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Research Article

Knowledge, Attitudes and Practices of Contraception in an Urban Setting: The Case of Women Residing in the Ouakam District Municipality in the City of Dakar, Senegal, 2020

Coumba Ka[1, 2, *], Cheikh Tacko Diop[1], Aby Sarr[3], Ndeye Mareme Sougou[3]

[1]Faculty of Community Health, Alioune Diop University, Bambey, Senegal
[2]Mother and Child Health Department of the Ministry of Health and Public Hygiene, Dakar, Senegal
[3]Faculty of Medicine, Cheikh Anta Diop University, Dakar, Senegal

Abstract

Introduction: Contraception is a major strategy in the fight against maternal and infant mortality, which moreover remains very high in our African countries, despite the efforts made. Method: This was a descriptive, cross-sectional study aimed at evaluating the level of knowledge, attitudes and practices regarding contraception among women residing in an urban setting in the Commune d'Arrondissement of Ouakam in the City of Dakar from January 21 to February 15, 2020. Results: The mean age was 29 years with extremes of 18 and 50 years. The status of “married”, of “housewives” and of the level of “schooling in French” predominated with respectively 80%, 40.75% and 76.20%. The level of knowledge of contraception was 90%. The “midwife” was the main source of knowledge (30.67%) and birth spacing the main reason for use (44.65%). The majority of women (72.81%) obtained contraceptive products from public health facilities. Almost all women (96%) informed their spouses before using this contraception and 94% of them had given a favorable opinion. The practice of contraception concerned 70% of women and the injectable method was the most used (44.14%) followed by implants (31.6%). Therapeutic adherence was 93%. Side effects were noted in 91% of women and were essentially constituted by cessation of menstruation (67.35%) and weight gain (21%). Discontinuation of contraception for more than 6 months concerned 60% of women and the main reason was the desire for pregnancy (60%). The proportion of women stating that they had never taken the morning-after pill was 86.23%. The satisfaction rate regarding women’s use of contraception was 85%. The factors associated with the practice of contraception were age over 30 years ($p<0.001$), the status of “housewife” ($p<0.001$), the status of “married woman” ($p<0.001$), knowledge of contraception ($p<0.001$) and having more than two children ($p<0.001$). Conclusion: The knowledge, attitudes and practices of women residing in the commune d'arrondissement of Ouakam with regard to contraception are judged good. In addition, the rate of contraceptive use was above the national standard. Measures to raise awareness through community actors must continue to be strengthened in order to maintain, if not improve, the results obtained.

Keywords

Family Planning, Contraception, Ouakam, 2020

*Correspondence: Coumba Ka (mcoumbaka@gmail.com)

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1. Introduction

Contraception is a major strategy in the fight against maternal and infant mortality, which still remains very high in the world, particularly in our African countries, despite the efforts made [1]. According to the World Health Organization, about 287,000 women died in 2020 from complications related to pregnancy and childbirth, the majority of them in sub-Saharan Africa [1]. It is within this framework that the country's health authorities set up family planning centers throughout the national territory and particularly in the commune of Dakar, whose objective was to help couples plan their pregnancies but also avoid unwanted pregnancies often leading to high-risk abortions responsible for sometimes fatal complications [1]. This family planning plays an important role in controlling demographic growth but also contributes very significantly to the achievement of the Sustainable Development Goals, namely the reduction of infant mortality and the improvement of maternal health [1]. Indeed, about 287,000 women died in 2020 from causes related to pregnancy and childbirth [1]. In Senegal, the mortality rate is estimated at about 236 deaths per 100,000 live births and infant mortality at 47‰ live births [2]. Thus an early pregnancy in a young woman, married or not, can constitute a major obstacle to the improvement of her quality of life.

However, the use of contraceptive methods depends on various factors including the availability of the different methods but also the level of women's knowledge regarding contraception. Several studies have shown that education and access to information play a determining role in the adoption of contraceptive methods [3]. Moreover, the contraceptive prevalence rate is 26% in 2023, far from the objective assigned by the health authorities of 46% by 2030 [2]. The objective of this work is to study the knowledge, attitudes and practices of women residing in the Ouakam District Municipality of the city regarding contraception, with the specific objectives of describing the epidemiological characteristics of the study population, evaluating the level of knowledge, attitude and practice regarding contraception and analyzing the factors associated with its use.

2. Material and Methods

2.1. Study Setting

The Ouakam District Municipality, one of the nineteen district communes of the City of Dakar, is located to the West of the capital Dakar, along the coast of the Cap-Vert peninsula. The number of inhabitants had increased from 43,188 to 74,692 from 2004 to 2023. The population is cosmopolitan; all the ethnic groups of Senegal and foreigners coming from neighboring countries and the sub-region are found there. Ouakam District Municipality has 3 health facilities which are the municipal health center, the center of gerontology and geriatrics, and the military hospital. The municipal health center, a referral structure, has various services such as medicine, maternity, pediatrics, hospitalization, odonto-stomatology, laboratory, pharmacy, ophthalmology, physiotherapy. The center, managed by the municipality of Dakar, benefits like the other health structures of Senegal from support from the Ministry of Health and Medical Prevention. The staff is made up of medical personnel (physicians and specialists), paramedical staff (state-certified nurses, midwives, senior laboratory technicians, ophthalmology technician, social worker, physiotherapists.) and support staff (community relays.) supporting the center in raising population awareness about health problems. The commune of Ouakam presents an urban context characterized by accessibility to health services, which makes it a relevant setting for the study of behavior regarding family planning in an urban environment.

2.2. Methodology

2.2.1. Type of Study

This was a descriptive cross-sectional study with an analytical aim dealing with women residing in the Ouakam District Municipality regarding contraception.

2.2.2. Place and Period of the Study

The survey took place from January 21 to February 15, 2020 in a population setting (districts of the Ouakam District Municipality).

2.2.3. Study Population

The study population consisted of women residing in Ouakam, aged at least fourteen years (14 years) and who agreed to participate in the study. Excluded from this study were women not residing in Ouakam or who refused to participate in the study.

2.2.4. Data Collection Procedure

(i). Collection Tools

Developed from the literature and adapted to the local context, a standard questionnaire previously pre-tested had served as the basis for collecting data from patients included in the study. The variables studied concerned the sociodemographic characteristics of the study population, the level of knowledge about family planning, the attitude of women regarding family planning, and the practice of the women surveyed in matters of family planning.

(ii). Collection Sources

The data were collected by administering a face-to-face questionnaire with the woman, lasting 10 to 15 minutes.

(iii). Data Collection Methods

The questionnaires were administered directly to the beneficiaries and then recorded and finally entered into a database.

(iv). Data Entry and Analysis

Data entry was performed using Microsoft Office Excel software and analysis was carried out using Epi Info 2000 version 3.3.2 software. It comprised two parts: a descriptive part to calculate means with their standard deviation for quantitative variables, frequencies for qualitative variables and an analytical part to look for the determinants of the use of family planning; the tests were used according to their condition of application, the test was significant when the p-value was less than or equal to 0.05.

2.2.5 Ethical consideration

Administration of the questionnaire was carried out with the consent of the beneficiaries who were informed of the objectives of the study. In addition, the confidentiality, anonymity and medical secrecy expected by these women were respected.

The study was approved by the district health authorities.

3. Results

In total, three hundred and twenty women (320) constituted the study population.

3.1. Descriptive Results

1) Sociodemographic data

Age: The mean age was 29 years with extremes of 18 and 50 years. The most represented age group was [25-30 years] (30.3%, n=97) followed by [20-25 years] (23.1%, n=74), [30-35 years] (19%, n=61), [35-40 years] (8.7%, n=28). On the other hand, women under twenty years represented 9.4% (n=30) and those over 40 years 7% (n=24).

Marital status: The majority of women had more the status of "married" (77,56%, n=256) than "single" (19,44%, n=61).

Level of education: The majority of women had schooling in French (76.20%, n=244) including 30.48% for the higher level, 28.8% for the secondary level and 16.8% for the primary level. On the other hand 5.71% of women had schooling in Arabic and 18.10% had no schooling.

Occupation: The status of "housewives" constituted the bulk of the study population (40.75%, n=130), followed by pupils/students (21.95%, n=70). Salaried workers and the informal sector represented respectively 19.12% (n=62) and 18.18% (n=58).

Number of pregnancies: Out of 314 responses obtained, 37.26% (n=117) women had had at least 3 pregnancies, 17.20% (n=54) 2 pregnancies and 25.48% (n=80) 1 pregnancy. On the other hand 20.06% (n=63) women were nulliparous.

Number of children: Out of 314 responses, 32.80% (n=103) women had at least three (03) children, 17.8% (n=56) two children (02) and 28.7% (n=90) one (01) child. On the other hand 20.7% (n=65) of women had no children.

2) Knowledge

Knowledge of contraception: Out of 313 responses, 90% (n=304) of the women stated that they knew contraception.

Source of knowledge: The main source of knowledge was the "midwife" (30.67%, n=96), followed by school (22.04%, n=69), family (17.57%, n=55), friends (14.38%, n=45), media (6.71%, n=21), spouse (5.43%, n=17), gynecologist (1.92%, n=6) and finally during a conference (1.28%, n=4).

Table 1. *Distribution of Women According to Source of Knowledge.*

Source of Information	Number	Percentage (%)
Midwife	96	30,67
Gynecologist	6	1,92
School	69	22,04
Friends	45	14,38
Family	55	17,57
Husband	17	5,43
Média	21	6,71
Conférences	4	1,28
Total	313	100

Reasons for family planning: The main reason was birth spacing (44.65%, n=296) followed by the health of the mother (21.87%, 145), unwanted pregnancy (16.59%, n=110), the health of the child (7.5%, n=52).

Table 2. *Distribution of women according to reasons for knowledge of family planning.*

Reasons for knowledge	Number	Percentage (%)
Birth spacing	296	44,65
Against unwanted pregnancy	110	16,59
Birth limitation	52	7,84
Maternal health	145	21,87
Child health	52	7,48
No response	8	1,21
Total	663	100

Place of service provision: Knowledge of the place of family service provision was noted among 92% of women.

Sources of supply of contraceptive methods: Almost ¾ of

women (72.81%) were supplied with contraceptive products in public health facilities (health center, hospital) followed by pharmaceutical pharmacies (26.7%).

3) Attitudes regarding contraception

Sharing information with the spouse (n=219): Almost all women (96%, n=211) had talked about contraception with their spouse.

Spouse's opinion (n=211): Almost all spouses (94%, n=202) had given a favorable opinion to their wives.

4) Practice of contraception

Practice of contraception (n=316): The practice of contraception concerned 70% (n=222) of women.

Reasons for non-practice of contraception (n=83): The reasons were essentially dominated by the status of "not yet married" (57.83%, n=48) and fear of side effects (20.48%, n=17) but also by prohibition by religion (13.25%, n=11).

Table 3. *Distribution of women according to reasons for non-practicing.*

Reasons for non-practicing	Number (n)	Percentage (%)
Not yet married	48	57,83
Religious prohibition	11	13,25
Fear of side effects	17	20,48
Custom	3	3,62
Other reasons	4	4,52
Total	83	100

Contraception methods (n=202): The injectable method was the most used (44.14%, n=98) followed by implants (31.6%, n=48), the pill (16.7%, n=37), the Intra Uterine Device (7.2%, n=16). On the other hand condom and abstinence had represented respectively 7% (n=14) and 1.3% (n=3).

Table 4. *Distribution of women according to the contraceptive method chosen.*

Contraceptive Method	Number (n)	Percentage (%)
Pill	37	16,67
Injectable	98	44,14
Implants	48	21,62
Method of Breastfeeding and Amenorrhea	13	5,86
Condom	7	3,15
Intra-utérine Device	16	7,21
Abstinence	3	1,35
Total	202	100

Change of method (n=82): The proportion of women who had changed methods was 39%.

Reasons for changing method (n=82): The two main reasons mentioned were cycle disorders (46.48%, n=33) and weight gain (22.5%, n=16).

Duration of use of the contraceptive method: The majority of women (53.1%) practiced contraception for a duration of less than one year, 23.4% between 1 and 2 years, 10.5% between 3 and 4 years, 12.9% more than 5 years.

Follow-up of family planning: Regular follow-up of contraception was noted among the majority of women (93%).

Side effects experienced (n=208): The number of women who experienced side effects was 91% (n=190) and they were essentially dominated by cessation of menstruation (67.35%, n=99), weight gain (21%, n=31), spotting (18%, n=19), nausea (9.5%, n=14), pelvic pain (6.8%, n=10).

Discontinuation of contraception (n=54): Discontinuation of contraception for more than 6 months concerned 60% (n=32) of women and the main reason was the desire for pregnancy (60%, n=32).

Taking the morning-after pill (n=208): The proportion of women stating that they had never taken the morning-after pill was 86.23%.

Satisfaction of users (n=208): The women's satisfaction rate was 85%.

3.2. Analytical Results

The factors associated with the practice of contraception were age over 30 years ($p<0.001$), the status of "housewife" ($p<0.001$), the status of "married woman" ($p<0.001$), the occupation "professional status of the husband" ($p=0.02$), knowledge of contraception through the health professional ($p<0.001$), knowledge of service provision sites ($p=0.001$), having more than two children ($p<0.001$). Factors independent of the practice of contraception were the level of knowledge of contraception ($p=0.25$).

4. Discussion

4.1. Epidemiological Data

Age: The mean age of women was 29 years with extremes ranging from 18 to 50 years and women aged under twenty represented 9.37%. These results are comparable to those observed in several African studies, notably in Senegal and Mali, where the mean age of contraceptive users is around 28--32

years [10]. Advanced age (≥30 years) was significantly associated with the use of family planning (p<0.001). This result is consistent with recent data from multi-country analyses in sub-Saharan Africa, which show that older women use modern contraceptive methods more, particularly in a logic of limiting births [4].

Moreover, a secondary analysis of Senegal DHS data also showed that age is a major determinant of contraceptive use, with a progressive increase in use with age [5].

Level of education: More than the majority of women in our study were educated (76.20%, n=244) of whom 30.48% for the higher level. This high level could be explained by the urban context of Ouakam, where access to education is greater than in rural settings.

The literature consistently shows that level of education is a determining factor in the use of contraceptive methods. Indeed, educated women have better knowledge of the methods, better access to information and greater decision-making autonomy [6]. This high percentage of girls' schooling in our study is explained by the fact that it took place in an urban setting where girls' schooling is progressing significantly, displaying higher access rates than in rural areas, but remains confronted with retention challenges linked to poverty, early pregnancies and gender-based violence. Several studies have demonstrated that the level of education is strongly correlated with the use of modern contraceptive methods [1]. This schooling of girls in Senegal has experienced remarkable progress, reaching parity at the primary level and even surpassing boys in lower secondary overall with a gross enrollment ratio reaching 53.3% in 2018 [2].

Marital status: The majority of women had more the status of "married" (80%, n=256) than "single" (20%, n=61), which is in accordance with the results of many African studies. Indeed, in our African countries, the status of the woman is usually linked to her social function as wife and mother, hence the valorization of women's marriage by traditional society, customs and beliefs. As elsewhere, the status of "married woman" was linked to the use of family planning (p<0.001). This association is widely documented in West African countries, where women in union have more frequent access to family planning services. However, some studies show that this relationship can vary according to the sociocultural context, and that other factors such as women's education and autonomy may play a more determining role than marital status alone [6]. Sexual relations outside marriage are considered a grave sin in the revealed religions (Christianity and Islam) but also by our customs since sexuality can only be understood within the framework of marriage.

Occupation: The status of "housewife or homemaker" constituted the bulk of our study population (40.75%, n=130), followed by pupils/students (21.95%, n=70). In addition, the status of "housewife" was statistically linked to the use of family planning (p<0.001). In several African contexts, a high proportion of housewives has also been observed among users of family planning services. Babalola et al. (2021), in a multicenter analysis in sub-Saharan Africa showed that women without formal professional activity represented an important share of users of modern contraceptive methods. This same situation is observed in comparable results observed in Mali and Senegal [7, 9, 15]. Likewise, Ahinkorah et al. (2020), in a study based on DHS data from several sub-Saharan African countries highlighted that socioeconomic status and occupational activity significantly influence the use of contraceptive methods [7]. This overrepresentation of housewives could be explained by greater availability to attend health facilities, unlike salaried women often constrained by working hours. Furthermore, the World Bank (2023) underlines that socioeconomic inequalities strongly influence access to reproductive health services, notably in sub-Saharan Africa. Socioeconomic status also influences access to and use of reproductive health services [8].

Parity: Out of 314 responses, 32.80% (n=103) women had at least three (03) children, 17.8% (n=56) two children (02) and 28.7% (n=90) one (01) child. On the other hand 20.7% (n=65) of women had no children. Having more than two children was correlated with the use of family planning (p<0.001). Analyses from demographic and health surveys in West Africa confirm that multiparity is a major determinant of the use of modern contraceptive methods [2]. Indeed, Ahinkorah et al. (2020), in their study on 36 countries in sub-Saharan Africa, also demonstrated that multiparity is a factor strongly associated with the use of modern contraceptive methods [7]. Likewise, multi-country studies have shown that the probability of using contraception increases significantly with the number of living children [9]. These results are in line with a logic of reproductive transition, where multiparous women adopt behaviors aimed at better controlling their fertility.

Knowledge of contraception

The majority of women (90%) in our study stated that they knew contraception. This high level of knowledge is consistent with the data reported by Kantorová et al. (2020), which show that knowledge of at least one contraceptive method is quasi-universal among women of reproductive age in many countries of sub-Saharan Africa, particularly in urban settings [10]. Women living in urban settings have better knowledge than those in rural settings since they are more educated and live in a more favorable environment such as the proximity of a health facility. The data from the Continuous Demographic and Health Survey of Senegal confirm these disparities, with better exposure to information and family planning services in urban settings [2]. Birth spacing was the main reason for knowledge of contraception, i.e. 44.65% of cases, followed by the health of the mother with 21.87%. This result is to be encouraged especially since a conclusion made by the agency PSI-Burundi reached the result according to which the ability of women to cite at least three advantages of birth spacing favors the use of contraceptives (81.3% among users against 69.5% among non-users). This result is consistent with international data, which show that birth spacing constitutes the main motivation for using contraceptive methods in low-

and middle-income countries [3]. Moreover, the World Health Organization (2023) indicates that optimal birth spacing significantly reduces the risks of maternal and infant mortality [5].

4.2. Attitudes and Practices of Contraception

In our study, contraception is practiced by 70% of women. Lower levels of use have been reported in other African contexts. For example, Lèye et al. in the district of Mbacké observed a rate of 19%, whereas Sepou et al. (2000) in the Central African Republic reported a prevalence of 30.4% [11, 12]. This difference could be explained by the fact that our survey was conducted among women living in an urban setting, presenting a high level of education and living near a health facility. Indeed, several analyses based on data from demographic surveys have shown that residence in an urban setting is strongly associated with higher use of modern contraceptive methods [2, 13]. On the other hand in rural settings the use of contraception faces multiple obstacles, notably sociocultural barriers, opposition of the spouse, low schooling of women, the influence of religious beliefs, but also geographical remoteness of health facilities, fear of side effects and taboos linked to sexuality and contraception. These constraints have been widely documented in multicenter analyses in sub-Saharan Africa [9, 5].

In our study, the contraceptive methods most known were injectable methods (44.14%, n=98) followed by implants (31.6%, n=48). These results are in agreement with those of Jacobstein et al. (2021), who show that injectable methods represent the most used method in sub-Saharan Africa, because of their discretion, efficacy and ease of use [13].

Regarding side effects, 91% (n=190) of women stated that they experienced side effects of which the most frequent were cessation of menstruation (67.35%, n=99), weight gain (21%, n=31), spotting (18%, n=19). These same results were found with those reported by Sedgh et al. (2016) who identify side effects as a major factor of non-adherence and abandonment of contraceptive methods [14].

Regular follow-up of contraception was noted among the majority of women (93%). Bradley et al. (2020), showed that continuity of use of contraceptive methods is strongly associated with the quality of follow-up and the accessibility of services [15]. Discontinuation of contraception for more than 6 months concerned 60% (n=32) of women and the main reason was the desire for pregnancy (60%, n=32). The reasons for discontinuation were mainly the desire for pregnancy but also the absence of the husband for reasons of long-duration travel of the patient or the husband. This result is in agreement with the analyses of Bradley et al. (2020), which show that the desire for pregnancy constitutes the main cause of voluntary discontinuation of contraceptive methods in low- and middle-income countries [15]. Likewise, the United Nations Population Fund (2023) underlines that interruptions linked to fertility plans remain predominant in women's contraceptive trajectories. Discontinuations were sometimes linked to side effects (spotting, weight gain and pelvic pain) [8].

5. Conclusion

The results of our study show that women in the commune of Ouakam (City of Dakar) have a good knowledge of contraception and the majority of them use it with the consent of their husbands. Women are supplied with contraceptive products by public health facilities which moreover constitute the main source of information.

The injectable method was the most used for various reasons linked to therapeutic adherence in relation to its availability and financial accessibility.

The factors associated with the practice of contraception were age over 30 years, the status of "housewife", the status of "married woman", multiparity "having more than two children", knowledge of contraception through the health professional.

Moreover, communication between the client and the provider can constitute an ideal framework for raising awareness and transmitting good information, in order to offset the rumors surrounding family planning.

From this perspective, it appears essential to 1) strengthen education in sexual and reproductive health among adolescents; 2) improve accessibility of youth-friendly services; 3) promote men's involvement in decisions relating to family planning; 4) consolidate community awareness actions.

Despite the efforts made, challenges persist, particularly with regard to adolescents for whom a strengthening of information, education and communication strategies proves necessary.

These interventions could reduce the incidence of unwanted pregnancies, clandestine abortions and STI-HIV/AIDS and hepatitis B.

Abbreviations

DHS	Demographic and Health Survey
STI-HIV/AIDS	Sexually Transmitted Infections – Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome

Author Contributions

Coumba Ka: Conceptualization, Data curation, Formal Analysis, Methodology, Writing – original draft

Cheikh Tacko Diop: Conceptualization, Formal Analysis, Methodology, Supervision, Validation, Writing – review & editing

Aby Sarr: Conceptualization, Data curation, Formal Analysis, Methodology, Supervision, Validation

Ndeye Mareme Sougou: Conceptualization, Formal Analysis, Methodology, Writing – review & editing

Conflicts of Interest

The authors declare that there are no conflicts of interest.

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