

Mullan, E. & Nic Gabhainn, S. (2003) Self-esteem and health risk behaviour: is there a link? *Irish Journal of Psychology*, 23, 1-2, 27-36.

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

E. Mullan and S. Nic Gabhainn

Department of Health Promotion, NUI Galway

Correspondence to

E. Mullan

Department of Health Promotion

Distillery Road

NUI Galway

Galway

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

ABSTRACT

Rosenberg Self-esteem Scale scores from 7706 Irish young people were analysed in order to determine if self-esteem is related to incidence of smoking, drinking, drunkenness and drug use. 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 with different levels of smoking involvement, those who drank regularly and those who did not, frequency of reported drunkenness and for 15-17 year olds or those who 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 13-17 year olds, but did not significantly differ across social class groups. The results do not support the received wisdom that self-esteem confers a protective effect against involvement in the so-called health-risk behaviours.

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

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 is premised on the notion that raising self-esteem enables resistance of negative peer pressure and, therefore, reduces 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 these relationships into question. They found no association 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,

Self-esteem and health-risk behaviours.

delinquency, it was almost unrelated to substance use, unhealthy weight loss and unsafe sexual activity. Moore *et al.* (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.

It is not only the global issues that require exploration and replication, culturally specific risk or protective factors may exist and it is incumbent on researchers to reexamine 'received wisdom', where it is found, within the specific contexts of both research and practice. Indeed, despite the proliferation of data available 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: Rosenberg, 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 and Bertrand, 1997; Houlihan, Fitzgerald & O'Regan, 1994; Rosenberg and 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, drunkenness and drug use 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 (Currie, 1998). 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 well-being; 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. Only data from pupils aged 10-17 years are employed in these analyses due to the 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 & Kelleher, 1999).

The following health-risk behaviours were selected for inclusion in the analyses: ever tried smoking (yes, no); frequency of cigarette smoking (I do not smoke, less than once a week, at least once a week but not every day, every day); frequency of alcohol consumption (regularly, rarely/never); times ever been drunk (never, once, 2-3 times, 4-10 times, more than ten times); and ever having used cannabis (ever, never). The frequency of alcohol consumption variable is collated from responses to separate questions regarding consumption of beer, wine, spirits, cider and alcopops. The frequency category 'regularly' includes daily, weekly and monthly. Numbers were insufficient to include each category of drink and each sub-category of 'regularly'. The cannabis data were only employed for the 15-17 year old respondents, due to low levels of reported consumption, and thus reduced power among the younger age groups.

Analysis

Responses to the RSES were collated to produce an overall self-esteem score. Items were re-scored so that a higher score reflected greater self-esteem; self-esteem was analysed as a scale variable. 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, drink anything alcoholic and times ever been drunk. Phi and Spearman's Rho correlation coefficients were calculated to assess the degree of linear correlation between self-esteem and the individual health behaviours. The analyses were run separately with the 15-17 year olds for cannabis use. 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 1 shows prevalence rates for 'ever tried smoking', smoking and drinking frequency, number of 'times ever been drunk' and ever having used cannabis for males and females separately. Table 2 presents self-esteem scores by age group (10-12yrs; 13-15yrs; 16-18yrs), and social class group (professional and managerial/technical; skilled non-manual and skilled manual; partly skilled and unskilled) 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 ANOVA found that

the younger age group had significantly higher self-esteem levels than the older groups ($F_{2, 6534} = 27.15$; $\beta = 1.0$), and that males had significantly higher self-esteem levels than females ($F_{1, 6534} = 6.95$; $\beta = .75$). No differences were found across social class groupings and there were no significant interactions.

Table 1. Prevalence rates for smoking, drinking and drug-taking 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 daily	4.3	172	5.2	218
Everyday	10.3	412	9.0	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	8.0	325	3.2	135
Ever used cannabis*				
Never	82.5	953	92.0	1101
Ever	17.5	202	8.0	96

* 15-17 year olds only

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

Sex	Age yrs	SC group	Mean (SD)	n	
Males	1 0-12	1-2	28.43 (4.32)	209	
		3-4	28.17 (4.79)	404	
		5-6	27.76 (4.62)	430	
	1 3-14	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	1 0-12	1-2	28.07 (3.44)	286
			3-4	27.81 (4.25)	501
5-6			28.11 (4.41)	523	
1 3-14		1-2	27.35 (3.18)	330	
		3-4	26.99 (3.66)	378	
		5-6	27.24 (3.27)	383	
1 5-17		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.

Table 3 presents self-esteem scores by level of smoking, drinking and drug use variables, for males and females separately. ANCOVAs, 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'. Nor were there any differences within the older group between those who have and have not tried cannabis. There were no significant

interactions. The covariate age explained only a significant amount of variance in self-esteem scores among females ($F_1, 3933 = 14.15; \beta = .96$). Although all correlation coefficients were significant at $p < 0.001$, all were lower than 0.30.

Table 3. Self-esteem scores across levels of smoking, drinking and drug-taking 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 1 per week, not daily	26.33 (4.42)	161	26.80 (3.80)	206
Every day	27.35 (4.92)	381	26.47 (3.44)	358
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
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
Ever used cannabis*				
Never	27.49 (3.50)	1155	27.06 (3.31)	1101
Ever	27.31 (4.48)	202	27.13 (2.90)	96

* 15-17 years old only

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 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, and no differences in self-esteem scores were found across social class groupings.

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.

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 and the research, 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, their perceptions of the perspectives of others and the resulting meaning they give to the different 'health' behaviours (Colqhoun, 1997, Morgan & Grube, 1997).

Regarding demographic group differences in self-esteem, 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 or less egoistic reporting behaviour on the part of females (Bagley *et al.*, 1995; Mullan, Albinson & Markland, 1997;

Weiss & Horn, 1990). The identified age differences and the absence of social class differences are both in keeping with extant literature (Francis & Jones, 1996; Bagley *et al.*, 1997).

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 help explain the lack of association with smoking and drinking behaviour. It also suggests that there may be minimal potential for increasing self-esteem.

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 their social environment within which this is constructed.

ACKNOWLEDGEMENTS

We wish to acknowledge the International co-ordinator of the WHO-HBSC study, Or. Candace Currie of the University of Edinburgh and the International Data Bank Managers Drs. Bente Wold and Oddrun Samdal of the University of Bergen. In addition, we thank the school managers, principals, teachers, pupils and their parents who participated in this study. The Health Promotion Unit of the Department of Health and Children financially supported the HBSC survey in the Republic of Ireland. Finally we acknowledge the contribution of members of the Irish HBSC operational committee; Professor Cecily Kelleher, Dr. Margaret Barry, Ms. Jane Sixsmith, Ms. Sharon Friel and Ms. Emer McCarthy.

REFERENCES

- Abernathy, T., Massad, L. & Romano-Dwyer, L. (1995). The relationship between smoking and self-esteem. *Adolescence*, **30**, 899-907.
- Alasker, F.D. & Olweus, D. (1992) Stability of global self-evaluations in early adolescence: A cohort longitudinal study. *Journal of Research on Adolescence*, **2**,123-145.
- Bagley, C., Bolitho, F. & Bertrand, L. (1997). Norms and construct validity of the Rosenberg self-esteem scale in Canadian High School Populations: implications for counselling. *Canadian Journal of Counselling*, **31**, 82-92.
- Blascovich, J. & Tomaka, J. (1991). Measures of self-esteem. In J. Robinson, J. Shaver & L. Wrightsman (Eds.) *Measures of Personality and Psychological Attitudes*. New York: Academic Press.
- Colquhoun, D. (1997). Researching with young people on health and environment: the politics of self-esteem and stress. *Health Education Research*, **12**, 449-460.
- Currie, C. (1998) *Health Behaviour in School-aged children. Research protocol for the 1997-8 survey*. A World Health Organisation Cross-National Study. University of Edinburgh: Edinburgh.

Currie, C., Hurrelman, K., Settertobulte, W., Smith, B. & Todd, J. (Eds.) (2000) *Health and Health Behaviour among Young People*. WHO Policy Series Health Policy for Children and Adolescents: Copenhagen.

Francis, L.J. & Jones, S.H. (1996) Social class and self-esteem. *The Journal of Social Psychology*, **136**, 405-406.

Friel, S., Nic Gabhainn, S. & Kelleher, C. (1999). *The National Lifestyle Surveys: Survey of Lifestyle, Attitudes and Nutrition (SLAN) and the Irish Health Behaviour in School-Aged children survey (HBSC)*. Department of Health and Children: Dublin.

Grube, J.W. & Morgan, M. (1990) The structure of problem behaviours among Irish adolescents. *British Journal of Addiction*, **85**, 667-675.

Houlihan, B., Fitzgerald, M. & O'Regan, M. (1994) Self-esteem, depression and hostility in Irish adolescents. *Journal of Adolescence*, **17**, 565 - 577.

Kahne, J. (1996). The politics of self-esteem. *American Educational Research Journal*, **33**, 3-22.

Kaplan, H. & Pokorney, A. (1976) Self-derogation and suicide. *Social Science and Medicine*, **10**, 113-121.

Kaplan, H. (1980) *Self-attitudes and deviant behaviour*. Santa Monica, CA: Goodyear.

- Kiernan, R. (1996) *Substance use among adolescents in the Western Health Board area*. MFPHMI Thesis, Faculty of Public Health Medicine, Royal College of Surgeons of Ireland.
- McGee, R & Williams, S. (2000). Does low self-esteem predict health compromising behaviours among adolescents? *Journal of Adolescence*, **23**, 569-582.
- Moore, S., Laflin, M. & Weis, D. (1996). The role of cultural norms in the self-esteem and drug use relationship. *Adolescence*, **31**, 523-542.
- Morgan, M. & Grube, J.W. (1997) Correlates of change in adolescent alcohol consumption in Ireland: Implications for understanding influences and enhancing interventions. *Substance Use and Misuse*, **32**, 609-619.
- Mullan, E, Albinson, J. & Markland, D. (1997). Children's perceived physical competence at different categories of physical activity. *Pediatric Exercise Science*, **9**, 237-243.
- Nic Gabhainn, S. (2000) Meaning and Measurement in Health Promotion Strategies to combat substance abuse. In C. Kelleher & R. Edmundson (Eds.) *Health Promotion: Multidiscipline or New Discipline*. Irish Academic Press: Dublin.
- Neumark-Sztainer, D., Story, M., French, S. & Resnick, M. (1997). Psychosocial correlates of health compromising behaviours among adolescents. *Health Education Research*, **12**, 37-52.

Rosenberg, F. & Rosenberg, M. (1978) Self-esteem and delinquency. *Journal of Youth and Adolescence*, **7**, 271-279.

Rosenberg, F. & Simmonds, R. (1975). Sex differences in self-concept in adolescence. *Sex Roles*, **1**, 147-159.

Rosenberg, M. & Pearlin, L. (1978) Social class and self-esteem among children and adults. *American Journal of Sociology*, **84**, 53-57.

Rosenberg, M. (1965). *Society and the Adolescent Self Image*. New Jersey: Princeton University Press.

Rosenberg, S., Schooler, C. & Schoenbach, C. (1989) Self-esteem and adolescent problems: modeling reciprocal effects. *American Sociological Review*, **54**, 1004-1018.

Torres, R., Fernandez F. & Maceira, D. (1995). Self-esteem and value of health as correlates of adolescent health behaviour. *Adolescence*, **30**, 403-411.

Trowbridge, N. (1972) Self-concept and socio-economic status in elementary school children. *American Educational Research Journal*, **9**, 525-537.

Weiss, M. & Horn, T. (1990). The relation between children's accuracy estimates of their physical competence and achievement-related characteristics. *Research Quarterly For Exercise and Sport*, **61**, 250-258.

West, P. & Sweeting, H. (1997). 'Lost souls' and 'rebels': a challenge to the assumption that low self-esteem and unhealthy lifestyles are related. *Health Education*, **97**, 161-167.