

Factors preventing the use of modern contraceptive methods in sexually active adolescents in Yaounde

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Abstract

Introduction: The use of contraceptives is timid in adolescents. We aimed to identify the determinants against modern contraception in adolescents in Yaoundé.

Methodology: We conducted a case-control study, carried out in schools during a 5-month period from January to May 2016. All sexually active adolescents who were contraception-shy were compared to their peers who used modern contraceptive methods. We analysed the data obtained using Epi info 3.5.4 and SPSS 2.0.

Results: We recruited 270 adolescents aged 15 to 19 years (135 cases and 135 control subjects). After univariate analysis, the factors preventing the use of modern contraception included: living with both parents (OR=1.71; CI=1.03-2.88), living with a single father (OR=3.25; CI=1.07-11.74), not living with one's mother (OR=6.83; CI=3.33-14.83), being unable to talk about sexuality with one's peers (OR=5.84; CI= 2.79-12.23), having only one partner (OR=2.28; CI=1.32-3.94), anal sex (OR=4.24; CI=2.15-8.35), pornography (OR=1.66; CI=1.03-2.696), abstention from family planning services (OR=2.32; CI=1.29- 4.16), ignorance on the after pill (OR=2.28; CI=1.12-4.82) and not knowing injectable contraceptives. Following logistic regression, the independent factors we identified included: living with both parents (aOR= 3.24), not living with one's mother (aOR=6.02), being unable to talk about sexuality with one's peers (aOR=8.64), the practice of anal coitus (aOR= 4.32) as well as ignorance regarding injectable contraceptive methods (aOR=3.23).

Conclusion: The family environment, sexual habits and knowledge on contraception limit the request for modern contraception on the part of adolescents. Adolescents need better support to face the challenges of their sexuality.

Introduction

Adolescence is a period in the life of every individual, characterised by various physical, emotional and psychological changes. The individual becomes progressively aware of sexuality and especially feels the desire to experience it [1]. Of the 252 million adolescent women aged 15-19 living in developing regions in 2016, an estimated 38 million are sexually active [2]. Teenage sex is early. In Cameroon among 15-19-year olds, the proportion of sexually active adolescents before the age of 15 was 18% [3]. Every year, an estimated 2 million girls aged under 15 years become pregnant in developing regions [4]. In Cameroon in 2011, one in four adolescents started their reproductive life [5]. Early onset of sexual activity could expose these young people to various ills such as unwanted pregnancies, which in turn lead to voluntary terminations of pregnancy and hence aggravate maternal mortality figures as well as create room for other health challenges. About half of pregnancies among adolescent women aged 15-19 living in developing regions are unintended, and more than half of these end in abortion, often under unsafe conditions [2].

In the year 2000, as part of the Millennium Development Goals aimed at improving maternal health, many countries made an engagement to decrease maternal mortality via various strategies amongst which improving access to contraception [6]. Access to contraception varies with levels of development. In developing countries, access to contraception experienced an exponential rise in the last decade but remains weak. In Cameroon, contraceptive prevalence was 18% in 2011 [5]. In the world, about 15 million of adolescents use a modern contraceptive method, while 23 million have an unmet need for

modern contraception and are thus at increased risk of unwanted pregnancy [2].

In Cameroon, 23 % of women aged 15 to 49 years use at least a modern contraceptive method, with the poorest use in the age extremes including the 15-19-year old [5]. This poor demand for contraception is especially preoccupying as the risk of birth-related deaths is 3-fold in adolescents compared to their adult counterparts [6] and moreover, half of sexually active adolescents do not envisage any short-term pregnancies [2].

Modern contraceptive use will help these adolescents avoid multiple consequences linked to early pregnancies, and unsafe abortions, which stand at alarmingly high rates. Every year, some 3 million girls aged 15 to 19 undergo unsafe abortions [2].

A number of personal as well as environmental factors exert influence on the use of modern contraception. The aim of our study was to identify these factors preventing adolescents from using modern contraceptive methods in Yaounde.

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Methodology

Ours was a case-control study. We carried out the study over 5 months from January to May 2016, at the Lycée General Leclerc, a public secondary school in Yaounde. We worked with a sexually active adolescent population aged 15 years in the least. Our case subjects included adolescents who did not use modern contraception. The control subjects were adolescents using a modern contraceptive method. We obtained administrative permission from the principal of the school to carry out this study. All adolescents in the three most senior classes were recruited for the study.

Data collection was via a questionnaire administered by an investigator on an individual basis, with a strict respect of intimacy and confidentiality. After giving prior consent, participants just had to respond to all the questions on the questionnaire. The sample size was determined via Schlesselman's formula [7]. Each group had to involve at least 14 adolescents for a minimum sample size of 28.

We collected sociodemographic variables (age, religion, marital status, socialisation milieu), family and societal variables (family type, the person with whom the adolescent lives, notion of their mothers or sisters having born children in adolescence, sex education with their parents, talking about contraception with their partner, and talking sexuality with their peers). Also, we acquired cognitive and cultural variables (notion of pregnancy risk), psycho-affective and behavioural data (talking freely about one's sexuality, self-esteem, alcohol and tobacco use including other banned substances, anal sex, multiplicity of sex partners, and the use of pornographic materials). We also sought data linked to sex education and knowledge on contraception (attendance of sex education classes, knowledge on family planning services, consulting family planning services, mastering contraceptive methods and use of the media).

These data were analysed via Epi info 3.5.4, SPSS version 20 and Microsoft Excel 2010. The Fischer and Chi square tests were used to compare variables. By Odds ratios and a Confidence interval at 95%, we sought out associations between different variables. P was considered significant for values < 0.05. We eliminated confounding variables with P values < 0.10 by logistic regression.

Results

We recruited 270 subjects 8135 cases and 135 control subjects respectively).

Table 1. Socio-demographic data

Variables	Cases n (%)	Controls n (%)	OR [CI]	P value
Age				
[15 – 17]	75 (55.6)	63 (46.7)	1.43 (0.88 – 2.31)	0.09
[17 - 19]	60 (44.4)	72 (53.3)	0.7 (0.42 – 1.46)	
Religion				
Catholic	81(60)	92 (68.1)	0.70 (0.42- 1.15)	0.10
Protestant	36 (26.7)	35 (25.9)	1,04 (0.60-1.79)	0.50
Jehovah's witness	13 (9.6)	4 (3)	3.49 (1.11-10.99)	0.02
Muslim	4 (3)	4 (3)	1 (0.18-5.49)	0.64
Marital status				
Single	134 (99.3)	134(99.3)	1 (0.06-16.15)	0.75
Married	1(0.7)	1(0.7)	1 (0.06-16.15)	
Socialisation milieu				
Urban	128 (94.8)	126 (93.3)	1.31 (0.47-3.61)	0.40
Rural	7 (5.2)	9 (6.7)	0.77 (0.28-2.11)	

Socio-demographic factors

Being a Jehovah's Witness was the singular factor associated here with not using modern contraception (OR=3.49; CI= [1.11-10.99]; P=0.02) (Table 1).

Psycho-affective and behavioural factors

After univariate analysis, we identified a number of factors as being responsible for the non-use of modern contraceptive methods. These included refusing the fact of being sexually active (OR= 1.88; CI= [1.12-3.05]; P= 0.012). Attempts at experimenting with pregnancy (OR= 1.88 CI= [1.16-3.04]; P= 0.010). Vague desires for pregnancy (OR=2.25; CI= [1.38-3.66] P =0.000). Anal sex (OR=4.24; CI= [2.15-8.35]; P=0.000). Having only one partner (OR=2.28; CI= [1.32-3.94]; P=0.000). Not consuming alcohol (OR =2.53; CI= [1.49-4.30]; P=0.000) and not using narcotics (OR=2.20; IC= [1.91-4.11]; P=0.000) (Table 2).

Familial and societal factors

After univariate analysis, the factors we identified included living with one's two parents (OR=1.71; CI= [1.03-2.88]; P=0.024). Also, living with a single father (OR=3.25; CI= [1.07-11.74]; P=0.013) and not living with one's mother (OR= 6.83; CI=[3.33-14.83] ;P=0.000) were factors we identified. In addition, the inability to discuss contraception with one's partner (OR= 4.61; CI = [2.52-8.42]; P=0,000), not talking sexuality with one's peers (OR=5.84; CI= [2.79-12.23]; P=0.000) and the use of pornographic materials were yet other factors we identified (OR= 1.66; CI= [1.03-2.69] P= 0.026) (Table 3).

Data linked to sex education and knowledge on contraception

After univariate analysis, we identified that never haven consulted a family planning unit (OR= 2.32; CI= [1.29-4.16], P = 0.000), not knowing injectable contraceptives (OR =2.72; CI= [1.55-4.82] ; P=0.000) and not knowing the after pill (OR= 2.28 ; CI= [1.12-4.82] ; P=0.015) were factors preventing the use of modern contraceptives by adolescents (Table 4).

After multivariate analysis (Table 5), we determined that independent factors included: living with one's two parents (aOR=3.24), not living with one's mother (aOR=6.02), vague pregnancy desires (aOR=4.22), not talking about contraception with partners (aOR=17.04), not talking sexuality with peers (aOR=8.62) and not knowing injectable contraceptive methods (aOR=3.22).

Table 2. Psycho-affective and behavioral variables

Variables	Cases n (%)	Controls n (%)	OR (CI)	P-value
Refusing one's sexual activity	83(61.5)	62(45.9)	1.88 (1.12- 3.05)	0.012
Experimenting for pregnancy	74(54.8)	53(39.3)	1.88 (1.16-3.04)	0.010
A vague pregnancy desire	82(60.7)	55(40.7)	2.25 (1.38-3.66)	0.000
Not using narcotics*	112(83.0)	93(69.9)	2.20 (1.91-4.11)	0.000
Not using tobacco	24(17.8)	19(14.1)	1.31 (0.66-2.70)	0.25
Not consuming alcohol	72(53.3)	42(31.1)	2.53 (1.49-4.30)	0.000
Anal sex	42(31.1)	13(9.6)	4.24 (2.15-8.35)	0.000
A single sex partner	108(80.0)	86(63.7)	2.28 (1.32-3.94)	0.000
Multiple sex partners	27(20.0)	49(36.3)	0.44 (0.24-0.78)	0.000

*Other narcotics: shisha, cannabis, gum

Table 3. Family life and social variables

Variables	Cases n (%)	Controls n (%)	OR [CI]	P-value
Living with both parents	73 (54.1)	55 (40.7)	1.71 (1.03-2.88)	0.024
not living with one's mother	123 (91.1)	81 (60)	6.83 (3.33-14.83)	0.000
Living only with her sister	5 (3.7)	1 (0.9)	5.15 (0.56-245.50)	0.10
Living with a tutor	27 (20)	19 (14.1)	1.53 (0.80-2.90)	0.13
Living with her father only	15 (11.1)	5 (3.7)	3.25 (1.07-11.74)	0.013
Living with her spouse	1(0.9)	1 (0.9)	1 (0.01-79.08)	< 0.00
Marital status of the parent or tutor of the adolescent				
Single	16 (11.9)	29 (21.5)	0.49 (0.25-0.95)	0.02
Married	93 (68.9)	84 (62.2)	1.34 (0.81-2.22)	0.15
Divorced	8 (5.9)	6 (4.4)	1.35 (0.46-4.01)	0.39
Notion of delivery during adolescence in the family				
Mother	70 (51.9)	75 (55.6)	0.86 (0.53-1.39)	0.31
Sister	57 (42.2)	47 (34.8)	1.37 (0.84-2.24)	0.13
Not discussing contraception with one's partner	56 (41.5)	18 (13.3)	4.61(2.52-8.42)	0.000
Not discussing sexuality with peers	43 (31.9)	10 (7.4)	5.84 (2.79-12.23)	0.000
Not discussing sexuality with parents	99 (73.3)	87 (64.4)	1.52 (0.90-2.55)	0.07
Watching pornographic material	74 (56.5)	57 (42.2)	1.66 (1.03-2.69)	0.026

Table 4. Variables linked to sex education and knowledge of modern contraceptive methods

Variables	Cases n (%)	Controls n (%)	OR (CI)	P
Not having received sex education classes	118 (87.4)	119 (88.1)	0.93 (0.45-1.93)	0.5
Never consulted a family planning service	113 (83.7)	93 (68.9)	2.32 (1.29-4.16)	0.000
Not knowing injectable contraceptive methods	9 (43.7)	30 (22.2)	2.72 (1.55-4.82)	0.000
Not knowing the after pill	30 (22.2)	15 (11.1)	2.28 (1.12-4.82)	0.015
Not knowing the female condom	2 (1.5)	4(3.0)	0.49 (0.04-3.51)	0.34
Not knowing the implant	78 (57.8)	75 (55.6)	1.09 (0.66-1.82)	0.40
Source of information regarding sexuality				
TV	53 (39.3)	52 (38.5)	1.03 (0.63-1.68)	0.50
Internet	68 (50.4)	61(45.2)	1.23 (0.76-1.98)	0.23
Radio	16 (11.9)	16 (11.9)	1.00 (0.48-2.09)	0.57
Newspapers	52 (38.5)	67 (49.6)	0.64 (0.39-1.03)	0.04

Discussion

Contraceptive use is low in adolescents [3]. The adolescent's individual sexual experience is determinant to contraceptive use. Using a contraceptive method implies an acceptance of sexual activity with an existing risk of pregnancy. Herbigniaux et al (2005) [8] found that young people are more compliant to contraception when they assume

their sexuality and are not plagued by guilt linked to early onset of sexual activity. We also discovered in our study that not being able to talk about one's sexual activity with another person constitutes a hindrance to the use of contraception; especially contraception is administered, counselled and provided to the adolescent by a second party other than the adolescent.

Table 5. Independent variables linked to the non-use of modern contraceptive methods after logistic regression

	aOR	CI at 95%		P-value
Being a Jehovah's witness	4.276	0.691	26.454	0.118
Never haven consulted a family planning unit	2.321	0.760	7.094	0.140
Refusing one's sexual activity	1.371	0.497	3.785	0.542
Trying to experiment a pregnancy	1.160	0.452	2.977	0.758
A vague desire for pregnancy	4.224	1.606	11.109	0.004
Not consuming alcohol	0.732	0.259	2.064	0.555
Not talking contraception with one's partner	17.041	5.116	56.758	0.000
Not talking sexuality with one's peers	8.642	2.186	34.169	0.002
Not knowing injectable contraceptive methods	3.228	1.081	12.645	0.005
Not knowing the after pill	0.368	0.105	1.285	0.117
Watching pornographic materials	1.975	0.768	5.081	0.158
Not consuming narcotics*	0.557	0.158	1.967	0.363
Having one sexual partner	2.249	0.715	7.071	0.165
Living with one's parents	3.240	2.066	18.872	0.030
Living only with one's father	2.588	0.327	20.505	0.368
Not living with one's mother	6.020	5.003	33.125	0.000

*Other narcotics: shisha, cannabis, gum

The need to fall pregnant by the adolescent contrasts with their daily reality. Pregnancy constitutes a source of internal conflict, which could lead to harmful personal experiences with irreversible consequences. The perceived need for pregnancy in adolescents as tempting as the idea of having a child is, is not real. A vague desire for pregnancy could prevent adolescents from using contraception. Guemchek et al. [9] in Yaounde in 2015 found that most adolescents claimed to have a single partner. This could constitute a false sense of security and birth in them desires for motherhood that prevent the use of contraception.

The family context and the idea adolescents have about family influences their sexuality as well as their sexual activity. Rwenge [10] in Cameroon found out that sexual activity was rife in adolescents living in a single parent, divorce or polygamous setting. It is evident that education in the family unit is dependent on traditions, cultures, and the perceived significance of the sex act. Wight D et al. [11] in Scotland found out that inadequate parental authority was associated with an earlier onset of sexual activity as well as unprotected intercourse in girls. Ngom et al. [12] in Kenya proved the importance of an established parental authority. In our study, we found out that the presence of the father was a limiting factor to the use of modern contraception in adolescents. Adolescents living with their parents usually have occasional sexual experiences that could prompt them to think they have no need of contraception. Foumane et al. in Yaounde found that the use of the condom was very scarce in sporadic sexual experiences [13]. The fact of not living with one's mother constituted a significant handicap towards using modern contraception, probably due to the absence of a person with whom the adolescent could identify herself. The ease with which mothers communicate and transmit sex-related information could explain why maternal presence facilitates the use of contraception. In addition, not using contraception was associated with the adolescent's inability to discuss sexuality with peers or contraception with her partner. Talking about contraception could be perceived by the partner as a confession of multiple sex partners or as a banalization of the sexual experience. The fear of rejection by her partner, the discomfort related with talking about sexuality and the lack of self-confidence could hinder adolescents from suggesting the use of contraception to their partners [8]. None the less communication between partners favours the use of contraception [14].

Sexual behavior could influence the use of modern contraceptive techniques. Sodomy is sexual practice common in adolescents especially

in cultures where virginity is a condition for marriage. This type of sexual practice is considered a contraceptive method in itself by adolescents as it does not lead to pregnancy [15].

Knowledge on family planning methods as amongst the most important determinants of the lack of use of modern contraception by adolescents. Access to information on the risks of pregnancy and the possibility of having a sexual life while reducing the risk of unwanted pregnancy could be helpful. The fact of not having information on injectable contraceptives as well as the after pill as significantly associated with not using modern contraception. Injectable contraceptives are the most used method in Cameroon after the condom [5]. Not knowing them could explain the low use of modern contraception. Traditional, cultural and familial taboos, as well as the absence of formal sex education are real constraints to the use of contraceptive methods. Our findings are compatible with those by Guemchek et al. [9].

Limitations of our study

Despite the fact that we used concepts aimed at improving on discomfort, our study involved a topic often seen as taboo, which is that of sexuality. This could be responsible for erroneous answers either voluntarily or not. We also were confronted with the unwillingness of adolescents to share about their intimacy for fear of stigmatization. However, the information we obtained correlates that revealed by other studies done elsewhere.

Conclusion

Factors preventing adolescents from using modern contraception are individual, familial, and linked to their knowledge on contraceptive methods. It is important to promote the implementation of adolescent clinics to improve on contraceptive use amongst adolescents.

Authors' contributions

Félix Essiben, Pascal Foumane and Carole D. Epoupa conceived the study, participated in the study design and collection of data. Esther N.U. Meka has been involved in analysis and interpretation of data and drafting the manuscript. Samuel Ojong reviewed the article and Emile Mboudou reviewed and supervised the study. All authors have read and approved the final manuscript.

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