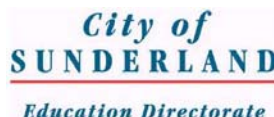


The effects of peers in Apause

Questionnaires conducted in academic year
2004 - 2006



positive steps from behaviour to health



<p>Airedale PCT Basildon PCT Bradford and Airedale Teaching PCT Chelmsford PCT Colchester PCT Epping Forest PCT Harlow PCT</p>	<p>Hartlepool PCT Hull TPU Isle of Wight PCT Maldon & South Chelmsford PCT North Bradford PCT Northampton PCT Powys Health Board</p>	<p>Salford PCT South & West Bradford PCT Sunderland PCT Teignbridge PCT Tendring PCT Torbay PCC Uttlesford PCT Witham, Braintree & Halstead PCT</p>
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Summary of findings.

We believe we can draw some tentative conclusions from the analysis of the data comparing Apause schools where peer education was recalled by more than 65% of students (by chance about 2/3 of all Apause schools and those where it was recalled by 34% or less (about 1/3 of Apause schools) with each other and with NoApause schools. These findings are confused by what statisticians call confounding variables. These are other variables of which we report those we believe to be relevant such as socio-demographic measures and academic aspirations. These undoubtedly affect student perceptions of their education and their behaviours and make a simple interpretation difficult or impossible. The only valid way to get a truly scientific answer would be to conduct what is called a randomised control trial of Apause where random allocation of schools to receive or not receive the programme would, if we had enough schools in the experiment even out these variations and allow a valid conclusion. We have previously applied to the Medical Research Council and the Wellcome Foundation for funding such a trial but for various reasons, including costs of over a million pounds these were not successful.

Briefly this analysis suggests that in the areas where we hoped to see some positive outcomes for Apause schools these are much greater in the schools who were successful in introducing the peer programme as evidenced by more than 65% of recalling the peer educators having led lessons with them.

These include items such as those shown on the first pages of figures headed

- Students' memory of how much information they had received in SRE and what was covered.
- Students' assessment of the value of their Sex and Relationships Education.
- Our assessment of students' knowledge in relation to contraception and STIs.
- Students' belief about age of first intercourse and sexual behaviours.

In contrast for the data where we would not expect Apause or the peers to have had any specific effects on their perception of the PHSE curriculum or behaviours is included in the figures on pages headed:

- Students' memory of how much teaching in other PSHE health and behaviour areas of curriculum.
- Smoking, alcohol and soft drugs (cannabis)
- Student statements about breakfast, their weight, trying to improve fitness and walking to school

Here we do not see large differences suggesting that it is the SRE element of PSHE that is regarded differently in Apause schools and achieves the best results where the peer programme is successfully delivered, the result we hoped for!

The school environment, physical and social will clearly have an impact on student evaluation of any curriculum area, perhaps especially PHSE. Again we do not see marked differences between Apause and No Apause schools if the figures on pages headed :

- Bullying
- Responses to questions about availability and use of water and how students feel about the school toilets.
- School Council and Clubs

Student academic aspirations are known to result in healthier behaviours including Sexual behaviours and they probably also affect student appreciation of the curriculum so the higher aspirations of students in Apause schools must be considered as a possible reason for their more 'desired' outcomes. This factor would not explain the fact that results for SRE were better than other areas of the curriculum. Similar points apply to the finding that Apause schools are more likely to have students living in rural areas, more of whom say that they read three or more books per annum.

- Academic and career aspirations
- Some family socio-demographics

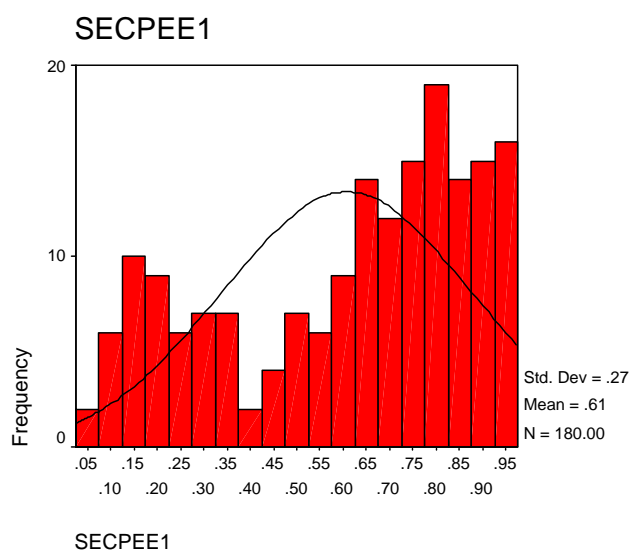
Our overall conclusion is that there are many pieces of data where positive results predicted from our theoretical model have been achieved while for areas where change was not expected there was, as predicted, no difference. The differences between schools in terms of confounding variables are largely neutral but for academic ambition favour A pause schools and would predict better results even without A pause. However the absence of better outcomes in areas of PHSE not addressed by A pause suggest that this effect is not marked. Though confused by confounding variables the sum of the data therefore strongly suggests that A pause does indeed reach young people in ways that were predicted with positive outcomes in terms of beliefs and behaviours.

We cannot provide watertight scientific evidence without a formal experiment, for which we will again seek funding, but the results provide good circumstantial evidence that his programme produces desired outcomes especially when supported by peer educators. Other programmes evaluated in the UK have not demonstrated these positive findings even in robust experimental applications. Though similar programmes have been shown to have positive outcomes in other countries, notably in North America, none have done so in the harsher environment of service delivery.

A report comparing schools using and not using A pause and peers.

The purpose of this report

We have prepared this report after noting that in some A pause schools less than a third of students remembered having peer educators in the classroom. Since this is a fact that few forget and there is a clear dip in the frequency distribution at this point we have examined the data separating those schools where less than a third remember peer education from those where more than a third remember it postulating that in the first group it probably did not happen reliably for all students. The distribution is shown below.



The data is analysed in three groups, first schools not using A pause labelled 'NoA pause', second schools using A pause but where less than 35% of pupils remember having peer educators labelled 'AP Peers?' and third schools using A pause where more than 64% remember having peer educators. These data so suggest that some areas are experiencing difficulties in ensuring that all students get the peer education component because we know that in schools where we are confident all received it more than 70% recall it.

What results are we particularly interested in?

We have previously published a report of an experiment where we compared results in schools where the peer education module was delivered by peers and compared these with schools where the module was delivered by the peer trainers – an eminently youth friendly and credible group! In this experiment we found that knowledge scores were better when the programme was delivered by the trainers but some of our key desired outcomes were significantly worse including a greater degree of wrong understanding of the norm that most people have not had intercourse by 16. We suggested that although adults may be better at teaching (most were teachers) they were not credible sources of information to students in relation to norms and expectations. We saw this as confirmation that the peer element was very important and for this reason retained it in the programme. We would hope to see confirmation of this finding in these data. The peer module content best remembered is the teaching of assertiveness skills so in these data we would expect recall of this to be reduced as compared to A pause schools with good peer coverage of all students.

The report is based on the individual reports that we do for schools and has the same data included.

At the top of each page are some general comments comparing the three groups in relation to the data in the following figures.

We hope you find your report useful and we would very much value feedback of how it could be improved.

Understanding the data

You may have some difficulty understanding the report but to help with this we have included the explanation below.

Explanation of figures

We hope that these figures are graphically intuitive so that you will be able to interpret them relatively easily, but it is worth just spending a few minutes looking at how they are constructed so that you will be able to make the most of the information. All the figures are in one of two formats.

'Raw' data, ie, the actual percentage of respondents in various categories who answer in particular ways is in the figure on the right with horizontal bars representing three sets of data for males and female students: at the top: data from your own school, in the middle: from Apause schools and at the bottom: from no Apause schools.

In the figures on the left with vertical bars the data is presented differently to facilitate interpretation. Data in this figure shows the **centile** scores for particular groups or your own school as compared with the population as a whole.

For the statistically minded we have assumed a normal distribution of responses and therefore a bell-shaped curve that many of you will be familiar with. From the data a standard deviation is calculated and using this standard deviation we are able to calculate centiles. When data is normally distributed **the 50th centile represents the average** for the whole population thus the 25th centile marks the point at which 25% of the values will be below that level and the 75th centile, the level at which 75% of the values will be below that level, ie, **a school performing above the 75th centile level would be in the top 25% of all schools.** In order for the software to make a comment about a difference between your school and Apause or No Apause schools we have arbitrarily set a criterion of a greater than 20 percentile points difference.

From carrying out proper statistical analysis we know that in the case of comparisons between Apause and no Apause schools differences of around 3%-6% (depending on the variance) are statistically significant with only a 1 in 20 probability of that particular finding arising by chance. We are of course looking at more than 20 variables (or findings) so that this is going to include some that appear to be statistically significant, but 1 in 20 of these 'significant' findings are likely to have arisen by chance. In interpreting all the data we need to apply some intelligent logic so that if all those we predicted should be different are different our data is confirmatory. We have not used Bayesian statistics which include logic in the analysis.

The results are based on the mean (average) for each school and we have not weighted them by school size since what schools are interested in are the results of their school versus others and a school is either an Apause school or not.

When it comes to comparing an individual school with the rest of the data the likelihood of differences arising by chance is very much greater particularly when you are dividing them by gender. In many schools we might have only 120 responses from 60 or so girls and 60 or so boys. In this situation a difference of more than 10% is necessary to achieve the 1 in 20 probability mentioned above of it being likely to be significant.

In order for the software to make a comment about difference between your school and another school we have set criteria to be a more than 10% difference, while for differences between genders comparing Apause and other schools we have set the criterion at 5%

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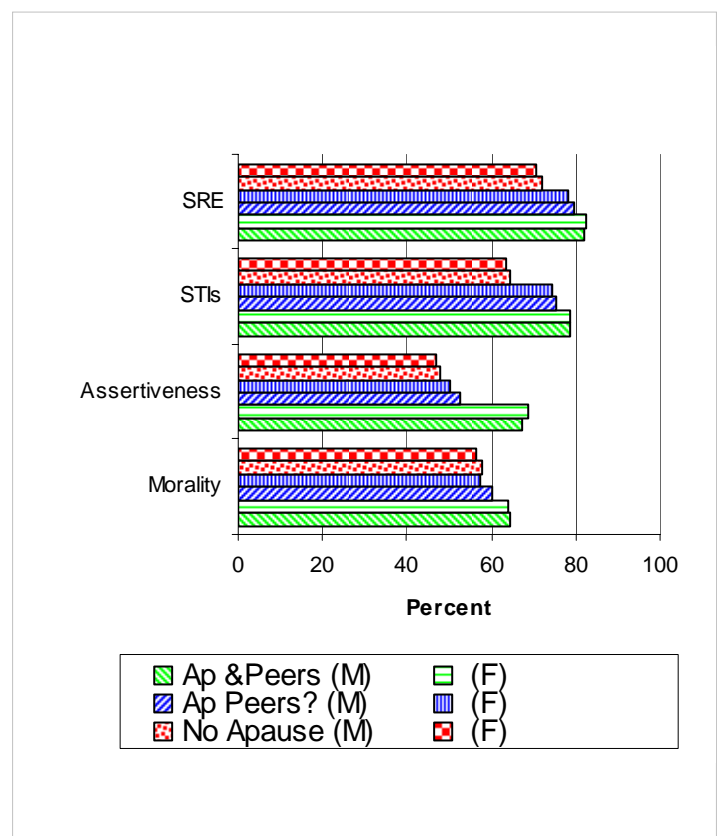
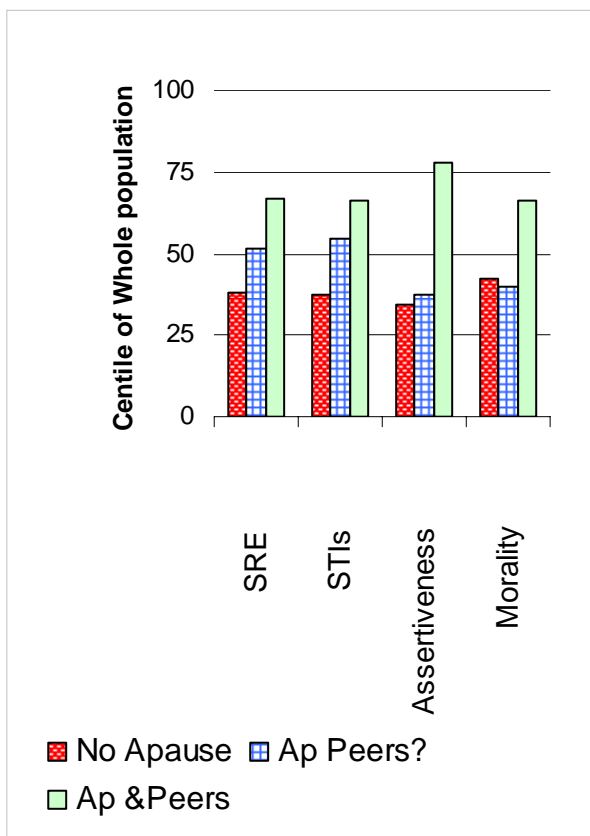
Students' memory of how much information they had received in SRE and what was covered.

The students were asked a group of questions under the heading 'How much information do you feel you have received about the following in this school'? Four of the questions are reported in this graph.

They were given four choices of answer: 'a lot', 'some', 'a little' or 'none'.

The numbers who described 'a lot' or 'some' are shown in these figures.

You will see that around 70-80% recall having 'a lot' or 'some' SRE, including teaching on STIs, but slightly fewer on morality and many fewer on assertiveness. Students in Apause schools with peer educators are clearly more likely to remember having a lot or some information in each of these areas than NoApause schools while Apause schools where fewer than 34% of students remember having lessons with peer educators are intermediate. This is particularly obvious in relation to remembering being taught assertiveness skills, a key component of the Apause peer programme. It is interesting that peers also appear to be remembered as contributing to STI teaching, a very minor part of the peer led sessions.



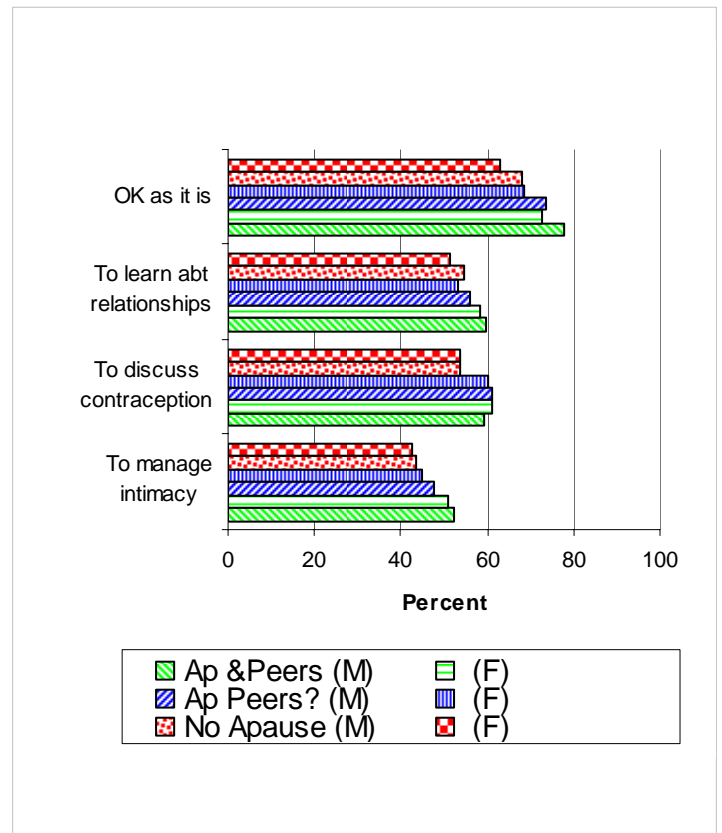
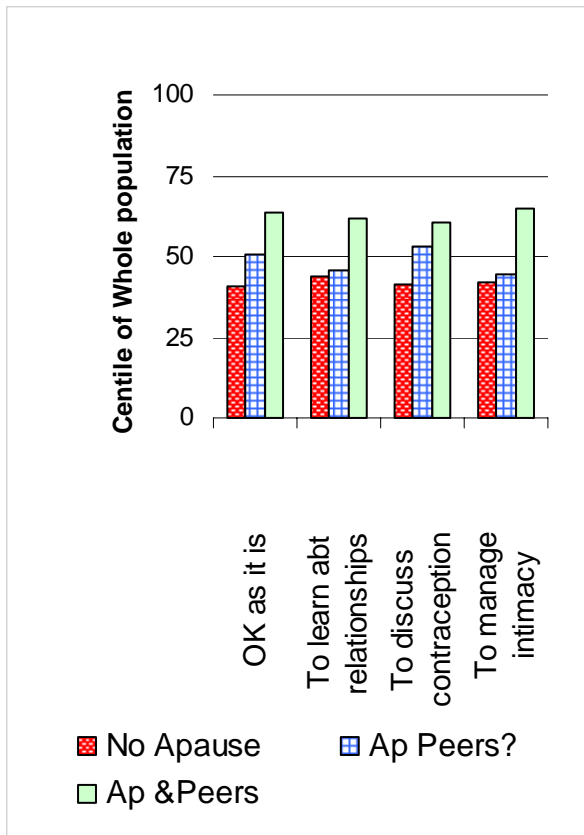
Students' assessment of the value of their Sex and Relationships Education.

Another important aspect of SRE is how useful students feel that it is in their lives and this is examined with a group of questions under the heading 'How do you feel about the sex education in your school?'

The possible answers are: 'strongly agree', 'agree', 'disagree', 'strongly disagree'.

In these figures those who are either 'agreeing' or 'strongly agreeing' with the statement are included as positive.

The left hand graph clearly shows that pupils in Apause schools where peer led sessions were recalled rate the usefulness of their SRE higher than in schools without Apause. Again in the Apause schools where peers are not recalled results are intermediate or in two areas key to the peer intervention no different to NoApause schools. On the graph on the right, comparing genders there are few significant differences though girls are consistently more satisfied than boys.



Our assessment of students' knowledge in relation to contraception and STIs.

These data give further information about knowledge rather than about students' memory of the amount of information they had received.

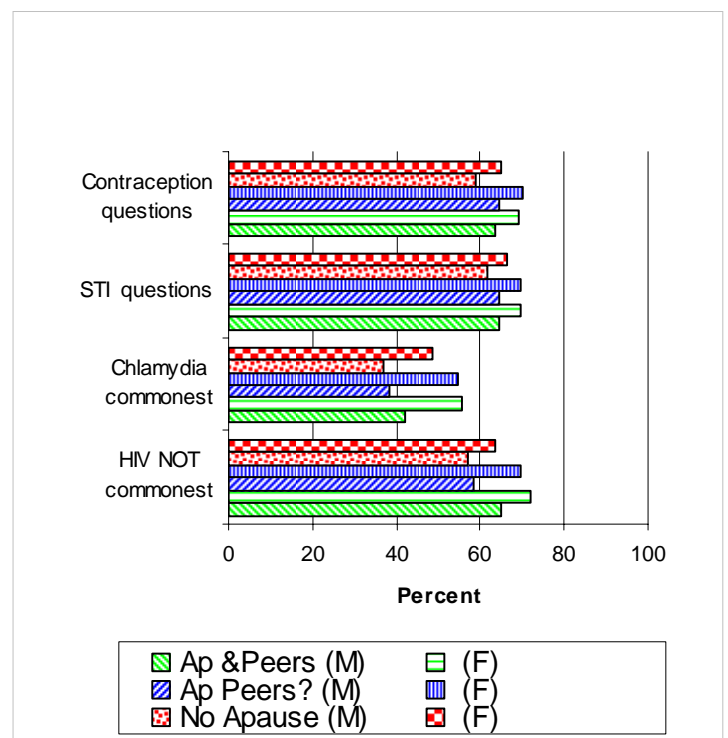
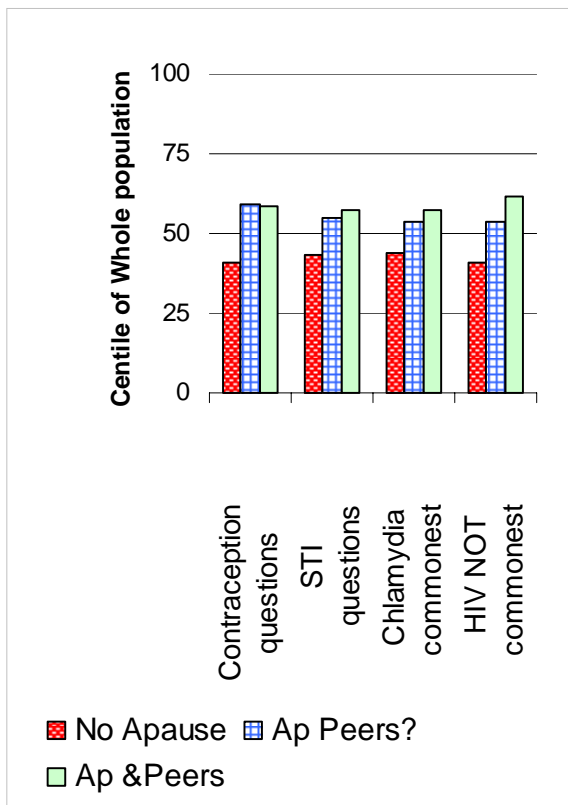
Options for answers include: 'true', 'false' and 'don't know', some items being true and some false. They are marked for correct answers with no score for don't know.

In designing the Apause programme we did not feel that knowing a long list of the names of STIs was important, but we did feel that it was important that they knew that HIV was not the commonest STI.

We published a paper in the 90s showing that nearly all young people believed that HIV was the commonest STI. If few people know anybody with HIV, or even anybody that knows anybody who has it and yet believe it is the commonest STI, then STIs are unlikely to be a major concern for you!

In NoApause schools 40% of young people correctly believe it is not the commonest and though this is higher (65%) in Apause schools it remains a worry. In the Apause schools where peer ed is not recalled these results suggest that the teaching of factual information is as good as in Apause schools with peer education.

These data confirm that girls have more correct knowledge than boys.



Students' belief about age of first intercourse and sexual behaviours.

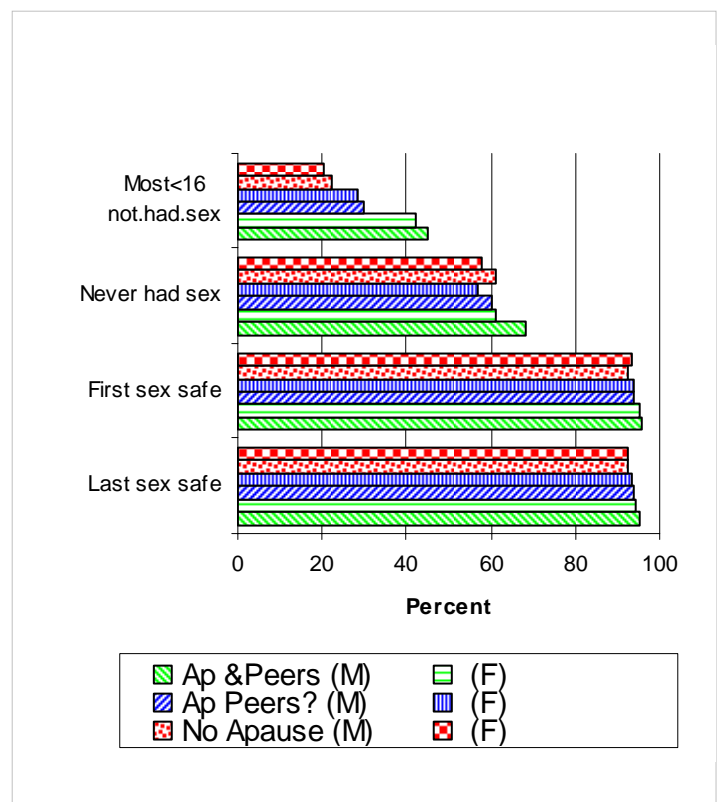
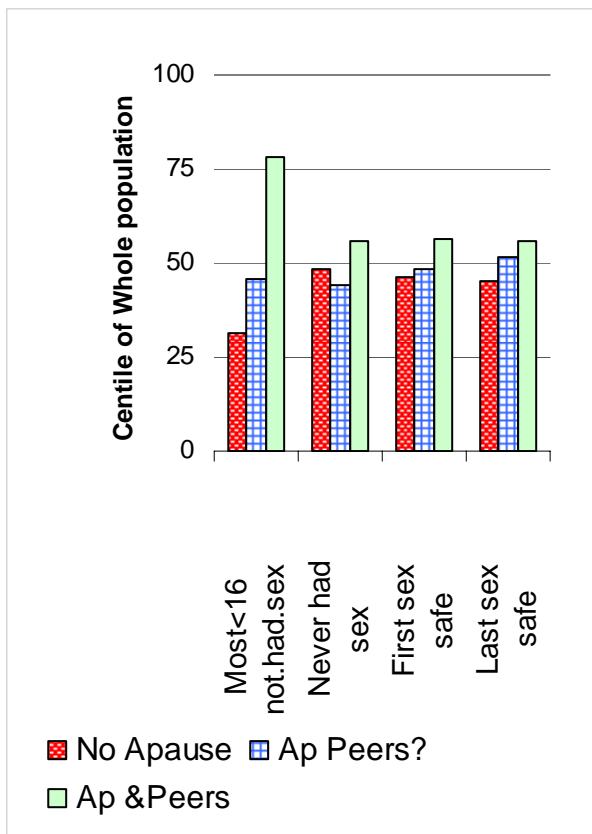
A second very critical belief which we have good evidence to show will effect student expectations and behaviours and is consistent with norm's theory is that our understanding of what young people believe to be normal in relation to age of first intercourse will impact on the likelihood of them having intercourse earlier or later depending on their belief.

The top set of data on the right hand graph show that in no Apause schools only around 20% of pupils correctly believe that most people have **not** had intercourse by the age of 16. The data in the second set of rows shows that even at a mean age of 16 (when ½ the year are over 16) 60% have never had sexual intercourse and this is slightly higher in Apause schools. We believe the ability of the peer educators to influence their belief and normative expectations, shown quite dramatically in the top set of rows and on the left hand graph in the left hand set of columns, illustrates this well.

People are often surprised at the high rate of protected sex, both at first sex and last sex. This is of course only one episode and asking young people whether they have ever had unsafe sex reveals much higher percentages than the 5-10% shown in the data on the bottom two sets of rows on the right.

We note that if you are having intercourse with somebody with an STI you are much more likely to catch the STI than it is likely that the girl will become pregnant (only approximately 1 in 30 episodes of unprotected intercourse result in a pregnancy). This may explain why nationally STI rates are climbing steeply with increase sexual activity in young people, where as teenage pregnancies, many of which are prevented by emergency contraception, are approximately stable.

Students in Apause schools where peer education is recalled have markedly lower expectation that early sexual activity is normal, are less likely to be sexual active and are more likely to use appropriate precautions both at first intercourse and at their last episode of intercourse than in either of the other groups. It is known that people in stable relationships are less likely to use contraception particularly barrier contraception.



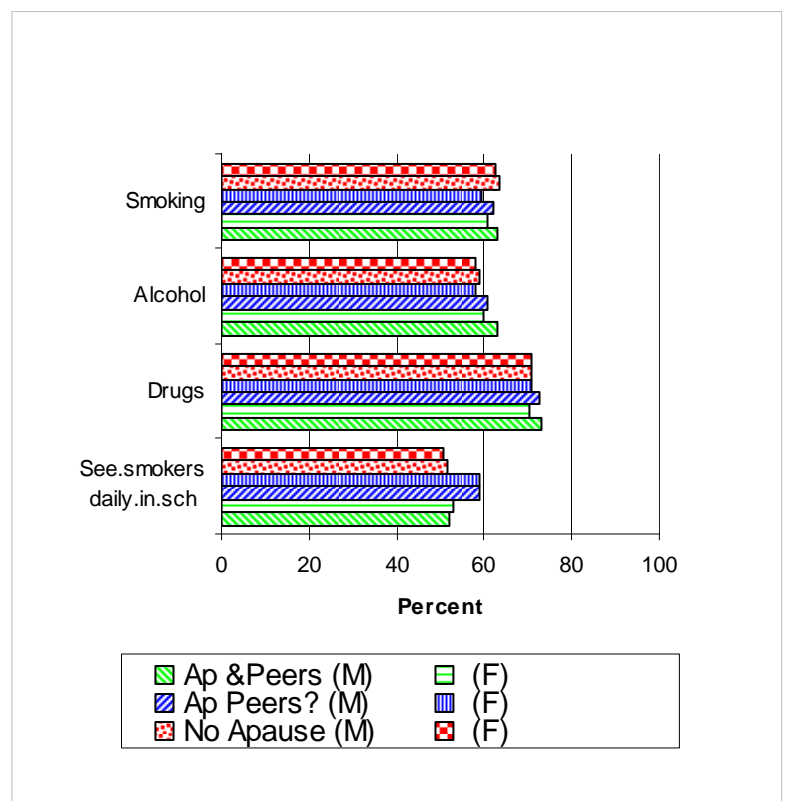
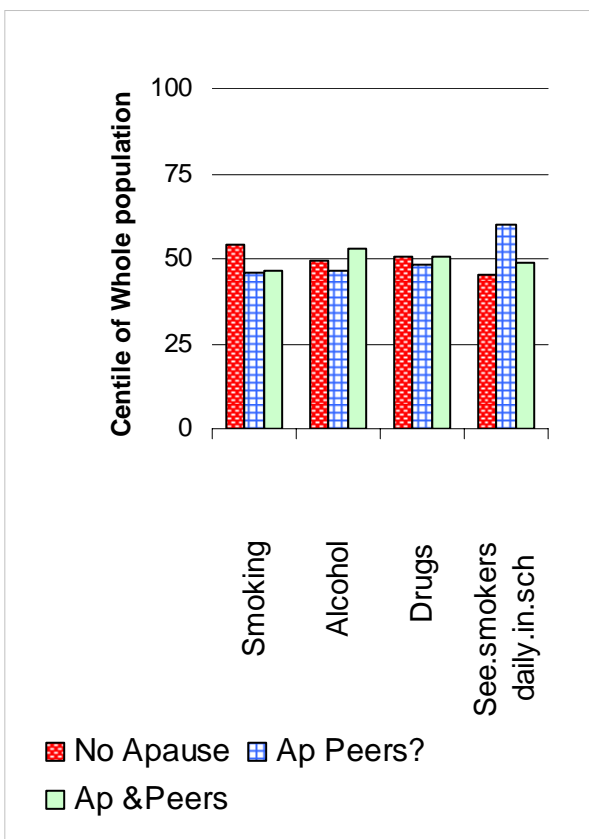
Students' memory of how much teaching in other PSHE Health and behaviour areas of curriculum.

These data were collected in the same way as the data in relation to SRE in the first set of graphs from the perspective of understanding whether Apause is working, we believe that these are important 'negative' data.

If Apause was working because the schools in which it was being used were already schools that were doing very good SRE, we would expect to see this reflected in these data as well.

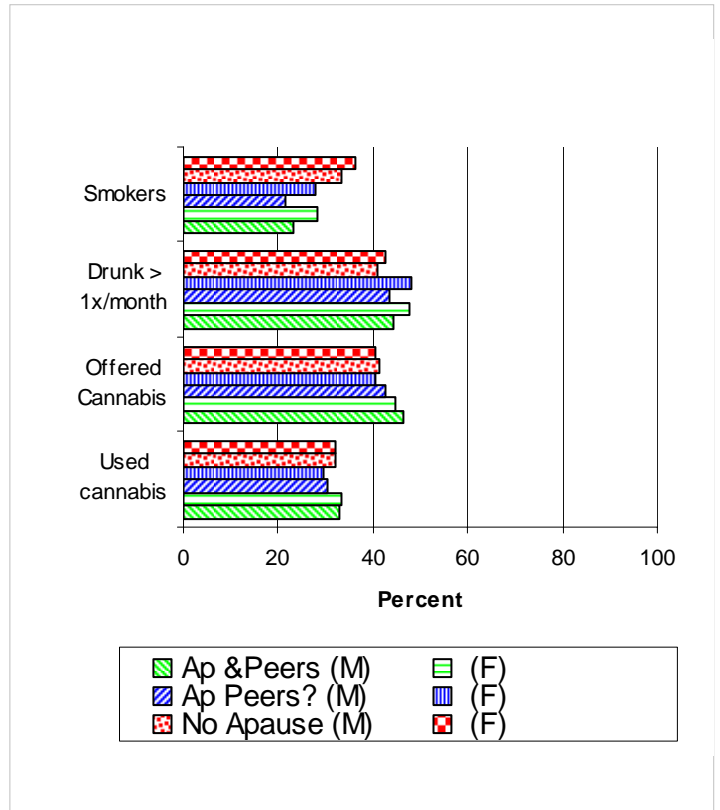
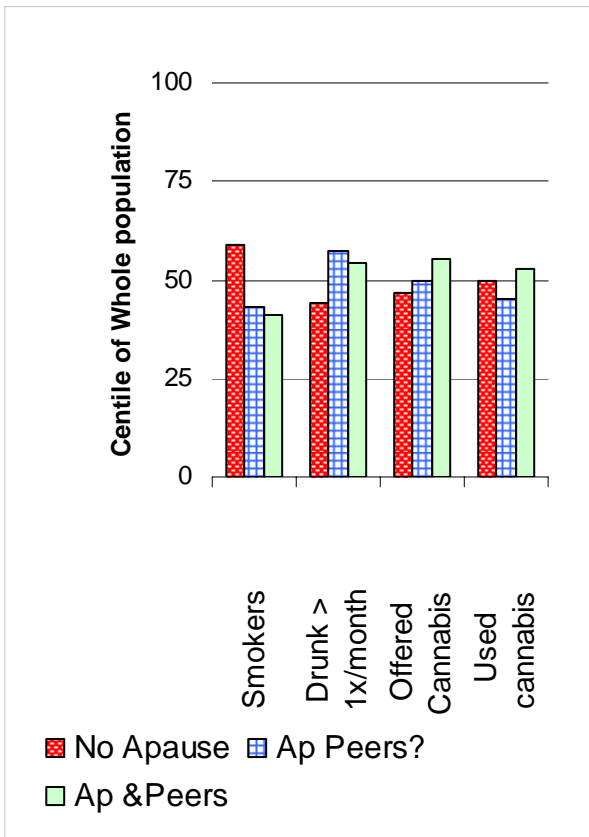
What we see is that in relation to smoking, alcohol and drugs, there is very little between Apause and the other two groups no Apause schools in relation to students perception of how much information they had been given in these other three areas.

The last item, right hand and bottom on the left and right graphs respectively, asks how often they see smokers in school with the highest option being 'every day' which is the data reported here. It does not ask whether the smokers are children or adults.



Smoking, alcohol and soft drugs (cannabis)

As well as providing education about sex and relationships, schools are interested in other adverse health factors in behaviour. These results report those who are regular smokers (around 25-35% and higher in non Apause schools), the number who describe themselves as being drunk (out of control) more than once a month slightly higher in Apause schools, the number who have been offered cannabis, again slightly higher in Apause schools while the number who have used cannabis is near identical. There are few differences comparing those with and without recall of peer education.

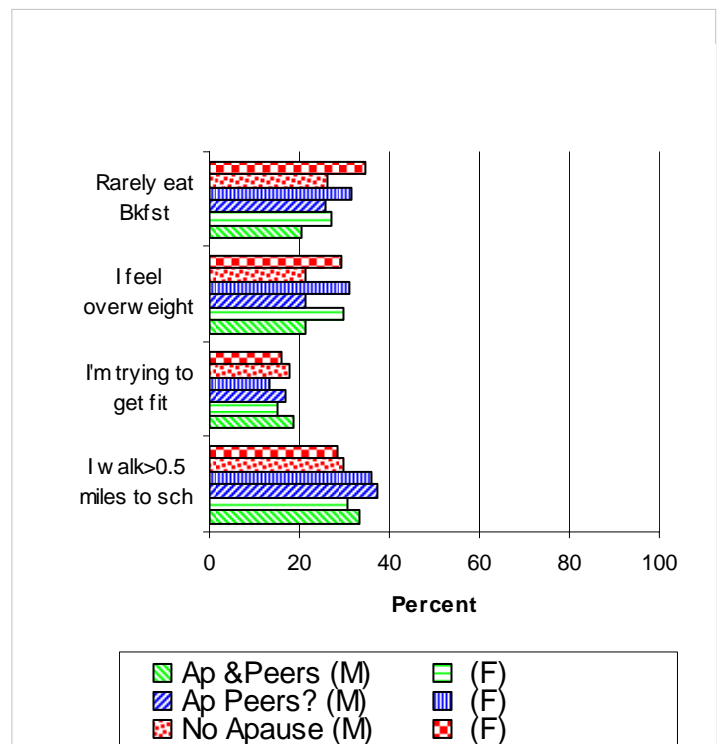
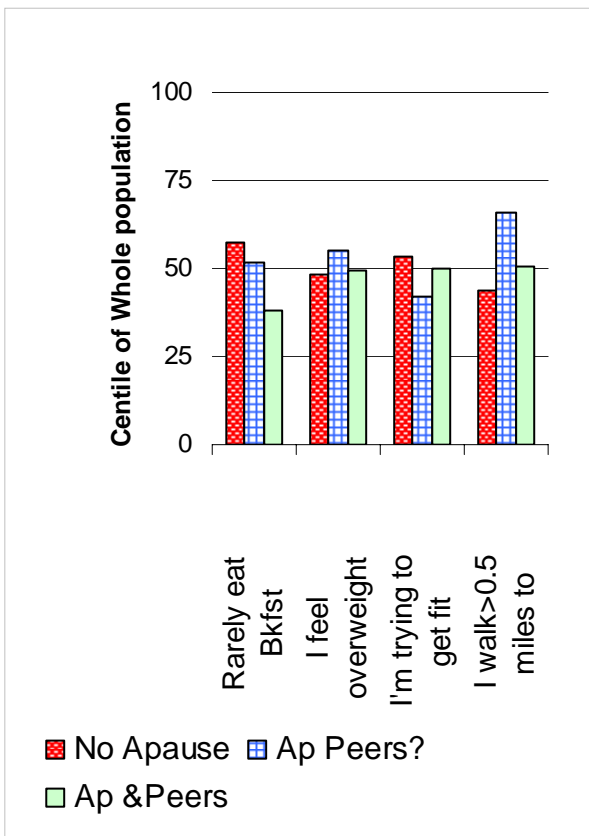


Student statements about breakfast, their weight, trying to improve fitness and walking to school

Diet, obesity and exercise are increasingly discussed topics in health education.

The most striking findings are in relation to gender differences where perhaps unsurprisingly all girls are likely to report they don't eat breakfast and are feeling overweight, though fewer of them are trying to get fit and fewer of them walk more than ½ a mile on the way to school. All of these differences are of significant.

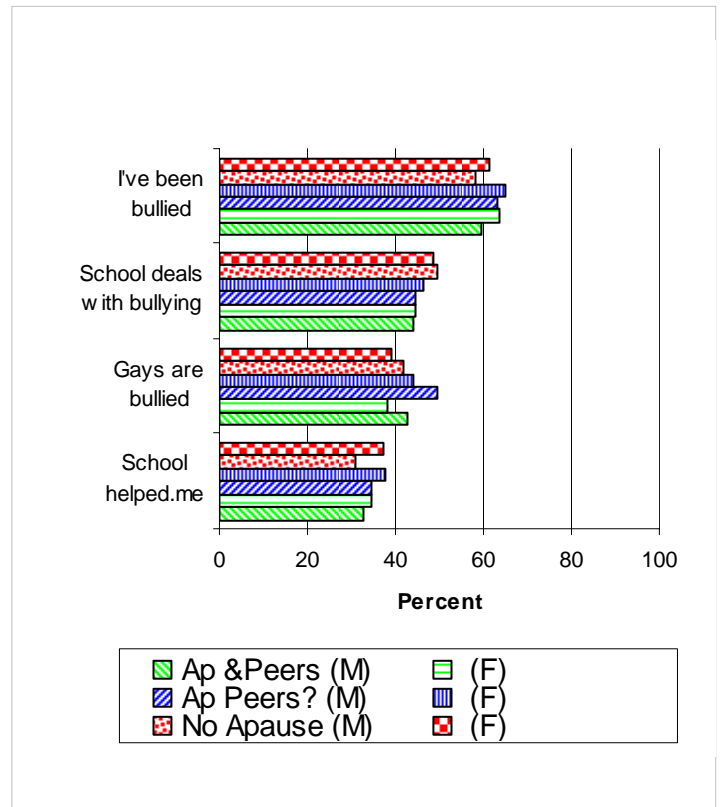
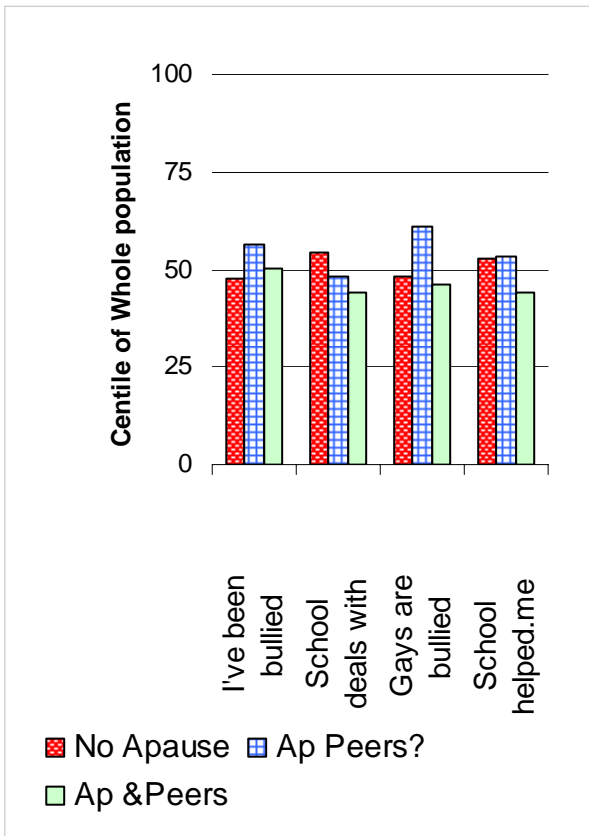
Why children in A pause schools remembering peers and less likely to walk more than half a mile in travelling to school is probably a chance. Unlike the earlier data not pattern of data emerges.



Bullying

Bullying is another area to which schools pay a great deal of attention and results to four questions are reported here. Around ½ the population report having been bullied. Slightly less believe that the school has an effective policy to deal with bullying. 40% of pupils believe that people are bullied because they are thought to be gay and only about 30% of those who have been bullied report that the school was helpful in sorting it out.

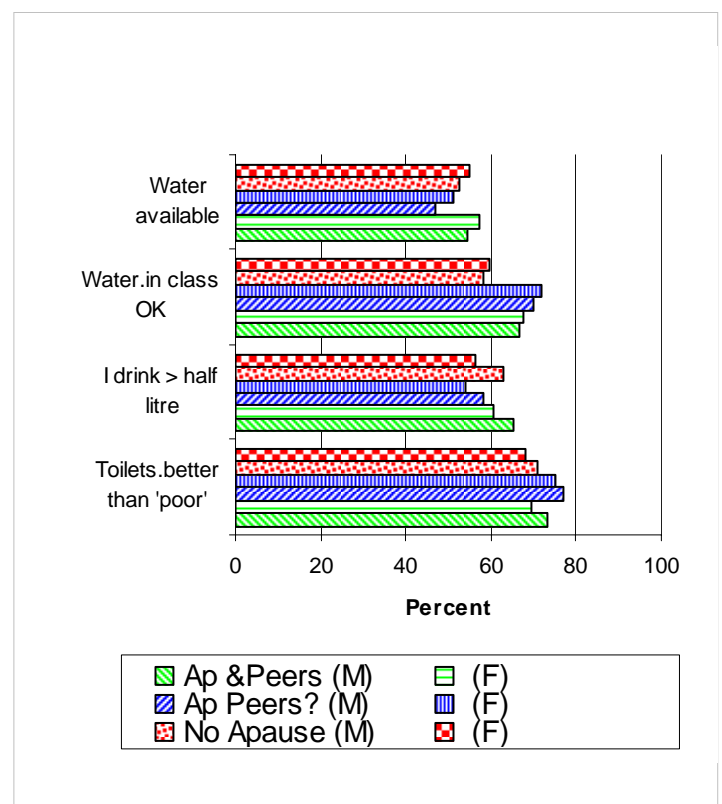
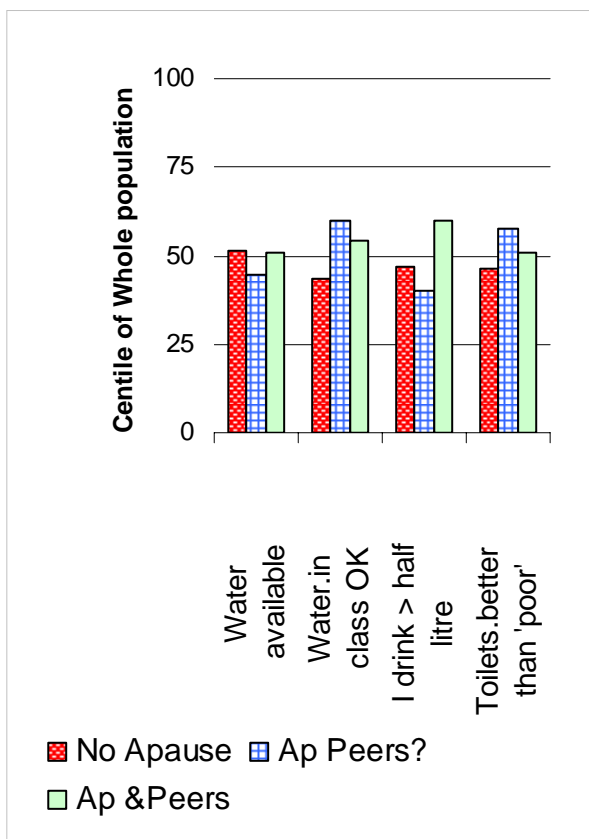
Apause schools where peer education occurred are certainly no better in terms of the bullying environment suggesting that these are not inherently 'better' schools.



Responses to questions about availability and use of water and how students feel about the school toilets.

We included this data in the questionnaire because students told us that provision of and use of drinking water in school was often problematic.

These data show some difference between Apause and No Apause schools with Apause schools slightly more likely to allow water in the classroom and children are then more likely to drink more than ½ a litre a day. Looking at individual schools, it is clear that those where water is unavailable and not allowed in class, the amount drunk is very small. The health significance of this is uncertain, but it is generally believed that drinking water is good for your health and attention span. Toilets are also very problematic in some schools and we were startled to find that only around 30% of pupils report that their school toilets are either 'not too bad' or 'good'. About 10-15% of students reported that they felt unsafe in the toilets. There are suggestions that in Apause schools there is more freedom to drink water in class and school toilets may be better.



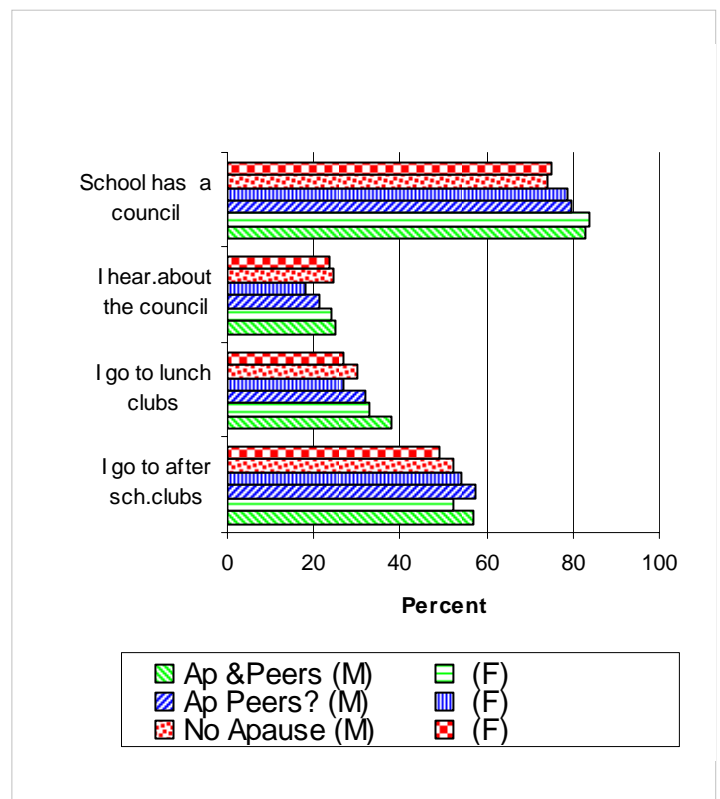
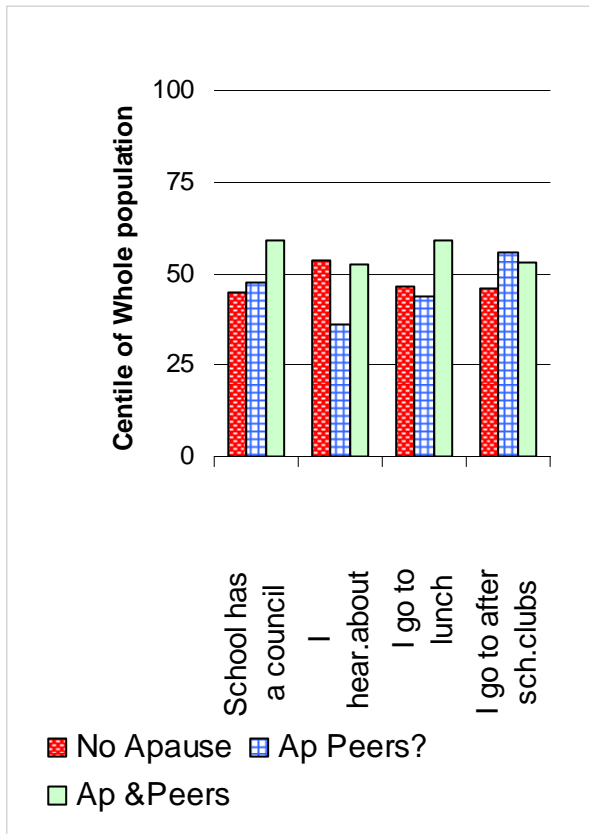
No significant differences were identified in comparisons with other groups.

School Council and Clubs

Many schools are interested in how many children participate and are involved in school council or school clubs.

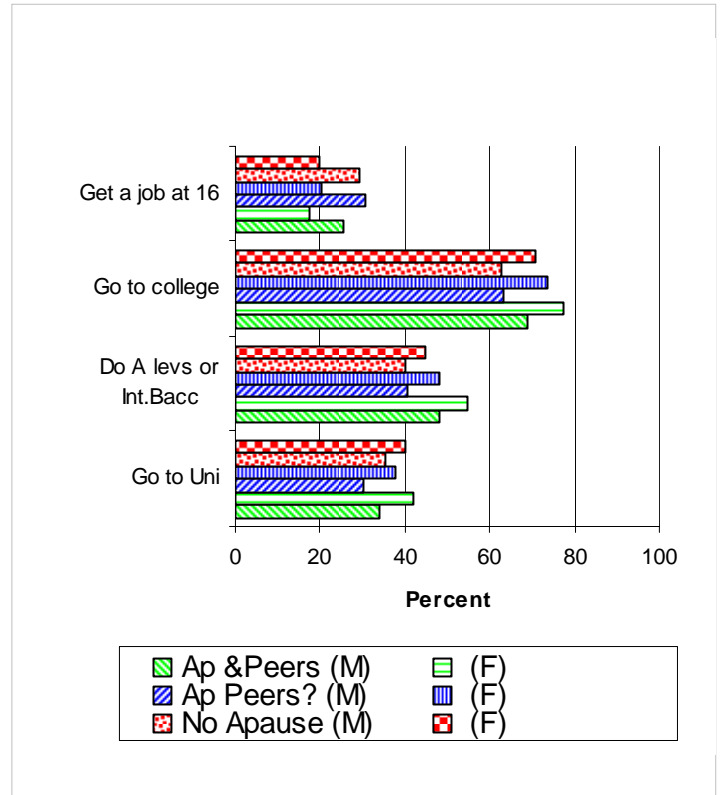
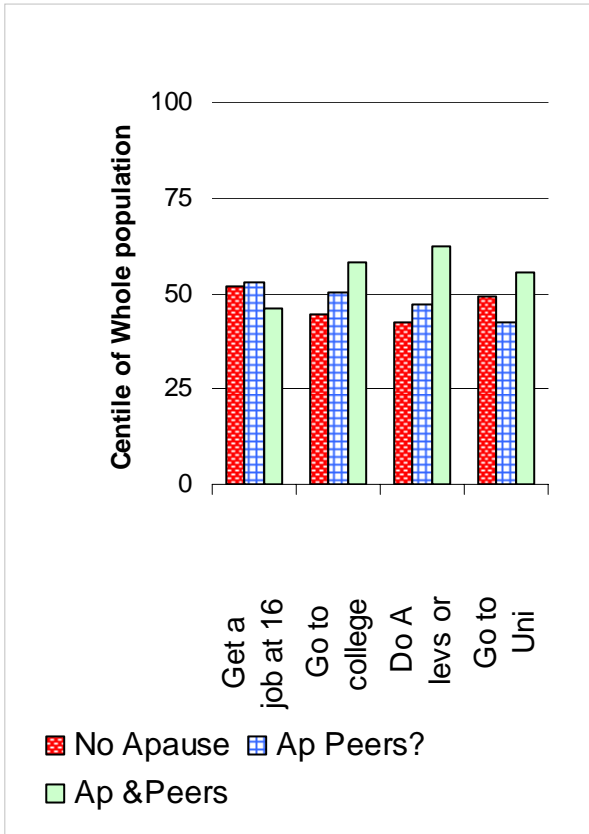
More pupils in Apause schools are aware that there is a school council, but the same number (a rather low number of about 25%) report that they hear about what happens at the school council. Slightly more young people in Apause schools are likely to go to both lunch clubs.

There appears to be a greater likelihood in the schools that managed the peer education successfully that pupils have heard of the school council and its activities and more likely to go to clubs. It is likely that more of the schools where the peer programme was achieved were schools with sixth formers in school.



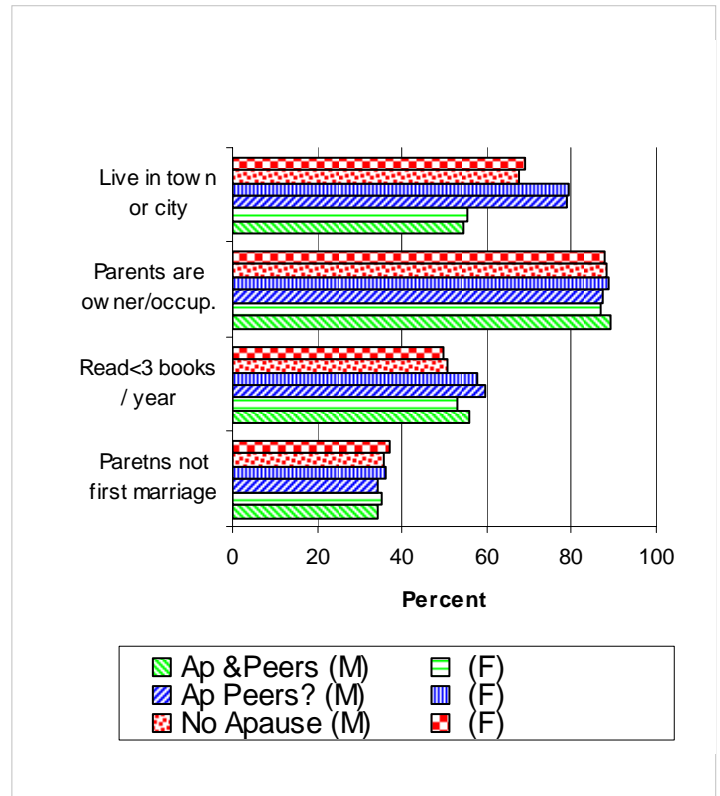
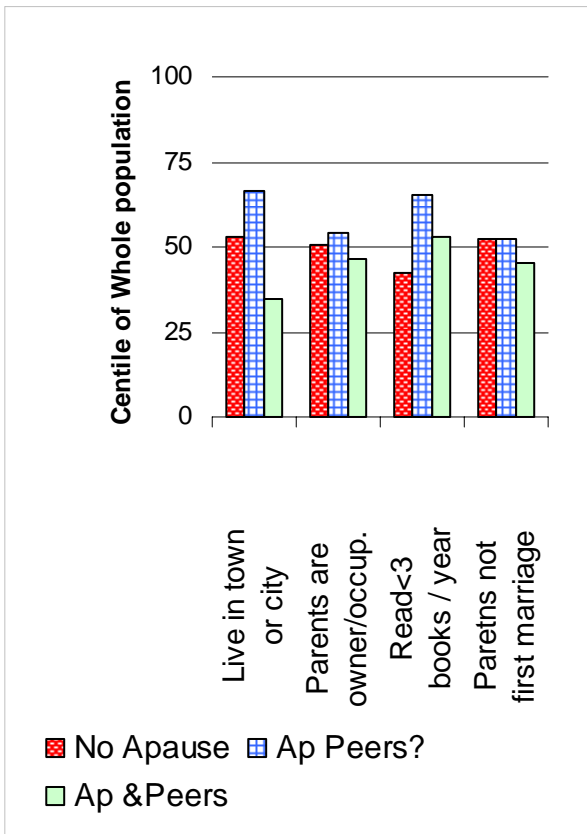
Academic and career aspirations

It is in these graphs that we see the biggest differences between Apause and control schools in areas we evaluated other than in SRE where differences are greater. Although only slightly more are planning to go to university, higher numbers are planning to go to college and do A levels. With the possible exception of aiming for university, where the schools with low recall of peers have lower results than NoApause schools, the low peer recall school's data are intermediate.



Some family socio-demographics

Home circumstances and socio-demographics clearly have an influence on children's behaviours and in this data we see that children in A pause schools are less likely to live in a city, are more likely to read 3 or more books a year, more likely to be in re-ordered families and with roughly the same proportion of owner occupying parents. Here the results suggest that those in schools with poor recall of peer education are 'advantaged' on some measures (e.g reading rate) but 'disadvantaged' on others (e.g not living rurally).



Summary of findings.

See section at front of report.