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## Original Article

# Who are the minors seeking an abortion for an unplanned pregnancy? A French observational study



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## ABSTRACT

**Aim:** To investigate the demographic, social, familial environmental and medical characteristics of women under 18 years having recourse to elective abortion (EA).

**Methods:** cross-sectional observational study from 01/02/2015 to 01/02/2016.

**Results:** 2626 EA were performed during study period and 210 (8%) minor women were identified. 90 (43%) were included. Mean patient age was 16 (15.5;17.0) years. Among them, 58 (65%) had been in a relationship >6 months. Parents of minor was separated in 48% of cases. Gestational age mean at pre-abortion consultation was 48.0(+/-8.4) and 45 (50%) had no contraception before EA. It was her own choice for 85 (93%) minors and main motivation for asking EA was “young age” or “studies”. Minors was accompanied by mother in 47% of cases.

**Conclusion:** Women under 18 with unplanned pregnancies are more likely to come from single-parent families, have a shorter schooling, and a worse relationship with their parents. Although the decision was often taken on their own, the role of the accompanying adult seems to be crucial for teenagers. Their partner is also a source of support. Sexual education is still important to enhance knowledge about the law and the accessibility to EA.

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## Introduction

Elective abortion (EA) was legalized in France in 1975 by the Simone Veil law [1], and extended to teenagers under the age of 18 years without parental consent in 2001 [2]. Since then, France allows EA for all women with no age restrictions until the end 14 weeks of gestation (WG). The 2001 law states that when a non-emancipated minor is in a situation where it is impossible to obtain the consent of at least one parent, or who is faced with family misunderstanding to the point that she wishes to keep the secret, she may designate another adult to accompany her. This adult may be a member of her family, a friend, or a qualified member of an organization [3].

According to national data, the number of EAs in France has been steadily declining in recent years: from 226 000 in 2010 to 218 000 in 2015 [4]. The global rate of EA for women between 15 and 49 years is 13.9‰. In under 18-year-olds this rate has been declining as well, from 10.0‰ in 2012, 9.5‰ in 2013, and 7.6‰ in 2015, possibly reflecting better information about contraception and improved access [5]. When they are confronted to an unplanned pregnancy, young women may often choose EA because they are less likely to be in a stable long-term relationship when they become pregnant [6].

The overall decline in EA, however, may mask important variations across demographic subgroups [7]. A better understanding of these teenagers could identify the factors that may have influenced the occurrence of the pregnancy.

The aim of this study was to investigate in a French sample the demographic, social, familial environmental and medical characteristics of women under 18 years having recourse to EA. The secondary objective was to define the role of the accompanying adult.

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## Methods

This was a cross-sectional observational study conducted from 1<sup>st</sup> February 2015 to 1<sup>st</sup> February 2016. All consecutive pregnant women presenting for an EA at either the Rennes University Hospital Center or Vannes Regional Hospital Center and who were not yet 18 at the time of the pre-abortion consultation, were invited to participate. Written consent was obtained for all the included women. The questionnaire was approved by our local Ethics Committee (N° 16.103).

The abortion protocol was the same in both centers. Women are first seen by a social worker to discuss their choice. For a medical abortion they are given 600 mg of mifepristone followed by 200 µg of misoprostol and analgesia 48 h later. For a surgical abortion, they are given 600 mg of mifepristone followed by uterine vacuum aspiration 48 h later, under local or regional anesthesia. Under 9 WG, the women can choose the method of abortion. All women leave the hospital the same day. A post-abortion follow-up visit is scheduled 14–21 days later. Successful pregnancy termination is confirmed by a transvaginal ultrasound and defined by the absence of an ongoing pregnancy.

The nurse gave the questionnaire to the teenager on the day of her admission for EA. She was asked to fill it without any external help. The questionnaire consisted of four parts: a first section of questions about the patient (social factors, family, reactions to the pregnancy, schooling, relationship with partner, age at first intercourse); the second about the accompanying adult; the third part about the reasons for the EA and ease of access. Once completed, the minors gave the questionnaire back to the nurse. The fourth part was filled by the clinician from the medical records: gravidity, parity, smoking, gestational age at consultation and at abortion, surgical or medical method, contraception chosen before and after EA.

All the questionnaires were anonymized. The data were entered and analyzed with Microsoft Excel and are expressed as number of women (N) and percentages (%), and mean ± standard deviation (SD).

## Results

### Patients

During the study period, 2626 abortions took place in both centers. A total of 156 minor women in Rennes and 54 in Vannes, which represented 8% of all women seeking EA during the same period. A total of 90 minor women (42.8%) were included during the study period, 54 at the University Hospital of Rennes and 36 at Vannes General Hospital.

The socio-demographic data of the teenagers are presented in [Table 1](#). Mean patient age was 16 [15.5;17] years, ranging from 14 to 17 years. Among them, 85 (94.4%) were of French nationality. Fifty-eight (64.8%) had been in a relationship >6 months with their boyfriend. Their boyfriends were >18 years old for 39 (43.3%) and 30 (33.3%) were in employment. Fifteen (16.7%) were not in schooling; 26 (28.9%) were in a vocational high school; 25 (27.8%) in a general high school; and 13 (14.4%) in middle school.

The decision process and motivation for the EA are presented in [Table 2](#). For most (N=79, 87.8%) the decision to have an abortion was their own. Twenty-five (27.8%) had come to the decision alone, 35 (38.9%) after discussion with their partner, and 12 (13.3%) with their parents. The reasons for the abortion are shown in [Table 2](#). The main reported reason was their young age (N=80, 88.9%), schooling (N=58, 64.4%), and fear of parental reaction (N=33, 36.7%).

**Table 1**

Demographic, social and medical characteristics of the study population.

Total	N=90
<b>Age (years)</b>	
Median ± SD	16 [15.5;17]
<b>Range (years)</b>	
13	0
14	7 (7.8)
15	15 (16.7)
16	19 (21.1)
17	46 (51.1)
Missing answer	3 (3.3)
<b>Nationality N(%)</b>	
French	85 (94.4)
Other	2 (2.2)
Missing answer	3 (3.3)
<b>Gravidity</b>	
1 N(%)	82 (91.1)
2 N(%)	8 (8.9)
<b>Parity</b>	
0 N(%)	89 (98.9)
1 N(%)	1 (1.1)
<b>Previous abortion</b>	
Previous delivery	7 (7.8)
<b>Smoker</b>	
Yes N(%)	57 (63.3)
No N(%)	27 (30.0)
Missing Answer	6 (6.7)
<b>Age at first intercourse</b>	
Mean ± SD	16 [15;17]
<b>Gestational age at pre-abortion consultation</b>	
Mean ± SD (days)	48 ± 8.4
Before 7WG	5 (5.5%)
7-9 WG	43 (47.8)
>9 WG	38 (42.2)
Missing Answer	4 (4.4)
<b>Abortion method N(%)</b>	
Surgical local anesthesia	29 (32.2)
Surgical general anesthesia	50 (55.5)
Medical	8 (8.9)
Missing Answer	3 (3.3)
<b>Contraception before EA</b>	
Preservative	20 (22.2)
Oral Contraception	13 (14.4)
Absent	45 (50)
Missing Answer	8 (8.9)
<b>Contraception after EA</b>	
Preservative	0
Oral Contraception	43 (47.8)
Implant	31 (34.4)
Intrauterine device	10 (11.1)
Absent	0
Missing Answer	5 (5.5)

### Medical data

Fifty-seven (63.3%) were smokers. Fifty (55.5%) had a surgical EA under general anesthesia, 29 (32.2%) had a surgical EA under local anesthesia, eight (8.9%) had a medical abortion, and data was missing for three (3%).

The most frequent side effect of abortion was pain in 62 (68.9%) women with a mean value of 4.2 (on a scale of 0–10). Other side effects were vaginal bleeding for 22 (24.4%) women, nausea and vomiting for 15 (16.7%) women, and syncope for 11 (12.2%).

Pain was managed with analgesia for 47 (52.2%) and warmth for four (4.4%). Seventy-five (83.4%) of the women reported that the support from the medical staff was good and the remaining five (5.6%) that it was bad.

Contraception was absent in 45 women (50.0%) before EA. After EA, every women had a contraception method ([Table 1](#)). Almost a half (45.6%) received a prescription for a long-action contraceptive method, with a preference for implants (34.4%). 11.1% had a prescription of intra uterine devices.

**Table 2**  
Decision process motivations for elective abortion and parental reactions.

	N (%)
<b>Was is your own idea?</b>	
Yes N(%)	79 (87.8)
No N(%)	6 (6.7)
Missing answer	5 (5.5)
<b>Who helped you with the decision?</b>	
Partner	35 (38.9)
Parents	12 (13.3)
Mother and Partner	4 (4.4)
Friend	3 (3.3)
Another person	1 (1.1)
No one	10 (11.1)
<b>Motivation (Several answers possible)</b>	
Young age	80 (88.9)
Studies	58 (64.4)
Fear of parents	33 (36.7)
No child desire	30 (33.3)
Family	10 (11.1)
Religious	3 (3.3)
Financial	2 (2.2)
<b>Parenting scheme</b>	
Married	38 (42.2)
Separated	43 (47.8)
Widow	2 (2.2)
Step family	4 (4.4)
Missing answer	3 (3.3)
<b>Relation with her parents</b>	
Very Good	26 (28.9)
Good	29 (32.2)
Medium	22 (24.4)
Poor	5 (5.5)
Bad	4 (4.4)
Missing answer	4 (4.4)
<b>Present at home</b>	
Both parents	29 (32.2)
Mother	28 (31.1)
Father	5 (5.5)
None	5 (5.5)
Missing answer	23 (25.6)
<b>Presence of brothers or sisters</b>	
Yes	82 (91.1)
No	5 (5.5)
Missing answer	3 (3.3)
<b>Mother's reaction</b>	
Positive	15 (26.8)
Negative	13 (23.2)
Surprise	15 (28.5)
Missing Answer	13 (23.2)
<b>Father's reaction</b>	
Positive	9 (25.0)
Negative	6 (16.7)
Surprise	10 (27.8)
Missing answer	11 (30.5)

### Family environment

The family situation of the population is shown in Table 3. Forty-three (47.8%) of the teenagers had parents who had separated. The quality of the relationship between the patient and her parents was reported as being poor or bad in nine cases (10.0%).

Only five (5.5%) of the teenagers were not living with a parent. Of the remaining women, 28 (31.1%) lived with their mother; five (5.5%) with their father; and 29 (32.2%) were living with both parents (Table 2).

Twenty-five (27.8%) of the teenagers had not informed their parents about the abortion; 31 (34.4%) had told both their mother and father; 25 (27.7%) their mother only; five (5.5%) their father only; and four (4.4%) did not respond to this question. Fifteen (26.8%) of the informed mothers and nine (25%) of the informed fathers were reported as being supportive, and 48 (53.3%) of the

**Table 3**  
Adult accompanying the minor.

	Total N = 90
<b>Who</b>	
Mother	42 (46.7)
Partner	13 (14.4)
Friend	11 (12.2)
Father	5 (5.5)
Family member	4 (4.4)
Extra Family	10 (11.1)
Nurse	1 (1.1)
Missing answer	5 (5.5)
<b>Teenager's choice</b>	
Yes	84 (93.3)
No	3 (3.3)
Missing answer	3 (3.3)
<b>Important role</b>	
Yes	84 (93.3)
No	3 (3.3)
Missing answer	3 (3.3)
<b>Present permanently</b>	
Yes	77(85.5)
No	8(8.9)
Missing Answer	5(5.5)
<b>Present at night</b>	
Yes	76(84.4)
No	7(7.8)
Missing Answer	7(7.8)
<b>Taking back home</b>	
Yes	62(68.9)
No	21(23.3)
Missing answer	7(7.8)
<b>Constraint</b>	
Yes	22(24.4)
No	62(68.9)
Missing answer	6(6.6)

teenagers thought that parents play an important role in this period.

### Accompanying adult

The accompanying adult was most likely to be the mother (N = 42, 46.7%) and least likely to be the father (N = 5, 5.5%). For the others, 13 (14.4%) were accompanied by their boyfriend and 11 (12.2%) by a friend. One teenager was accompanied by a caregiver. Twenty-four (26.7%) of the abortions were performed with the support of an adult chosen by the minor, without the parents being informed. Nearly all the women (N = 84, 93.3%) reported that it was important to be able to be accompanied by an adult of their choice. This person participated in decision-making process for 47 (52.2%) and was present with them at each step of the abortion process, including at night for 62 (68.9%) (Table 3).

Sixty-eight (75.5%) of the women had shared the information with their boyfriend, but 11 (12.2%) did not feel supported by him. The reaction of the boyfriend who had been informed was positive (supportive whatever the woman's choice) for 14 (20.5%), negative (rejection/anger) for 8 (11.7%), and surprise for 8 (11.7%).

### Abortion accessibility

Eighteen (20.0%) of the teenagers did not initially know where to go to terminate their pregnancy. Initial knowledge, sources of information, accessibility and the main difficulties encountered are summed up in Table 4. 31 (34.4%) had an appointment with the abortion center after 5 days, 53 (58.9%) within 5 days. The mean time between first medical contact and abortion was  $8.2 \pm$  days.

**Table 4**  
Knowledge and access.

Number of patients who knew about	N (%)
Accessible to minors	54 (60.0)
Choice between two methods	54 (60.0)
Free access	44 (48.9)
Possibility not to tell parents	41 (45.5)
Accompanying adult	41 (45.5)
Maximum 14 weeks' gestation	55 (61.1)
<b>Knew where to go</b>	
Yes N(%)	70 (77.8)
No N(%)	18 (20.0)
Missing Answer	2 (2.2)
<b>Source of information</b>	
Abortion center	36 (40)
Parents	17 (18.9)
General Practician	10 (11.1)
Friend	7 (7.8)
Scholar nurse	6 (6.7)
Web	3 (3.3)
Sister	2 (2.2)
Gynecologist	2 (2.2)
Missing Answer	7 (7.8)
<b>Appointment within 5 days</b>	
Yes N(%)	53 (58.9)
No N(%)	31 (34.4)
Missing Answer	6 (6.7)
<b>Difficulties of access</b>	
Transport	11 (12.2)
Time	7 (7.8)
Place	7 (7.8)
School	12 (13.3)
Family	9 (10.0)
Money	4 (4.4)
<b>Information about infectious sexual diseases received</b>	
Yes	39 (43.3)
No	32 (35.5)
Missing	18 (20)

## Discussion

### Main results

Minor women having recourse to EA were from 14 to 17 years old, mostly primigravid, with a majority of smokers and half of them did not use any contraception before EA. The main reason for choosing EA was their young age or studies. Most of them involved their parents and partner in the decision regarding the pregnancy. The knowledge about the law regarding EA was sufficient for only half of them. Finally, the role of the accompanying adult, mostly their mother or partner, was important for the majority of them.

### Strengths and weaknesses

Our study may not be representative of all France, but as it implied both urban and rural population, it is certainly a good reflection of regional practice. The main force of this study was its cross-sectional setting which enables more honest responses and offer a good reflect of teenagers' situation and feelings.

We are conscious of its limitations, mainly the fact that the data was only descriptive.

Other limitation is the lack of data exploring the association of EA accessibility according to geographical location, and long-term follow-up about actual use of contraception after the abortion.

However, we thought that a questionnaire answered by the minors themselves was relevant, considering that, despite its decrease, teenage pregnancy is still a public health concern. Introducing sexual education at school at an early stage might overcome social and family differences.

### Literature data

Our study suggests that environmental or familial factors may play a role with the onset of unplanned pregnancies in young teenagers. For example, only 36.6% of them reported that they were living in a single-parent family. Single-parent families in this population seems to be over-represented compared with the general French population, where only 22.8% of children live in single-parent families according to national data [8]. This result is in accordance with other studies [9] and suggests that special attention should be paid to single-parent families to prevent unplanned pregnancies [10].

Most of the teenagers in our population involved their parents in the decision to have an abortion. However, the rate of absence of parental consent was 27.8%. In other French studies this rate reaches between 38 and 56.3% of the cases since the introduction of the new law in 2001 [11,3]. The law of 2001 was intended to facilitate the handling of minors requesting abortions. Indeed, some minors may not find a supportive parent. A previous American study by Ralph et al. indicated that when a minor involves a non-supportive parent, they are less likely to have confidence in their decision and are more likely to feel that they will not be able to cope [12]. A non-pressuring person seems to be of prime importance for teenagers.

The partner represented a source of support for 88% of the girls. However, he was chosen as the accompanying adult in only 14.4% of the cases, far less often than the mother (46.7%). This may be explained by the fact that he was also minor (56.7%), or because the minor felt more comfortable with an adult. Unplanned pregnancy prevention is often perceived as the woman's responsibility, but caregivers should remember to include males in prevention practices after abortion or in routine consultations even though, the final choice for abortion exclusively rest on women [13,14]. Among men, the relative risk of non-use of a contraceptive method for men is higher among those without a high school degree [15]. The main reason reported by men for unintended pregnancies was that they thought their partner was using a contraceptive method.

The main reason given for seeking an abortion in our population was their young age (88.9%), followed by a wish to pursue their studies (64.4%). This result is concordant with another study conducted in Nice [11]. The fear of the parents' reaction was present for 36.7%. Most of the women reported multiple reasons.

Most of the EAs (73%) were achieved by surgery in our study versus 36% reported for the national population in 2016 [4]. This could be because both the adolescents and the medical teams find the surgical procedure more acceptable with less psychologic impact. Nonetheless, other publications have shown that medical abortions are well accepted in young girls [16,17].

Medical abortion with mifepristone and misoprostol was found to be highly effective and well tolerated both physically and emotionally by adolescents with 75% of the teenagers reporting that the procedure was acceptable initially, increasing to 96% during post abortion follow-up.

Another reason for the high rate of surgical EAs in our study may be the relatively high gestational age at first consultation: 46.6% of our women first presented at the center after 9 WG. This is concordant with previous studies [9,18] and can be explained by several reasons: lack of knowledge of the pregnancy, ignorance of abortion services available, lack of social support from partner or family, and possibly a feeling of fear and embarrassment [19]. Yet the time to obtain an appointment in the EA center was relatively short with only a third of the women not obtaining an appointment within 5 days. In a study by Moreau et al, the average time between first medical contact and EA as 11.6 days [20]. The consequence of delays in obtaining an appointment is that the abortion is

performed at a later gestational age with an increase in the risks associated with surgical abortions, such as uterine synechia [21].

Half of the teenagers in our study had a good knowledge of the EA law. However, 20% of them did not initially know where to go for their abortion. The variety of sources of information reported demonstrates the importance of friends and family in those cases.

About contraception, we noticed that half of minors did not use a contraceptive method before EA. This a lot compared with Moreau et al.'s study [20], but their study included patient under the age of 20. They highlighted that the absence of contraception was more frequent in minors, mostly because they thought they were not at risk of becoming pregnant or because they had not planned to have sex. It has nonetheless been shown that adolescent who start a contraceptive use before their first sexual intercourse have a better contraceptive observance, while later initiation was linked to higher rates of unintended pregnancies and abortions [22].

In our study, all teenagers started a contraception or switched to a more effective method of contraception after EA, mostly long-action contraceptive method, with a preference for implants. Some of them had a prescription of intra uterine devices, showing that barriers to prescribe IUDs for young women tend to narrow [23,24]. The preservatives alone were not chosen by any of them, maybe due to the fear of preservative slippage or breakage.

Abortion is the end point of a process that starts with sexual activity and contraceptive use (or non-use), followed by unplanned pregnancy, the decision to terminate, and the access to abortion [25]. The dissemination of contraception is a priority to reduce unplanned pregnancies in young people, and information and access to abortion diffused for them to access it when needed.

## Conclusion

Women under 18 with unplanned pregnancies are more likely to come from single-parent families, have a shorter schooling, and a worse relationship with their parents. Although the decision was often taken on their own, the role of the accompanying adult seems to be crucial for teenagers. Their partner is also a source of support. Sexual education is still important to enhance knowledge about the law and the accessibility to EA.

## Conflict of interest

No conflict of interest was raised.

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## Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.jogoh.2019.04.005>.

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