76</td>
<td>77</td>
</tr>
<tr>
<td><strong>Alcohol</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that drunk people do not only harm themselves</td>
<td>58</td>
<td>64</td>
</tr>
<tr>
<td>I think that pregnant women should not drink</td>
<td>81</td>
<td>84</td>
</tr>
<tr>
<td>I never used alcohol in the last 30 days</td>
<td>64</td>
<td>73</td>
</tr>
<tr>
<td>I used alcohol once or twice in the last 30 days</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>I used alcohol once a week or more</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>I was never drunk in the last 30 days</td>
<td>78</td>
<td>78</td>
</tr>
<tr>
<td><strong>NPS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that NPS are not safe</td>
<td>27</td>
<td>58</td>
</tr>
<tr>
<td>I think that NPS are legal – but not for human consumption</td>
<td>14</td>
<td>47</td>
</tr>
<tr>
<td>I never used NPS in the last 30 days</td>
<td>82</td>
<td>83</td>
</tr>
<tr>
<td><strong>Sexualisation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that using language like ‘bros before ho’s (brothers before whores) is offensive</td>
<td>3</td>
<td>32</td>
</tr>
<tr>
<td>I think that young people are under a lot of pressure to do something sexual before they are ready</td>
<td>46</td>
<td>58</td>
</tr>
<tr>
<td><strong>Truthfulness of responses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I answered ALL of the questions in this survey truthfully</td>
<td>83</td>
<td>83</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY OF S2 FINDINGS

PARTICIPANTS

In total, 108 pupils aged 13 years (S2), took part at baseline (October 2014) and 111 at follow-up (April 2015).

MEASURES

S2 pupils were asked about 2 behaviours; tobacco and alcohol use. Five attitudes were probed: smoke free cars, smoke free homes, people of ‘our age’ drinking alcohol, sexting, and describing someone using sexualised language, e.g., ‘slag’ or ‘slut’. Two other questions were asked; awareness of NPS and a truth question. A copy of the survey is included as appendix 1. Table 7 on page 10, summarises all measures and responses by topic.

WAS THERE EVIDENCE THAT ERRORS IN PERCEPTION REDUCED?

Important, i.e., large, misperceptions were found on both behaviours and 2 of the attitudes: pupils of our age drinking alcohol and sexting. At follow-up, pupils reported fewer errors in perception on all of these measures.

WAS THERE EVIDENCE THAT PUPILS’ OWN ATTITUDES MOVED IN A POSITIVE DIRECTION?

Table 4, below, lists attitude change in order of greatest to least change.

<table>
<thead>
<tr>
<th>Table 4 Attitude change measures</th>
<th>Baseline n=108</th>
<th>Follow-up n=111</th>
<th>Number of pupils reporting change.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval for smoke free homes</td>
<td>32</td>
<td>68</td>
<td>36</td>
</tr>
<tr>
<td>Describing someone as a ‘slag’ or ‘slut’</td>
<td>44</td>
<td>78</td>
<td>34</td>
</tr>
<tr>
<td>offensive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disapproval of pupils drinking alcohol</td>
<td>70</td>
<td>96</td>
<td>26</td>
</tr>
<tr>
<td>Sexting is dangerous</td>
<td>85</td>
<td>96</td>
<td>11</td>
</tr>
<tr>
<td>Support for smoke free cars</td>
<td>100</td>
<td>106</td>
<td>6</td>
</tr>
<tr>
<td>Awareness of NPS</td>
<td>52</td>
<td>104</td>
<td>52</td>
</tr>
</tbody>
</table>

Conclusion: the intervention was successful in promoting positive attitudes on 5 measures, although scope for further improvement remains.
WAS THERE EVIDENCE THAT PUPILS’ OWN RISK BEHAVIOURS REDUCED?

Table 5

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baseline (n=108)</th>
<th>Follow-up (n=111)</th>
<th>Number change</th>
<th>Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smokers (regular)</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>Decrease 100%</td>
</tr>
<tr>
<td>Smokers (occasional)</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>Increase 33%</td>
</tr>
<tr>
<td>Alcohol users</td>
<td>15</td>
<td>7</td>
<td>8</td>
<td>Decrease 53%</td>
</tr>
<tr>
<td>I answered truthfully</td>
<td>107</td>
<td>111</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Conclusion: the intervention was successful in reducing regular smoking and alcohol use among S2 pupils. All pupils reported truthful responses at follow-up while 1 pupil reported that s/he did not answer all of the survey questions truthfully at baseline.

WAS THERE EVIDENCE OF DELAYED ONSET OF RISK TAKING BEHAVIOURS AT BASELINE?

Table 6, below, lists comparable intervention measures with the most recent SALSUS survey of Forth Valley Schools\(^{(12)}\). Delayed onset is defined as a lower than predicted behaviour at baseline. Follow-up data are provided to provide context only.

Table 6

<table>
<thead>
<tr>
<th>Measure</th>
<th>SALSUS</th>
<th>Social Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage</td>
<td>Number</td>
</tr>
<tr>
<td>Smoking regular (weekly)</td>
<td>2%</td>
<td>2</td>
</tr>
<tr>
<td>Smoking occasional</td>
<td>1%</td>
<td>1</td>
</tr>
<tr>
<td>Alcohol (weekly) use</td>
<td>7%</td>
<td>7</td>
</tr>
</tbody>
</table>

Conclusion: There was evidence that among this sample, the intervention has been successful in delaying the onset of regular, but not occasional, smoking and weekly alcohol use.
<table>
<thead>
<tr>
<th>Table 7</th>
<th>Summary of S2 main findings by topic</th>
<th>Baseline Position N=108</th>
<th>Follow-up Position N=111</th>
<th>SALSUS comparator if available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smoking</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I disapprove of smoking in cars</td>
<td>100</td>
<td>106</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>I disapprove of smoking in houses</td>
<td>32</td>
<td>68</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>I don’t smoke</td>
<td>105</td>
<td>107</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td>I smoked once a week in the last 30 days</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I smoked once or twice in the last 30 days</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Alcohol</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I approve of pupils our age drinking alcohol</td>
<td>10</td>
<td>5</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>I never drank alcohol in the last 30 days</td>
<td>93</td>
<td>104</td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>I drank alcohol once or twice in the last 30 days</td>
<td>14</td>
<td>5</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>I drank alcohol weekly or more</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td><strong>NPS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awareness of NPS</td>
<td>52</td>
<td>104</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td><strong>Sexualisation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think sexting is dangerous</td>
<td>85</td>
<td>96</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>I think that describing someone as a ‘slag’ or ‘slut’ is offensive</td>
<td>44</td>
<td>78</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td><strong>Truthful Responses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I answered ALL of the questions in this survey truthfully</td>
<td>107</td>
<td>111</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>
SOCIAL INFLUENCE PROGRAMME
MAIN EVALUATION REPORT

SOCIAL INFLUENCE MODEL OF CHANGE

When asked about the ‘social norm’ for risk behaviours such as tobacco, alcohol and drug use, young people often overestimate social acceptability and use among their peer group. This tendency to overestimate negative behaviours among peers is referred to in the literature as ‘misperceptions’ in youth and adolescent culture \(^{(1,2)}\). Where large misperceptions are found, a growing body of research literature shows that risk-taking behaviour follows a similar path, i.e., over time, negative behaviours increase as young people feel pressure to conform to a false peer group norm \(^{(7,8)}\). A fuller summary of the model is provided as appendix 3 of this report.

Figure 1, below, illustrates the above concept in a Scottish (Falkirk) secondary school context. The intervention involved all classes in year groups S1-S4, corresponding to 12 year olds in S1, 13 year olds in S2, 14 year olds in S3, and 15 year old in S4. Figure 1 shows peer group misperceptions for alcohol use; the blue bars show reality, i.e., the majority of S1 and S2 pupils consumed zero alcohol in the 30 days prior to the survey. The red bars represent perceptions; pupils’ beliefs about how the majority of their peers answered the question. The gap between reality and perception provides a measure of error, i.e., the level of misperception. By S3, age 14, some degree of alcohol use was already the established norm. This 2010 pilot demonstrated support for the Social Norms theory, i.e., that if misperceptions remain unchallenged, actual behaviours increase in line with the false peer group norm that they represent.

Figure 1, Reality vs Perception - zero alcohol use in 30 days prior to the 2010 survey.
THE INTERVENTION

A unique methodology was used for the intervention. Pupils gathered and analysed their own data in ‘real time’ then discussed and reflected upon the meaning of this in respect of their peer group norms. Differences between actual and perceived norms were then discussed. This ensured pupil ownership of the results and that any subsequent behaviour change would be seen as within their own locus of control.

The intervention consisted of 4 x 50 minute PSE lessons which identified and aimed to reduce pupil misperception. Pupils participating in the 2014/15 programme also participated in a short intervention a year earlier, during the 2013/14 school year.

METHOD

The class survey methodology was in the style of a ‘cheque book’ containing 9 questions for S2 and 13 questions for S3. The different questions reflected what is known about the escalation of risk behaviours around S3 and the relative scarcity of them at S2 level. The first set of questions asked about pupils’ own attitudes and behaviours. The second set asked exactly the same questions but for a different reference group, i.e., “this next set of questions is about how you think the typical pupil in your year group answered the questions”. A copy of the first set of questions has been included as appendix 1 of this report.

Lesson 1: Pupils completed all questions in the survey booklet anonymously, then tore out each slip/question along a perforated line and deposited each slip in individual, colour coded, containers at the front of the room. When all of the slips were collated, the pupils formed small groups, with each group completing the analysis for 1 survey question. This was done on a simple worksheet, e.g., how many pupils don’t smoke, smoked once or twice in the last 30 days, smoked once a week, smoked most days, smoked every day.

Pupils then discussed and reflected upon the meaning of their analysis in relation to their class norm for smoking. Each group then fed back their analysis and discussed the degree of error between reality and perception, and possible explanations for the errors found. A sample worksheet is provided as appendix 2 of this report.

For the purpose of the wider evaluation, all tear-off slips were made available to NHS Forth Valley Health Promotion Service. An excel spreadsheet was then used to collate pupil responses and to provide an external evaluation for the project and individual reports to each of the participating schools.
Lesson 2 – one week later: pupils were asked to reconvene their small groups and to select one of the class norms that most interested or surprised them. The adult leader then discussed social norms marketing techniques that they might use to promote their class norm. For a detail description of these techniques, please refer to the ‘social norms guidebook’ [4]. A selection of pupil designs is included as appendix 3 of this report.

Lesson 3, one week later: pupils discussed the causes and the consequences of over estimating negative attitudes and behaviours amongst their peer group and produced strategies for how they would avoid falling into this trap in future.

Lesson 4, one week later: this was a ‘mop-up’ lesson to ensure that any identified gaps in knowledge were addressed and allowed further debate around attitudinal responses of interest.

Intervention impact was measured by repeating the original survey six months later.

**INDICATORS OF SUCCESS**

The project identified 4 outcome indicators:

- Evidence that errors in perception reduced
- Evidence that attitudes shifted in a positive direction
- Evidence that risk behaviours reduced
- Evidence of delayed onset of risk behaviours (S2 only)

**MEASURES**

Unless otherwise stated, response options to the behavioural questions were: Never, once or twice, once a week, more than once a week, and every day.

- In the last 30 days, how often did you smoke cigarettes? Response options were: I don’t smoke, once or twice, once or twice a week, most days, and every day
- In the last 30 days, how often did you drink alcohol?
- In the last 30 days, how often were you drunk?
- In the last 30 days, how often did you use cannabis?
- In the last 30 days, how often did you use legal highs (new psychoactive substances)?

In addition, pupils were asked whether they: agreed, not sure, or disagreed with the following 8 statements:

- The issue of smoking in houses has gone too far, smokers can open a window or restrict their smoking to one room
- Women should never drink alcohol if they are pregnant
- People who get drunk only harm themselves
- Legal Highs (NPS) are safe
- Legal Highs (NPS) are legal – but not for human consumption
- Using language like “Bros before Hos” (brothers before whores) is: a bit of a laugh, I’m not sure, offensive
- Young people are under a lot of pressure to do something sexual before they are ready
- I answered ALL of the questions in this survey truthfully: yes or no

S2 pupils were asked fewer, and shorter, attitudinal questions covering the same issues but phrased for a younger age group. The tobacco and alcohol questions were identical to the ones used for S3. Unless otherwise stated, response options to the six statements were; agree, not sure, disagree.

- Smoking in cars damages health
- Smokers should be allowed to smoke in their houses
- There is nothing wrong with young people of our age drinking alcohol
- Taking a photo of yourself posing in your underwear and sexting it to a friend is: a bit of a laugh, not sure, dangerous
- Using language like ‘slag’ ‘slut’ ‘bitch’ to describe someone is: a bit of a laugh, don’t know, offensive
- I answered ALL of the questions in this survey truthfully

**ANALYSIS**

No statistical tests were used in this report. The appropriateness of null-hypothesis testing (Fisher-type) statistics and the arbitrary p<0.05 significance level are currently a matter of debate in academic circles. Many researchers now believe that they are inappropriate in evaluating this type of study, and are insufficiently sensitive to local change (9). This report is thus descriptive and simply describes changes that took place in the target schools after the intervention, and with no intention to suggest that the results would generalise at this stage.

**PARTICIPANTS**

Table 8 – Participants

<table>
<thead>
<tr>
<th></th>
<th>Baseline October 2014</th>
<th>Follow-up April 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males S2</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Females S2</td>
<td>60</td>
<td>63</td>
</tr>
<tr>
<td>Males S3</td>
<td>47</td>
<td>46</td>
</tr>
<tr>
<td>Females S3</td>
<td>37</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td>192</td>
<td>195</td>
</tr>
</tbody>
</table>
RESULTS FOR S3

MISPERCEPTIONS IDENTIFIED AT BASELINE (OCTOBER 2014)

At baseline, considerable misperceptions, i.e., overestimations of the number of peers engaging in substance use behaviours and the frequency of their use were found on smoking, alcohol use, drunkenness, cannabis and NPS use.

DID THE INTERVENTION SUCCEED IN REDUCING PUPIL ERRORS IN PERCEPTION?

Figure 2, below, illustrates baseline behavioural misperceptions while figure 3 shows improvements at follow-up.

Figure 2, misperceptions existed on all behavioural measures

![Graph](image1)

Figure 3, at follow-up fewer errors in perception were noted.

![Graph](image2)

WAS THE INTERVENTION EFFECTIVE IN INCREASING PUPILS’ OWN POSITIVE ATTITUDES?

Figure 4, below, illustrates that while there was evidence of positive change on 6 of the 7 attitudinal questions, considerable scope for further improvement remains. On the remaining measure; pupils’ belief that young people are under a lot of pressure to do something sexual before they are ready, the change related to an increase in the number of pupils who felt that way.

![Graph](image3)
Conclusion: the intervention was effective in increasing positive attitudes on 5 of the 6 attitudinal statements. On the sixth measure, drinking alcohol during pregnancy, limited scope existed at baseline.

**WAS THE INTERVENTION EFFECTIVE IN DECREASING PUPILS OWN RISK BEHAVIOURS?**

Figure 5, below, indicates that the intervention was successful in reducing the number of pupils reporting use of tobacco, alcohol, cannabis and NPS in the 30 days prior to the survey.

Figure 5, increase in zero use of tobacco, alcohol, cannabis and NPS.

Conclusion: the biggest change was reported in the number of S3 pupils using alcohol and tobacco. Scope for change was greatest on these measures. However, a small but important reduction in the number of pupils reporting cannabis and NPS use in the 30 days prior to the survey was also found.

Figures 6 and 7, on page 17, examines change in reported alcohol and tobacco use respectively, and shows reduction in the number of users and also their frequency of use.
Conclusion, as well as increasing zero use of alcohol (figure 5) the intervention was successful in reducing the frequency of alcohol use among pupils who did not stop using completely.

Figure 7, Reported changes in tobacco use in the 30 days prior to the survey

Conclusion: as well as increasing the number of non-smoking pupils (figure 5) the intervention was successful in reducing the frequency of smoking amongst pupils who did not stop completely.

**WAS THE INTERVENTION SUCCESSFUL IN DELAYING ONSET OF PUPILS’ OWN RISK TAKING BEHAVIOURS?**

The most recent SALSUS survey for Forth Valley (2013) provided data for S2 and S4; a change from previous years when S1 and S3 were the target year groups. As a consequence, there was no recent comparator for S3 available.

**CAN WE RELY ON PUPIL SELF-REPORT DATA?**

The final statement given to pupils was “I answered all of the questions in this survey truthfully” with response options of “yes” or “no”. Only 1 pupil reported ‘no’ at both time points, indicating response data can be relied upon.
**RESULT S2**

S2 baseline data were gathered in October 2014. Pupils completed the survey again in April 2015, when the number of participants increased from 108 to 111. In recognition of the age and level of maturity of S2 pupils in this sample, there were no questions on drunkenness, cannabis use and use of NPS. Five attitudinal measures were used: smoke free cars, smoke free homes, people of ‘our age’ drinking alcohol, sexting, and the use of sexualised language to describe someone. Two other questions were asked: awareness of NPS and a truthfulness question.

**WAS THERE EVIDENCE THAT ERRORS IN PERCEPTION REDUCED?**

At follow-up, pupils reported fewer errors in perception on 3 attitudinal measures: using alcohol at our age, use of sexualised language to describe someone and, sexting. Misperceptions reduced on both behavioural questions: tobacco and alcohol use. Figure 8, below, shows the reduction of misperceptions at baseline and follow-up on alcohol and tobacco use. Figure 9, illustrates fewer errors in perception on the three attitude questions.

![Figure 8](image1.png)

Figure 8, in the past 30 days how often did you/they consume zero tobacco/alcohol?

![Figure 9](image2.png)

Figure 9, fewer errors in perception of peer attitudes
WAS THERE EVIDENCE THAT PUPILS’ OWN ATTITUDES MOVED IN A POSITIVE DIRECTION?

At baseline, a predominantly positive attitude already existed in the group for restricting smoking in cars; 100 participants agreed that smoking in cars damages health. This increased to 106 at follow up. More substantial attitude change was associated with smoke free homes, disapproval of pupils drinking alcohol, sexting and use of sexualised language as shown in figure 10, below.

Figure 10, positive changes in pupils' own attitudes

WAS THERE EVIDENCE THAT PUPILS’ OWN RISK BEHAVIOURS REDUCED?

There was less change in behaviour in the S2 group than for S3, but there was also less scope for change in the younger group. Figure 11, below, illustrates the increase in zero use of alcohol in the 30 days prior to the survey, and a reduction in frequency of use for the majority of the remaining drinkers. Smoking increased by 1 pupil, i.e., from 3 smokers at baseline to 4 at follow-up.

Figure 11, Intervention impact on alcohol use in 30 days prior to the survey.
WAS THERE EVIDENCE OF DELAYED ONSET OF RISK TAKING BEHAVIOURS AT BASELINE?

The 2013 SALSUS trend survey provided an important comparator against which to measure any delayed onset among the S2 sample. Table 9, below, sets out expected percentages for measures covered by both surveys.

Table 9 – Estimating prevalence rates for tobacco and alcohol use.

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>SALSUS</th>
<th>S2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking weekly (regular smokers)</td>
<td>2%</td>
<td>n=2</td>
</tr>
<tr>
<td>Smoking less than weekly (occasional smokers)</td>
<td>1%</td>
<td>n=1</td>
</tr>
<tr>
<td>Alcohol weekly</td>
<td>7%</td>
<td>n=7</td>
</tr>
</tbody>
</table>

Figure 12, below, compares the expected level of behaviours, calculated on the above basis for S2. This provided an estimated level for this year group that was expected at baseline. Comparing the actual baseline data with the expected, provided an indicator of any delayed onset that may have resulted from pupil exposure to the programme one year earlier.

Figure 12, illustrates that at baseline, weekly (regular) smoking was lower than the expected level of 2 pupils; only 1 of the 108 pupils in this sample reported weekly smoking. Data for smoking once or twice in the last 30 days (occasional) was higher than the expected 1 pupil; 4 pupils reported smoking occasionally at baseline.

On the comparable alcohol measure, weekly use was again lower than the expected level of 7 pupils; only 1 of the 108 pupils in the sample reported weekly alcohol use. For ease of considering overall impact, follow-up data are also provided in figure 12.

Conclusion: In total 5 S2 pupils in this sample smoked compared with an expected number of 3. However, regular (weekly) smoking was lower than expected. Some evidence for delayed onset of regular smoking was found. On the weekly use of alcohol measure, delayed onset was found, with 6 fewer pupils than expected drinking weekly.
DISCUSSION AND FUTURE PLANS FOR THE PROGRAMME

The Forth Valley Alcohol and Drug Partnership has been piloting and refining the methodology of the ‘Social Norms’ approach since 2009. The purpose of this lengthy refinement aimed to develop a delivery model fit for use within a Scottish secondary school context. The important changes to the original model, piloted in Falkirk between 2009-2011, required to produce the following outcomes:

- A model that did not rely on an external facilitator but would enable teachers themselves to deliver stand-alone lessons within a 45-50 minute class period.
- A simple data analysis process that did not rely on pupil data leaving the school to be analysed then returned several months later for use.
- A better understanding of where to place the programme within the year groups to ensure maximum impact on risk taking behaviours, and the negative attitudes that may underpin them.

The current pilot continued to rely upon external partner facilitation, but this has produced a tried and tested approach that demonstrated that the first two points have been achieved. In tandem with improvements to the delivery model, this evaluation provides evidence that a 50 minute lesson delivered weekly for 4 weeks can produce important reductions in tobacco, alcohol, cannabis, and NPS use. The pilot has also demonstrated that it has been effective in changing attitudes on important issues such as the danger of sexting and describing people using sexualised language. The attractiveness of the new model of delivery suggested here lies in its simplicity and its flexibility to be responsive to whatever issues arise for young people, regardless of when they arise.

The almost instant data gathering and processing by the pupils themselves was critical to the methodology. Similarly, pupil involvement in a short programme during the preceding year may also be an important factor in delaying substance using behaviours and facilitating change before behaviours became more fully established in S3.

On the third point, placement of the programme within the year groups, the findings from this evaluation suggest introducing the model in S2. If necessary, this could have fewer lessons that focus on issues considered topical with that year group. This foundation could be built upon when pupils are in S3, at which point the intervention could probe wider risk taking concerns. Consideration should also be given to use of the model with the older age groups.

Plans to continue with external facilitation and evaluation in Falkirk secondary schools are currently well developed and will commence in September 2015. In the meantime, staff training is available to schools and youth work teams via the Health Promotion Service. Partners interested in using the techniques outlined in this report are invited to contact Janet Moran, the project evaluation facilitator, by email: janet.moran2@nhs.net
Appendix 1

Full list of survey measures for S 2

These questions ask about things you approve of and things that you do. Please answer by ticking the appropriate boxes. Your answers will be used to provide you with information about your class norms.

1. Smoking in cars damages health.
   - I Agree
   - I'm Not Sure
   - I Disagree

2. Smokers should be allowed to smoke in their houses.
   - I Agree
   - I'm Not Sure
   - I Disagree

3. How often did you smoke cigarettes in the last 30 days?
   - I don't smoke
   - Once or twice
   - Once or twice a week
   - Most Days
   - Every Day

4. There is nothing wrong with young people of our age drinking alcohol as long as it doesn't get in the way of our school work.
   - Agree
   - Not Sure
   - Disagree

5. In the last 30 days how often did you drink alcohol?
   - Never
   - Once or twice
   - Once a week
   - More than once a week
   - Every Day

6. Have you heard of legal highs (new psychoactive substances)?
   - Yes
   - No

7. Taking a photo of yourself posing in your underwear and sending it to a friend is....
   - A bit of a laugh
   - Not sure
   - Dangerous

8. Using language like 'idiot' 'stupid' 'bitch' 'hard' to describe someone is:
   - A lot of a laugh
   - Don't know
   - Dangerous

   - Agree
   - Disagree
S 3 Survey Measures

These questions ask about things you approve of and things that you do. Please answer by ticking the appropriate boxes. Your answers will be used to provide you with information about your class norms.

1. I am Female: [ ] I am Male: [ ]
   The issue of smoking in houses has gone too far; smokers can open a window or restrict smoking to one room.
   Agree: [ ] Not sure: [ ] Disagree: [ ]

2. I am Female: [ ] I am Male: [ ]
   How often did you smoke cigarettes in the last 30 days?
   I don’t smoke: [ ] Once or twice: [ ] Once or twice a week: [ ] Most Days: [ ] Every Day: [ ]

3. I am Female: [ ] I am Male: [ ]
   Women should never drink alcohol if they are pregnant.
   Agree: [ ] Not sure: [ ] Disagree: [ ]

4. I am Female: [ ] I am Male: [ ]
   People who get drunk only harm themselves.
   Agree: [ ] Not sure: [ ] Disagree: [ ]

5. I am Female: [ ] I am Male: [ ]
   In the last 30 days how often did you drink alcohol?
   Never: [ ] Once or twice: [ ] Once a week: [ ] More than once a week: [ ] Every Day: [ ]

6. I am Female: [ ] I am Male: [ ]
   In the last 30 days how often have you been drunk?
   Never: [ ] Once or twice: [ ] Once a week: [ ] More than once a week: [ ] Every Day: [ ]

7. I am Female: [ ] I am Male: [ ]
   In the last 30 days how often have you used cannabis?
   Never: [ ] Once or twice: [ ] Once a week: [ ] More than once a week: [ ] Every Day: [ ]

8. I am Female: [ ] I am Male: [ ]
   Legal highs (new psychoactive substances) are safe.
   Agree: [ ] Not sure: [ ] Disagree: [ ]

9. I am Female: [ ] I am Male: [ ]
   Legal highs (new psychoactive substances) are legal.
   Agree: [ ] Not sure: [ ] Disagree: [ ]

10. I am Female: [ ] I am Male: [ ]
    In the last 30 days how often (if at all) have you used legal highs (new psychoactive substances)?
    Never: [ ] Once or twice: [ ] Once a week: [ ] More than once a week: [ ] Every Day: [ ]

11. I am Female: [ ] I am Male: [ ]
    Language like “Bros before Hos” is:
    A lot of a laugh: [ ] Not sure: [ ] Dangerous: [ ]

12. I am Female: [ ] I am Male: [ ]
    Young people are under a lot of pressure to do something sexual before they are ready.
    Agree: [ ] Disagree: [ ] Don’t know: [ ]

13. I am Female: [ ] I am Male: [ ]
    I answered ALL of the questions in this survey truthfully.
    Agree: [ ] Disagree: [ ]
APPENDIX 2 - EXAMPLE OF AN ANALYSIS WORKSHEET

Work in pairs or in a group of 3s or 4s. Keep both sets of questions separate because you need to count and record what people actually think in the ‘reality’ section and what pupils believe in the in ‘perception’ section below.

1. Start with the reality responses first, and write in the table below how many pupils agreed, were not sure, or disagreed with the statement.
2. Next, do the same for how pupils think everyone else responded to the statement.

<table>
<thead>
<tr>
<th>Reality What we approve of.</th>
<th>I Agreed</th>
<th>I was not sure</th>
<th>I Disagreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is nothing wrong with people of our age drinking alcohol.</td>
<td>10</td>
<td>28</td>
<td>70</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perception What we believe about our peers.</th>
<th>They Agreed</th>
<th>They were not sure</th>
<th>They Disagreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is nothing wrong with people of our age drinking alcohol.</td>
<td>43</td>
<td>32</td>
<td>33</td>
</tr>
</tbody>
</table>

From the above responses, which of the following statements about your class norm is actually ‘True’?

- We do not approve of people of our age drinking alcohol.
- We need to understand more about the issue.
- We believe that it is okay for people of our age to drink alcohol.

Now compare reality with perception. Look at the disagree columns in the table,

- Is there is a big difference between the numbers?
- What does this mean about how well we understand the real views of our peers?
- Can you think of any reasons why this might be?
Appendix 3

A brief summary of Social Norms Theory and Approach to Promoting Health

H. WESLEY PERKINS, PH.D., Department of Anthropology and Sociology, Hobart and William Smith Colleges, Geneva, New York 14456

“Social norms are fundamental in understanding human behaviour. Put simply, norms are what the majority of people in a group do, i.e., how they behave, and what the majority believe about how they and others should act. Although many people think of themselves as individuals, the strong tendency of people to conform to group patterns and expectations is consistently documented in laboratory experiments, social surveys, and observations of mass behaviour. Most of the time we look to others for guidance in how to behave; especially in new situations. Research has consistently shown peers to be one of the strongest influences on behaviour, especially among youth.

Research has also documented a consistent and dramatic pattern of misperception about peer norms. When thinking about high-risk and harmful behaviour such as substance abuse, violence and bullying, and sexual risk-taking, most people tend to wrongly perceive the problem as the norm among peers. Even though harmful behaviours and negative attitudes supporting them may be a serious problem among youth in many instances, such behaviours and attitudes do not represent what is typical among the majority of youth in a community or school.

What causes this gap between perception and reality? People have a tendency to construct their impressions of peers based on limited information. They do not know each other’s habits as well as they think, and often rely on impressions of peers picked up from behaviour that gains the most attention – behaviour that is generally negative. Problem behaviours get a disproportionate amount of attention in peer conversation as well as in media news and images. This can distort our sense of what is normal or typical among our wider peer group.

This overestimation of problem behaviour and the failure of most youth to accurately see safe, protective, and responsible behaviour and attitudes as the norm can have harmful consequences – what is referred to in the literature as the “reign of error” in adolescent and young adult cultures? Much of the harm done by negative peer influence occurs through misperception of the norm. What peers think and do influences behaviour. But what we believe to be the attitudes and behaviours of our peers is even more important. Amidst these widely held misperceptions of problem behaviours as ‘normal’ among peers, those who regularly engage in the problem behaviour freely do so thinking they are just like most others. Those who are ambivalent about joining in the behaviours may occasionally do so mistakenly feeling a false majority pressure. Finally, most of those who oppose the behaviour (the real majority) remain silent as bystanders to the problem behaviour of some peers.”

Downloaded from:
Appendix 4

Example of pupils’ social norms marketing from lesson 2.
Appendix 5

References


Interesting debates

Video Links: Scottish Parliamentary debate on social norms: https://europeansocialnormsinstitute.wordpress.com/resources/social-norms-videos/