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Knowledge of university students about the risks and benefits associated with combined oral contraceptives

Conhecimento de universitárias sobre os riscos e benefícios associados aos contraceptivos orais combinados

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ABSTRACT: *Type of study*: Descriptive cross-sectional observational study. *Objective*: To evaluate the knowledge of university students concerning the risks and benefits associated to combined oral contraceptives (COC). *Methods*: The study group consisted of a convenience sample of female medical students. Data was collected from October to November 2017 through a structured, self-applying questionnaire consisting of 30 questions divided into sociodemographic data, contraceptive antecedents and knowledge of risks and benefits associated with the use of COC. *Results*: 86 university students participated in this study. Most of them were aged between 18 and 25 years (76.74%), were COC users (86.05%) and started using it by medical indication (94.59%). Few of them knew the beneficial effects of COCs in the reduction of endometrial (31.40%), ovarian (18.60%) and colorectal (8.14%) cancers. On the other hand, knowledge of the risks of deep vein thrombosis (97.67%) and stroke (88.37%) was satisfactory. Additionally, more than half of the university students associated the use of COC with weight gain (56.98%). *Conclusion*: The imbalance between knowledge about COC risks and benefits cannot be underestimated, and it is relevant that health professionals identify COC benefits and side effects misconceptions in order to provide an effective contraceptive counselling.

Keywords: Knowledge; Contraceptives, oral, combined; Risk aassessment; Students, medical; Women's health.

RESUMO: *Modelo do estudo*: Estudo observacional transversal descritivo. *Objetivo*: Avaliar o conhecimento de universitárias sobre riscos e benefícios associados aos contraceptivos orais combinados (COC). *Método*: A população do estudo foi composta por uma amostra de conveniência de estudantes de medicina do sexo feminino. Os dados foram coletados no período de outubro a novembro de 2017 por meio de um questionário estruturado, autoaplicável e composto por 34 questões divididas em dados sociodemográficos, antecedentes contraceptivos e conhecimentos sobre riscos e benefícios associados ao uso dos COC. *Resultados*: Participaram desta pesquisa 86 estudantes. A maioria das participantes estava na faixa etária entre 18 e 25 anos (76,74%), era usuária dos COC (86,05%) e iniciou seu uso por indicação médica (94,59%). Poucas delas conheciam os efeitos benéficos dos COC na redução dos cânceres de endométrio (31,40%), ovário (18,60%) e colorretal (8,14%). Por outro lado, os conhecimentos dos riscos de trombose venosa profunda (97,67%) e acidente vascular encefálico (88,37%) foram satisfatórios. Adicionalmente, mais da metade das universitárias associou o uso dos COC a ganho de peso (56,98%). *Conclusão*: O desequilíbrio entre os conhecimentos sobre benefícios e riscos dos COC não pode ser subestimado, sendo relevante que os profissionais de saúde identifiquem equívocos relacionados aos benefícios e efeitos colaterais dos COC, a fim de proporcionarem um aconselhamento contraceptivo efetivo.

Descritores: Conhecimento; Anticoncepcionais orais combinados; Medição de risco; Estudantes de medicina; Saúde da mulher.

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INTRODUCTION

One of the most important achievements in public health in the twentieth century was the development of combined oral contraceptive (COC), a mark in the female sexual and reproductive rights, offering an efficient fertility control unattended by male motivation, allowing women autonomy in tracing their life trajectory, gaining ground in the labor market, occupying political positions, thus changing the usual behavior and social role. Since the beginning of its commercialization in 1960, COCs represent the most popular form of reversible contraception worldwide[1,2], with the prevalence of use among women of reproductive age estimated at 9% worldwide and 24.1% in Brazil in 2015[3].

COCs consist of an association of an estrogen and a progestogen, with ovulation inhibition as main mechanism of action by suppression of pituitary gonadotropins secretion[4]. The progestogenic component produces the main contraceptive effects, being the inhibition of the preovulatory peak of luteinizing hormone (LH) its most prominent effect. It makes the cervical mucus thick, inhibiting the sperm progression to the ampulla region of the fallopian tube, where fertilization normally occurs; decreases tubal peristaltic movements, interfering in egg capture and embryo migration to the uterine cavity; inhibits the endometrium proliferation, making it atrophic and, consequently, less receptive to embryonic implantation. The estrogenic component suppresses the follicle stimulating hormone (FSH), preventing follicular growth and the emergence of a dominant follicle. Besides, stabilizes endometrium, minimizing bleeding during COCs use and enhances the action of progestogens by intracellular progesterone receptors increase, thus allowing the use of lower doses of this hormone for contraceptive protection[1].

When consistently and correctly used, COCs prevent unplanned pregnancies, an important strategy to protect the lives of women of reproductive age, especially those ones who live in high social vulnerability areas and with little access to health services[1]. A large population-based study, with a long follow-up period, suggests that the COC is associated with mortality reduction, indicating a general benefit to women's health[5].

COCs also provides significant non-contraceptive benefits. Endometrial atrophy induced by progestogen component reduces menstrual flow and colic, qualifying its use for the treatment of heavy menstrual bleeding, abnormal uterine bleeding and dysmenorrhea (primary or due to endometriosis)[6]. By increasing the production of sex hormone-binding globulin (SHBG), COCs decrease free androgen levels and thus, could be useful in preventing or reducing the effects associated with excessive exposure to androgens such as acne and hirsutism[1]. COCs could also reduce the risks of pelvic inflammatory disease, ectopic pregnancy and occurrence of ovarian, endometrial and colorectal cancers[2,4].

On the other hand, the use of COC is associated with an increased risk of venous thromboembolism (VTE), including deep vein thrombosis (DVT) and pulmonary thromboembolism (PTE). However, the incidence of VTE remains low among users (8-10 events per 10,000 women/year of exposure) when compared to non-users (5-10 events per 10,000 women/year of exposure)[7]. Initially, it was believed that the increased risk of thrombogenic events was solely due to estrogens action on hemostatic factors[7]. Subsequently, it was found that depending on the present progestogen type in COCs, the thrombosis risk could be higher or lower, suggesting an influence of this component on clots formation. In fact, pills containing cyproterone acetate, desogestrel, drospirenone or gestodene are associated with a significantly increased risk of VTE compared to the use of those containing levonorgestrel. However, the mechanism by which this happens is still not well understood[7].

Since the first pill development and approval, hormone dose in formulations is being under significant reductions aiming to improve the safety and tolerability of the method[1]. As a result, side effects from estrogens (increased blood pressure, headache and mastalgia) and progestogens (escape bleeding) have been reduced; and when present, they are usually self-limiting and improve during method use[4,6].

Despite the consolidated evidence on the benefits and side effects of COC, a recent research carried out among Romanian university students found that only 32.2% considered this method effective and safe and few knew its potential for the treatment of dysmenorrhea and acne (28% and 12.6%, respectively). Negative perceptions, such as the association between the use of COC with weight gain and reduced future fertility, were also observed[8]. Furthermore, a study carried out in the North-Eastern region of Brazil with 294 women of childbearing age showed that 75% of them had no knowledge about possible side effects[9].

This scenario of misconceptions is related to COC adherence decrease, interruption of its use and, consequently, an increase on the contraceptive failure rate[10]. This is most concerning among younger women whose have less knowledge and less use of contraceptive methods, therefore requiring a qualified contraceptive counseling[11].

In this sense, given the importance of this theme, the present study aimed to estimate the young university students' knowledge about the risks and benefits associated with COC. The results could guide the development of educational strategies to assist women in more effective and safe reproductive planning, since reaching contraceptive needs is of major importance for improving public health and the physical, mental and social well-being of women and their families.

METHODS

This is a descriptive observational cross-sectional study carried out in a convenience sample composed of 86 female students, aged over 18 years, enrolled at the Medicine Course at the Federal University of Sao Carlos (UFSCar).

In compliance with Resolution 466/2012 of the National Health Council, this study was approved by the Research Ethics Committee in Human Beings at the Federal University of Sao Carlos (opinion number 2.107.608).

The recruitment of participants took place from October to November 2017, through invitation after the end of the students' activities on more than one occasion, reducing the possibility of loss.

Data collection was performed individually and in a reserved place after voluntary signature of the Free and Informed Consent Form. A structured and self-administered questionnaire (Annex 1) was used by the researchers based on a similar research[2]. It consisted of 30 questions distributed into three sections: 1) sociodemographic data (age, marital status, religion, color and health care system type); 2) contraceptive history (The main reason for COC use; Who recommended its use; Influence of COC risks/ side effects in the decision to abandon or to never use it); 3) The knowledge about risks, benefits, side effects and myths related to COC use. In section 3, the response options were: Increase, Decrease or Do not change the risk.

To keep it privately, answered questions were returned in an unmarked envelope in an urn.

The questionnaire was previously tested in a convenience sample comprised by 11 university female students from UFSCar with the same characteristics as the investigated participants in order to confirm the adequacy of the instrument, focusing the quality of the obtained information.

The collected data were stored in Microsoft Excel 2010 spreadsheet to calculate absolute, relative and average frequencies and were presented according to descriptive analysis (frequency and percentage) through tables.

For this article, COC refers to any combination of oral contraceptive composition, excluding progestogen oral contraceptives and emergency contraception. Participants at the time of data collection were using COC or reported having used it in the past were named COC users and those who never used it were named non-users.

To analyze the questionnaire results, the researchers based themselves on the information presented in the publication of the World Health Organization (WHO), Family Planning - A Global Handbook for Health Service Providers[4].

RESULTS AND DISCUSSION

From the 86 participants, 74 (86.05%) classified themselves as COC users and 12 (13.95%) as non-users. Most were young, with a predominance of the age group between 18 – 25 years (76.74%). The age ranged from 18 to 51 years, with an average age of 23.91 years. Single marital status (91.86%) and self-declared white (70.93%) predominated (Table 1). These results are in accordance with the sociodemographic profile of university students at Federal Institutions from Sao Paulo State in the year of 2017, where 84% of them were aged between 18 and 24 years and 49% declared themselves white[12]. Specifically, in Medical Courses in 2012, the percentage of white students enrolled was approximately 75%, similar to the percentage observed in our study[13].

Table 1. Characteristics of the participants of the study

Characteristics	n (%) N = 86
Use of COC	
User	74 (86.05%)
Non-user	12 (13.95%)
Age group (years)	
18 – 21	33 (38.37%)
22 – 25	33 (38.37%)
26 – 29	11 (12.79%)
> 30	9 (10.47%)
Marital status	
Single	79 (91.86%)
Married	3 (3.49%)
Stable union	3 (3.49%)
Divorced	1 (1.16%)
Widow	0 (0%)
Color	
White	61 (70.93%)
Brown	16 (18.60%)
Black	3 (3.49%)
Yellow	3 (3.49%)
Indigenous	3 (3.49%)
Religion	
None	33 (38.37%)
Catholic	28 (32.56%)
Evangelical Christian Church	12 (13.95%)
Spiritism	11 (12.79%)
Other religions	2 (2.33%)
Health Care System	
Additional	50 (58.14%)
SUS	36 (41.86%)

Federal University of Sao Carlos
Note: N = total number of respondents; n = absolute frequency; % = relative frequency; COC = combined oral contraceptive; SUS = Unified Health System.

Regarding religious affiliation, 61.7% of university students declared to have any religion, predominantly Catholic (32.56%), followed by Evangelical Christian

Church (13.95%) and Spiritism Religion (12.79%) (Table 1). There was a higher prevalence of religion absence among COC users (40.54%) than in non-users (25%). However, it was not possible to evaluate the religion influence on the use of this method, since the sexual history was not investigated, and the non-use may be associated with the absence of sexual activity at the time of this research.

When asked about the health care system used, the majority (58.14%) indicated having access to supplementary health care (Table 1). Studies indicate a decrease in the use of the Brazilian Unified Health System (SUS) as family income and education rises. In 2014, Ristoff[13] demonstrated that while 7% of Brazilian families had incomes higher than 10 minimum wages, 44% of medical students' families were in this salary range. Specifically, among medical students at UFSCar, this rate was 20.6% in 2016[15]. The major use of supplementary health care by participants may be related to their family's socioeconomic profile.

Regarding the contraceptive history, most COC users adhered to the method by medical indication (94.59%), only 5.41% used it according to friends and family suggestion and none of them discussed the matter with their respective partners (Table 2). In 2016, Farias[16], studying the use of oral and injectable contraceptives in Brazil, found that the use of COC in 90.4% of the cases was indicated by the doctor, corroborating our findings. In contrast, Simionescu's[17] research of European medical students showed that 75.41% shared the contraceptive choice with their partners, 53.23% with family members and only 46.77% with their doctors.

These data suggest that, in Brazil, medical opinion is the one that contributes most to the decision of women in choosing the contraceptive method whereas friends, family and partners play a secondary role in this contribution. Partner participation refers more to supporting women in the purchase and use of the method, as well as in the eventual use of a male contraceptive method when a female method is temporarily discontinued[18]. Although there is a certain degree of change in the participation of men in family life, women are still seen in society as responsible for controlling its fertility and actions related to contraception are concentrated mainly in this sex. In addition, the fact that the repercussions of an unscheduled pregnancy generally fall on women further reinforces the stigma of female responsibility for preventing pregnancy[19].

The main reasons cited for choosing COCs for contraception were efficacy (29.73%) and accessibility (28.38%), followed by ease of use (17.57%) and other reasons (17.57%) (Table 2). In fact, the effectiveness of COCs is an expressive attraction, because when used correctly and consistently, only 0.3 women in 100 become pregnant during the first year of use[1,4]. A research study of Portuguese university students showed a tendency to opt mostly to pills use due to its high effectiveness and ease of use, as observed in our study[20].

Among COC users, 59.46% discontinued its use. When asked about the reasons that led them to interrupt the method, 70.45% reported concerns about health risks and side effects. Among non-users, a similar situation was observed with 66.67% of women, indicating that these concerns were the main reasons why not using the method (Table 2).

Machiyama[21] suggests that health injury concerns represent the main reasons for not adhere to the method, exposing women to unplanned pregnancy, an important factor in maternal morbidity and mortality[8]. On the other hand, when women have a positive perception in the information about the COC effectiveness in controlling fertility, the adherence is significantly higher[22].

This fact made us reflect on whether the participants' decision to abandon the method was a consequence of inefficient contraceptive counselling, which was not expected, since the majority (94.59%) started the method on medical advice.

Table 2. Participants' contraceptive history

Background	
COC users (N = 74)	n (%)
Indicated by	
Doctor	70 (94.59%)
Friends and/or family	4 (5.41%)
Another health professional	0 (0%)
Partner	0 (0%)
Other	0 (0%)
Reasons for using it	
Efficiency	22 (29.73%)
Easy access	21 (28.38%)
Ease of use	13 (17.57%)
Other reasons	13 (17.57%)
Health Safety	3 (4.05%)
Price	2 (2.70%)
Discontinued	
Yes	44 (59.46%)
No	30 (40.54%)
Discontinued reasons (N = 44)	
Concerns about the risk/side effects	31 (70.45%)
Other reasons	13 (29.55%)
Non-COC users (N = 12)	n (%)
Reasons for not using COC	
Concerns about the risks/side effects	8 (66.67%)
Other reasons	4 (33.33%)

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Note: N = total number of respondents; n = absolute frequency; % = relative frequency; COC = combined oral contraceptive.

The data in Table 3 suggests that the knowledge about COC health benefits is, in part, satisfactory, since more than half of the participants knew about the potential

of the method in reducing acne (83.72%), dysmenorrhea (83, 72%) and hirsutism (67.44%). On the other hand, important non-contraceptive benefits, such as a reduction in the occurrence of endometrial (31.40%), ovarian (18.60%) and colorectal (8.14%) cancers, as well as ectopic pregnancy (EP) (25.58%) and pelvic inflammatory disease (PID) (13.95%) were poorly recognized)

Lack of data regarding the protective effects have been found in other studies conducted among German[23] and Chinese women[24]. For example, Vogt[23] in a study of German women aged 18 to 24 years, found that they were unable to associate COC with the reduction of endometrial and ovarian cancers. Yang[24] found that 68.2% of Chinese obstetricians/gynecologists were awareness of PID reduction by COC use. We were surprised that this lack of knowledge is not restricted to laywomen in general but could be extended to those ones who work at the health area.

Regarding health risks, most participants had adequate knowledge about the possibility of the occurrence of deep venous thrombosis (97.67%) and stroke (88.37%) during COC use (Table 3). Similar to our findings, Phiplipson[23] observed that Romanian university students recognized stroke (73%) and thrombosis (70%) as risk conditions associated with COC. However, in the study conducted by Vogt[23] 56% of young German women did not know whether the use of COCs could increase the risk of thrombosis, 20% had denied such an association and 12% had recognized the increased risk and that it was a serious health consequence. Américo[9] found that among Brazilian women aged 10 to 49 years most of them had no knowledge about COC complications and only 1.9% related to deep vein thrombosis with prolonged use of this method. In the present study, since the interviewed participants are young university students from the health field, the conclusion that most of them have knowledge about the risks of VTE related to COC use may not agree with the general Brazilian society's pattern due to their higher access to information.

Most participants (58.14%) indicated COC beneficial effect in cervical cancer reduction, while 25.58% associated it with an increase in the probability of this occurrence (Table 3). The comparison of our results with other authors revealed a low prevalence of knowledge on this topic[2,23]. In a recent study carried out in the United Kingdom[26], cancer incidence was evaluated in more than 40,000 women using and not using COCs over a period of 44 years and it was demonstrated that the occurrence of cervical cancer does not appear to be influenced by long-term use of this method. With statistical significance, in cases of current or recent use (less than 5 years) there was a slight increase in its incidence. However, this risk regresses with the interruption of the method and is equal to that presented by non-users after 5 to 15 years.

Regarding breast cancer, 48.84% of the participants considered that COC use does not change the risk and 37.21% reported it does change (Table 3). The close results between not changing the risk and increasing it, is in line with literature data, which are conflicting and of hard analysis, as published by the WHO in Family Planning - A Global Handbook for Healthcare Providers[4]. Conversely, the study by Mørch[27] suggests an increased risk of breast cancer in COC users, being even greater when 10 years or more of its use. In the same sense, Iversen[26] showed increased risk in COC women using it for less than five years and that this risk disappears a few years after its suspension. However, these same studies demonstrate that the absolute risk is very low and that any effect appears to be temporary and limited to current or recent use, with no influence at later stages of life, when this disease is more prevalent[26,27]. In addition, WHO[4] points out that it is unclear whether this increased risk with short-term use of COC is related to a biological contraceptive effect on the development of the disease or the earlier diagnosis of this disease among the users.

Estrogens play a fundamental role in the modulation and exacerbation of headache, with fluctuations in its levels, either downwards, as observed in the period before menstruation, or an increase related to the COC beginning of use could exacerbate the headache[28]. Among COC users this effect deserves attention, since it may be a reason for discontinuing the method[4,25]. The participants showed adequate knowledge on the topic, since 68.60% mentioned that the use of COC is associated with an increase in this side effect (Table 3).

Another association cited by the majority (65.12%) was a decrease in libido. The role of COCs on sexual function is not yet well established. In a meta-analysis published in the Journal of women's health (2017)[29] on the subject, there were studies indicating that there may be an increase, neutrality or decrease in libido in users of this method depending on the route of administration and the type of progestogen present in the formulation. The lack of consensus in the peer-reviewed papers reflects the difficulty of isolating the effect of contraception on sexual response, since factors such as relationship with the partner, psycho-social problems and even psychiatric illnesses (depression) can interfere with libido[4].

The estrogens present in COCs increase the hepatic synthesis of angiotensinogen, which, in turn, raises systemic blood pressure from the rennin-angiotensin-aldosterone system[30]. In healthy women, the use of COC may cause a slight increase in blood pressure within the normal range, which regresses after the interruption of its use[4]. Mastalgia and escape bleeding are also common initial side effects of using COC and tend to improve with its time of use[1,6]. The participants demonstrated a fragility of knowledge regarding these side effects, since more than half of them (54.65%) indicated that COCs do not have effects on blood pressure, while the frequency of responses indicating increased or decreased mastalgia and escape bleeding showed a similar distribution pattern (Table 3).

In the document Family Planning - A Global Handbook for Healthcare Providers[4], the WHO mentions that in the female population in general there are misconceptions about COC effects on fertility, fetal formation and development and body weight. In general, the university students pointed out that infertility (79.07%) and fetal malformation (82.56%) are not related to the use of COC, demonstrating an adequate perception. However, they considered that they can cause an increase in body weight (56.98%) (Table 3), which does not correspond with current knowledge on the topic. The use of COC does not appear to result in significant changes in weight, either in gain or decrease[4,6], but since weight variations are natural throughout life, women often confuse these changes as consequences of using the method[4].

Table 3. Frequency of responses in relation to the knowledge about COC of the study participants

Knowledge (n = 86)			
Health Benefits	**Reduces**	**Does not change**	**Increases**
Acne	72 (83.72%)	6 (6.98%)	8 (9.3%)
Dysmenorrhea	72 (83.72%)	10 (11.63%)	4 (4.65%)
Hirsutism	58 (67.44%)	20 (23.26%)	8 (9.3%)
Endometrial cancer	27 (31.40%)	41 (47.67%)	18 (20.93%)
Ovarian cancer	16 (18.60%)	52 (60.47%)	18 (20.93%)
Colorectal cancer	7 (8.14%)	70 (81.40%)	9 (10.47%)
Ectopic pregnancy	22 (25.58%)	53 (61.63%)	11 (12.79%)
PID	12 (13.95%)	53 (61.63%)	21 (24.42%)
Health Risks			
DVT	0 (0%)	2 (2.33%)	84 (97.67%)
CVA	9 (10.47%)	1 (1.16%)	76 (88.37%)
Cervical cancer	50 (58.14%)	14 (16.28%)	22 (25.58%)
Breast cancer	12 (13.95%)	42 (48.84%)	32 (37.21%)
Side effects			
Headache	9 (10.47%)	18 (20.93%)	59 (68.60%)
Decreased libido	9 (10.47%)	21 (24.42%)	56 (65.12%)
Increased blood pressure	2 (2.33%)	47 (54.65%)	37 (43.02%)
Mastalgia	29 (33.72%)	23 (26.74%)	34 (39.54%)
Escape bleeding	34 (39.53%)	16 (18.60%)	36 (41.87%)
Myths			
Weight gain	5 (5.81%)	32 (37.21%)	49 (56.98%)
Infertility	2 (2.33%)	68 (79.07%)	16 (18.60%)
Fetal malformation	3 (3.49%)	71 (82.56%)	12 (13.95%)

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Note: n = absolute frequency; % = relative frequency; COC = combined oral contraceptive; PID = pelvic inflammatory disease; DVT = deep venous thrombosis; CVA = cerebrovascular accident (CVA).

CONCLUSIONS

The present study demonstrated that the majority of participants used COC during the data collection or used it in the past, and its use was initiated under medical advice. While the effects of COC in increasing the risk of VTE and in protecting and decreasing the occurrence of acne, dysmenorrhea and hirsutism were recognized, a significant portion of the participants associated the use of the method with weight gain and were unaware of significant benefits in reducing PID, pregnancy ectopic and endometrial, ovarian and colorectal cancers. Among the participants who never used the method or discontinued it, concerns about health risks and side effects were an important reason for this decision.

In view of this scenario, the imbalance between knowledge about the risks and benefits of COC cannot be underestimated, since many misunderstandings can be present even among more educated women with access to health services, in order to interfere in a more conscious choice about the use or not of COCs. Thus, it is of paramount importance that health professionals perform qualified contraceptive counselling, identifying such factors related to the benefits and side effects of COC that may interfere with adherence to the method.

Annex 1: Instrument of data collection

SECTION 1: SOCIODEMOGRAPHIC CHARACTERISTICS

1) Age:

2) Marital status: ( ) single ( ) married ( ) divorced
( ) in stable union ( ) widow

3) Religion: ( ) Catholic ( ) Evangelical Christian Church ( ) Spiritism
( ) none ( ) other: ……

4) Referred color: ( ) white ( ) black ( ) brown
( ) yellow ( ) indigenous

5) Health Care System you currently use:
( ) SUS ( ) Supplementary health (health insurance and private)

SECTION 2: CONTRACEPTIVE BACKGROUND

6) Do you use the combined oral hormonal contraceptive (contraceptive pill)?
( ) never used
( ) I already used it, but I abandoned this method
( ) I currently use the pill

7) If you have already used the pill and currently do not use it anymore, did the health risks and side effects influence your decision to abandon this method?
( ) Yes ( ) No

8) If you never used the pill, did the health risks and side effects influence your decision not to use this method?
( ) Yes ( ) No

9) If you use the pill, what was the *main* reason that led you to choose this method (Check only 1 answer)
( ) easy access
( ) effectiveness in preventing pregnancy
( ) ease of use
( ) health security
( ) affordable price ( ) other reason: ……..

10) If you use the pill, who recommended to you use it?
( ) doctor
( ) another health professional
( ) friends and / or family
( ) sexual partner ( ) other: ……..

SECTION 3: KNOWLEDGE

Regarding the risk of the events below, do you believe that the use of the pill can:

11) Acne
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

12) Headache
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

13) Decreased libido
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

14) Weight gain
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

15) Hirsutism (increased amount of hair in women in places usual for men such as chin, around nipples, between breasts, buttocks and inner thighs)
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

16) Mastalgia (breast pain)
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

17) Spotting (inter-menstrual bleeding from escape)
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

18) Deep venous thrombosis
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

19) Stroke (stroke)
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

20) Increase in blood pressure
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

21) Dysmenorrhea (colic pain during menstruation)
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

22) Ectopic pregnancy (pregnancy outside the womb)
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

23) Pelvic inflammatory disease (Infection in the uterus, tubes, ovaries and / or pelvis)
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

24) Infertility
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

25) Fetal malformation
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

26) Breast cancer
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

27) Cancer of the cervix
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

28) Endometrial cancer
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

29) Ovarian cancer
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

30) Colorectal cancer
( ) Increase the risk ( ) Decrease the risk ( ) Does not change the risk

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