

The Impact of Family Members and Friends Habits on Youths Smoking Behaviour: Consequences for Social Marketing¹

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Abstract

For implementing more effective social marketing programmes for preventing youth's smoking more information is needed about the backgrounds of their behaviour and choices. The goal of the article is to find out what is the impact of family and friends' habits on youth's smoking behaviour and make suggestions for the social marketing. The sample consisted of 582 secondary school pupils, the participants ranged in age from 14–19. For data analysis the logistic regression was used. The results show that certain people from family and friends in combination with each other have especially large influence on youth's smoking behaviour. Family members and friends influence young people's behaviour simultaneously and the influence is cumulative. Knowing what combinations are the most powerful can be considered by preparing tobacco prevention programmes for youth.

Keywords: *social marketing, smoking prevention, youth behaviour, social environment*

JEL classification: I19, M31

Introduction

By developing strategies for social marketing many factors that influence individuals' behaviour, for example personal characteristics, attitudes, beliefs etc; all kind of social factors (wider socio-economical environment as well as important people surrounding a consumer); marketing activity of companies etc should be

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considered. This article analyses the influence of important people surrounding a consumer, more precisely – impact of family members and friends' behaviour on consumer choices. The consumers here are school children that, as compared to grown-ups, are presumably more sensitive to the factors of the social environment. The consumable products selected are tobacco products.

Consuming tobacco products is widely popular in the whole world, regardless of the fact that the harmfulness of smoking on the health has been stressed a lot. Most people start smoking in a very early age (before they are 18) (Lloyd-Richardson, et al., 2002; Smith & Stutts, 1999; Lampkin & Houston, 1998). It has been documented that the earlier a person initiates smoking, the greater the chance that he or she will become a habitual smoker and, therefore, more likely to become an adult smoker (Lampkin & Houston, 1998). This is why young people are a very important target group in smoking prevention programs and the backgrounds of their behaviour and choices are an essential field of research.

The most common strategies in preventing young people's smoking are banning tobacco advertising; enforcing restrictions on sale for minors; labelling and the design of the products; rising the price of tobacco products; banning the sale of tobacco products in public catering establishments, educational institutions, health service establishments, sports clubs, commercial enterprises etc; health promotion at schools and media campaigns targeted to young people (Willemsen & DeZwart, 1999). In order to develop and introduce more successful strategies it is important to know more precisely which factors in what way affect young people behaviour.

The goal of the article is to find out what is the impact of family and friends' habits on youth's smoking behaviour. For this purpose the authors carried out an empirical research based on a self-compiled questionnaire among secondary school pupils. About 600 pupils aged 14–19 were involved. By the statistical analyses of the data, logistic regression with data processing packet SPSS was used.

1. Theoretical background

Earlier research has shown that the probability of using cigarettes is much greater among young people whose friends and/or siblings and/or parents smoke than among those teenagers whose friends and family members are non-smokers (Bobo & Huster, 2000; Flay, et al., 1994). For example, Alexander et al. (2001) have found out that if a half of a person's closer acquaintances smoke then his or her likelihood of being a smoker is twice as high compared to someone whose closer acquaintances do not smoke. Rogovska's (1996) results show that if there are for example four or more smokers in a social environment, the probability of a person to start smoking is six times higher. Van Roosmalen and McDaniel (1992) have also reached the conclusion that people whose friends smoke, are seven times more likely to become smokers themselves. The research of West and Sweeting (1999) declares that the probability of becoming a smoker is four times higher if a

person claims that “some” of his or her friends smoke and ten times higher if a person claims that “most” of his or her friends smoke compared to those who have non-smoking friends. Likewise, the probability of a young person becoming a regular smoker is twice as high in case his or her siblings smoke.

Three trends can be noticed in the research on the smoking behaviour of young people done so far:

1. The influence of friends on the smoking behaviour of young people is the main subject for analysing (for example Schofield, et al., 2001; Unger, et al., 2001). The results focus on who of the friends is the most influential and how.

Generally the results show that the most influential are not the simple acquaintances or the greater circle of friends but close friends or the best friend (for example Alexander, et al., 2001; Horn, et al., 2000). The explanation provided states that smoking is an acquired behaviour and the more time people spend together and the closer and more serious their relationship is, the more the attitudes, beliefs and types of behaviour that promote starting smoking are formed. It is also important to note that very many people smoke for the first time not alone but in the company of a friend or friends (Ennett & Bauman, 1993). Friends and their behaviour give an example to young people, set social standards etc.

2. The researchers focus on family members (for example O'Byrne, et al., 2002; Andersen, et al., 2002; Tilson, et al., 2001) and try to find out whether the mother and/or the father or the siblings have greater influence upon young people's choices and in what way are they exactly influenced.

There are quite a lot of articles which analyse the influence of parents in general, not mother's or father's influence separately (for example Smith & Stutts, 1999; Van Roosmalen & McDaniel, 1992). For example, Lloyd-Richardson et al. (2002) categorize parents as smokers if at least one of them (the mother or the father) smokes. Thereby the fact that mother and father may influence their children's behaviour differently or have together greater influence than alone is completely ignored. However, there are many authors who have studied both of the parents' influence separately. In that case the results show that mothers have greater influence on young people's smoking behaviour than fathers (Smith & Stutts, 1999; Rogovska, 1996).

As mentioned above, besides parents also siblings have a great role in forming young people's smoking behaviour. Earlier research shows that siblings have even greater influence than parents (Bothmer, et al., 2002; Smith & Stutts, 1999; Rogovska, 1996).

3. The influence of family members and friends upon the smoking behaviour of young people is compared and this results in arguing which of the groups is more important (for example Bothmer, et al., 2002; Castrucci, et al., 2002).

So far a unitary standpoint has not been reached in the question whether family members or friends have greater influence upon the smoking behaviour of young people. Some scientists firmly believe that family is more influential (for example McGahee, et al., 2000; Bolliger & Fagerström, 1997). Many others think that friends are more influential (for example Olds & Thombs, 2001; West & Sweeting, 1999; Flay, et al., 1994). Van Roosmalen and McDaniel (1992) share the standpoint that the best friend or group of friends is the most important factor in young people's decision to start smoking.

In addition, there are scientists who admit that both of the groups are important but under different conditions, in different ways and at different times. It is considered that the influence of parents is especially determinative in younger age groups while peers (friends) are more influential in older age groups (West & Sweeting, 1999; Hoffmann, 1994). Family and friends influence young people's behaviour in different ways. For example, traditions and values are very important in the family while among friends the significant factor is social pressure. This matter will be further dealt with in discussion part.

As a conclusion to the research done so far it might be brought forward that the authors of this article believe the researches have ignored the possibility that the behaviour of only one person or type of group does not influence young people's decisions critically. As in the real world young person is under the influence of all kind of factors at the same time, it is rather more important to analyse the interaction effect of the behaviour of members of different groups. In other words, the authors think that family members and friends influence young people's behaviour simultaneously. Maybe in different ways but the influence is still cumulative. Also, the mere fact that the more there are smokers the greater the probability of starting smoking, is not sufficient information. It should be found out which combinations have especially great influence.

2. Method

Empirical research was carried out in Estonia, Tartu. 600 secondary school children were questioned. A total of 582 correct questionnaires were gathered. Forty percent of the respondents were male and sixty percent female. The average age was 16.8 years.

The questionnaires used in the research asked questions about the factors that influence the smoking behaviour of young people. Data concerning the influence of social environment was analysed for this article. Firstly, information about the smoking status of each participant was gathered. For example, have you ever tried smoking (yes/no), how old were you in case you did try smoking, are you a smoker at the moment (yes/no), if you do smoke then how often (less than once a week, every week but not every day, every day)? Secondly, questions about the smoking status of family members (mother, father, sister, and brother) and

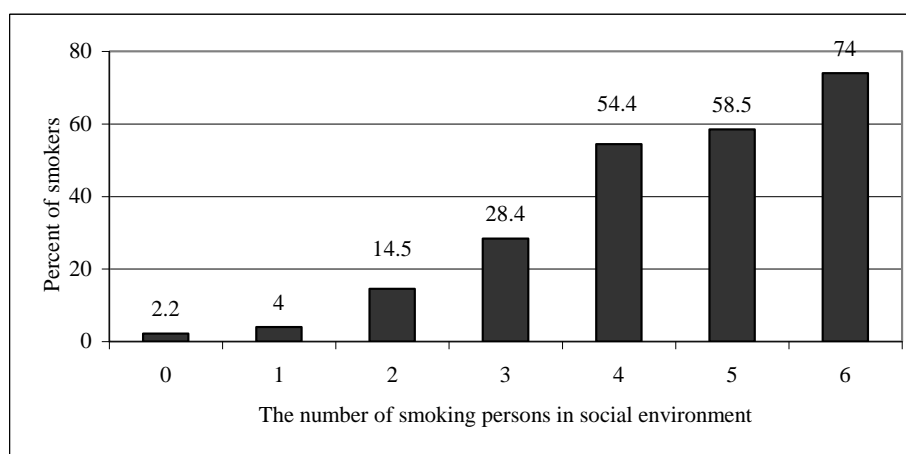
friends (best friend of the same sex, best friend of the opposite sex, desk mate¹, training companion²) was specified. Finally, information about sex, age and class was gathered.

For data analysis the logistic regression was used. With help of logistic regression can be found how big is the probability that someone becomes a smoker or not and which variables are thereby important. If the probability is near to 1, the person will become with great probability a smoker and if the value is near to 0, the person will with greater probability not become a smoker.

3. Results

The results of the research showed that 71% of the participants had tried tobacco products by the moment of filling in the questionnaire. The most often mentioned age for trying smoking for the first time is 10–15 years. About a third (30%) of the boys and about a fifth (19%) of the girls were regular smokers at the moment of the research. 21% of the boys and 5% of the girls smoke every day. In further analysis the participants are divided into two: 1) “smokers” – those who were smokers at the moment of the research, 2) “non-smokers” – those who were non-smokers at the moment of the research.

In Graphic 1 we can see how important it is how many of the young person’s closest people smoke. For that we added up the smoking acquaintances in the young person’s social environment.



Graphic 1: Per cent of smokers in regard with number of smokers in social environment

¹ Desk mate may be chosen by the pupil or appointed by the teacher. In either case the desk mate may become a good friend and an opinion leader. But this is naturally not always the case.

² Young people attending the same practices share an interest in the same sport, have many opportunities of spending time together and taking part in the same events, etc. Therefore the training companion may also be an important and close friend.

For example, if the only smoker is a father, the number of smoking acquaintances is 1. If a mother, a father and the best friend are smokers, the number of smoking acquaintances is 3, etc. Graphic 1 affirms that of those young people, who have no smokers in their social environment, only 2.2% smoke. If one close person is a smoker, the corresponding percentage is 4%. The more smokers there are among the closer acquaintances, the more young people are smokers themselves. For example, of those who have 4 smoking acquaintances, 54.4% also smoke and of those who have 6 smoking acquaintances, 74% also smoke. Therefore the results are in coherence with the results of the previous research that have shown that the more there are smoking acquaintances, the greater is the probability of a young person being a smoker. On the other hand, if there are no smokers among the closest acquaintances, there are consequently almost no smokers among the young people. This proves again how important the social environment is as a former of young people's choices.

Following the results of logistic regression will be presented. First of all it will be determined how good the model is at depicting the real situation. The results of the classification table show that the accuracy of the model is high, 83%. This means that on the basis of the smoking behaviour of closer acquaintances it can be determined with an accuracy of about 80% whether the person himself or herself is a smoker. Other factors, such as stress, low self-esteem (Mazanov & Byrne, 2002), slow progress at school (O'Byrne, et al., 2002), low risk apprehension, longing for adventure (Frankenberger, 2004), the socio-economic status of parents (Hagquist, 2000), etc are left with less than 20%.

The logistic regression fixed six of the offered independent variables as important variables or factors influencing the smoking behaviour of young people. These are: sex and the smoking behaviour of a mother, the siblings, the best friend of the same sex, the best friend of the opposite sex and the training companion. The smoking behaviour of a father and a desk mate turned out to be insignificant. All the important variables carried positive sign which means that the smoking of those people in the social environment raises the probability that the person under study also smokes. The smoking status of the best friend has the greatest influence. A young person whose best friend smokes has 8 times higher probability of smoking compared to a person whose best friend does not smoke (see Table 1). The lower confidence limit is 4.8 and the upper 13.6. This means that if the best friend is a smoker, the chances of being a smoker are increased at least 4.8 times and at most even 13.6 times.

Another very important factor in the smoking behaviour is the smoking status of the best friend of the opposite sex. If the best friend of the opposite sex smokes, the person's chances of also being a smoker are 2.9 times higher than those of a person whose best friend of the opposite sex does not smoke. Confidence limits are 1.7 to 4.9.

**Table 1: The results of the logistic regression
(Odd's ratios and Wald 95% confidence limits)**

Exogenous variables	Odd's ratio	95% Wald confidence limits	
		Lower	Upper
Sex	1.9	1.1	3.2
Mother	1.9	1.2	3.0
Siblings	2.3	1.4	3.8
Best friend of the same sex	8.1	4.8	13.6
Best friend if the opposite sex	2.9	1.7	4.9
Training companion	2.2	1.3	3.7

Siblings are the most influential family members. If they smoke, the person's chances of being a smoker are 2.3 times higher. Of parents, the more important is the mother (odds ratio 1.9) but as mentioned above, the father is not an important factor. The results of the logistic regression show that it cannot be determined which of the social groups – family or friends – has more influence on the smoking behaviour of young people as both of the groups contribute to the model.

The chances of male participants of becoming a smoker were 1.9 times higher than the chances of female participants. Therefore boys have higher probability of starting smoking. This regularity is common also in other countries (for example Horn, et al., 2000).

The results of the logistic regression are in accordance with the issues stated in the theoretical section. It turned out that mother has more influence on smoking behaviour than father. And the most important family members are the siblings. Of friends by far the most important is the best friend of the same sex, followed by the best friend of the opposite sex and training companion. The exclusion of the desk mate from the list of important variables can be explained with the fact that desk mates or classmates in general cannot always be chosen and therefore the desk mate might not be an opinion leader for the person.

Furthermore the interaction effect of different factors on smoking behaviour of young people will be analysed. Five social variables considered important by the logistic regression will be included. Table 2 presents seven most influential combinations of friends and family members. We can see that of the participants whose siblings, the best friend of the same sex and the best friend of the opposite sex smoked, 71% were also smokers at the moment of research.

The second important combination is best friend of the same sex, the best friend of the opposite sex and training companion (in such case 67% of the participants smoke). It must be noted that the best friend is important in all seven combinations. Mother and siblings are important in three cases out of seven.

Table 2: The combinations of smoking members in social environment and the percent of smoking participants (seven highest percentages)

Smoking family members and friends					
Mother	Siblings	Best friend (same sex)	Best opposite sex friend	Training companion	Percent of smokers
	•	•	•		71
		•	•	•	67
		•		•	65
	•	•			64
•		•		•	64
•		•	•	•	63
•	•	•	•		63

Note: sign “•” denotes that corresponding person smokes

Information in Table 2 shows how important it is who of the closer acquaintances of a young person smokes. Graphic 1 showed that if any two acquaintances out of seven smoke then the percentage of young smokers was 14.2%. At the same time, Table 2 proves that there are certain combinations (the best friend and the training companion or the best friend and the sister/brother) when two people can have many times greater effect. The same can be noticed upon comparing the combinations of any three people in Graphic 1 and certain combinations in Table 2. But in case mother, the siblings and the best friend do not smoke, the percentage of smokers among those young people is only 3.8%. Therefore Table 2 firstly proves the results already reached with the logistic regression that both family members and friends are important and secondly if people who are important for the person do not smoke, then he or she most probably does not smoke either. The latter was also expressed in Graphic 1.

4. Discussion

The results of the research showed that young people smoking habits are formed by the influence of both: family members and friends' behaviour. As discussed in the present paper's theoretical part it is impossible to specify which group has more significant role, because various types of messages from social environment generate obviously either conscious or unconscious stimulus to smoking. There are several theories that explain why and how the behaviour of people who are considered important by the young influences their behaviour.

First widespread point of view is that family members and friends influence young people's behaviour either directly or indirectly or in both ways simultaneously. For example, according to *Akers' social learning theory* social environment has a direct effect on the young people smoking behaviour (Flay, et al., 1994). The latter means that family and friends are direct examples as following and imitating those who are important for the young people generate stimulus to smoking (Bobo & Huster, 2000). Zhuravleva (2001) has proved the

important role of family traditions as well. Smoking family members unconsciously transfer a message that their behaviour is normal and acceptable. Also, parents confuse young people by saying that one must not smoke but at the same time they do not follow the rule themselves.

In the light of the present article it can be said that direct influence may be especially strong if there is cumulative effect of both: family members and friends. In other words if young people see that many people in family and among friends smoke they will consider this behaviour natural and worth following. The more close people smoke the less unacceptable the behaviour may become in the eyes of the young people. A young person might think: "How harmful it can be when so many people do smoke?"

Indirect effect of social environment is a key word for example in *Theory of reasoned action*. According to the named theory the behaviour of people is determined by attitudes and social norms (Patry & Pelletier, 2001). In other words an individual starts smoking if he or she has positive attitude towards smoking and if he or she believes that it is not considered unacceptable behaviour among close people. Castrucci, et al. (2002) have found that in case of positive attitude the chance to become a smoker is three times bigger compared with the situation when attitude is negative. Therewith the most common smoking related positive attitudes were: smoking helps to relax, it releases stress, it reduces social barriers etc. Unger, et al. (2001) have pointed out the following attitudes towards smoking: my best friend would appreciate me more if I smoked; young people who are smoking have more friends and it is popular to be a smoker. Piko (2001) has found that the more negative is the attitude towards smoking the less is the chance to become a smoker. Formation of negative attitudes is influenced by parents' negative attitudes (Sargeant & Dalton, 2001; Farkas, et al., 1999). Thus smoking behaviour is influenced by person's own attitude to smoking and by the attitudes of friends and parents.

Social norms are also important factors that influence the formation of smoking behaviour. Particularly important is the pressure that comes from the people of the same age (Schofield, et al., 2001; McGahee, et al., 2000). It is thought that young people take risks under pressure of other people (e.g. start smoking) even if they believe that it is not very sensible activity. Young people want to be accepted by others, be independent from parents, etc. It is feared that not following group norms might cause losing friends, being dismissed from fun, etc. Smith and Stutts' (1999) research showed that smoking young people often felt pressure from others and lacked self-confidence to stand against smoking.

The indirect effect of social environment is also stressed by *The health belief model*. Like the name says this theory is based on beliefs about smoking. For example a person who has the following beliefs would most probably not become a smoker (Wolburg, 2001): 1) Person believes that smoking is very harmful and can lead to serious consequences; 2) Person believes, that these consequences can happen to him; 3) Person believes, that if he or she quits smoking, he/she can avoid

these consequences; 4) The reward of not smoking or less smoking is greater, than the costs of such thing as not fitting in with friends.

However smoking young people believe that smoking is not harmful, it does not cause dependence but it is the sign of adulthood, popularity and it offers relaxation (Smith & Stutts, 1999). Close people's beliefs are very important to young people beliefs establishment (McGagee, et al., 2000). McAlister, et al. (1984) have found that when parents and friends smoke the young person is more tend to believe that smoking is not very harmful. Therefore young people own beliefs and attitudes as well as attitudes and beliefs of family and friends are all important factors.

Like the direct effect of social environment the indirect effect on young people smoking habits can be according to the authors of the present paper stronger, particularly when several factors together influence the behaviour. In other words if smoking related attitudes, beliefs and social norms formation is influenced by both: family and friends. If both groups accept smoking the young person will most probably start smoking. And again, the closer the person from whatever group the stronger the influence.

According to some theories both: direct and indirect effect of social environment should be considered important (e.g. *Self-efficacy theory*) (Franzblau & Moore, 2001). Taking into account previous arguments about direct and indirect effect of social environment on young people behaviour the authors of the present article share the opinion that both factors are important: either direct example or indirect effect of attitudes, beliefs and social norms.

Conclusion and implications

Several conclusions can be made on the ground of the results gained in the present article:

- It is clear that smoking is a serious problem among the young people studied in the research. Therefore implementing social marketing techniques for smoking prevention is an important issue.
- Thus social environment has strong influence on young people smoking behaviour, it is important that preventive strategies take this into account. Particularly, the importance of health education at schools and young people targeted media campaigns should be increased.
- The greatest probability to smoke has the pupil whose best friend smokes or whose best friend of the opposite sex smokes. Also training companion smoking habits are important here.
- Form family members siblings have the greatest impact concerning youth smoking behaviour, followed by mother. Father's smoking behaviour does not have statistically significant influence.
- The more smokers there are among the closer acquaintances, the more young people are smokers themselves. Of those young people, who

have no smokers in their social environment, only 2.2% smoke. For example, of those who have 6 smoking acquaintances, 74% also smoke.

- Interaction of both: family and friends behaviour has an essential influence on young people tobacco products consumption. Direct example and indirect effect through attitudes and beliefs as well as through social pressure determine young people choices. Especially certain combinations of close people have significant importance. For example, from those participants whose sibling(s), best friend and best opposite sex friend smoke, 71 percent smoke themselves.

As for particular recommendations about where to start young people smoking habits influence, the authors of the present article believe that the most reasonable would be paying more attention to mothers' behaviour. As fathers' role was not so significant, mothers are first examples in family. Mother's behaviour is also noticed by sisters and brothers if any. Also, friends' mothers are seen as examples by friends. Relations between children and parents are very important and obviously young person's ability to stand against friends' pressure starts from home. Therefore, in the first place mothers should show good example and be non-smokers. They should also pass on negative attitudes and beliefs about smoking, as well as support their children in their development of self-esteem and self-assessment so that the latter can successfully solve conflicts and communicate with others. All this helps to relieve potential negative influence.

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