

## Brief article

## Women's socioeconomic factors associated to the choice of contraceptive method in Spain

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## ABSTRACT

**Objective:** To describe the influence of socioeconomic characteristics on the choice of the contraceptive method used among women in Spain in 2006.**Methods:** This is a cross-sectional study of women aged 15–49 who reported the contraceptive method used during the first sexual intercourse (n = 3352) and during the 4 weeks prior to the interview (n = 2672). Data were analyzed taking into account women's socioeconomic characteristics.**Results:** The mostly used method during the first sexual intercourse was the condom. Women from developing countries more frequently used the pill than native-born Spanish women. The condom was also the most commonly used method in the 4 weeks prior to the interview. The use of other contraceptive methods increased with age. Being older and having children were both associated with an increased use of permanent methods.**Conclusions:** The choice of a specific contraceptive method seems to be more strongly influenced by women's stage of life than by socioeconomic characteristics.

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## Factores socioeconómicos de las mujeres asociados a la elección del método anticonceptivo en España

## RESUMEN

**Objetivos:** Describir la influencia de las características socioeconómicas en la elección del método anticonceptivo utilizado por las mujeres en España en 2006.**Métodos:** Estudio transversal de las mujeres de 15–49 años de edad que declararon el método anticonceptivo utilizado en la primera relación sexual (n = 3352) y durante las cuatro últimas semanas (n = 2672), teniendo en cuenta sus características socioeconómicas.**Resultados:** El preservativo fue el método más utilizado durante la primera relación sexual. Las mujeres de países en vías de desarrollo usaron más frecuentemente la píldora que las autóctonas. El preservativo fue también el método más utilizado durante las cuatro últimas semanas. El uso del resto de los métodos aumenta con la edad. Tener una edad más alta e hijos se asoció con un mayor uso de métodos permanentes.**Conclusiones:** La elección de un método anticonceptivo concreto parece estar más influenciada por el ciclo vital de la mujer que por sus características socioeconómicas.

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## Palabras clave:

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## Introduction

Several studies have highlighted the factors that influence women's use of contraception. Women of lower socioeconomic positions use contraception less and use less effective contraceptive methods, having the highest risk of unintended pregnancy.<sup>1,2</sup> It has been observed that different countries in Europe not only have differences in the prevalence of the use of contraception but also in the forms of contraception used.<sup>1–3</sup> A recent study showed that 70% of sexually active women in Spain aged 15–49 years used

contraception during their first intercourse and 78% used it during the four weeks prior to the interview.<sup>4</sup> This same study showed that women's characteristics such as age, level of education, country of origin, religiousness and age at first intercourse influence the use of contraception at first intercourse, and that in the case of the use of contraception during the last four weeks characteristics such as living with a partner, having children and having used contraception at first intercourse appear to be more relevant.

The condom, followed by the pill, were the methods used most, both in their first intercourse and during their most recent sexual intercourse, in Spain,<sup>4,5</sup> but it is not known if women's socioeconomic characteristics have an influence on their decision to use a specific contraceptive method.

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In this context, the aim of the present study was to describe the influence of women’s socioeconomic characteristics on the choice of the contraceptive method used among women in Spain in 2006.

**Methods**

This is a population-based cross-sectional study of non-institutionalised women aged 15–49 years in Spain in 2006.

The source of information was the 2006 fecundity interview developed by the Centro de Investigaciones Sociológicas. From an initial sample of 9737 interviewees, we selected women aged 15–49 years who reported the contraceptive method used during their first sexual intercourse (n = 3352) and during the four weeks prior to the interview (n = 2672). Full details of the survey have been reported elsewhere.<sup>4</sup>

Two dependent variables were analyzed, the contraceptive method used during first sexual intercourse and during sex in the four weeks prior to the interview. After having reported using contraception, women were asked if they used any of the following methods: condom, pill, withdrawal, injection, intrauterine device (IUD), emergency contraception, periodic abstinence, male sterilization, female sterilization, cream/foam spermicides or sponge, diaphragm, any other method. We selected women who had used a single method and compared these methods both individually and in groups of methods: condom/pill; condom/pill/IUD; ineffective (withdrawal, periodic abstinence and cream/foam spermicides or sponge)/effective (all the other methods of the previous list except the category ‘any other method’, as we do not know the effectiveness of the methods included in that category); permanent (male and female sterilization)/reversible (methods defined previously as effective).

Details of the selection of independent variables and explanation about categories have been reported previously.<sup>4</sup> The variables used in the analysis of first sexual intercourse were: level of education, country of origin, religiousness and age at first intercourse; and during the four weeks prior to the interview: all the variables mentioned above, living with partner, number of children and use of contraception at first intercourse. All analyses were stratified by age.

We performed a descriptive analysis using the Chi-squared test. Bivariate, multivariate and multinomial logistic regression models were fitted, and crude and adjusted odds ratios (aOR) with 95% confidence intervals (95%CI) were calculated for each group of age. Final adjusted models include all independent variables.

All statistical analyses were performed using STATA, version 10.1. Missing values were excluded from the analysis.

**Results**

Table 1 shows the prevalence of the most common contraceptive methods used during the first sexual intercourse stratified by variables of interest. Male condom was the method most commonly used in all ages (92.6% in 15–19, 86.7% in 20–24, 85.6% in 25–34 and 68% in 35–49). Women who did not use condom mostly used the pill, and the rest of methods are practically not used. The only variable associated with the choice of a contraceptive method was country of origin (data not shown). Women from developing countries aged 15–19 (aOR = 0.11; 95%CI: 0.02–0.58) and 25–34 (aOR = 0.35; 95%CI: 0.19–0.66) used the pill more than the condom, compared to women of the same age from developed countries.

Table 2 shows the prevalence of the contraceptive methods used most commonly during the four weeks prior to the interview stratified by variables of interest. The contraceptive method used varies depending on age. Condom is the most common method in all ages (68.2% in women aged 15–19, 53.3% in 20–24, 48.1% in 25–34 and

**Table 1** Prevalence of the contraceptive methods most commonly used during the first experience of sexual intercourse, stratified by selected variables, Spain, 2006.

	15-19 years			20-24 years			25-34 years			35-49 years		
	N	% C	% P	N	% C	% P	N	% C	% P	N	% C	% P
<i>Level of education</i>												
Less than primary	30	88.1	2.6	25	73.1	12.9	44	77.8	11.1	113	55.5	31.3
Primary	131	94.7	5.3	160	82.1	13.3	406	84	12.8	523	68.7	23.3
Secondary (or more if 15-19)	79	90.7	9.1	184	92.4	5.6	378	85.5	12.2	353	69	24.6
University				108	86.3	7.9	425	88	9.7	359	70.7	22.4
<i>Country of origin</i>												
Developed countries	216	94.2	4.5	433	87.2	8.6	1165	87.2	10.1	1301	68.8	23.7
Developing countries	24	77.8	21.6	47	81.3	13	99	66.9	28.3	58	51.3	30.8
<i>Religiousness</i>												
Yes	35	84.0	15.5	73	77.6	16.6	265	80.5	16.2	382	68.4	23
No	205	94.0	4.6	402	88.1	7.7	981	86.9	10.3	977	67.9	24.3
<i>Age at first intercourse</i>												
<16 years	86	95.7	2.2	42	88.0	10.2	59	86.2	3.2	26	77.7	5.5
16-17 years	123	91.6	8.2	172	86.2	8.5	322	89.5	7.9	188	68.1	18.9
18-19 years	27	85.6	10.7	184	89.4	8.6	440	86.4	11.4	438	70.5	21.0
>19 years				58	78.0	9.8	376	81.6	15.5	626	65.2	28.8
<i>Total</i>	242	92.6	6.15	480	86.7	9.0	1265	85.6	11.6	1364	68.0	24.0

C: condom; P: pill; OEM: other effective methods; IM: ineffective methods. The percentages may not sum to 100 because the category ‘any other method’ of contraception is not included. Totals may differ from the sum of categories because of missing values and sample weights.

**Table 2**  
Prevalence of the contraceptive methods most commonly used during the four weeks prior to the survey interview, stratified by selected variables, Spain, 2006.

	15-19 years							20-24 years							25-34 years							35-49 years						
	N	%	%	%	%	%	%	N	%	%	%	%	%	%	N	%	%	%	%	%	%	N	%	%	%	%	%	%
<i>Level of education</i>																												
Less than primary	16	61.4	27.2	0.0	11.4	0.0	0.0	18	61.5	19.3	13.6	5.7	0.0	0.0	41	27.7	38.3	3.6	7.0	17.0	0.0	153	31.4	23.7	5.8	0.0	33.2	5.9
Primary	91	67.1	26.3	0.65	0.8	0.0	0.8	101	45.7	49.0	0.6	0.6	2.3	0.0	306	43.7	40.6	4.1	0.3	8,2	1,2	533	62.6	18.1	9.6	0.7	33.4	4.1
Secondary (or more if 15-19)	47	74.4	24.9	0.0	0.0	0.3	0.0	125	54.1	33.3	0.5	0.5	0.0	3.8	276	44.0	33.3	10.5	0.6	5.8	1.8	317	33.9	15.2	17.3	0.5	28.8	3.7
University								70	60.2	35.8	2.5	0.4	0.0	0.8	277	60.0	29.5	4.3	0.1	0,9	2,8	269	38.1	24.0	14.8	0.1	19.2	2.1
<i>Country of origin</i>																												
Developed countries	138	68.4	27.5	0.0	1.8	0.0	0.5	277	54.8	36.6	1.9	0.1	0.8	1.4	799	50.7	34.9	4.6	0.4	5,6	0,9	1214	34.9	19.5	11.6	0.5	29.0	3.6
Developing countries	18	66.2	20.2	3.21	0.0	0.9	0.0	37	42.9	47.3	0.0	5.9	0.0	3.8	112	29.1	32.9	16.3	2.5	5,2	9,4	67	14.0	16.7	24.6	0.0	34.3	7.2
<i>Religiousness</i>																												
Yes	24	74.8	21.4	2.46	0.0	0.7	0.0	50	39.9	52.6	3.5	1.2	0.0	2.8	206	44.2	37.4	7.0	0.5	4,8	4,1	350	37.4	14.5	11.2	0.1	29.7	5.6
No	133	67.0	27.6	0.0	1.9	0.0	0.6	261	56.4	34.7	1.1	0.7	0.9	1.5	694	48.9	34.1	5.7	0.7	5,9	1,3	929	32.9	21.0	12.6	0.6	29.0	3.1
<i>Age at first intercourse</i>																												
<16 years	56	58.4	31.3	1.07	4.6	0.0	1.3	33	33.2	42.7	7.3	0.0	0.0	6.8	71	32.6	39.1	9.3	0.4	5,5	2,8	52	26.3	20.3	11.6	0.3	35.6	1.7
16-17 years	80	70.7	26.2	0.0	0.0	0.2	0.0	122	48.6	43.5	0.5	1.2	1.9	0.0	236	46.9	35.4	7.0	1.4	8,2	0,4	204	35.4	16.2	9.7	0.0	35.0	3.0
18-19 years	15	77.5	22.5	0.0	0.0	0.0	0.0	119	60.0	35.2	0.5	0.8	0.0	1.2	312	47.4	35.6	5.6	0.4	5,7	2,2	419	30.6	20.5	13.7	0.1	30.6	3.5
>19 years								27	57.2	27.8	6.4	0.0	0.0	6.4	250	56.2	27.7	5.5	0.4	3,7	3,2	544	37.3	18.3	12.2	0.9	26.2	4.2
<i>Living with partner</i>																												
Yes	18	53.8	37.9	3.3	0.0	0.9	4.1	108	45.8	46.4	2.2	1.5	0.5	1.8	646	44.8	34.3	7.3	0.4	7,2	2,4	1179	33.3	19.0	12.0	0.5	30.1	3.9
No	139	70.0	25.2	0.0	1.8	0.0	0.0	207	57.2	33.7	1.4	0.4	0.8	1.7	267	56.0	35.2	3.1	1.2	1,5	0,9	108	43.1	22.0	14.1	0.0	19.3	1.6
<i>Number of children</i>																												
0	149	69.2	27.1	0.4	1.7	0.0	0.0	263	55.8	35.6	1.3	0.3	0.7	1.8	431	54.7	36.4	4.1	0.2	0,4	1,4	70	63.9	23.1	7.9	0.0	2.7	0.0
1	4	61.9	33.7	0.0	0.0	4.2	0.0	38	48.8	45.6	0.0	2.6	1.5	1.5	223	48.4	36.4	7.9	0.9	0,1	3,0	270	40.6	26.6	15.7	0.2	11.4	3.5
>1	1	0.0	0.0	0.0	0.0	0.0	100.0	13	16.2	65.4	13.9	4.5	0.0	0.0	250	35.8	31.0	7.8	1.1	18,7	2,0	932	30.1	16.6	11.5	0.5	36.4	4.2
<i>Use at first intercourse</i>																												
Yes	10	72.8	19.9	0.0	7.4	0.0	0.0	29	28.1	57.9	6.4	7.6	0.0	0.0	141	34.5	36.8	9.5	2.0	8,7	7,4	452	25.3	21.9	10.8	1.1	31.7	7.9
No	146	67.8	27.2	0.4	1.2	0.1	0.5	286	55.8	36.0	1.2	0.1	0.8	1.9	763	50.7	34.1	5.4	0.4	5,0	1,0	819	39.0	17.7	12.9	0.1	28.1	1.3
<i>Total</i>	157	68.2	26.6	0.4	1.6	0.1	0.5	315	53.3	38.0	1.7	0.8	0.7	1.7	913	48.1	34.6	6.1	0.6	5,5	2,0	1287	34.1	19.2	12.2	0.4	29.2	3.7

C: condom; P: pill; IUD: intrauterine device; OERM: other effective reversible methods; Perm: permanent methods; IM: ineffective methods.

Totals may differ from the sum of categories because of missing values and sample weights. The percentages may not sum to 100 because the category 'any other method' of contraception is not included.

34.1% in 35–49). In women aged 15–24 the majority of those who did not use the condom used the pill, and no socioeconomic variable was associated with the choice between them (data not shown). Among women aged 25–49, the pill is also the second most commonly used method, and the use of IUD and specially permanent methods increases. Women aged 25 to 49 showed no differences in the choice of a reversible method, using mainly condom, pill or IUD, but there were differences in the use of a reversible method compared to a permanent one. Older women (aOR = 2.28; 95%CI: 1.39–3.75 for women aged 35–49 compared to those aged 25–34) and those with children (aOR = 3.95; 95%CI: 1.12–13.9 for women with one children compared to women without children) are the ones who used permanent methods more after adjusting for all independent variables (data not shown).

It has to be remarked that no variable was found associated with the choice of ineffective methods in the adjusted regression models in either of the two moments.

## Discussion

During first sexual intercourse women mostly used condom at all ages, as has been previously reported in Spain and other European countries.<sup>3,4</sup> Only being from a developing country influences prioritising the pill over the condom, as has been shown previously among women from Latin America.<sup>6</sup>

Condom is also the method most used in the four weeks prior to the interview, although an increase with age was found in the use of other contraceptive options.<sup>4,5</sup> Condom use is higher in Spain than other European countries,<sup>1–3</sup> possibly as a result of “safe sex” campaigns implemented to prevent sexually transmitted infections, specially among younger women.<sup>1,5</sup> Only being older and having children are associated with choosing a method in recent intercourse, preferring a permanent method to a reversible one.

Recent hormonal methods and long-acting reversible methods could be a good alternative for some specific groups, but they are not commonly used in Spain, or in other European countries, mainly because of a lack of their being offered by professionals.<sup>7–9</sup> The main limitations of the study are related to design of the survey. Full details have been reported elsewhere.<sup>4</sup>

Contraceptive counselling is one of the most important factors affecting the choice of a contraceptive method.<sup>10–14</sup> There is no information about counselling in the survey, and the different Autonomous Communities could be dealing with counselling in very different ways. It would be necessary to explore regional differences in the choice of the contraceptive method, as differences in the use of contraception have been found at this level.<sup>15</sup>

To conclude, this study indicates that although socioeconomic characteristics of women are associated with the use of contraception in Spain,<sup>4</sup> the choice of a specific contraceptive method seems to be more influenced by the woman's stage of life.<sup>5,13</sup>

## Authorship contributions

D. Ruiz-Muñoz performed the data analysis, participated in the interpretation of the data and drafted the manuscript. G. Pérez reviewed the analysis, participated in the interpretation of the data and in the drafting of the manuscript. The two authors have read and approved the final version of the manuscript.

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### What is already known?

There are inequalities in the use of contraception at first intercourse and during the four weeks prior to the interview in Spain. We do not know if these inequalities are also influencing the choice of a particular contraceptive method.

### What this paper adds?

The choice of a specific contraceptive method seems to be more influenced by the woman's stage of life than by her socioeconomic characteristics. It would be necessary to explore regional differences in the choice of contraceptive method.

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### Conflict of interest

None.

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