



ORIGINAL ARTICLE

Social representations of smoking behaviour in 13-year-old adolescents

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KEYWORDS

Social representations;
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Abstract

Objective: The purpose of this study was to identify adolescents' social representations on smoking using a qualitative approach.

Methods: Thirty semi-structured interviews were conducted by trained interviewers. The interviews were recorded with participant's permission after our comprehensive explanation of the interview process. After transcript the content of each interview, information was synthesised under each of main question, and a conceptual content analysis was undertaken. The analysis was performed by two of the authors, and the conflicts were resolved by a third person.

Results: Adolescents suggested different explanations for general people and adolescent smoking behaviour. While in general people smoking behaviour was mostly related to dependence, in adolescence it is referred to be associated with status improving among peers and to keep up social relations. We realised that adolescents are aware of the serious health implications of smoking, but they only referred it as a long-term effect in adulthood and no consequences during adolescence were for seen. We also noted the difficulties in giving preventive measures targeted on adolescents.

Conclusions: This study points out the importance of peers as agents of socialization in tobacco consumption, and shows the importance of anti-smoking campaigns among this age group with emphasis on smoking consequences in adolescence.

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PALAVRAS-CHAVE

Representações
sociais;
Adolescentes;
Comportamento
de fumar

Representações sociais do comportamento de fumar em adolescentes de 13 anos**Resumo**

Objectivo: O objectivo deste estudo foi identificar em adolescentes, através de uma abordagem qualitativa, as representações sociais sobre o comportamento de fumar.

Métodos: Foram realizadas trinta entrevistas semi-estruturadas por entrevistadores treinados, gravadas com a permissão dos participantes após explicação detalhada do processo de entrevista. Depois da transcrição do conteúdo de cada entrevista, a informação foi sintetizada em cada questão principal e foi realizada uma análise de conteúdo conceptual. A análise foi realizada por dois dos autores, e os conflitos foram resolvidos por uma terceira pessoa.

Resultados: Os adolescentes sugeriram diferentes explicações para o comportamento de fumar das pessoas em geral e dos adolescentes. Enquanto que fumar para os primeiros estava mais relacionado com a dependência, na adolescência pretendia melhorar o estatuto entre os colegas e ser uma forma de manter as relações sociais. Os adolescentes estavam conscientes das implicações graves do tabagismo para a saúde, mas eles só referiram efeitos a longo prazo, sem perceberem consequências durante a adolescência. Verificámos também que tinham dificuldades em indicar potenciais medidas preventivas orientadas para os adolescentes.

Conclusão: Este estudo aponta para a importância dos pares como agentes de socialização do consumo do tabaco, e mostra a importância de campanhas anti-tabagismo neste grupo etário com ênfase nas consequências do tabagismo na adolescência.

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Introduction

Smoking has a direct effect on health at the individual and community level. Both short- and long-term health implications of smoking among adolescents are well-known.^{1,2} Early tobacco use presents subsequent problems in adolescence and adulthood,² with more severe consequences among girls.³

Despite prevention programmes targeted on smoking behaviour, smoking initiation remains too frequent during adolescence.^{4,5} To increase the impact of these programs on adolescents it is necessary to know better the target population, thus it is essential to promote research on adolescent smoking beyond cigarette consumption patterns.⁶ Social representations are a useful theoretical perspective to understand the social and cultural factors⁷ that sustain smoking behaviour among adolescents, which can add important information to design prevention programs. Although there are many studies on smoking behaviour in adolescents, few^{8,9} have described adolescents' social representations about this behaviour.

A qualitative approach allows the description of people's lives, minds, and realities, which is relevant to improve the required knowledge.¹⁰ In order to define more effective prevention programmes, the purpose of this study was to identify adolescents' social representations on smoking using a qualitative approach to complement previous quantitative observations on the factors associated with smoking behaviour.¹¹

Methods**Recruitment**

Sample selection and general procedures for the evaluation of participants have been previously described.¹² During the term 2003/ 2004, participants were approached as part of the assembling procedure of the EPITeen cohort, which intends to follow children born in 1990 and registered at every public and private school of Porto, a large urban centre in Portugal.

The initial evaluation comprised two self-administered questionnaires (one completed at home, and the other at school), and a physical examination performed at school. Smoking information was obtained as part of the questionnaire completed at school. Adolescents reported their use of tobacco, and they were also asked to classify their parents as never, current or ex-smokers. They also provided information about friend's smoking habits.

Information on parental educational level was obtained for each parent from the questionnaire completed at home, under parental supervision. Each adolescent was finally classified according to the higher degree completed by the parents.

Adolescents, who were not at school on the day of the scheduled assessment, were invited to visit our department accompanied with at least one parent. Of the adolescents who came to be evaluated in the Department, thirty (15 girls and 15 boys) were asked to be interviewed. Since qualitative studies do not allow a large number of participants, we tried

to ensure similar number of boys and girls. Because they were all the same age (13-year-old) it was not necessary to take into account the age for the sampling selection. Also, we tried to ensure that participants of the qualitative study kept some characteristics of the total cohort: enrolment in private and public schools; parents' education (as an indicator of social class); adolescents' smoking, and parents' smoking.

None of the invited adolescents refused to do the interview. Written informed consent was obtained, both from the adolescents and from the parents or the legal guardian.

Procedures

Each interview was performed in a room only with the interviewer and the adolescent. In all cases an effort was made to allow the adolescent to feel relaxed and comfortable to answer honestly to the questions.

The study was presented to participants as a research about health behaviours, and interviewers emphasized that the intent was not to obtain correct answers but the adolescents' opinion. The semi-structured interviews were conducted by trained interviewers, following a guide with previously elaborated questions about several themes such as food, hygiene, physical activities, sexual behaviour, diseases, alcohol, tobacco and drugs consumptions. Each interview lasted about 20 minutes. The interviews were recorded with participant's permission after our comprehensive explanation of the interview process.

In order to answer our purpose we only used information about tobacco into this analysis. The questions intended to answer to these four main points where: *Why do people in general smoke?*, *Why do adolescents smoke?*, *What can happen to people if they smoke?*, *What can be done to prevent smoking among adolescents?* For each point a set of questions were performed. Interviewers followed a guide but they were free to use other questions to assess the main topic. In this interview the smoking status of the adolescent was not ascertained because we did not want to constrain them with our knowledge of their smoking behaviour.

Data analysis

After obtaining audio-records and transcript the content of each interview, information was synthesised under each of the main question, and a conceptual content analysis of the complete data set was undertaken.¹³ The content analysis involved categorising the various qualitative responses to each question and then providing a main category that aggregates the content of these responses. This analysis was done by two of the authors, and the conflicts were resolved by a third person.

For each category we have presented the number (proportion) of people who provided similar responses and qualitative quotes were used to exemplify the response by category. The authors selected the most representative quotes of all interviews (Portuguese quotes have been translated). In the interview it was not asked if the adolescent smoked or if their parents or friends smoked. We have defined some contexts using the quantitative information, namely parents and adolescent smoking

status, collected previously with the large self-reported questionnaire. The purpose was to remain open to what adolescents were saying about smoking.

Results and discussion

Our sample comprised 30 adolescents, 15 girls and 15 boys of 13 year old, and 24 (80%) went to public schools. Based on self-reported questionnaire, 11 (37%) adolescents reported had ever smoked, 23 (73%) had friends who smoke and 19 (67%) had at least one smoking parent.

Since we intended to obtain information to define preventive strategies it was important to assess what adolescents thought about this behaviour before initiating smoking, and for that reason the 13 year old age is particularly interesting. That specific age is important because the regular status of smoking has not been established by this time. We did not have the ambition to extrapolate our results for all adolescence periode because we know that during adolescence major changes happen in a short period. However, we think that being focus in a homogeneous group helps to understand the results.

We decided on a qualitative approach to reach an in-depth understanding of adolescents' perspective on smoking, useful for developing culturally friendly campaigns and more effective to change adolescents' attitudes and behaviours.

Reasons for smoking

When asked about reasons that lead people to smoke, without mentioning specific age groups, three categories described all mentioned reasons for smoking: tobacco dependence (43%), when they said that "people smoke because of tobacco addiction" and justified why they get addicted "because of stress or because they felt nervous". They also mentioned the show off (20%) for being smoker saying that "some people smoke to stand out...it's really show off...", and the pressure felt by the group integration (17%) referring it as a reason for smoking: "people smoke because they see others smoking".

When their own age range was concerned, almost all reported reasons related to the desire of emancipation or to be like an adult (47%). They referred that "young people start smoking because they think they are big"; also in the adolescence, the acceptance among peers (44%) is reported as an important factor for smoking, when they say that "young people start to smoke because they are encouraged by colleagues" and they feel that pressure: "when I tried to smoke I didn't like, but all my friends smoked, so sometimes I smoked because I didn't want to feel inferior, and because of that I think it happens many times at schools, they started smoking by their colleagues influence (...) sometimes they are encouraged by friends that aren't such great friends"; they also talked of the willingness to experiment (23%) saying that "young people only smoke to experiment".

Adolescents suggested different explanations for general people and adolescent smoking behaviour: while in general people smoking behaviour was mostly related to dependence, in adolescence is referred to be associated with status improving among peers and to keep up social relations.

Once they did not report dependence when talk about adolescents, we believed that adolescents tend to focus on adults when we ask reasons in a general way. However we should note that no specific questions were made about adults. Nevertheless our results were similar to those obtained in a Northern Irish study¹⁴ in which adult smoking was perceived as a nicotine dependence and adolescent smoking was perceived in terms of social relations, like experiences with their peers. These results were in accordance with our quantitative findings when we found peers to be the major influence in smoking initiation,¹¹ similar to previous observation in Portugal¹⁵ and among international samples.^{9,16} Among young people, smoking was seen as a way of gaining control through fitting in their peer group.¹⁴ Thus, school-based programs should be focused on the development of smoking refusal skills,^{17,18} and an effective strategy could be planned with peer education. It was already shown that programs based on peer education may be more effective than adult-led drug education.¹⁹⁻²¹

Smoking consequences

When it was asked to adolescents to talk about the consequences of smoking, the sentence often mentioned was that “people who smoke can get cancer (...)”. Also, unspecified respiratory diseases were mentioned: “it’s bad to breathe that smoke (...) gets respiratory problems”; and a small number (23%) of adolescents referred death as a consequence saying that smoking: “(...) brings diseases and makes people die”.

Our results showed that adolescents recognized that smoking has serious implications on health. However they only referred it as a long-term effect and without consequences during adolescence. We compared participant’s responses regarding gender and according to their smoking behaviour (never smoker vs. ever smoker) to assess whether smokers and non-smokers offered different perspectives regarding smoking risks. The most important finding was that only smokers referred “death” as a smoking consequence. This illustrates that their behaviour does not reflect their knowledge on the severity of smoking consequences. These results were not totally unexpected, they expressed the effect of campaigns against smoking that predominantly focus on long-term consequences.²² If adolescents did not recognize themselves as target, it could explain the lack of success of those campaigns, even though they acknowledge consequences usually disclosed.

Preventive measures

In general, adolescents had difficulties to talk about preventive measures and to suggest some effective measure (almost half of adolescents failed to mention preventive strategies). They realised that “(...) people are tired of campaigns...of people saying it’s bad...It helped if someone supervised schools...”. Thus, to prevent this behaviour among adolescents the majority of the adolescents suggested repressive measures as more effective. Some even say that “(...) all those who smoke should go to a correctional facility”, others advocated the idea of “everything should be forbidden and more policemen should be watching the schools...and the streets...”.

The need for more information at school or more information at home was also reported, but without specifying which kind of information “teachers could alert for dangers but each one decided (...)” and “families must have an important role and they should, since the beginning, tell their children not to smoke and alert them for problems”. Adolescents put the responsibility on parents and schools to take the role of providing more information: “School and parents should give that protection (protection against smoking) (...) and explain to young people why smoking is bad...”; “(...) I don’t know if it would solve but if teachers warned them to the dangers...”.

Only a small number of adolescents referred the increase of the tobacco price as an effective measure: “Increase prices, maybe don’t avoid, but people could be more worried...They could think: I can’t waste money on this because I have to spend it on that”.

It was extremely important to note the difficulties in giving preventive measures targeted on adolescents. Almost all adolescents referred repressive measures as a way to prevent this behaviour, which could suggest that they had some doubts on the efficacy of all that has been done up to now. The increase of tobacco prices was the strategy that has proved to be more effective in decreasing the prevalence of smoking in young people and to have impact on the intention to smoke,²⁶ however only few adolescents reported it as a possible preventive measure, probably because they do not perceive themselves as the target of this measures.

We also found that adolescents enrolled at public schools expressed more difficulty in reporting some examples of preventive strategies. On the other hand, the adolescents of private schools were the ones who reported more frequently the need of additional information on this issue at school and at home.

According to a delayed modelling effect, early exposure to parental smoking may significantly influence children to smoke in the future. Previous studies showed that parental smoking negatively influence their children’s smoking behaviour.^{11,15,16,23-25} A possible reason is that adolescents see it as a symbol of maturity and power. Our results showed that adolescents with smoking parents more frequently were aware of tobacco related illnesses and more frequently chosen repressive actions as preventive measures. This could imply that adolescents with smoking parents gave more attention to smoking because they were directly exposed to it. However, children of smoking parents are more likely to start smoking behaviour.

We had enough sample to reach saturation among gender group but we did not have enough sample to reach saturation in other different subgroups (for example smokers and never smokers) and this could be a limitation of our study. Nevertheless, our study provided an insight into the cultural specificities of Portuguese adolescents’ social representations of smoking but also confirmed what we could call a global approach among western youth. Although the present qualitative approach did not allow the generalization of results, it provides a basis for the development of standardised tools to better understand smoking behaviour among adolescents.

In general, adolescents did not report tobacco dependence in the youth as a reason for smoking when younger, however

that was pointed out as the main reason for adult smoking behaviour adults smoke. This probably reflects their own beliefs that dependence only occurs after a certain age. Our work also showed that adolescents have a great difficulty to recognise short-term consequences of smoking. Consequently, they did not feel concerned with this problem.

In conclusion, this study points out the importance of family and peers as agents of socialization in tobacco consumption, showing the importance of anti-smoking campaigns among adolescents and the need of emphasizing information about smoking consequences in adolescence.

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Conflict of interest

Authors state that they don't have any conflict of interest.

References

1. US Department of Health and Human Services. The health consequences of smoking: a report of the surgeon general. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2004.
2. Mathers M, Toumbourou JW, Catalano RF, et al. Consequences of youth tobacco use: a review of prospective behavioural studies. *Addiction*. 2006;101:948-58.
3. Mackay J, Amos A. Women and tobacco. *Respirology*. 2003;8: 123-30.
4. Tonnesen P. How to reduce smoking among teenagers. *Eur Respir J*. 2002;19:1-3.
5. De Vries H, Mudde A, Kremers S, et al. The European Smoking Prevention Framework Approach (ESFA): short-term effects. *Health Educ Res*. 2003;18:649-63.
6. Oksuz E, Mutlu ET, Malhan S. Characteristics of daily and occasional smoking among youths. *Public Health*. 2007;121: 349-56.
7. Moscovici S. The phenomenon of social representations. In: Farr RM, Moscovici S, editors. *Social representations*. Cambridge: Cambridge University Press; 1984.
8. Balch GI. Exploring perceptions of smoking cessation among high school smokers: input and feedback from focus groups. *Prev Med*. 1998;27:A55-63.
9. Lucas K, Lloyd B. Starting smoking: girls' explanations of the influence of peers. *Journal of Adolescence*. 1999;22:647-55.
10. Møllerud K. Qualitative research: standards, challenges, and guidelines. *Lancet*. 2001;358:483-8.
11. Fraga S, Ramos E, Barros H. [Smoking and its associated factors in Portuguese adolescent students]. *Rev Saúde Pública*. 2006;40:620-6.
12. Ramos E, Barros H. Family and school determinants of overweight in 13-year-old Portuguese adolescents. *Acta Paediatric*. 2007;96:281-6.
13. Bardin L. *L'analyse de contenu*. 4th ed. Paris: Presses Universitaires de France; 1986.
14. Rugkasa J, Knox B, Stittlington J, et al. Anxious adults vs. cool children: children's views on smoking and addiction. *Soc Sci Med*. 2001;53:593-602.
15. Azevedo A, Machado AP, Barros H. Tobacco smoking among Portuguese high-school students. *Bull World Health Organ*. 1999;77:509-14.
16. Engels R, Vitaro F, Blockland E, et al. Influence and selection processes in friendships and adolescents smoking behaviour: the role of parental smoking. *J Adolesc*. 2004;27:531-44.
17. Vartiainen E, Pennanen M, Haukkala A, et al. The effects of a three-year smoking prevention programme in secondary schools in Helsinki. *Eur J Public Health*. 2007;17:249-56.
18. Nichols T, Graber J, Brooks-Gunn J, et al. Ways to say no: refusal skill strategies among urban adolescents. *Am J Health Behav*. 2006;30:227-36.
19. Mellanby A, Rees J, Tripp J. Peer-led and adult-led school health education: a critical review of available comparative research. *Health Educ Res*. 2000;15:533-45.
20. McDonald J, Roche A, Durbridge M, et al. *Peer Education: from evidence to practice*. Flinders University of South Australia; 2003.
21. Kuijpers P. Effective ingredients of school-based drug prevention programs. A systematic review. *Addict Behav*. 2002;27:1009-23.
22. De Vries H, Mudde A, Leijts I, et al. The European Smoking Prevention Framework Approach (ESFA): an example of integral prevention. *Health Educ Res*. 2003;18:611-26.
23. De Vries H, Candel M, Engels R, et al. Challenges to the peer influence paradigm: results for 12-13 years olds from six European countries from the European Smoking Prevention Framework Approach study. *Tob Control*. 2006;15:83-9.
24. Hoving C, Reubsæet A, De Vries H. Predictors of smoking stage transitions for adolescent boys and girls. *Prev Med*. 2007;44:485-9.
25. Otten R, Engels R, Van de Ven M, et al. Parental smoking and adolescents smoking stages: The role of parent's current and former smoking, and family structure. *J Behav Med*. 2007; 30:143-54.
26. Fernández E, Gallus S, Schiaffino A, et al. Price and consumption of tobacco in Spain over the period 1965-2000. *Eur J Cancer Prev*. 2004;13:207-11.