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Self-esteem and health-risk behaviours: Is there a link?

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Rosenburg Self-esteem Scale scores from 7706 Irish young people, aged 10 to 17 years, were analysed in order to determine if self-esteem is related to incidence of smoking, drinking and drunkenness and drug use (among 15 to 17 year olds only). In addition, age, sex and social class differences in self-esteem scores are examined. There were no significant differences in self-esteem scores between those who had and had not tried smoking, those who drank regularly and those who did not, or those with different levels of smoking involvement and frequency of past drunkenness. Among 15 to 17 year olds there were no significant differences in self-esteem scores between those who had reported ever having used cannabis and those who did not. Self-esteem was significantly higher in males than in females, and higher in 10 to 12 than in 13 to17 year olds. It did not significantly differ across social class groupings. The results do not support the received wisdom that self-esteem confers a protective effect against involvement in the so-called health-risk behaviours.

There is a belief among many in the field of health promotion and health education that a high self-esteem is somehow protective against involvement in the so-called health risk behaviours, such as smoking, alcohol consumption and drug use. The assumed protective effect of self-esteem is derived from a 'deficit' or 'susceptibility' model of adolescent behaviour *(McGee* & Williams, 2000; Moore, Laflin & Weis, 1996) which proposes that those with low levels of self-esteem become involved with smoking, drink or drugs because they are more susceptible to negative social and environmental influences, such as peer pressure. Much health education work among young people is premised on the notion that raising self-esteem enables resistance to negative peer pressure and, therefore, reduces

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the likelihood of involvement in health-compromising behaviours (Colquhoun, 1997). In this way self-esteem is seen as a sort of psychological immunisation against involvement in health risk behaviours (McGee & Williams, 2000). This approach is supported by some earlier work which suggested that self-esteem was predictive of delinquency, depression, drug use and unwed pregnancy (Kaplan, 1980; Kaplan & Pokorney, 1976; Rosenberg & Rosenberg, 1978; Rosenberg, Schooler & Schoenbach, 1989).

Research by West and Sweeting (1997), using cross-sectional data from the 'West of Scotland Twenty-OT study, has brought this assumption into question. They found no relationship between self-esteem levels and experience with smoking, drinking, drugs or sex. They concluded that fostering self-esteem, though a worthy aim, is unlikely to reduce the likelihood that young people will adopt unhealthy lifestyles. Similarly, Neumark - Sztainer, Story, French and Resnick (1997) found that while self-esteem was related to self-reported suicide attempts and, to a weaker extent, delinquency, it was almost unrelated to substance use, unhealthy weight loss and unsafe sexual activity. Moore, Laflin and Weiss (1996) also found that self-esteem was unrelated to tobacco, marijuana, alcohol and other drug use, but their review of the 1980' s literature regarding self-esteem and drug use shows that evidence is mixed and support equivocal. Torres, Fernandez and Maceira (1995) report finding significant correlations between self-esteem and reported involvement in, and value of, several health related behaviours, though insufficient information is presented on the actual health behaviours in question. Abernathy, Massad and Romano-Dwyer's (1995) results suggest that self-esteem may be a factor in the smoking behaviour of younger female adolescents (aged 11 to 13) but not for males of any age. More recently, McGee and Williams (2000) found that self-esteem did predict self-reported problem eating, suicidal ideation, early sexual activity, and involvement in more than one health risk behaviour, but was not related to single involvement in cigarette smoking, alcohol use, or cannabis use.

Thus, uncertainty remains regarding the association between self-esteem and involvement in health risk behaviours. Therefore, it is incumbent on researchers to re-examine this 'received wisdom' both in a global sense and with regard to its particular applicability to young Irish people. Indeed, despite the availability of data on health risk behaviours amongst Irish adolescents (Nic Gabhainn, 2000), specific Irish data on predictors of risk behaviour are scarce (Grube & Morgan, 1990; Kiernan, 1996; Morgan & Grube, 1997).

The Rosenberg Self-Esteem Scale (RSES: Rosenburg, 1965) is one of the most frequently used self-esteem measures, due to its ease of

administration, brevity and scoring (Blascovich & Tomaka, 1991). However, no studies have examined how self-esteem varies across demographic sub-groups of Irish young people, or how any such variations compare with those reported in the existing literature. In brief, research has found that females report lower levels of self-esteem than males (Bagley, Bolitho & Bertrand, 1997; Houlihan, Fitzgerald & O'Regan, 1994; Rosenberg & Simmonds, 1975), that self-esteem decreases with age (Alasker & Olweus, 1992; Bagley et al., 1997) and that the relationship between social class and self-esteem remains unclear (Francis & Jones, 1996; Rosenberg & Pearlin, 1978; Trowbridge, 1972).

The primary purpose of this paper was to examine whether there is a relationship between self-esteem, as measured by the RSES, and self-reported smoking, drinking and drunkenness among a large sample of Irish young people. In addition, the variation in self-esteem scores, by age, sex and social class is examined.

METHODS

Survey and sample

The data are drawn from the Irish Health Behaviour in School Children (HBSC) survey 1998 (HBSC Research Protocol for the 1997-8 survey). The survey has been conducted cross-nationally every four years since 1982 and Ireland participated for the first time in 1998. The survey questionnaire assessed health-related behaviours such as smoking, alcohol, diet and physical activity; general perceptions of personal health and wellbeing; perceptions of family relations and support; perceptions of peer relations and support; and perceptions of the school environment. The ten-item Rosenberg Self-esteem Scale (RSES: Rosenberg 1965) was also administered with the survey questionnaire.

A two-stage stratified random sampling procedure was used to select 8,497 pupils, aged between 9 and 18 years (49% male; 51 % female), from 187 schools across the Republic of Ireland between March and April 1998. Only data from pupils aged 10 to 17 years are employed here due to low numbers outside this age range. Twenty six percent were from social classes 1 and 2; 38% from social classes 3 and 4; and 26% from social classes 5 and 6. Details of the sampling procedure and survey development have been reported elsewhere (Currie, Hurrelman, Settertobulte, Smith & Todd, 2000; Friel, Nic Gabhainn and Kelleher, 2002; HBSC: Research Protocol for the 1997-8 Survey.).

The following health-risk behaviours were selected for inclusion in the analyses: ever tried smoking; frequency of cigarette smoking; frequency of alcohol consumption; times ever been drunk; and ever having

used cannabis. The frequency of alcohol consumption variable is collated from responses to separate questions regarding consumption of beer, wine, spirits, cider and alcopops. Only data on cannabis use from 15 to 17 year was included in the analysis because of the very small portion of other respondents reporting usage.

Analysis

Self-esteem was analysed as a scale variable. RSES items were re-scored so that a higher score reflected greater self-esteem and responses were collated to produce an overall self-esteem score. ANOVA was used to assess differences in overall self-esteem scores across age group, sex and social class categories. ANCOVAs, with age (scale) as a covariate, were run for males and females separately, to assess differences in overall self-esteem scores across four variables: ever tried smoking, current smoking frequency, times ever been drunk and drink anything alcoholic. Separate analysis of cannabis use was run for 15 to 17 year olds. Correlation coefficients (Phi and Spearman's Rho) were calculated to assess the degree of linear correlation between self-esteem and health behaviour scores. Given the potential power of such a large data set to find statistically significant yet psychologically trivial differences, the alpha level was set at 01.

RESULTS

Table I shows prevalence rates for ever tried smoking, smoking and drinking frequency, and number of times ever been drunk for males and females separately. Table 2 presents self-esteem scores by age group, and social class group for males and females separately. Self-esteem scores ranged from the minimum 10 to the maximum 50. The spread of scores was normally distributed, with 54.7% of the sample scoring between 26 and 30; 4% scoring below 20 and less than 3 % scoring over 34. An age group by sex by social class group ANOV A found that the younger age group had significantly higher self-esteem levels than the older groups (F2, 6534 = 27.15; b = 1.0), and that males had significantly higher self-esteem levels than females (FI, 6534 = 6.95; b = .75). No differences were found across social class groupings and there were no significant interactions.

Table 3 presents self-esteem scores by level of smoking and drinking variables, for males and females separately. ANCOV As, with age (scale) as a covariate, for males and females separately, also found no significant differences in self-esteem scores between those who had and had not ever tried smoking, between levels of smoking frequency, between those who rarely or never drink and those who drink daily/weekly or

monthly, or between amount of times ever been drunk. There were no significant interactions. The covariate age explained only a significant amount of variance in self-esteem scores among females (Fl, 3933 = 14.15; b = .96). Although all correlations were significant at p<.OOI, all were lower than 0.30.

Table 1: Prevalence rates for smoking and drinking behaviors for males and females separately.

	Male		**Female**	
	%	**n**	**%**	**n**
Tried smoking				
Yes	50.8	2061	47.7	2025
No	49.2	1994	52.3	2220
Smoking frequency				
Don't smoke	78.8	3154	78.9	3309
Less than 1 per week	6.6	264	6.9	290
At least 1 per wk -not every day	4.3	172	5.2	218
Everyday	10.3	412	9	378
Drinking frequency				
Rarely or never	71.4	2901	77.7	3312
Regularly	28.6	1162	22.3	951
Times been drunk				
Never	65.4	2647	76.1	3223
Once	11.8	476	9.7	409
4-10 times	5.7	231	3.7	158
More than 10 times	8	325	3.2	135

DISCUSSION

The main purpose of this paper was to examine whether self-esteem scores differed across levels of experience with the health-related behaviours smoking, drinking, drunkenness and drug-taking among a large sample of Irish young people. In addition, differences in self-esteem scores, by age, sex and social class were examined. No differences were found in self-esteem scores across level of involvement in the health-related behaviours. There were age and gender differences in self-esteem scores, which favoured the younger age groups and males, but no differences in self-esteem scores were found across social class groupings.

Table 2: Mean (SD) self-esteem scores by age group and social class group for males and females separately

Sex	Age yrs	SC group	Mean (SD)	n
Males	10-12	1-2	28.43 (4.32)	209
		3-4	28.17 (4.79)	404
		5-6	27.76 (4.62)	430
	13-14	1-2	27.51 (4.33)	295
		3-4	27.63 (4.02)	427
		5-6	27.37 (4.49)	385
	15-17	1-2	27.29 (3.72)	296
		3-4	27.53 (3.74)	381
		5-6	27.43 (3.12)	277
	all		27.68 (4.35)	3104
Females	10-12	1-2	28.07 (3.44)	286
		3-4	27.81 (4.25)	501
		5-6	28.11 (4.41)	523
	13-14	1-2	27.35 (3.18)	330
		3-4	26.99 (3.66)	378
		5-6	27.24 (3.27)	383
	15-17	1-2	27.10 (3.28)	320
		3-4	27.24 (3.17)	363
		5-6	26.80 (3.44)	347
	all	-	27.45 (3.69)	3431

Note: SC = social class; SC group 1-2 = professional/managerial and technical; SC group 3-4 = skilled non-manual and skilled manual; SC group 5-6 = partly skilled and unskilled.

In keeping with the main thrust of the literature, the assumption that poor self-esteem is related to smoking, alcohol consumption and drunkenness is not supported by these results. Level of self-esteem may not be an adequate explanation of why young people engage in behaviours that are ultimately detrimental to their health. It is more likely that, though they are labelled as such by health promotion practitioners, smoking, alcohol consumption and drunkenness are generally not perceived by young people as being a risk to their health. Young people are not motivated by the delayed consequences of involvement in or abstention from such behaviours and may, in fact, derive self-esteem from involvement, through the kudos attached and the rebellious connotations. Indeed, West and Sweeting (1997) found that 15 year olds with higher self-esteem were more likely to drink, take drugs and have had sexual experiences.

Table 3: Self-esteem scores across levels of smoking and drinking behaviour for males and females separately

	Males		Females	
	Mean (SD)	n	Mean (SD)	n
Ever tried smoking				
No	28.15 (4.37)	1793	27.84 (4.03)	2062
Yes	27.24 (4.25)	1893	27.03 (3.45)	1930
Current smoking frequency				
I do not smoke	27.89 (4.21)	2886	27.66 (3.83)	3105
Less than once a week	26.51 (4.46)	235	26.73 (3.41)	278
At least once a week but not every day	26.33 (4.42)	161	26.80 (3.80)	206
Every day	27.35 (4.92)	381	26.47 (3.44)	358
Times ever been drunk				
Never	27.87 (4.34)	2414	27.67 (3.85)	3011
Once	27.17 (4.43)	429	26.69 (3.53)	396
2-3 times	27.53 (4.51)	341	26.71 (3.53)	304
4-10 times	27.04 (3.56)	206	27.31 (4.46)	146
More than ten times	27.56 (4.37)	292	26.66 (3.68)	131
Drink anything alcoholic				
Rarely or never	27.84 (4.30)	2627	27.62 (3.91)	3092
Regularly	27.31 (4.39)	1067	26.88 (3.34)	917

It is important to note that the results reported here are limited by the cross-sectional and self-report nature of the data collected, and no causal inference is possible. However, the large sample size increases the results' dependability and generalisability. Therefore, while this research does not help to disentangle the complex relationship that may lie between perceptions of self-esteem and involvement in smoking and drinking behaviour, it does emphasise, robustly, the fact that the relationship is not a simple, clear-cut, linear one.

In general, however, the many variations in the sample size, research design and psychometric and statistical methods used in the literature reported here make conclusions with regard to the influence of self-esteem on behaviour difficult to establish or refute. It may be for the majority of young people whose involvement in these behaviours is minimal, short lived or solely experimental, that self-esteem has a main and protective effect. However, for that small section of young people who do become regularly involved with cigarettes, alcohol, drugs or in sexual activity, self-esteem is only one of the many factors involved in determining their behaviour pattern. Other, more important factors may be the social environment within which young people live and the resulting meaning they give to the different 'health' behaviours (Colquhoun, 1997; Morgan & Grube, 1997).

Gender differences found were in accordance with the self-esteem literature: Irish females reported lower levels of self-esteem than their male counterparts. Although it is tempting to conclude that males' higher scores indicate higher levels of actual self-esteem, caution is warranted. It is more likely that this difference is reflective of more modest reporting behaviour on the part of females (Bagley et al., 1997; Mullan, Albinson & Markland, 1997; Weiss & Horn, 1990). The age differences and absence of social class differences are both in keeping with extant literature (Bagley et al., 1997; Francis & Jones, 1996;).

Overall, self esteem scores were quite homogeneous: most Irish young people have healthy, if modest perceptions of their self esteem, with only a small percentage of respondents exhibiting very low or very high levels of self-esteem. This homogeneity, or lack of variance in self esteem scores may explain the lack of association with smoking and drinking behaviour. It also suggests that there may be little potential for increasing self esteem among this age group.

In conclusion, it appears that the self-esteem deficit theory is too simple an explanation for why young people become involved in smoking and drinking behaviours. Despite the lack of equivocal empirical support, the notion that high self-esteem is protective against involvement in such behaviours prevails in the minds of health education professionals and teachers, and forms the basis of much smoking, alcohol and drug prevention work in this country. Kahne (1996) remarks that "cultural beliefs regarding self-esteem and its influence on individual behaviour provide a powerful counterbalance to academic knowledge claims on the topic" (p. 12). It seems that the belief survives because it has much intuitive, or 'common sense' appeal (Moore et al., 1996), yet resources used in health education and prevention work to enhance self-esteem may be better focused on other areas of influence. Efforts need to move beyond a focus on the individual, and on self-esteem as a type of inoculation, toward a focus on the 'meaning' of different health behaviours to young people, and the social environment within which this is constructed.

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