

Risk Behaviours in school-aged children in Europe: associations with social cohesion and socioeconomic circumstances

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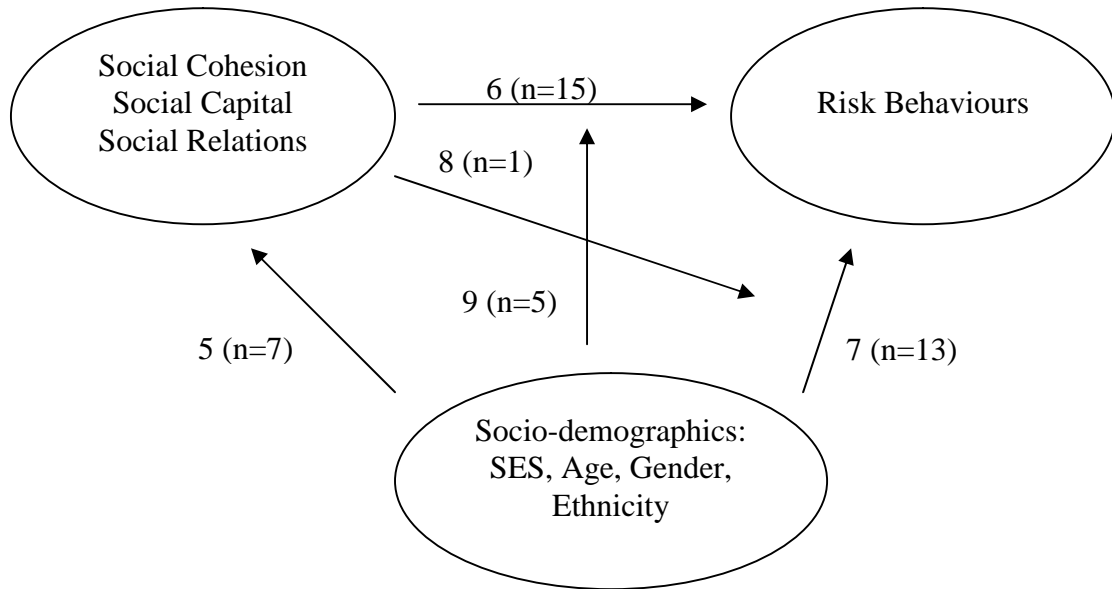


Figure 1: Model of the relationships between social context and risk behaviours¹

The following risk behaviours were included: Tobacco use, Alcohol Use, Drug Use, Sexual Behaviour, Bullying and Fighting.

Following a review of HBSC papers held in Edinburgh, those which appeared relevant to the model in Figure 1 were reviewed and summarised as follows. These were restricted to papers in English and held in Edinburgh and thus are not exhaustive.

¹ n refers to the number of identified papers informing each arrow

Arrow 5 : The relationship between socio-demographic factors and social relations (n=7)

- In Greenland, older children find it harder to talk to both their mother and father about things that really bother them (Del Carmen Granada Alcon *et al.*, 2002)
- In Denmark, there are strong social differences in how children relate to their parents in term of school and how they connect to their school: children from lower social classes are more likely not to have positive school-parent child relations and are more likely to feel badly connected to their school, as compared to those from the higher social classes (Due *et al.*, 2003).
- In Italy, there is a greater sense of community (which is similar to school connectedness) in schools of higher school level SES (Vieno *et al.*, 2005).
- In Lithuania, boys and younger pupils are more likely to be bullied, as are those who live in villages rather than towns (Zaborskis *et al.*, 2005).
- In Italy, older pupils find it harder to talk to their parents, but easier to talk to their best friends. Girls have more difficult relationships with their fathers than boys. Children from higher socio-economic groups are more likely to report ease of communication with father and best friend, but there are no SES differences for mother and teacher (Zambon *et al.*, 2006).
- In the US higher levels of school connectedness are found among
 - Student characteristics: females, Hispanic students, those in 2-parents households
 - School characteristics: smaller schools, and schools with more wealthy students, in schools with either very many or very few black students
 - School-neighbourhood characteristics: a greater percentage of non-US citizens and proportion of home owners, rather than renters in the neighbourhood (Thompson *et al.*, 2006).
- In Denmark, children from lower socio-economic group, as assessed by parental occupational grouping, are less likely to report liking school, parental school support, school satisfaction, autonomy at school and school identification. Not all associations significant, but all are in the same direction. (Andersen *et al.*, 2007).

Arrow 6: The relationship between Social Context and Health/Risk Behaviours (n = 15)

Peer relationships

- In Greenland, time spent with peers is associated with drunkenness (Del Carmen Granada Alcon *et al.*, 2002).
- In Switzerland, binge drinking children with weak social ties, as assessed by not going out in the evenings, feeling lonely and left out of things, were more likely to report poor emotional well-being than socially integrated binge drinkers (Kuntsche & Gmel, 2004).
- In Italy, poor relations with best friends decrease the risk of smoking, cannabis and alcohol use (Zambon *et al.*, 2006).

Family Context

- In Greenland, children who live with both parents are less likely to report that they are smokers (Del Carmen Granada Alcon *et al.*, 2001).
- In Greenland, children who live with both parents are less likely to have been drunk. In all families difficulties talking to mothers and fathers are associated with an increased risk of drunkenness, and among those who do not live with both parents, ability to talk to their father is even more strongly associated with the risk of drunkenness (Del Carmen Granada Alcon *et al.*, 2002).
- Cross-nationally, family structure is independently related to smoking – children from step-families are most likely to report frequent smoking, while those from intact families are least likely to do so (Griesbach *et al.*, 2003).
- In Switzerland, family structure, (living with both parents) and relationships with parents (ease of communication) are associated with reduced smoking, drunkenness and cannabis use. Ease of communication with parents mediates the effect of family structure (Kuntsche & Silbereisen, 2004).
- In Portugal, ease of talking to father is associated with reduced odds of not using a condom during last intercourse (Dias *et al.*, 2005).
- In Italy, poor relationships with mothers increase the risk of cannabis use, smoking and alcohol use, and poor relationships with fathers increase the risk of cannabis use (Zambon *et al.*, 2006).
- In Switzerland, even in adverse circumstances such as excessive parental excessive drinking, the quality of familial relationships acts as a protective factor for adolescent substance use (Kuendig & Kuntsche, 2006).

- In Switzerland, family factors are important predictors of adolescent drinking, the weakest is family structure, then perception of excessive drinking in parents and the strongest link is for family bonding (Kuntsche & Kuendig, 2006).
- In Italy, parental monitoring is negatively associated with drinking and smoking. (Vieno *et al.*, 2007).

Community

- In Italy, civic participation is associated with drinking and smoking. The pattern for civic participation is U-shaped, no participation and high levels are both associated with a higher level of substance use (Vieno *et al.*, 2007).

School

- In Flemish Belgium, schools with positive integration, less truancy and fewer repeatees, pupils who like school and have good relationships with teachers have fewer drinking and smoking pupils (Maes & Lievens, 2003).
- Cross-nationally, both adjustment to school and relationships with classmates are associated with lower levels of being bullied (Nansel *et al.*, 2004).
- In Italy, teacher support and school satisfaction, which are not independent of one another, are associated with risk behaviours – including smoking tobacco and drinking beer, wine and spirits. Teacher support is more important for girls, while classmate support is more important for boys (Vieno *et al.*, 2004)
- In Portugal, being satisfied with school is associated with reduced odds of not using a condom during last intercourse (Dias *et al.*, 2005).
- In Denmark, poor autonomy at school and disliking school all increase the risk of drunkenness for girls, while weak parental support for school and disliking school increases the risk of drunkenness for boys (Andersen *et al.*, 2006).
- In Switzerland, school culture, as assessed by how frequently teachers perceive that students are intoxicated, is related to individual level substance use, particularly for cannabis (Kuntche & Delgrande Jordan, 2006).
- In Italy, poor relationships with teachers increases risk of cannabis use, smoking and alcohol use (Zambon *et al.*, 2006).

Arrow 7: The relationship between socio-demographic factors and risk behaviours (n=19)

Gender

- In Greenland, girls smoke more than boys at age 15 (Del Carmen Granada & Pedersen, 2001).
- In Greenland, there are no gender differences in either self-reported drinking or drunkenness (Del Carmen Granada *et al*, 2002).
- In Flemish Belgium, girls report lower levels of substance use (Vereecken *et al.*, 2004).
- In Lithuania, regular alcohol consumption is substantially higher among boys than among girls (Sumkas & Zaborskis, 2004).
- In Switzerland, girls are less likely to be bullies, carry weapons or engage in violence than boys (Kuntsche & Klingemann, 2004).
- In Portugal, boys are more likely than girls to report having had sexual intercourse, while using a condom during last intercourse is more likely among girls (Dias *et al.*, 2005).
- Cross-nationally, girls are now smoking as much as boys in a number of European countries – including Austria, Switzerland and Latvia (Hublet *et al.*, 2006).
- In Lithuania, boys are more likely to report current smoking, early alcohol use and drunkenness than girls (Zaborskis & Lenciauskiene, 2006).
- Cross-nationally, boys are more likely to report cannabis use than girls, and this is especially the case in countries for eastern and southern Europe (Ter Bogt *et al.*, 2006).
- In Italy, boys are more likely to drink alcohol and take cannabis than girls (Zambon *et al.*, 2006).

Age

- In Greenland the prevalence of smoking increases with age (Del Carmen Granada & Pedersen, 2001).
- In Greenland the prevalence of drunkenness increases with age (Del Carmen Granada *et al*, 2002).
- In Flemish Belgium, younger pupils report lower levels of substance use (Vereecken *et al.*, 2004).
- In Portugal, using a condom during last intercourse is more likely among older pupils (Dias *et al.*, 2005).

- In Italy, drinking alcohol and taking cannabis both increase with age (Zambon *et al.*, 2006).

Socio-economic Status

- Cross-nationally, the relationships between Family Affluence, perceived wealth and smoking and drinking are either non-existent or show increased incidence with increased wealth (Currie, 2001).
- In Greenland, there are no socio-economic differences in smoking prevalence (Del Carmen Granado & Pedersen, 2001).
- In Greenland, there are no social class patterns in drunkenness (Del Carmen Granado *et al.*, 2002).
- In Flemish Belgium, own educational level is associated with substance use, but parents' occupational group was not, except for cannabis use, where children from families with higher status are more likely to report cannabis use (Vereecken *et al.*, 2004).
- In the Baltic States, children who reported that their family was 'well off' were more likely to report that they drink alcohol at least weekly (Zaborskis *et al.*, 2006).
- In Italy, those with lower levels of Family Affluence are less likely to report frequent alcohol consumption (Zambon *et al.*, 2006).
- In Denmark, children from lower socio-economic status families are less likely to report drunkenness than other children (Andersen *et al.*, 2007).

Arrow 8: Associations between socio-demographic factors and risk behaviour are modified by social context

- In Denmark, the experience of health dialogue with a school health nurse has a more positive outcome for children from lower socio-economic groups (Borup & Holstein, 2004).

Arrow 9: Associations between social context and risk behaviour are modified by socio-demographic characteristics (n=4)

- In Switzerland, the predictive power of peer substance use on own substance use is most substantial in urban areas (Schmid, 2001)
- In Greenland, the importance of family and peer factors varies by age: At age 11 family structure is most important, at age 13 time with peers in

most important and at age 15 both family structure and communication with father independently predict drunkenness (Del Carmen Granada Alcon, 2002).

- In Switzerland, self-reported closeness to parents is associated with lower levels of substance use; and this appears to be more protective for girls in single parent families than for boys in single parent families (Kuntsche & Silbereisen, 2004).
- In Italy, there is a gender difference in the relationship between social cohesion, comprising both school factors and relationships with parents, and risk behaviour outcomes (Vieno et al., 2004).
- In Denmark, the associations between the social context of school and drunkenness are modified by SES and gender: associations between school relations and drunkenness are modified by SES, for instance poor school autonomy is strongly associated with drunkenness among high/middle SES children, but inversely associated with drunkenness among low SES children. In addition, poor identification with school decreases the risk of drunkenness among girls from all social groups, and boys from low SES groups, but increases risk of drunkenness among boys from high and middle SES groups (Andersen *et al.*, 2007).

REFERENCES

Arrow 5: Socio-demographic patterns in social relations or social cohesion (n=7)

- Andersen, A., Holstein, B. & Due, P. (2007) School-related risk factors for drunkenness among adolescents: risk factors differ between socioeconomic groups. *European Journal of Public Health*, 17(1), 27-32.
- Del Carmen Granada Alcon, M., Pedersen, J.M., Maria, A. & Gonzalez, C. (2002) Greenlandic family structure and communication with parents: influence on schoolchildren's drinking behaviour. *International Journal of Circumpolar Health*, 61, 319-331.
- Due, P., Lynch, J., Holstein, B. & Modvig, J. (2003) Socioeconomic health inequalities among a nationally representative sample of Danish adolescents: the role of different types of social relations. *Journal of Epidemiology and Community Health*, 57, 692-98.
- Thompson, D.R., Iachan, R., Overpeck, M., Ross, J.G. & Gross, L.A. (2006) School connectedness in the health behaviours in school-aged children study: the role of student, school, and school neighbourhood characteristics. *Journal of School Health*, 76(7), 379-386.
- Vieno, A., Perkins, D.D., Smith, T.M. & Santinello, M. (2005) Democratic school climate and sense of community in school: a multilevel analysis. *American Journal of Community Psychology*, 36(3/4), 327-341.
- Zaborskis A, Cirtautiene L, Zemaitiene N. (2005) Bullying in Lithuanian schools in 1994-2002. *Medicina (Kaunas)*, 41(7), 614-620.
- Zambon A, Lemma P, Borraccino A, Dalmaso P, Cavallo F. (2006) Socio-economic position and adolescents' health in Italy: the role of the quality of social relations. *European Journal of Public Health* 2006, 16(6), 627-32.

Arrow 6: Social Context related to risk behaviours (n=15)

- Andersen, A., Holstein, B., Due, P. (2007) School-related risk factors for drunkenness among adolescents: risk factors differ between socioeconomic groups. *European Journal of Public Health*, 17(1), 27-32.
- Del Carmen Granada Alcon, M. & Pedersen, J.M. (2001) Family as a child development context and smoking behaviour among school children in Greenland. *International Journal of Circumpolar Health*, 60, 52-63.
- Del Carmen Granada Alcon, M., Pedersen, J.M., Maria, A. & Gonzalez, C. (2002) Greenlandic family structure and communication with parents: influence on schoolchildren's drinking behaviour. *International Journal of Circumpolar Health*, 61, 319-331.

- Dias, S.F., Matos, M.G. & Goncalves, A.C. (2005) Preventing HIV transmission in adolescents: an analysis of the Portuguese data from the Health Behaviour School-aged Children study and focus groups. *European Journal of Public Health*, 15 (3), 200-204.
- Griesbach, D., Amos, A. & Currie, C. (2003) Adolescent smoking and family structure in Europe. *Social Science and Medicine*, 56, 41-52.
- Kuendig, H. & Kuntsche, E. (2006) Family bonding and adolescent alcohol use: moderating effects of living with excessive drinking parents. *Alcohol and Alcoholism*, 41(4), 464-471.
- Kuntsche & Kuendig (2006) What is worse? A hierarchy of family related risk factors predicting alcohol use in adolescence. *Substance Use and Misuse*, 41, 71-86.
- Kuntsche, E. & Delgrande Jordan, M. (2006) Adolescent alcohol and cannabis use in relation to peer and school factors: Results of multilevel analyses. *Drug and Alcohol Dependence*, 84 (2), 167-174.
- Kuntsche, E.N. & Gmel, G. (2004) Emotional wellbeing and violence among social and solitary risky single occasion drinkers in adolescence. *Addiction*, 98, 331-339.
- Kuntsche, E.N. & Silbereisen, R.K. (2004) Parental closeness and adolescent substance use in single and two parent families in Switzerland. *Swiss Journal of Psychology*, 63 (2) 85-92.
- Maes, L. & Lievens, J. (2003) Can school make a difference? A multilevel analysis of adolescent risk and health behaviour. *Social Science and Medicine*, 56, 517-529.
- Nansel, T.R., Craig, W., Overpeck, M.D., Saluja, G., Ruan, J. (2004) Cross-national consistency in the relationship between bullying and psychosocial adjustment. *Archives of Pediatric and Adolescent Medicine*, 158, 730-736.
- Vieno A, Santinello M, Galbiati E, Mirandola M. School setting, school climate and well being in early adolescence: a comprehensive model. *European Journal of School Psychology*, 2, 219-238.
- Vieno, A. Nation, M., Perkins, D.D. & Santinello, M. (2007) Civic participation and the development of adolescent behaviour problems. **In press** – *Journal of Community Psychology*
- Zambon A, Lemma P, Borraccino A, Dalmasso P, Cavallo F. (2006) Socio-economic position and adolescents' health in Italy: the role of the quality of social relations. *European Journal of Public Health*, 16(6), 627-32.

Arrow 7: The relationship between socio-demographic factors and risk behaviours (n=13)

- Andersen, A., Holstein, B., Due, P. (2007) School-related risk factors for drunkenness among adolescents: risk factors differ between socioeconomic groups. *European Journal of Public Health*, 17(1), 27-32.
- Currie, C. (2001) Socioeconomic circumstances among school-aged children in Europe and North-America. In K. Vleminckz & T.M. Smeeding (Eds) *Child well-being, child poverty and child policy in modern nations*. The Policy Press: **Location?**
- Del Carmen Granada Alcon, M., Pedersen, J.M., Maria, A. & Gonzalez, C. (2002) Greenlandic family structure and communication with parents: influence on schoolchildren's drinking behaviour. *International Journal of Circumpolar Health*, 61, 319-331.
- Del Carmen Granada, M. & Pedersen, J.M. (2001) Family as a child development context and smoking behaviour among schoolchildren in Greenland. *International Journal of Circumpolar Health*, 60, 52-63.
- Del Carmen Granada, M. & Pedersen, J.M. (2001) Family as a child development context and smoking behaviour among schoolchildren in Greenland. *International Journal of Circumpolar Health*, 60, 52-63.
- Dias, S.F., Matos, M.G. & Goncalves, A.C. (2005) Preventing HIV transmission in adolescents: an analysis of the Portuguese data from the Health Behaviour School-aged Children study and focus groups. *European Journal of Public Health*, 15 (3), 200-204.
- Hublet, A., De Bacquer, D., Valimaa, R., Godeau, E., Schmid, H., Rahav, G. & Maes, L. (2006) Smoking trends among adolescents from 1990 to 2002 in ten European countries and Canada. *BMC Public Health*, 6, 280.
- Kuntsche, E.N. & Klingemann, H.K.H. (2004) Weapon-carrying at Swiss schools? A gender-specific typology in context of victim and offender related violence. *Journal of Adolescence*, 27, 381-393.
- Sumskas, L. & Zaborskis, A. (2004) Alcohol consumption in Lithuanian school-aged children during 1994-2002. *Medicina*, 40 (11), 1117-1123.
- Ter Bogt, T., Schmid, H., Nic Gabhainn, S., Fotiou, A. & Vollebergh, W. (2006) Economic and cultural correlates of cannabis use among mid-adolescents in 31 countries. *Addiction*, 101, 241-251.
- Vereecken, C.A., Maes, L. & De Bacquer, D. (2004) The influence of parental occupation and the pupils' educational level on lifestyle behaviours among adolescents in Belgium. *Journal of Adolescent Health*, 34, 330-338.
- Zaborskis, A. & Lenciauskiene, ? (2006). Health behaviour among Lithuania's adolescents in context of European Union. *Croatian Medical Journal*, 47, 335-343.

Zambon A, Lemma P, Borraccino A, Dalmasso P, Cavallo F. (2006) Socio-economic position and adolescents' health in Italy: the role of the quality of social relations. *European Journal of Public Health*, 16(6), 627-32.

Arrow 8: Associations between socio-demographic factors and risk behaviour are modified by social context (n=1)

Borup, I. & Holstein, B. (2004) Social class variation in schoolchildren's self-reported outcome of the health dialogue with the school health nurse. *Scandinavian Journal of Caring*, 18, 343-350.

Arrow 9: Associations between social context and risk behaviour are modified by socio-demographic characteristics (n=5)

Andersen, A., Holstein, B. & Due, P. (2007) School-related risk factors for drunkenness among adolescents: risk factors differ between socioeconomic groups. *European Journal of Public Health*, 17(1), 27-32.

Del Carmen Granada Alcon, M., Pedersen, J.M., Maria, A. & Gonzalez, C. (2002) Greenlandic family structure and communication with parents: influence on schoolchildren's drinking behaviour. *International Journal of Circumpolar Health*, 61, 319-331.

Kuntsche, E.N. & Silbereisen, R.K. (2004) Parental closeness and adolescent substance use in single and two parent families in Switzerland. *Swiss Journal of Psychology*, 63 (2) 85-92.

Schmid, H. (2001) Cannabis use in Switzerland: The role of attribution of drug use to friends, urbanization and repression. *Swiss Journal of Psychology*, 60 (2), 99-107.

Vieno, A., Santinello, M., Galbiati, E. & Mirandola, M. (2004) School setting, school climate and well-being in early adolescence: a comprehensive model. *European Journal of School Psychology*, 2, 219-238.