

The influence of parents' attitudes and behaviours on smoking habits among children



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Parental influences

- Parental influences on the development of protective and risk behaviours are very high in the whole infancy
- As regards tobacco, alcohol and substance use, the influence of parents during adolescence has been sometimes considered reduced, in favour of peer influences
- However, it is now acknowledged that **parental influences are still constantly strong during the whole adolescence**, from early to late adolescence

Tobacco smoking

- As regards **tobacco smoking behaviour**, it is recognized an independent effect of parents and peers
- **Peer influence (towards initiation) starts in the early adolescence, and maintain a constant role through the whole adolescence**
- The protective effect of good parental practices, such as
 - **good relationships**
 - **connectedness**
 - **punishment for smoking**appear to reduce around 15 years of age
- On the contrary,
 - **parental monitoring and control and**
 - **parental knowledge as regards children activities**maintain their protective role even in the late adolescence serving as a greater protection for those whose parents continue providing it

Li 2000, Ennett 2008, Giannotta 2011, Guo 2011, Mak 2012, Piko 2012, Liao 2013, Mahabee-Gittens 2013

Parental styles

- The most protective parental style towards risk behaviors is that named “**authoritative parenting**”, characterized by high responsiveness and high demandingness, parental monitoring, connectedness, trust, emotional warmth, talking about problems

Stanton 2009, Simons-Morton 2001, Piko 2012

- Children whose parents had an “authoritative” style had the best outcomes

- on a number of behavioral and psychological measures

Jackson 1998; Radziszewska 1996

- and less frequently smoke and drink

Huver 2007, Pierce 2002, Jackson, 2002, Piko 2012

Parental smoking habits

- **Every experience of home tobacco smoking** increases the risk of smoking initiation of the adolescent
- The **mother** has a stronger influence than the father, but her influence is lower than those of **both parents smoking (RR=3)**
- One or both parents **ex-smokers** increase the risk of smoking in the adolescent versus both never smoking parents
- Coherently, the condition of ex-smoker protects (RR=0.70) when compared to the condition of current smoker
- A dose-response effect exists also for the intention of smoking in the future
- **Mother smoking habit predicts the stabilization of the behaviour among children**
- The influence of parental smoking is **constant** for the whole adolescence

Oygaard 1995, Farkas 1999, Bauman 2001, Bricker 2003, Stanton 2009,
Mak 2012, Leonardi Bee 2013, Liao 2013

Parental attitudes and smoking cessation

- Negative parental attitudes towards smoking protect the children from smoking initiation

Sargent 2001

- If the parent cessate the smoking behaviour, the likelihood of cessation of the adolescent smoker increases (RR=2)
- Parental smoking cessation protects from smoking initiation (RR=0.70)
- Early father smoking cessation protects from smoking initiation
- **Negative attitudes towards smoking** and **tobacco refusal skills** mediate the relationship between parental cessation and adolescent smoking

Gilman 2009, Farkas 1999, Bricker 2003, den Exter Blokland 2004

Otten 2007, Wyszynski 2011

Consequences of parental smoking

Parental smoking is associated with

- More positive and tolerant **attitudes** towards smoking

Brook 1999, Porcellato 1999, Andrews 2010

- A higher perceived **safety** of smoking

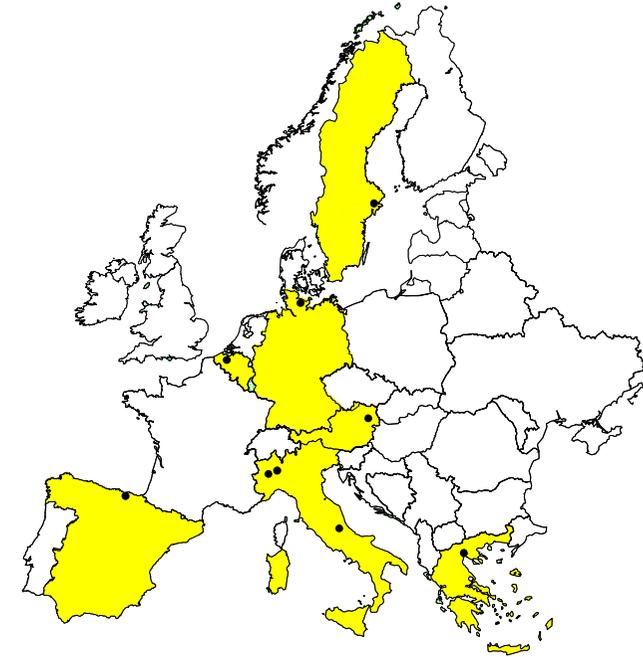
Schuck 2012

- Increased attention towards smoking-related cues

Lochbuehler 2012

Sample

- Parental influences on adolescent smoking behaviours were investigated on the adolescent population participating to the **baseline survey** in the EU-Dap study
- **7079** students of 143 schools participated in the baseline survey (November 2004)
- Students were from Sweden, Germany, Belgium, Austria, Italy, Spain and Greece



Methods of analysis

- Stepwise logistic regression analysis was used to identify factors associated with adolescent smoking (at least one cigarette in the 30 days preceding the survey) including:

country

gender

SES of the school area

living with one or both parents

parental smoking

parental monitoring

family relationships

family rules

family climate

parents permissiveness vs tobacco

troubles with parents if smoking

friends smoking

self-esteem (positive items)

beliefs on tobacco smoking (positive)

risk perceptions on smoking

aggressive behaviours

Some variables were not retained in the model

Other variables were not included because of correlation or similarity with other variables or because of missing data

age, grade, mother and father smoking, negative self-esteem, best friend smoking, brother/sister smoking, other risk behaviours, friends' risk behaviours, parents permissiveness vs alcohol, risk perception on alcohol and drugs

Parents smoking (%) by country

	Sweden	Italy – Turin, Novara	Italy – L'Aquila	Germany	Belgium	Spain	Austria	Greece
	n=1033	n=2176	n=550	n=592	n=709	n=429	n=858	n=732
At least one parent smoking	37.0	53.4	55.8	57.4	59.1	60.4	64.0	72.7
Mother smoking	28.0	31.9	32.5	37.8	37.9	42.7	43.1	47.4
Father smoking	19.9	41.4	42.2	43.2	47.0	40.8	47.9	59.4

Risk of tobacco smoking in the last 30 days if..

	Adjusted OR (95% CI)
Country	
Italy/TurinNovara	1
Italy/Aquila	0.64 (0.46-0.91)
Spain/Bilbao	0.79 (0.57-1.10)
Germany/Kiel	0.75 (0.53-1.08)
Belgium/Gent	0.61 (0.43-0.88)
Sweden/Stockholm	0.31 (0.20-0.50)
Greece/Thessaloniki	0.11 (0.04-0.29)
Austria/Wien	0.50 (0.35-0.71)
Gender	
Girl	1
Boy	0.75 (0.62-0.90)
Social status	
High	1
Medium	1.07 (0.85-1.36)
Low	1.52 (1.21-1.90)
Scuffles/ fights or quarrels/ arguments in the last 12 months?	
No one	1
Quarrels/ arguments only	1.28 (1.02-1.60)
Scuffles/ fights	2.18 (1.72-2.76)

Risk of tobacco smoking in the last 30 days if..

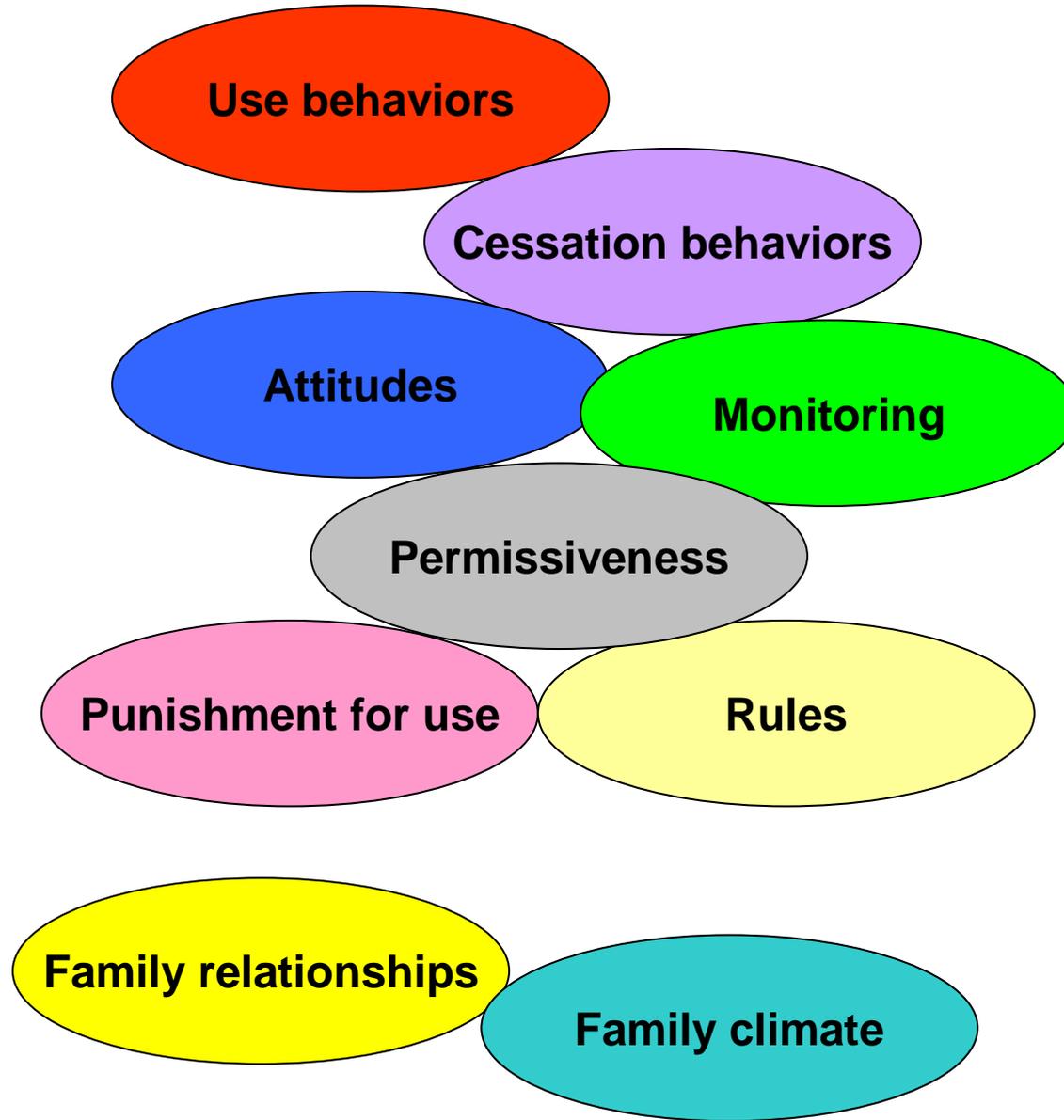
	Adjusted OR (95% CI)
Parents' smoking habits	
None of parent smokes	1
At least one parent smokes	1.46 (1.21-1.76)
If you wanted to smoke (or already do), do you think your father and mother would allow you to do so?	
Wouldn't allow smoking at all	1
Wouldn't allow smoking at home	2.26 (1.77-2.87)
Would allow to smoke	1.98 (1.45-2.71)
Don't know	1.07 (0.79-1.43)
Quality of relationships between family's member	
Good	1
Bad	1.50 (1.24-1.81)
Troubles with parents if you smoked cigarettes?	
Yes	1
No	2.97 (2.42-3.65)

Risk of tobacco smoking in the last 30 days if..

	Adjusted OR (95% CI)
How many of your friends smoke cigarettes?	
None	1
Less than half	5.24 (3.78-7.25)
About half /more than half/all	17.8 (13.0-24.4)
Don't know	1.76 (1.09-2.86)
How likely is you get benefits if you smoke cigarettes in the next month?	
1-2 (Unlikely)	1
3-4 (Likely)	1.76 (1.46-2.11)
How much do you think PEOPLE RISK, if they smoke one or more packs of cigarettes per day	
Great risk	1
Slight risk	1.83 (1.39-2.41)
No risk	0.92 (0.48-1.75)
Don't know	0.67 (0.37-1.22)

Summary of findings

- In the sample of pupils participating in the EUDap study in 2004, parental behaviors and rules as regards cigarette smoking were strongly related to the risk of recent cigarette smoking among pupils, in particular:
 - Parental smoking
 - Parental permissiveness
 - Poor quality of family relationships
 - Positive beliefs towards cigarette use
- This results indicate that parents can still run their protective role during adolescence of their children, so contrasting (or giving the children stronger abilities to contrast) the influence of peers
- **Preventive (and educational/pedagogic?) interventions should be addressed to parents**
- **Smoking cessation interventions**



Challenges of parental interventions

- A first challenge of prevention interventions addressed to parents is the little number of **effective interventions** available today (Strengthening Families Program)
 - Parental sessions added to universal programs failed:
 - to be properly evaluated
 - to show an additional effect vs the pupils' intervention
- The second big challenge of implementing prevention interventions on parents is the low **participation rate**
 - interventions on families (parents + their children) are difficult to implement and their success/participation depends often on **cultural factors**
 - despite the efforts of health workers, **communities can take ages to “get ready” to such interventions**

This can be a big problem, because of**inequalities**

Selection of population is a common problem of prevention interventions..

- The program is applied
 - in a subgroup of districts
 - in a subgroup of local health authorities
 - in a subgroup of schools
 - with different fidelity
- If simply offered to the population of parents of a school (=voluntary participation), it is very likely that parents participating will be
 - **Positively selected (affected by less risk factors)**

In such a case, we must think to the effect on health inequalities

- The intervention will act on a population already protected, and won't add anything.. → **USELESS**
- The intervention will have a preventive effect on a selected population of parents... → **INCREASE OF HEALTH INEQUALITIES**

Recommendations

- implement **effective interventions**
- properly **evaluate** any new intervention
- before implementing a new intervention, design a strategy to **help the community to receive the intervention**
 - Assess the readiness of the community
 - Identify problems and difficulties for the parents to participate
 - Design strategies to overcome parents' problems
 - Pilot the intervention
- if the community is not ready to participate
 - **Selective effective interventions (addressed to population at risk) can be the alternative**
- as regards the evaluation, a successful evaluation of an intervention addressed to parents, needs the participation of parents
 - So we can't even evaluate an intervention if the community is not ready...
 - With this purpose, in our region this year, we are working to make the population ready for the evaluation of the parental curriculum of Unplugged...

Thanks for your attention!