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Research Article

Self-medication with oral contraceptives in the Urban District of Antananarivo

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ABSTRACT

Background: Oral contraception is the second hormonal contraceptive method most used in the world. Currently, self-medication with oral contraceptives experienced resurgence, most often with no medical supervision. This study aims to estimate the prevalence of self-medication with oral contraceptives, identify the socio-economic status and identify the reasons why women aged 21 to 49 of the Urban District of Antananarivo (UDA) practice self-medication with oral contraceptives.

Methods: A cross-sectional survey was conducted, where an interviewer-administered questionnaire has been used to collect data. Targeted female respondents aged 21-49 were asked about their contraceptive use during the twelve months preceding the survey.

Results: Self-medication prevalence rate is 59.1%, considering oral contraception users. Moreover, it is higher among married women, those aged <36, less educated and having more than two children. Financial problem, affordability of the pills, former use of pills and information by their surroundings are the reasons why women self-medicate. Women who received a medical prescription at the first take of the pills are more likely to presently practice self-medication.

Conclusions: This study demonstrates the evidence of a high prevalence of self-medication in the UDA. Self-medication can be harmful: the fight against its risks should get reinforced.

Keywords: Self-medication, Oral contraceptive, Urban District, Antananarivo

INTRODUCTION

Oral contraception is the second hormonal contraceptive method most used in the world.¹ In Madagascar, women can get birth control pills without prescription in pharmacies.² The Reproductive Health Standards and Procedures defines self-medication as not to see family planning providers at the beginning of the medication, or lack of medical checks three months after the first dose and/or 12 months after the first visit (Community Officer, paramedics, physicians in Madagascar).³ Two forms of self-medication in oral contraceptives are recognized: the purchase of oral contraceptives without a prescription, and

the absence of medical checks three months after the first dose or every 12 months from the fourth plate.^{2,4} Currently, self-medication in oral contraceptives experienced resurgence, as in many countries of the world,⁵ Africa,⁶ Madagascar, and in the pharmacies of the Urban District of Antananarivo (UDA), most often with no medical supervision. No prevalence was specified in the study explaining the case of the UDA.²

In Kuwait, the reasons for this attitude are the affordability and accessibility of contraceptive pills in pharmacies.⁵

Clear instructions on the leaflet and the use of a medical list were proposed. These help women identify themselves the contra-indications, to ensure their safety and the effectiveness of pills, to improve their access to oral contraceptives.⁷ However, this is not obvious to the Malagasy as 20% of women have no education and only 5% of the population has reached a complete primary education in 2009.⁸ The risk of adverse effects and unwanted pregnancies would be high. In the UDA, the problem is related to the determination of the factors that influence self-medication with oral contraceptives among women aged 21 to 49.

This study aims to (i) estimate the prevalence of self-medication with oral contraceptives, (ii) determine the socio-economic profile of women who self-medicate and (iii) identify the reasons why women aged 21 to 49 of the UDA practice self-medication with oral contraceptives.

METHODS

Study site

The Urban District of Antananarivo is the administrative capital of Madagascar. It covers an area of 78.7 km² with 6 districts divided into 192 fokontany (smallest administrative divisions). Within 10 years, the population was multiplied by 1.4.⁸

The overall total fertility rate is 94 per 1,000 women; the crude birth rate was 24.4 per 1,000 women with 99.9% of women aged 15 to 49 experiencing a contraceptive method and 8.5% taking oral contraceptives.⁹

In 2011, studies on self-medication were conducted in the capital. Oral contraceptives are among the drugs used for self-medication, but its extent is not determined.²

Study period

A retrospective cross-sectional study was conducted to determine the extent of self-medication in oral contraceptives during the last 12 months before the survey, the socio-economic status of women who resort to this practice, and to identify the reasons that could explain this practice. The study period runs from November 2011 to October 2012.

Population

We included all women aged 21 to 49, of Malagasy nationality, having lived for more than a year in a fokontany of the UDA, legally able and willing to participate in the survey.

Sampling mode

In this survey, the sampling is done by a two-stage cluster. Fokontany in the six districts of the UDA are classified as first degree clusters. Households in fokontany form second degree clusters. The minimum size of households covering

the set of all women aged 21 to 49 in the UDA is $n = 180$. Of the 30 selected fokontany, at least 6 households per fokontany were surveyed. In each household, we interviewed women aged 21 to 49.

Variables

We studied two dependent variables: the duration of oral contraception and the reasons for self-medication. The non-dependant variables are the socioeconomic parameters, the parameters related oral contraception, and the contraceptive methods previously used.

Data management and statistical analysis

The questionnaire was developed with Epi-info 7. The survey results were processed using Epi-info 7 and Microsoft Excel softwares. In this study, the chi-square test is used to calculate the p-value in order to identify any significant differences in the variables studied between practice and non-practice of self-medication.

RESULTS

General description of the participants

At the end of the survey, 232 women aged 21 to 49 participated. The contraceptive use rate is 81%; 19% of the participants did not use contraceptives. In total, oral contraceptives users represent 18.9%, whether or not alternating with injectables or implants during the last 12 months preceding the survey (14.2% with oral contraceptives only). Temporary contraception appears to be the most used, as 85.6% of the women practice it. Among these women practicing temporary contraception, 27.3% ($n = 44$) use oral contraception: 40.9% of them ($n = 18$) have a consistent medical prescription while 59.1% ($n = 26$) practice self-medication with oral contraceptives. Ninety-two percent of women who practice self-medication with oral contraceptives tend to choose PILPLAN[®]. The rest takes MICROGYNON[®] and LO-FEMENAL[®].

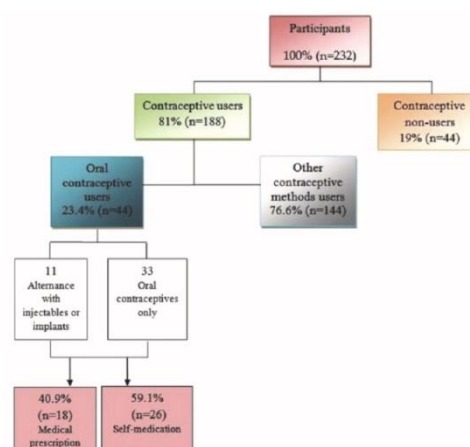


Figure 1: Distribution of contraception use among participants in the UDA.

Self-medication with oral contraceptives

a. Socio-economic status of women aged 21 to 49 practicing self-medication in oral contraceptives in the UDA.

Women aged 26 to 30 make up 23.28% of the participants. Women aged 46 to 49 were the least likely to participate in the survey because they only represent 6.0% of the participants. Among the participants, 1.3% (n = 2) were never educated. Women of high school level are the most numerous (45.7%).

Table 1: Socio-economic status of women self-medication with oral contraceptives.

<i>Socio-economic status</i>					
	<i>Self medication</i>		<i>Prescription</i>		<i>p-value</i>
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	
Marital status					0.35
Married	25	61	16	39	
Not married	1	33.3	2	66.7	
Education					0.53
None	2	100	0	0	
Primary	8	53.3	7	46.7	
Secondary	12	63.2	7	36.8	
High school	4	57.1	3	42.9	
University	0	0	1	100	
Occupation					0.63
Without	9	64.3	5	35.7	
With some	17	56.7	13	43.3	
Monthly income					0.61
Less than 50,000 MGA*	19	63.3	11	36.7	
More than 50,000 MGA*	7	53.8	6	46.2	
Not willing to answer	1	100	0	0	

*MGA: MalaGasy Ariary (Malagasy currency)

b. Reasons why women aged 21 to 49 of the UDA practice self-medication with oral contraceptives.

Over 60% of women who have previously used other contraceptive methods currently practice self-medication in oral contraceptives. Sixty-one point one percent of women using birth control pills who perceived side

effects with their old method currently practice self-medication with oral contraceptives.

Table 2: Reasons related to former use and knowledge of side/adverse effects of contraceptives.

	<i>Self medication</i>		<i>Prescription</i>		<i>p-value</i>
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	
Perceived adverse effects of former method					0.36
Yes	11	61.1	7	38.9	
No					
Know adverse effects					0.47
Yes	12	60	8	40	
No	14	58.3	10	41.7	
Ability to list side effects					0.78
Cancer of the cervix	1	100	0	0	
Dysmenorrhea	1	66.7	2	33.3	
Stomach pain	3	60	2	40	
Hypertension	2	50	2	50	
Asthenia	1	50	1	50	
Migraine	4	100	0	0	
Vertigo	6	85.7	1	14.3	
Alopecia	1	50	1	50	
Blurred vision	1	100	0	0	
Metrorrhagia	1	100	0	0	
Nausea	0	0	1	100	
Dyspnea	0	0	1	100	
Will to have more children					0.63
Yes	9	64.3	5	35.7	
No	17	56.7	13	43.3	
Place of supply					0.06
Grocery	3	75	1	25	
Pharmacy	15	78.9	4	21.1	
Family physician	2	66.7	1	33.3	
Clinic	1	50	1	50	
Basic Health Center II	2	20	8	80	
Infirmery	3	75	1	25	
Public hospital	0	0.0	1	100	
Family planning center	0	0.0	1	100	
Prescriber					
Physician	15	68.2	7	32.8	0.22
Midwives	2	100	0	0	
Other	0	0	1	100	

Women who practice self-medication in oral contraceptives are more informed about the existence of the side effects of these pills (60%) than those with prescriptions (40%).

Women practicing self-medication represent 78.9% of women who buy their pills in pharmacies, three-quarters in grocery stores and clinics. Only a minority (20%) of women who have the Basic Health Center II as a source of oral contraceptives practice self-prescription.

The majority of women who are new to the world of contraception chose the medical prescription (58.3% versus 41.7%, $p = 0.15$). Most of women who have received a medical prescription did not undergo medical checks (68.2%). Regarding midwives, none of their patients underwent medical checks.

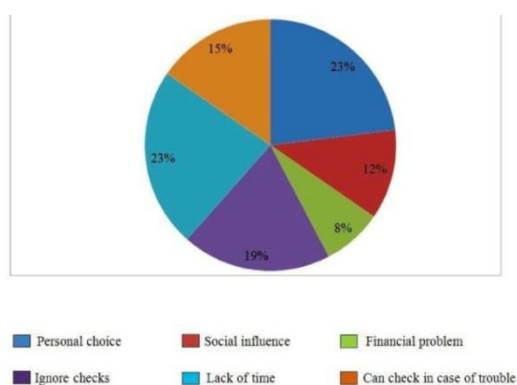


Figure 2: Identification of the reasons why women aged 21 to 49 presently self-medicate with oral contraceptives in the UDA.

Among working women, 29.4% practice self-medication with oral contraceptives while disregarding the need to make regular checks. Only 5.9% of women in this group referred to some financial problem as an obstacle to the medical prescription of oral contraceptives. Regarding housewives, 50% decided to practice self-medication with oral contraceptives because it is their personal choice.

DISCUSSION

Prevalence of self-medication with oral contraceptives at the UDA, socio-economic status

The prevalence of self-medication in oral contraceptives is high with a rate of 59.1%. This prevalence is similar to that of urban districts of Kuwait which is 57.4%.⁵ A similar behavior of townfolk could explain this similarity in both urban areas. Pilplan[®] is the most widely used pill for self-medication. It is distributed as part of a social marketing strategy, in collaboration with the National Programme which aims to control births.¹⁰ Microgynon[®] and Lo-Femenal[®] are available in public health centers only, which explains their low use in self-medication.

Younger women are more likely to self-medicate (with pills as with other methods), as stated by the National Institute of Statistics in 1997:¹¹ older women are more likely to reject and abandon contraception. Similarly, self-medication is important among housewives (64.3%). This approximates that of Kuwait (63.7%).⁵ The access of small income to health care is difficult,¹¹ which favors self-medication in Antananarivo. Medical consultations and repeated checks prove to be useless because they are considered as restrictions to the monthly budget. On the other hand, women who work do not have time to consult doctors: their absence from work affects their income. This could also be true for high school women who self-medicate as most of them work.

Reasons for self-medication with oral contraceptives

The availability of pills in grocery stores and pharmacies encourages women to self-medicate. In Mali, the illegal sales reinforce self-medication.¹² The Texans cross the border to buy their pills in Mexican pharmacies where prices are more affordable and medical prescriptions are non-mandatory requirements.¹³ This study found that self-medication is more common in women who have used pills during a longer period. Potter also reported the same fact in Mexico.⁶ The assistance of a health professional could be overlooked because women might think of themselves as already experienced. Moreover, they did not feel any side effects during long periods of use.

CONCLUSION

Self-medication with oral contraceptives in the UDA is important. The knowledge gained through this study help to improve the government information, education and communication for behavior change programs. These programs educate women to regularly consult family planning providers.

The validity of this study in rural towns and other urban districts in Madagascar is a limit. To update the recorded data, the study should be repeated every five years in different Malagasy districts.

Looking ahead, studies on the difference in the efficacy, adverse effects and continuity of oral contraception among women who receive medical prescription and women practicing self-medication should be made.

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Competing interests: None declared

Ethical approval: Not required

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