

Risk factors for unwanted pregnancy and subsequent abortion among women aged 16 to 25 years in Latvia

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ABSTRACT **Objective** To investigate the risk factors associated with unwanted pregnancy in 16- to 25-year-old women in Latvia.

Methods Case-control study of 16- to 25-year-old, sexually active women who did not want to get pregnant: the cases were 144 women who underwent their first abortion whereas 278 nulliparous women served as controls. Data concerning them were obtained by using a semi-structured anonymous questionnaire that included questions about education, sexual life habits, contraceptive practice and a multiple-choice test to assess knowledge about contraception.

Results Women who underwent an abortion had had more lifetime sexual partners, had more often not used any contraception, and were significantly less knowledgeable about the latter than controls. No strong correlation between knowledge and actual contraceptive practice was observed in the study groups. Logistic regression analysis showed that the most significant risk factors were non-use of contraception or use of less effective methods.

Conclusions The risk of unwanted pregnancy was associated with the woman's behaviour; her knowledge of contraception was much less relevant. Sexual health programmes should focus more on intrapersonal and interpersonal factors to promote use of effective contraception among young women.

KEY WORDS Abortion; Contraception; Adolescent; Young adult; Knowledge of contraception; Latvia

INTRODUCTION

The annual national data from Latvia show a continuous decline in the abortion rate from 60 per 1000 women of reproductive age in 1991, to 13 per 1000 in 2010. Yet, according to the World Health Organization's (WHO) data, the abortion rate in Latvia, which corresponds to 388 abortions per 1000 live births, continues to be among the highest ten in the European Union countries^{1,2}.

Very limited data are available on the socio-economic or other characteristics of women undergoing abortion in Latvia, which makes it impossible to analyse the most important risk factors for unwanted pregnancies at national level. It is known that the abortion rate is related to socio-economic background and level of general education³. Healthcare professionals (HCPs) have little impact on these determinants. The WHO has suggested that the number of induced

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abortions can be reduced by improving knowledge and increasing the rate of information-based decisions made regarding sexual and reproductive health (SRH) issues⁴. HCPs can help to implement this in practice⁵⁻⁷.

Unfortunately little has been done to improve young people's knowledge in these matters. Health education is not a separate subject in primary school curricula. Instead, it is integrated in the block of social sciences that takes up only one to two lessons per year for the mentioned topics and is often taught by non-professionals in the field such as, for instance, a teacher of economics. Besides, there are no credible national data concerning knowledge of SRH in Latvia, especially, in the 15- to 24-year-old age group.

Thus, it is not surprising that the prevalence of hormonal contraception use in Latvia is low, at less than 20% overall, and 10 to 15% in the 15- to 25-year-old age group. The most popular method is the male condom (used by 67%) followed by withdrawal, which is resorted to by 30.5% of young people in Latvia⁸. Hormonal contraceptives in Latvia are available only by prescription and their price is relatively high – approximately 15 euros per package. Contraceptives are not subsidised.

The aim of this study was to identify the main risk factors leading to unwanted pregnancy in 16- to 25-year-old Latvian women.

MATERIALS AND METHODS

The case-control study was carried out between June 2010 and June 2011 among 16- to 25-year-old sexually active women. Cases were defined as women seeking an induced abortion for their first pregnancy at 12 medical institutions with the highest number of abortions and located in different regions, both urban and rural, spread over the territory of Latvia.

We verified that the sample size ($N=422$) was appropriate for this using OpenEpi, Version 7, open source calculator – PowerCC, Power for Unmatched Case-Control Studies. This module estimates the power for this type of study^{9,10}. The sample size was calculated with a two-sided confidence interval of 99.9% and with a statistical power of 80%, to assume that exposure for controls is 10%. This is based on the fact that 10% of all first pregnancies in Latvia end with an induced abortion and therefore it can be assumed that this percentage would be applicable to the control population consisting of nulligravid women.

As 90% of women in this age group are enrolled in the Latvian education system¹¹ (high school, vocational schools, universities), most controls were female students or pupils. In order to include subjects who were not studying, 30% of the controls were recruited from a population of female patients undergoing treatment in the surgical departments of participating hospitals. Women with gynaecological pathology were excluded. Participants in each region were enrolled in the study proportionally to the number of female inhabitants in the area concerned. Controls were recruited in the same geographical regions as cases.

Data were gathered in the following way. In medical institutions, questionnaires were placed at the nurses' office in the ward where all women who start or end their treatment in the ward should check in or out. Nurses or doctors of medical institutions were asked to distribute questionnaires to all women who attended for abortions or, at any time, to those staying in a surgical ward.

Each educational institution was attended by the researchers or their representatives on one day chosen by chance between 8 a.m. and 12 a.m., when most of the classes are being held. Then one class or lecture was randomly selected that was compulsory for all students or pupils irrespective of their learning profile (e.g., the Latvian class) and those in attendance were invited to partake in the study. Oral and written information about the research was provided, emphasising the option to refuse participation and the strict confidentiality of the data gathered. Participants were asked to fill out the anonymous and partly structured questionnaire, seal the envelope and leave it with medical personnel or on the desk at the end of class.

Questions were tailored for this study in collaboration with experts. To ensure validity and a user-friendly design, two-stage piloting of the questionnaire was carried out on 43 women having abortions who were university and high-school students, and pupils in vocational schools. First, 13 subjects completed the questionnaire and then were interviewed to determine the best phrasing of questions. Separate piloting involving the 30 others evaluated the multiple-choice part of the questionnaire (MCQ) assessing knowledge about contraception. The Cronbach alpha score for the MCQ test was found to be 0.652.

The finalised questionnaire consisted of four parts: (i) descriptive data, (ii) reproductive history (age at first intercourse, number of lifetime partners and partners

per year, past pregnancies, frequency of intercourse), (iii) contraceptive habits, and (iv) assessment of knowledge about contraception (methods, their use and efficacy) by means of 16 multiple-choice questions. The maximal score in the knowledge test was 16 points. One open-ended question provided women in the case group the opportunity to air their own beliefs about the reasons why they had become unintentionally pregnant. The average time needed to fill out the questionnaire was 15 minutes.

The questionnaires were available in Latvian and Russian, according to the participant's wish. The questions were translated by a person mastering both languages. Afterwards, in collaboration with a medical doctor comparably fluent in the two idioms, questions were harmonised.

Statistical analysis

SPSS 19.0 version was used for data analysis. To determine differences between women without- and those with an unwanted pregnancy that resulted in a legal abortion, parametric (Student's *t*) and nonparametric (Mann-Whitney) tests for data in range and the interval scale, and Pearson's Chi-square for data in the nominal scale were resorted to. Statistical significance was set at $p < 0.05$.

Spearman's correlation coefficient (r_s) was used to describe correlations between the groups. A correlation coefficient < 0.2 was considered to be insignificant. While r_s 0.2–0.4 was interpreted as a weak correlation, $0.4 < r_s < 0.7$ was interpreted as a moderately strong correlation, and $r_s \geq 0.7$ as a strong correlation.

Binary logistic regression was carried out to assess the factors associated with the dependent variable – the pregnancy termination in the research population. Associations are presented as odds ratios (ORs) with confidence intervals (CIs) and the regression coefficient square change (R^2) for each variable is indicated. Only the variables that showed statistically significant differences between groups in the univariate analysis were included as explanatory variables. These were: number of lifetime sexual partners, frequency of sexual intercourse, contraceptive efficacy profile, reason for choosing a particular contraceptive method, knowledge about contraception, and sources of information about the latter. To adjust for possible interaction between the variables, each variable was controlled against the others and the correlation did not exceed 0.7.

The answers to the open-ended question were analysed using taxonomy of the important causes of the unwanted pregnancy based on the attribution theory¹². According to this theory, individuals attribute different causes to events, and affective and behavioural reactions of an individual are influenced by the way how she/he sees the causes of the event – as internal/controllable or external/uncontrollable¹³.

Ethical aspects

The study was approved by the Ethics Committee of Riga Stradins University.

RESULTS

Of 624 women who received a questionnaire, 422 (68%) women (144 cases and 278 controls) were included in the study. One hundred and twenty-nine (21%) women did not fill out the questionnaire and 73 (11%) questionnaires were not valid for processing as more than 30% of the information required was missing or the women did not fulfil the inclusion criteria (were not sexually active or had had pregnancies before). The response rate was 68%. Our case group represents 14% of all women submitting yearly to induction of abortion of their first pregnancy in Latvia.

Socio-demographic characteristics

The average age of cases was 20 (standard deviation [SD]: 2.4) years, which did not significantly differ from that of controls: 19.8 (SD: 2.4) years. The level of formal education of cases was significantly lower than that of controls ($p = 0.007$; Table 1).

Sexual life indicators

The average age at first sexual relationship (17 [SD: 1.6] years) in the case group was not significantly different from that (16.8 [SD: 1.7] years) in the control group. The number of lifetime sexual partners among cases was significantly higher than among controls ($p < 0.05$). Yet, the number of partners women in both groups had had in the last 12 months was comparable ($p = 0.06$). The number of life-time sexual partners positively correlated with the duration of sexual life in years ($r_s = 0.59$, $p < 0.05$, in the case group; and $r_s = 0.49$, $p < 0.05$, in the control group).

Table 1 Level of formal education of participants.

Level of formal education	Cases, n (%)	Controls, n (%)
Attended primary school	3 (2)	5 (2)
Graduated from primary school, no longer studying	7 (5)	2 (1)
Attended high school	37 (26)	78 (28)
Graduated from high school, no longer studying	19 (13)	8 (3)
Attended vocational school	21 (15)	28 (10)
Graduated from vocational school, no longer studying	8 (6)	11 (4)
Attended university	36 (25)	128 (46)
Graduated from university	12 (8)	18 (7)
Missing data	1	0
Total	144 (100)	278 (100)

Due to rounding, the sum of the percentages does not amount to 100%.

Regular (at least once per month during the last six months) sexual intercourse was reported by 91% of the cases and by 80% of the controls, ($p = 0.02$). This was in line with the data gathered from women seeking an abortion according to which 63% were in a long-term relationship (marriage, cohabitation, dating for more than six months), and only 10% claimed that pregnancy had occurred with an occasional partner.

Use of contraceptives

Women were asked about the contraception methods they had relied upon during the previous six months or the six months before conception. The usage of different methods and the differences between the two groups are shown in Table 2.

To consolidate the data, all women were stratified by contraceptive efficacy profile that was ranked according to the contraception used. The women in the *highest efficacy profile* were those who had always resorted to effective contraception such as hormonal contraceptives, condoms or an intrauterine device (IUD). This applied to 8% of the cases and 36% of the controls. The *intermediate contraceptive efficacy profile* pertained to women who, at least once, had used relatively ineffective methods (but never none) such as withdrawal, the calendar method or a spermicide. The usage patterns of 35% of the cases and 39% of the controls corresponded with this description. In the *lowest contraceptive efficacy profile* we included women who had employed no method at all at least once during the previous six months or the six months before conception. This concerned 57% of the cases and 25% of the controls. The contraceptive efficacy profile of

the latter was significantly higher than that of the former ($p < 0.05$).

The method's efficacy was, in both groups, the main reason for choosing a particular contraceptive but this feature was mentioned significantly less frequently by cases (37%) than by controls (68%). Significantly more of the former (14%) than of the latter (3%) stated that they did not know why they had chosen a particular contraception method ($p < 0.05$). A trend was observed suggesting that price might have been a more important issue for cases than for controls (12% vs. 6%, $p = 0.05$; Table 3).

Significantly more women (35%) in the case group who did not use any contraception at least once during the six months that preceded their pregnancy claimed that they believed they would not conceive at

Table 2 Contraception methods used at least once in the six months preceding pregnancy (by cases) or in the last six months (by controls).

Method	Cases, n (%)	Controls, n (%)	p-value
Male condom	76 (70)	212 (84)	0.01
None	62 (57)	63 (25)	<0.01
Withdrawal	62 (57)	122 (48)	0.11
Hormonal contraception	18 (16)	50 (20)	0.56
Calendar method	10 (9)	25 (10)	0.52
Spermicide	4 (4)	8 (3)	0.76
Copper intrauterine device	2 (2)	0	0.09

p-values in bold indicate statistically significant differences.

Participants were asked to tick all methods they had used.

Table 3 Reasons for choosing a particular contraception method used during the six months prior to pregnancy (by cases) or during the preceding six months (by controls).

Reason	Cases, n (%)	Controls, n (%)	p-value
Effectiveness	40 (37)	173 (68)	<0.01
The cheapest	13 (12)	15 (6)	0.05
Easy to obtain	21 (19)	61 (24)	0.41
Easy to use	30 (20)	104 (41)	0.24
Do not know much about others	11 (10)	18 (7)	0.29
Partner insisted on it	10 (9)	20 (8)	0.68
Doctor recommendation	6 (6)	29 (11)	0.12
By chance	10 (9)	20 (8)	0.68
Don't know	15 (14)	7 (3)	<0.01

p-values in bold indicate statistically significant differences.

Participants were asked to tick all reasons that applied.

that time, and 39% just did not think about the possibility of conceiving and the need for contraception. However, more controls (37%) thought that the use of contraception prevents enjoying intimacy (Table 4).

Knowledge about contraception

Cases on average scored significantly lower in the MCQ than controls (7.4 [SD 2.6] vs. 8.1 [SD 2.4], $p = 0.008$).

The correlation between knowledge about contraception and age was insignificant among cases ($r_s = 0.18$, $p < 0.001$) whereas it was weak among

controls ($r_s = 0.22$, $p < 0.001$). A weak, but statistically significant correlation was observed between the level of formal education and the MCQ score in both groups (cases: $r_s = 0.32$ vs. controls: $r_s = 0.24$, $p < 0.05$).

There was also a weak but significant correlation between knowledge about contraception and the contraceptive efficacy profile of cases ($r_s = 0.23$, $p = 0.01$) but none as far as controls were concerned ($r_s = 0.19$, $p < 0.05$).

Both groups' knowledge about contraception was weakly linked to the self-assessed level of knowledge ($r = 0.23$, $p < 0.05$). The self-assessed level of knowledge in cases was significantly lower than among controls ($p = 0.003$).

Sources of information about contraception

The main source of information about contraception in both groups was mass media and the internet (cases: 73% vs. controls: 76%) Overall, cases used fewer information sources about contraception than controls ($p = 0.02$). The latter more often sought information about SRH-related matters from teachers, doctors, books, and brochures (Table 5).

Women's perceptions about the occurrence of unwanted pregnancy in the case group

Only 7% of cases stated that they had no idea why they got pregnant, whereas 45% attributed conception to external causes (e.g., partner's responsibility, method failure) and 48% referred to internal causes or their own behaviour ('I did not use contraception'), beliefs

Table 4 Reasons for not using contraception during the six months prior to pregnancy (by cases) or the preceding six months (by controls).

Reason	Cases, n (%)	Controls, n (%)	p-value
Believed that pregnancy could not occur	22 (35)	10 (14.5)	<0.01
Afraid of side effects	4 (8)	12 (21)	0.1
Did not think about possibility of pregnancy	24 (39)	18 (28)	<0.01
Thought that it prevented enjoying intimacy	11 (20)	26 (37)	<0.01
Partner thought that it prevented enjoying intimacy	10 (15)	14 (20)	0.65
Too expensive	4 (7)	3 (4)	0.71
Sex was unplanned	13 (20)	23 (32)	0.17
Other	4 (8)	1 (1)	<0.01

p-values in bold indicate statistically significant differences.

More than one reason could be given.

Table 5 Sources of information about sexual and reproductive health.

Source	Cases, n (%)	Controls, n (%)	p-value
Mass media and the internet	99 (73)	201 (76)	0.08
Doctor	84 (62)	169 (64)	<0.01
Friend	65 (48)	142 (54)	0.29
Books, brochures	57 (42)	142 (54)	0.03
Parents	46 (34)	86 (33)	0.78
Teacher	29 (21)	69 (26)	<0.01
Partner	24 (18)	89 (34)	<0.01
Sibling	17 (13)	29 (11)	0.33

p-values in bold indicate statistically significant differences.

Women were asked to tick all sources of information they used.

(‘I believed that I was infertile’) or state of mind (‘I did not think about the possibility of getting pregnant’).

Regression analysis – risk factors linked to unwanted pregnancy

To determine the main risk factors linked to unwanted pregnancy that resulted in a legal abortion, binary logistic regression was performed. Indicators included in the regression analysis were the number of lifetime sexual partners, frequency of sexual intercourse, contraceptive efficacy profile, reason for choosing the particular contraceptive method, knowledge of contraception, and the information sources about contraception. The final regression model analysis is shown in Table 6.

The main risk factor – that increased the risk eightfold – was the low contraceptive efficacy profile. Regular sexual intercourse doubled the risk of unwanted pregnancy. A lower number of sexual partners and a clear reason for choosing a particular contraceptive significantly decreased the risk of unwanted pregnancy. Knowledge about contraception did not play any significant role in the regression analysis.

DISCUSSION

Principal findings

Women with unwanted pregnancies more often had used no contraception or had relied on less effective

methods. More commonly they could not explain why the particular contraception method was chosen, they had not thought about the necessity of resorting to contraception when having sex or they believed that they could not conceive at that time. They also were significantly less knowledgeable about contraception.

The main risk factors for unwanted pregnancy were linked with the woman’s behaviour, like not using contraception or using less effective methods, rather than a lack of knowledge about these issues.

Strengths and weaknesses of the study

The socio-demographic characteristics such as age and regional distribution of both groups are similar and, thus, the groups are comparable. Participants in the study were recruited from all regions of Latvia. We assessed several factors (use of contraception, knowledge about SRH) that could influence the risk of unwanted pregnancy. In-depth analysis of the women’s beliefs as to why the unintended pregnancy had occurred, gives a hint how to approach post-abortion counselling about contraception.

Our research focused on risk factors on which HCPs can bear an influence; factors such as level of income, unemployment in the family, etc., were beyond the scope of the study. The response rate was low (68%), particularly in the case group. This can have several reasons. First, there were no benefits for participation in the survey – neither for the staff of medical institutions, nor for the participants. Considering the high work load and low salaries of medical personnel in Latvia, this is in all likelihood adversely affected the response rate. Secondly, abortion in Latvia, especially in this age group, is mostly considered to be a shameful and stigmatising event. Thus, women are often reluctant to share their opinion and experience. This aspect made medical institutions that provide pregnancy termination the most reliable place to pick up cases, even though the response rate was already predicted to be low. Thirdly, in this study, abortion was chosen as an indicator for unwanted pregnancy. We cannot provide information about women whose pregnancies continued despite being unwanted. National data show that one third of pregnancies that end with childbirth are unplanned⁸. Finally, all information we gathered was self-reported by the participants. To encourage women to report honestly, strict confidentiality was guaranteed.

Table 6 Risk factors for the unwanted pregnancy that led to a legal abortion.

Variable	ΔR^2	Crude OR			Adjusted OR		
		OR	95% CI	p-value	OR	95% CI	p-value
<i>Number of lifetime sexual partners</i>							
One	0.017	0.38	0.22–0.64	<0.01	0.51	0.28–0.95	0.03
Two		0.44	0.24–0.79	0.007	0.31	0.15–0.65	0.002
Three		0.58	0.33–1.02	0.06	0.58	0.3–1.09	0.09
Four or more		1			1		
<i>Frequency of sexual intercourse</i>							
At least once per month	0.009	2.4	1.26–4.58	0.007	2.09	1.00–4.38	0.049
Less than once per month		1			1		
<i>Contraceptive efficacy profile[†]</i>							
Lowest efficacy profile	0.110	7.99	4.1–15.58	<0.01	8.19	3.76–17.86	<0.01
Intermediate efficacy profile		4.21	2.18–8.15	<0.01	4.33	2.02–9.26	<0.01
Highest efficacy profile		1			1		
<i>Motivation for choosing the particular method of contraception</i>							
Know why they chose the particular method	0.019	0.19	0.08–0.46	<0.01	0.29	0.11–0.74	<0.01
Don't know why they chose the particular method		1			1		
<i>Knowledge about contraception</i>							
One point increase in MCT	0	0.89	0.83–0.97	0.009	0.99	0.9–1.1	0.92
<i>Sources of information about contraception</i>							
Don't use doctors as source of information	0	1.09	0.71–1.67	0.69	0.95	0.57–1.58	0.84
Use doctors as source of information		1			1		
Don't use teachers as source of information	0	1.29	0.79–2.13	0.29	0.95	0.57–1.58	0.84
Use teachers as source of information		1			1		
Don't use books as source of information	0	1.6	1.05–2.43	0.02	1.49	0.91–2.45	0.11
Use books as source of information		1			1		

ΔR^2 , regression coefficient square change; OR, odds ratio; CI, confidence interval; MCT, multiple-choice test.

Adjusted odds ratios, 95% confidence intervals and p-values in bold indicate statistically significant differences.

[†]Efficacy profile:

Highest efficacy profile: always used effective contraception methods (hormonal contraception, condom, intrauterine device).

Intermediate contraceptive efficacy profile: used at least once relatively ineffective methods (withdrawal, calendar method, spermicide), but never none.

Lowest contraceptive efficacy profile: used no contraception at all at least once.

Differences in results and conclusions in relation to other studies

Sexual life indicators, such as the age at initiation of sexual relationships and the number of sexual partners in the last year, were similar in both groups. Studies carried out in Poland and Denmark^{14,15} showed an average age at first intercourse similar to that in our study and the latter did not differ between our two study groups.

The cases (women in the abortion group) had had a greater number of lifetime sexual partners, which Van Ryzin *et al.* described as both a part of an overall 'risky behaviour' profile, and a risk factor *in se* for unwanted pregnancy¹⁶. However, Regushevskaya *et al.* did not find a direct link between the number of lifetime sexual partners and risk of unwanted pregnancy¹⁷.

According to other studies, women who had had an induced abortion, tended to have had their sexarche at an earlier age^{8,18,19}. Although we did not find such a correlation, the duration of sexual life correlated with the greater number of sex partners, and we found this to be a significant risk factor.

When asked about reasons for not using any contraception at all, women in the abortion group more often mentioned that they thought they would not conceive at that moment; this is a common belief, which was identified by other investigators as well^{20,21}. Also, these women more often had no opinion about their reasons for having chosen a particular method of contraception, which may indicate that they expose themselves to the risk of repeat unwanted pregnancies for lacking a stable positive attitude towards contraception use. Another concern was raised in the control group, in which more women were reluctant to use contraception (of any type, not only condoms) as they thought this prevented them from enjoying the intimacy. Despite the fact that both groups found contraceptives to be easily accessible, only a small proportion of respondents actually used effective ones. This is probably due to widespread myths about modern methods of contraception, sometimes even among HCPs.

Knowledge about contraception was better in the control group than in the abortion group. However, knowledge of family planning (FP) methods did not correlate *de facto* with the contraceptive practices of the respondents. Other researchers observed the same behaviour patterns in adolescents and young adults^{22,23}.

Additionally, we realised that neither of the two groups demonstrated the ability to evaluate objectively their knowledge of contraception.

The main risk factors for an unplanned and/or unwanted pregnancy in 16- to 25-year-olds, that were found in the regression analysis, were the direct consequences of women's behaviour such as not using contraception or using a less effective method, and *not* insufficient knowledge of birth control. When analysing women's beliefs about the occurrence of their unwanted pregnancy, almost half of those in the abortion group attributed it to their partner's responsibility or method failure. Research on attitudes towards abortion shows that approval or disapproval of abortion may be rooted in assumptions about the cause of the pregnancy – individuals who are perceived to be personally responsible for their plight incur the anger and rebuke of others and their refusal to help both personally and at the community level. However, those who are perceived as not being responsible receive gestures of sympathy, are informed about third parties' intentions to help, and benefit from higher abortion approval¹². A woman's claim that it was her partner's fault can be interpreted as a situative self-defensive explanation aiming at maintaining positive self-esteem rather than as a reflection of concerns related to her health and birth control. This information can be used in post-abortion contraceptive counselling.

Relevance of the findings: Implications for clinicians and policymakers

To prevent unplanned and unwanted pregnancies it is crucial to understand which factors predict the use of effective FP methods. Knowledge is often found to be a weak predictor of contraception use; this was confirmed again by our findings. A more reliable predictor is a positive attitude towards FP^{25,26}.

Finding out what the woman's own beliefs were regarding the cause of her unplanned pregnancy can be very useful in a post-abortion consultation. Having inquired about these beliefs, the doctor can initiate a discussion about the patient's attitudes towards contraception use, perceived control over fertility regulation and her ability to communicate with her partner, which is a very important predictor of future behaviour. When narratives of Finnish teenage girls were analysed, self-efficacy or feeling of personal ability to implement successfully planned contraceptive behaviour was the

most important factor differentiating girls who use contraception from those who do not. They ascertained that contraception was an integral part of intercourse, were active and pro-active with regard to its use, and preferred not to have sex if contraception was not implemented²⁷.

Another important factor predicting behaviour, which can be easily integrated in a post-abortion consultation, is specific planning. Asking to formulate concrete answers to questions about future contraception use (e.g., 'At what time of the day are you going to take your pill?' or 'Where will you get your condoms from?') and overcoming barriers (e.g., 'What will you do if your partner refuses to use a condom?' or 'What will you do if you stay out for the night and don't have your pills with you?') help women to more easily recognise situations when contraception should be used and create alternatives in situations where typical obstacles occur. A recent randomised controlled study showed that such very brief paper and pencil intervention reduced teenage girls' need for emergency contraception and clinically verified positive pregnancy tests, up to two years after counselling²⁸.

Altogether, these findings suggest that SRH-promoting programmes should focus more on building positive contraception attitudes, strengthening woman's self-esteem, and enhancing skills to recognise situations which eventually will require contraceptive measures.

Unanswered questions and future research

A qualitative study about women's motivation for use of contraception and sexual decision-making in Latvia should be conducted, to identify ways of improving these practices. As half of the women attribute the responsibility for an unwanted pregnancy to their partner, male involvement in the promotion of safer sex must be investigated.

CONCLUSIONS

Women who had an unwanted pregnancy were less knowledgeable about contraception. Knowledge of FP methods and SRH does not automatically mean that contraception will be used. Half of the women considered that they were not responsible for the occurrence of their unwanted pregnancy. Sexual health promotion programmes should focus on increasing women's self-awareness about their ability to control risk factors related to unwanted pregnancy.

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