



## Tobacco habits of parents of our paediatric patients

Salomé Ruiz Escusol<sup>a</sup>, Soledad Gallardo Moreno<sup>b</sup>, Eugenio Guijarro Tapia<sup>c</sup>, Agustina Cardona Marqués<sup>b</sup>

Date of online publication:  
xx-abril-2021

Salomé Ruiz Escusol:  
sruiz.tgn.ics@gencat.cat

<sup>a</sup>Pediatra. EAP Tarragona 1. Bonavista-La Canonja. Tarragona. España • <sup>b</sup>Enfermera de Pediatría. EAP Tarragona 1. Bonavista-La Canonja. Tarragona. España • <sup>c</sup>Médico de Familia. EAP Tarragona 1. Bonavista-La Canonja. Tarragona. España.

### Abstract

**Introduction:** the impact of passive smoking is underestimated, not only by families but also by society at large. We present the results of a survey of parents conducted in the paediatric clinics of our catchment area over 3 weeks. We describe and analyse the findings of the survey.

**Material and methods:** we conducted a cross-sectional, observational and descriptive study over 3 weeks between May 27-31, 2019 including the “week without smoke” and the weeks 2 weeks before and 2 weeks after.

**Results:** 72.26% of the parents reported not smoking. In the group of nonsmokers, 68.72% had never smoked. The mean age at initiation of smoking was 17.04 years, with a range of 10 to 38 years. Of all smoking parents, 76.54% had considered quitting. In addition, 77.78% of the smoking parents considered that having a child could influence the decision to quit smoking. The results were similar in the 3 weeks that data were collected.

**Conclusions:** most of the parents surveyed did not smoke, and most of the nonsmokers had never smoked. We ought to highlight the early age at which participants started to smoke and that most smokers had never contemplated quitting, as well as the fact that most considered that having a child would influence that decision. Effective interventions are needed to reduce early exposure to tobacco smoke and to improve child health and therefore adult health.

### Key words:

- Tobacco use
- Tobacco

## Hábitos tabáquicos de los padres de los niños

### Resumen

**Introducción:** el tabaquismo pasivo está infravalorado, no solo por las familias sino también por la sociedad. Presentamos los resultados de encuestas realizadas a los padres en consultas de Pediatría de nuestra Área Básica durante tres semanas. Describimos y analizamos nuestra experiencia.

**Material y métodos:** estudio observacional, descriptivo, transversal, realizado las semanas del 17 al 21 de junio de 2019 (“Semana sin humo”), dos antes y dos después.

**Resultados:** el 72,26% de los padres se reconocieron no fumadores; de ellos, el 68,72% nunca había fumado. De los fumadores, la media de edad de comienzo fue 17,04 años, con un rango de 10 a 38. El 76,54% de los padres fumadores habían pensado dejarlo alguna vez. En el 77,78% de los fumadores, el hecho de tener hijos podría influir en la decisión de dejarlo. Los resultados fueron similares las tres semanas de realización de las encuestas.

**Conclusiones:** la mayoría de los padres encuestados no fumaba, además la mayoría no había fumado nunca. Llama la atención la precocidad en el inicio del hábito tabáquico, así como que la mayoría de los fumadores había pensado en dejarlo, y el hecho de tener un hijo influiría en la decisión de dejarlo. Son precisas intervenciones eficaces para reducir la exposición precoz al tabaco, para mejorar la salud del niño y, por lo tanto, del adulto.

### Palabras clave:

- Hábito tabáquico
- Tabaco

How to cite this article: Ruiz Escusol S, Gallardo Moreno S, Guijarro Tapia E, Cardona Marqués A. Hábitos tabáquicos de los padres de los niños. Rev Pediatr Aten Primaria. 2021;23 [in press].

## INTRODUCTION

Environmental or second-hand tobacco smoke is a complex mixture of toxic substances the exposure to which may have a deleterious impact on health in the short as well as long term. Inhalation of tobacco smoke by nonsmokers is known as passive smoking.

Unlike adults, children are not free to choose whether they are exposed to tobacco smoke. In addition, by nature, the youngest children depend on the care of adults. In some cases, families themselves fail to consider this important, citing commonplace justifications: “I never smoke in front of children”, “I smoke in the balcony”, “I smoke when they’re not around”, etc. The stance of paediatricians toward the prevention of exposure to tobacco from childhood, with particular emphasis during adolescence, is of paramount importance, as is the attitude of parents regarding prevention of passive smoking and being role models for their children.

On the occasion of the “Semana sin humo” (Week without smoke), which in 2019 took place between May 27 and May 31, we administered a questionnaire to the parents that came to our paediatric clinic. Our aim was to determine the proportion of fathers and mothers that smoked in our catchment area. We also sought to establish the age at smoking initiation and explore whether parenthood could be a motivation to attempt smoking cessation.

## MATERIAL AND METHODS

We conducted a cross-sectional, observational and descriptive study over 3 weeks, which corresponded to the “week without smoke” (May 27-31, 2019), the week 2 weeks before (May 13-17) and the week 2 weeks after (June 10-14).

The questionnaire was administered in the paediatric clinics covered by the primary care team of our catchment area (Tarragona 1 and Bonavista-La Canonja primary care team), corresponding to 2

paediatric care teams, each composed of 1 physician and 1 nurse. The team serves a neighbourhood in the outskirts of Tarragona and one small town that is also included in the catchment area. The questionnaire was administered by the physician or nurse of either team as long as the time allotted to the visit allowed it without delaying overall care delivery to the parents of children seeking care for any reason (scheduled check-up, scheduled regular visit or urgent visit).

We asked parents whether they would be willing to participate in an oral survey about tobacco to establish the current situation on tobacco exposure in our catchment area. Participation in the survey took no longer than 2 or 3 minutes.

When parents agreed to participate, we asked whether they currently smoked. If they did not, we asked whether they had ever smoked on a regular basis. If they were current smokers, we asked what age they started smoking, whether they had ever contemplated quitting and whether having a child would influence the decision to attempt quitting (Table 1). We collected the data in an Excel spreadsheet designed for the purpose.

## RESULTS

Table 2 provides an overall summary of the results. The survey included a total of 292 parents: 116 agreed to participate in the “week without smoke”, 101 two weeks before and 75 two weeks after. None of the respondents participated more than once in the survey.

Of all respondents, 211 (72.26%) reported not smoking and 81 (27.74%) reported current smoking. The percentages were similar in all the weeks in which the survey was conducted, always with a majority of nonsmokers.

**Table 1.** Survey questions

1. Do you smoke?: Yes/no
2. Did you ever smoke before?: Yes/no
3. If you smoke/smoked: since when?; have you considered quitting?: Yes/no; would having a child influence the decision to quit?: Yes/no

**Tabla 2. Survey results obtained before, during and after the “week without smoke”**

	Smoker		Former smoker		Smoker that contemplated quitting		Smoker that believed that having a child influenced quitting	
	Yes	No	Yes	No	Yes	No	Yes	No
2 weeks before (n = 101)	16	85	23	62	14	2	14	2
“Week without smoke” (n = 116)	38	78	25	53	25	13	30	8
2 weeks after (n = 75)	27	48	18	30	23	4	19	8
Total (n = 292)	81 (27.7%)	211 (72.3%)	66 (31.3%)	145 (68.7%)	62 (76.5%)	19 (23.5%)	63 (77.78%)	18 (22.22%)

Of those who did not smoke, 145 reported never having smoked (68.72%) and 66 (31.28%) having smoked at some point in the past. The percentage of nonsmokers that had never smoked was higher in each of the weeks included in the survey.

There were only 11 smokers (13.58% of the total) that did not remember the age at which they started smoking, but the rest did. The age of smoking initiation ranged from 10 years to 38 years. The mean age at initiation of smoking was 17.04 years (the mean for each of the weeks was very similar). The most frequent age at initiation of smoking (mode) was 16 years.

Of the 81 smokers, a majority (76.54%) had contemplated quitting, and the rest (23.46%) had never considered it. This was the case for the subset of respondents surveyed each week.

Most smokers (77.78%) reported that having a child would influence the decision of quitting smoking, and only a few (22.22%) reported it would have no effect. Once again, this finding did not change based on the week that the questionnaire was administered.

## DISCUSSION

Starting in the 1980s, royal decrees were enacted in Spain to regulate and restrict the contents, labelling and sales of tobacco products to protect the health of the population. In 2003, the World Health Organization (WHO) published the WHO

Framework Convention on Tobacco Control,<sup>1</sup> but until the enactment of Law 28/2005,<sup>2</sup> Spain lacked a specific law regulating the sales, distribution, consumption and advertising of tobacco products. This law<sup>2</sup> and the subsequent Law 42/2010<sup>3</sup> established an absolute ban on smoking in work settings and a partial ban in hospitality establishments, in addition to regulating the advertising, promotion and sponsoring of tobacco while urging for the implementation of health promotion and education strategies to facilitate smoking cessation, especially at the primary care level.

To assess the impact of the first law, the Sociedad Española de Neumología y Cirugía Torácica (Spanish Society of Pulmonology and Thoracic Surgery, SEPAR) carried out a study 12 months after its enactment and found a significant decrease in the number of smokers and the exposure to tobacco smoke.<sup>4</sup>

Despite the limitations of our study (short duration and a reduced number of participants—the parents that chose to collaborate or that could be surveyed within the constraints of the time allotted to visits and the workloads of health professionals), our findings seem quite relevant. We believe that the lower participation 2 weeks after the “week without smoke” was due to factors related to the health professionals and not to a lower motivation of parents, as the results of all 3 weeks were similar, even if the number of participants was smaller in the third week.

Based on data for 2017 from the Instituto Nacion-

al de Estadística (National Institute of Statistics, INE), the overall proportion of regular smokers in the general population (male and female) was 24.4%<sup>5</sup>; in our survey, we found a prevalence of 27.74%. According to the INE, 24.9% of the population are former smokers,<sup>5</sup> compared to 31.28% of our sample. Never smokers amounted to 50.7% of the overall population in 2017,<sup>5</sup> while in our sample we found a larger percentage of 68.72%.

It appears that there is insufficient awareness of the significant impact of passive smoking in childhood,<sup>6</sup> including exposure through maternal smoking during pregnancy. In the paediatric age group, excluding adolescents, the greatest proportion of exposure would correspond to passive smokers. Children, especially the youngest, cannot choose whether they are exposed to tobacco smoke or not. In addition, children aged 0 to 5 years usually spend a lot of time at home, which is the main setting where they are exposed to tobacco smoke during childhood.<sup>6</sup>

The literature refers to first-, second-, third- and even fourth-hand smoke. First-hand smoke is the smoke inhaled directly by smokers in a deep inspiration. Second-hand smoke or environmental tobacco smoke is the smoke inhaled by nonsmokers, as it pollutes the environment where a cigarette has been smoked; such inhalation of tobacco smoke by nonsmokers is what is known as “passive smoking”. Third-hand smoke refers to the residual contamination from smoking that remains on a variety of surfaces once second-hand smoke has dissipated (carpet, curtains, rugs, upholstery, car seats etc).<sup>7</sup> Cigarette butts are the source of fourth-hand smoke and are strong pollutants.

Some studies report that up to 70% of children worldwide may be exposed to tobacco smoke.<sup>6</sup> The results of the *Brief Intervention in babies. Effectiveness* (BIBE),<sup>8</sup> conducted in Catalonia and published in 2010, evince alarming levels of exposure to tobacco smoke based on parental reports (73%) and levels found in samples of children’s hair (79%).

It is a long-known fact that active parental smoking during pregnancy and in the early years of life

causes significant morbidity, mortality and disability in children,<sup>9-12</sup> and that its effects are not restricted to the respiratory tract<sup>13</sup> or to the current time but also extend to the long term.

As health professionals, it is our duty to engage in the prevention of tobacco exposure at vulnerable ages like childhood and adolescence and to try to increase the awareness of parents that are smokers of tobacco use and its repercussions from as early as gestation. This subject must be addressed systematically with adolescents and parents in our everyday practice, in the context of both routine paediatric care programmes and care episodes related to acute complaints, school-based health care interventions, vaccination appointments etc. We should not waste a single opportunity.

We found the age of smoking initiation concerning. In our sample, the earliest age of initiation was 10 years, the mean age 17.04 years and the mode 16 years, similar to the figures reported by the INE, with a mean age at initiation of 17.38 years and a standard deviation of 4.8 years.<sup>14</sup> This is also consistent with the trends in the United States, where the average smoker starts tobacco use at age 12 years and regular use in smokers is established by age 14 years.<sup>10</sup> Perhaps one of the areas on which efforts should focus in the future is the careful and effective approach to prevention in children and adolescents that have not yet started to smoke. It seems that the presence of smokers in the immediate environment (sibling or close friend)<sup>15</sup> may have an impact on tobacco use during adolescence.

Brief and intensive smoking cessation interventions<sup>16</sup> constitute a simple and brief strategy in which target individuals would be asked whether they smoke and, should they have an interest in quitting, offered help. Our findings suggest that having a child may have a positive impact on the decision to quit smoking. Thus, this approach requires the involvement of midwives, gynaecologists and obstetricians as well as nurses and family physicians.

In addition to the human resources already mentioned, structural and organizational resources are

also required to offer courses and workshops to health professionals, adolescents, parents, pregnant women and the general population informing of the deleterious effects of smoking on health and offering support for quitting. Needless to say, ongoing surveillance of advertising and online content that may promote initiation of smoking is also essential, always supported by current legislation on tobacco, which must be maintained and updated over time. Primary care has the potential to play a crucial role in the primary prevention of tobacco use.

## CONCLUSIONS

Most of the surveyed parents in our area were non-smokers and most of nonsmokers had never smoked.

One of the salient findings was the early age at smoking initiation, with the youngest being 10 years, and the mode also a very young age of 16 years. Thus, it is essential that health education be delivered from an early stage in paediatrics clinics to adolescents and their parents to prevent initiation of smoking as well as passive smoking.

## REFERENCES

1. CWHO Framework Convention on Tobacco Control. In: World Health Organization [online] [accessed 19/04/2021]. Available at <http://apps.who.int/iris/bitstream/handle/10665/42811/9241591013.pdf?sequence=1>
2. Ley 28/2005, de 26 de diciembre, de medidas sanitarias frente al tabaquismo y reguladora de la venta, el suministro, el consumo y la publicidad de los productos del tabaco. Jefatura del Estado. BOE no. 309, of 27 December 2005. Available at [www.boe.es/buscar/act.php?id=BOE-A-2005-21261](http://www.boe.es/buscar/act.php?id=BOE-A-2005-21261)
3. Ley 42/2010, de 30 de diciembre, por la que se modifica la Ley 28/2005, de 26 de diciembre, de medidas sanitarias frente al tabaquismo y reguladora de la venta, el suministro, el consumo y la publicidad de

Most smokers had contemplated quitting at some point, and having a child weighed heavily in the decision to attempt to quit, a factor that weighed heavily in the desire to quit. It is important that all health professionals involved in the care of smokers underscore the importance of quitting smoking and offer supportive services.

Effective interventions are required to prevent exposure to tobacco smoke in early life and therefore improve child health and, by extension, adult health.

## CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare in relation to this article.

## ABBREVIATIONS

- BIBE:** Brief Intervention in babies. Effectiveness • **INE:** Instituto Nacional de Estadística (National Institute of Statistics)
- **SEPAR:** Sociedad Española de Neumología y Cirugía Torácica (Spanish Society of Pulmonology and Thoracic Surgery)
  - **WHO:** World Health Organization.

- los productos del tabaco. Jefatura del Estado. BOE no. 318, of 31 December 2010. Available at [www.boe.es/buscar/act.php?id=BOE-A-2010-20138](http://www.boe.es/buscar/act.php?id=BOE-A-2010-20138)
4. Jiménez-Ruiz CA, Miranda JA, Hurt RD, Pinedo AR, Reina SS, Valero FC. Study of the impact of laws regulating tobacco consumption on the prevalence of passive smoking in Spain. *Eur J Public Health.* 2008; 18:622-5.
  5. Encuesta Nacional de salud 2017. INEbase. Data published in April 2019. In: Instituto Nacional de Estadística [online] [accessed 19/04/2021]. Available at [www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica\\_C&cid=1254736176783&menu=resultados&idp=1254735573175](http://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176783&menu=resultados&idp=1254735573175)
  6. Tabaquismo pasivo en la infancia. Guía de intervención para profesionales. Programa infancia sense fum de la Agència de Salut Pública de Catalunya. In: Agència de Salut Pública de Catalunya [online] [ac-

- cessed 19/04/2021]. Available at [http://salutpublica.gencat.cat/web/.content/minisite/aspcat/promocio\\_salut/tabac/prevencio-tabaquisme-passiu-infancia/guia\\_professionals\\_isf\\_v2.pdf](http://salutpublica.gencat.cat/web/.content/minisite/aspcat/promocio_salut/tabac/prevencio-tabaquisme-passiu-infancia/guia_professionals_isf_v2.pdf)
7. Jacob P, Benowitz N, Destailats H, Gundel L, Hang B, Martins-Green M, et al. Third hand smoke: new evidence, challenges and future directions. *Chem Res Toxicol*. 2017;30:270-94.
  8. Ortega G, Castellà C, Martín-Cantera C, Ballvé JL, Díaz E, Sáez M, et al. Passive smoking in babies: the BIBE study (Brief Intervention in Babies. Effectiveness). *BMC Public Health*. 2010;10:772.
  9. Ferris J, Alonso J, García J, Pérez S, Cortell I. Enfermedades pediátricas asociadas al tabaquismo pasivo. *An Esp Pediatr*. 1998;49:339-47.
  10. Stager M. Abuso de sustancias. Tabaco. In: Kliegman R, Stanton B, St Geme J, Schor N, Behrman R. Nelson Tratado de Pediatría. 19<sup>th</sup> edition. Barcelona: Elsevier España; 2013. Pp. 712-3.
  11. De la Cruz-Amorós E, Monferre-Fábrega R, Cruz-Hernández M. Tabaquismo. In: Brines J, Carrascosa A, Crespo M, Jiménez R, Molina JA. Cruz Tratado de Pediatría. 3rd edition. Madrid: Ergon; 2013. Pp. 1142-4.
  12. Córdoba-García R, García-Sánchez N, Suárez R, Galván C. Exposición al humo de tabaco ambiental en la infancia. *An Pediatr (Barc)*. 2007;67:101-3.
  13. Vanker A, Gie RP, Zar HJ. The association between environmental tobacco smoke exposure and childhood respiratory disease: a review. *Expert Rev Respir Med*. 2017;11:661-73.
  14. Encuesta Europea de salud, 2014. INEbase con fecha 27 de agosto de 2019. In: Instituto Nacional de Estadística [online] [accessed 19/04/2021]. Available at [www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica\\_C&cid=1254736176784&menu=resultados&idp=1254735573175](http://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176784&menu=resultados&idp=1254735573175)
  15. Muñoz R, Rodríguez M. Factores relacionados con el inicio en el consumo de tabaco en alumnos de Enseñanza Secundaria Obligatoria. *Enferm Glob*. 2014;13:113-24.
  16. Roberts NJ, Kerr SM, Smith SM. Behavioral interventions associated with smoking cessation in the treatment of tobacco use. *Health Serv Insights*. 2013;6:79-85.