

Smoking and self-esteem

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The assumption that children who smoke tend to be lower in self-esteem than those who do not has underpinned most recent health-education initiatives. What does the work of the Unit tell us about this link? Data suggests that the association is not as strong as may have been believed, and might even operate the other way.

Health educators have long been interested in self-esteem. For instance, the belief that self-esteem is relevant to health education forms a central theme of the excellent and widely-used programmes *Health Education 5-13 & 13-18* (Schools Council/HEC, 1981). But what has prompted this, and is it justified? We know from others' work that self-esteem has great importance for academic performance, but what of health-related behaviour?

In 1969, Bynner's classic work on smoking by schoolboys reported that smoking experience is associated with feelings of inferiority, measures of each showing the convincing correlation of +0.11. This finding has often been repeated — for example, Penny & Robinson (1986). Bynner found that smoking has a socially-positive image and suggested that here lies the attraction of smoking — perhaps especially for those of low self-esteem. A growing view too has been the identification of conformity to peer group pressures as being important in promoting smoking.

These two strands — a link between smoking and low self-esteem, and the importance of peer group pressure — can be woven with a third: psychological

research of the fifties and sixties indicated that people of low self-esteem are more conforming. Thus, in a collection of similar studies, Lesser & Abelson (1959) confirmed a link between low self-esteem and conformity ('persuasibility') in children. Thus was laid the research foundation for a model of the development of the smoking habit in young people which is still largely accepted.

This model, which may be termed the 'deficit' model, suggests that young people of low self-esteem are more likely to smoke despite the health risks because they are more conforming (Fig. 1). It has been widely discussed with respect to a variety of health-related behaviours, and the programmes mentioned above make it an explicit part of their reasoning; in the words of the *Health Education 13-18* Co-ordinator's guide: *Those individuals with low self-esteem are less capable of resisting pressures to conform.*

The measurement of self-esteem

This naturally prompted an examination of the data collected through the use of the Health Related Behaviour Questionnaire. The questionnaire is an instrument designed to bring to schools who use it

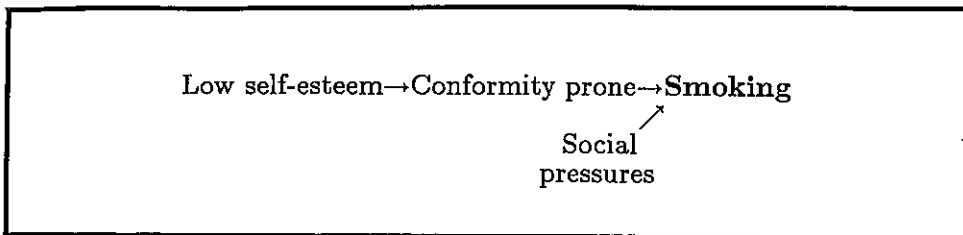


Fig. 1. The 'deficit' smoking model which connects low self-esteem with smoking. The links are (1) that low self-esteem is linked to conformity, and (2) that smoking is prompted by conformity. Both these links are challenged.

a greater degree of objectivity in their curriculum planning. (Interested readers can obtain details of how to use it, and a sample questionnaire, from the Unit). Figures are returned to schools for their use and are also retained on file on computer; a large amount of information has accumulated about a great range of health-related behaviours of young people over the past few years. A recent compilation of results is to be found in *Young people in 1986*, published by the Unit (Balding, 1987).

Smoking habits were examined in relation to a modified 10-item version of the LAWSEQ self-esteem scale (Lawrence, 1981) which is routinely included in the survey. The LAWSEQ instrument is internally reliable (scores on different items are highly correlated), it appears to measure stable aspects of self-esteem, and scores are highly correlated with other measures of self-esteem (Hart, 1985). As far as the version used here is concerned, it has good internal consistency and a slightly re-ordered version

Table 1. The percentage distribution of self-esteem scores for 4th-year pupils in 1987. (3108 boys and 2829 girls: Health Related Behaviour Questionnaire data.)

	Self-esteem score			
	0-10	11-13	14-16	17-20
Boys	17.1	21.5	33.5	27.9
Girls	18.7	22.2	32.9	26.2
Combined	17.9	21.8	33.2	27.1

seems to have acceptable test-retest reliability (Regis, unpublished data).

The Health Related Behaviour Questionnaire self-esteem scale yields a score between 0 and 20, with high scores indicating a high self-esteem. There is a good spread of scores, but patterns of results found elsewhere can be observed in the data. For example, self-esteem seems to improve slightly on average as pupils get older. Data from a 1987 databank sample for 4th-year pupils has a distribution as shown in Table 1, which illustrates the slightly greater average self-esteem of boys compared with girls.

The measurement of cigarette smoking

We are also able to examine the incidence of cigarette smoking. The question asked is *Which of the following most nearly describes you?* and a list of descriptions is given as follows:

- 0 I have never tried smoking cigarettes
- 1 I have only tried smoking once or twice
- 2 I used to smoke but don't now
- 3 I smoke but want to give it up
- 4 I do not want to give up smoking

The distribution of scores in 1987 for 4th-year pupils is shown in Table 2. Boys

Table 2. The smoking status of 4th-year pupils in 1987 - results in percentages. (2946 boys and 2684 girls: Health Related Behaviour Questionnaire data.)

	Never tried	Tried once or twice	Have given up	Want to give up	Don't want to give up
Boys	44.8	30.8	12.2	8.7	3.5
Girls	44.4	25.1	13.3	12.7	4.5
Combined	44.6	28.1	12.7	10.7	4.0

seem to experiment more, but more girls are more likely to be smokers.

How is self-esteem related to smoking?

Initial investigation suggested that the 'deficit' model is confirmed. Fig. 2 shows that 4th-year smokers are slightly lower in self-esteem than their abstemious contemporaries (mean smokers' self-esteem score = 13.4, non-smokers = 14.2, N = 5379, with ex-smokers excluded from the analysis). If a numerical value from 0-4 is given to the responses to the question on smoking habits, a correlation between self-esteem and smoking habit can be calculated: the value thus obtained is -0.1, significant at $p < 0.001$, implying that lower self-esteem is linked to more positive attitudes towards smoking.

Now a sceptic might say that although the correlation is statistically significant - in other words, not due to chance - it is of no real importance because it is so small. This would be a conclusion of great interest, because it is an assumption of much PSHE work that the link exists and

is important. Supporting this finding, Dielman *et al.* (1984) looked at self-esteem and locus of control (see Regis, 1988) in relation to smoking, drinking and drug-taking and obtained some correlations of a similar order of size; they concluded that *the results indicate that the relationships between dimensions of children's health locus of control and self-esteem and their behaviours and intentions are not large enough to suggest that intervention programs directed at the prevention of detrimental health behaviours [should] focus on the enhancement of self-esteem or the internal locus of control.* We shall return to this point in our conclusion.

A criticism of this work (which does not apply to the Bynner and other studies) is that many LAWSEQ items measure not self-esteem but aspects of relations and encounters with others - items refer to friends but also teachers and parents. Penny & Robinson (1986) report that the low self-esteem of smokers is shown primarily in items relating to home and school; therefore if smokers

Fig. 2. The relationship between self-esteem and smoking for 5630 4th-year pupils in 1987. (Health Related Behaviour Questionnaire data.)

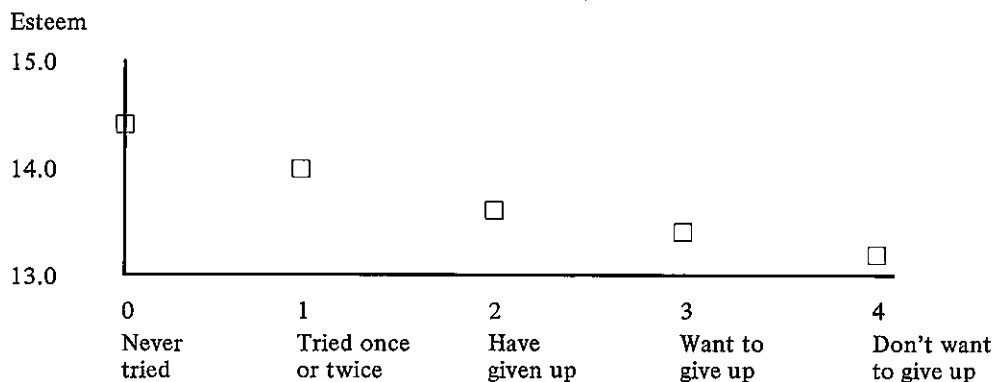
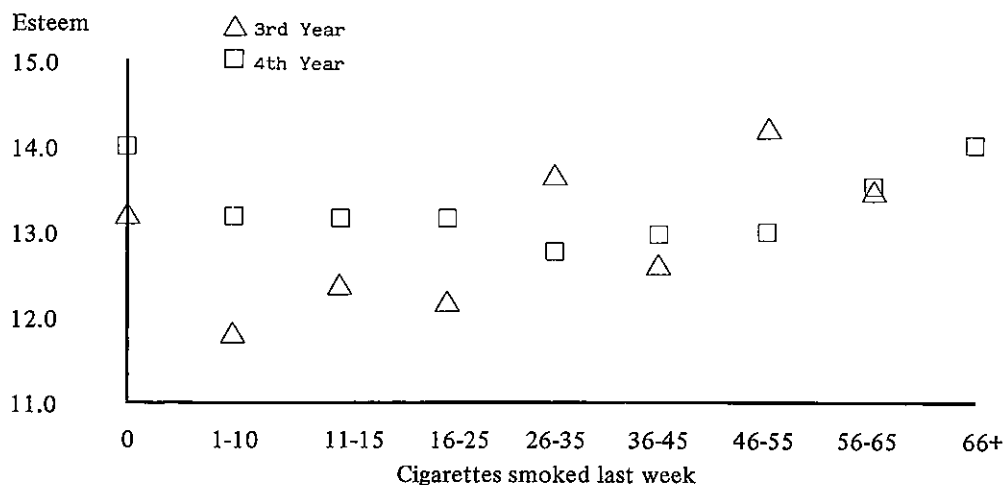


Fig. 3. The relationship between self-esteem and number of cigarettes smoked during the past week for 5937 3rd-year and 5630 4th-year pupils in 1987. (Health Related Behaviour Questionnaire data.)



get on badly with adults they should get a low score on our self-esteem scale without necessarily having a low self-esteem. However, item-by-item analysis suggests that this is not the case: smokers have lower scores on items unrelated to their dealings with adults.

Problems: other aspects of the model

Despite this, the hypothesised link between low self-esteem and conformity is at least open to question. Regis (1988) reports greater conformity among youngsters of *high self-esteem* in their smoking & drinking behaviour, while the work of Wallace *et al.* (1983) suggests that *anti-conforming* behaviour might be as significant a feature of the behaviour of people with low self-esteem as conformity.

If this were not enough, data has accumulated since to cast some doubt upon using a simple 'conformity to pressure' model to explain smoking — see, for example, Eiser & van der Pligt (1984). Morgan *et al.* (1985) suggest that, in their sample, at least the initial experimentation by young people is *not* accompanied by overt social pressure, and Newman (1983) opines likewise.

How did the argument about conformity and smoking come to be accepted?

Given that every packet of cigarettes carries a dire health warning, health educators seemed to think that smoking must somehow be a product of irrationality, or of weakness in giving in to group pressures. Non-smoking was never thought to be a behaviour in need of special explanation because it was not a problem — it was so obviously the correct and rational thing to do. In fact, given that most youngsters do not smoke, non-smokers are at least as 'conformist' as smokers, if not more so. And if non-smoking can be seen as shallow conformity, then smoking can be seen as being, subjectively, quite rational.

So, if the beliefs and desires of smokers are examined, they seem to be quite in accord with their practice of smoking. Smokers expect good things of smoking and may see little profit in abandoning their habit — or even in trying to, if they believe they cannot give up. Thus Eiser & Sutton (1977), Fishbein (1979), and Regis (1988) in their various researches find a fair degree of consistency between smokers' beliefs, attitudes, and behaviour.

The relationship between self-esteem and smoking

Health Related Behaviour data referring to self-esteem and smoking from other

year groups was also examined, confirming that smokers, especially those who do not want to give up smoking, are not always the subjects most lacking in self-esteem. So, amongst 3rd-year pupils in a national sample from 1987, smokers who do not want to give up are found to have a higher self-esteem than those who do (stayers, mean self-esteem = 12.4, waverers = 12.0, $N = 377$). Graphical display (not given by Bynner (1969) or Penny & Robinson (1986)) of other data suggests that it is only the light smokers who have low self-esteem, regardless of their intention to give up. If the young smokers who smoke heavily originally turned to smoking to compensate for their low self-esteem, then their strategy seems to have been successful (Fig. 3)! Smoking appears linked to low self-esteem because lighter smokers, who are in the majority, tend to report lower self-esteem.

We should admit that other year groups do not exhibit patterns as clear as these, but what can be seen there is similar.

How reliable are self-esteem measurements?

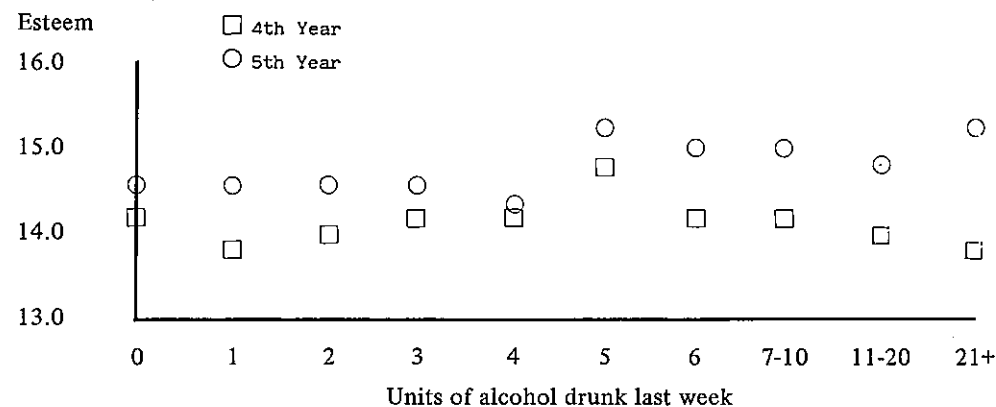
Another possible criticism is that heavy (but not light) smokers are defensive about their self-concept and give artificially positive responses. It is always diffi-

cult to be completely sure of an interpretation of questionnaire data, and the assumption that respondents are dishonestly manipulating their replies always makes it possible to contrive an explanation in support of a different view.

With regard to falsifying self-esteem scores, Coopersmith (1959) looked at teachers' views about pupils' behaviours (such as self-confidence, reactions to failure, and so on) and found that *although defensive and distorting factors may be present, the subjective evaluation of self-esteem is, in the majority of cases, in substantial agreement with its behavioural expression*. In his classic 1967 text (Coopersmith, 1967) he concluded that *the question of response sets and defensive postures, which have long clouded the acceptance of studies of self-esteem, appear more critical in theory than in the relationships that actually prevail*. Hart (1985) found that the LAWSEQ measure was well correlated with Coopersmith's instrument.

For our own part we can only state that the questionnaire is anonymous and conducted in a serious manner, and extensive interview work over the years has never suggested much dishonesty in replies to questionnaire items. Further consideration of this issue has been given in previous issues of this journal and by Balding (1988). It can

Fig. 4. The relationship between self-esteem and the number of units of alcohol drunk during the past week for 5630 4th-year and 2851 5th-year pupils in 1987. One alcohol unit = 1 pint of shandy, ½ pint of beer or lager, etc. (Health Related Behaviour Questionnaire data.)



never be shown that youngsters are not manipulating their answers but we do not find that the face value of the results found is a problem.

The 'low self-esteem youngster giving in to pressure' model has, as alluded to above, been assumed to apply to all sorts of health-related behaviours. Unpublished data suggests that a similar review of the 'deficit' model is needed with respect to drinking (Regis (1988) and Brackenridge (1988)) – in fact, non-drinkers if anything have a *lower self-esteem* than occasional (but not heavy) non-drinkers (Fig. 4).

Conclusion

We do not wish to conclude with Dielman *et al.* that self-concept is more or less irrelevant to health education – this is a view quickly refuted, for the data above can be seen to show that self-esteem is linked to health-related behaviour. Similarly, it is the view of one of us that perceived control over health (Health Locus of Control) is of great relevance (Regis, 1988), although it was probably never thought to be more than just another piece of the jigsaw. Influences on health behaviour are so numerous, and individuals' beliefs and attitudes towards health in general and specific behaviours are so varied, that any attempt to predict behaviour from one measure of self-concept can only have at best limited success. What we wish to conclude is that self-concept is indeed of relevance, but that (1) it must be seen in the light of other influences on decision-making (such as attitudes), and (2) that careful analysis of assumptions underlying health education is essential if we are to serve the best interests of the youngsters in our care.

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