



# Knowledge, Attitude and Usage of Female Oral Contraceptive Pills among Female Hawkers in the Central Business District, Kumasi, Ghana

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## Authors' contributions

This work was carried out in collaboration among all authors. Authors PAN, RAA and AAA designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author DABO designed the study, performed the statistical analysis, co-wrote the first draft of the manuscript and reviewed the final draft. Authors FWAO managed the analysis of the study and literature searches. All authors read and approved the final manuscript.

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## ABSTRACT

**Background:** The use of oral contraceptive pills (OCPs) can prevent pregnancy and improve menstrual health. Their effectiveness, ease of use, and reversibility make them a preferred choice. Accessible birth control options for all individuals, regardless of age or finances, is crucial. Understanding cultural attitudes and usage patterns of contraceptives is vital for effective reproductive health care, including emergency contraception options.

**Aims:** This study evaluated the awareness, perceptions, and usage of oral contraceptives among women (female hawkers) in the central business district of the Kumasi Metropolis.

**Study Design:** Cross-sectional study.

**Place and Duration of Study:** Central Business District (CBD) of Kumasi Metropolis encompassing the following areas: Adum Shopping Centre, Kejetia lorry station and Central market between the periods of 15<sup>th</sup> December 2023 and 12<sup>th</sup> April 2024.

**Methodology:** This study employed a descriptive cross-sectional design to evaluate knowledge, attitude and the use of the common female oral contraceptive pills among female street hawkers in Kumasi's CBD. A semi-structured face-to-face interview technique was utilized. Data was analyzed using Statistical Package for Social Sciences (SPSS) version 20 and Microsoft Excel software (2016).

**Results:** The study surveyed 114 participants, with 91.67% below 40 years of age. Most were single (66%), and 30% were married. Over half (54.7%) had used oral contraceptives, while 41.3% had not. Among users, 79% followed the instructions for use as directed by a healthcare professional, but 21% did not. A third (33.3%) reported contraceptive failure, whereas two-thirds (66.7%) did not. A majority (85.2%) believed in a link between contraceptive use and infertility. Usage time of OCP varied as 28.8% used before, 5% during, and 65% after intercourse.

**Conclusion:** Majority of the respondents were found not to choose oral contraception as their means of contraception and those who chose it had limited knowledge about its usage and thus influenced compliance and adherence greatly.

*Keywords: Contraception; female hawkers; unplanned births; population fertility; family planning.*

## 1. INTRODUCTION

Unintended pregnancies, which are either mistimed or unwanted, are a key factor in understanding population fertility and the unmet need for family planning and contraception. These pregnancies often result from the non usage, inconsistent, or incorrect use of effective contraceptive methods. In 2012, it was estimated that globally, around 40% of all pregnancies were unintended, with higher rates observed in developing regions such as sub-Saharan Africa [1,2]. Specifically, in Ghana, approximately 37% of all pregnancies fall into this category [3,4].

The repercussions of unintended pregnancies are profound, leading to thousands of abortions and over 300,000 unplanned births in Ghana alone [2,5]. Contributing factors include poverty, societal stigma towards unmarried mothers, cultural preferences for male children, the burden of multiple roles on women, and limited access to family planning services [4,6]. These pregnancies can have detrimental effects on both maternal and child health, impacting prenatal care, physical health, labor experiences, and

psychological well-being postpartum. Moreover, they can lead to substantial economic burdens for individuals, families, and national healthcare systems [7].

Comprehensive strategies are essential for preventing unintended pregnancies and reducing their negative consequences. These strategies could include accessible contraceptive services, such as emergency contraception and safe, legal abortion options [8]. The main objective is empowering women to make informed choices about their reproductive health, without being limited by age or financial capacity. A deep understanding of the public's perception and use of contraceptives is necessary to achieve this goal [9,10].

Additionally, the exploration of plant-based contraceptives presents an opportunity to develop more affordable and potentially safer alternatives to existing contraceptive methods. Research into the efficacy and safety of traditional herbal contraceptives, as well as their regulatory aspects, is ongoing [11]. Studies have highlighted the potential of certain plant-derived

compounds to serve as effective contraceptives, offering a more accessible option, particularly for populations in rural areas [11,12].

The world's population is surging, underscoring the need for effective birth control measures and proper fertility management through contraception. Despite the availability of numerous contraceptive options, the rate of unintended pregnancies, which contribute to higher antenatal and postnatal mortality rates, continues to rise [13]. Given these circumstances, it's crucial to investigate how contraceptives are perceived and utilized, particularly in African communities where the rates of unplanned births are on the rise.

Ultimately, tackling the challenge of unintended pregnancies demands a comprehensive strategy. This strategy should encompass educational initiatives, enhanced availability of family planning resources, and the creation of new contraceptive methods that are not only efficient but also align with cultural norms [14].

The study investigated the knowledge perception and usage of female oral contraceptives among female hawkers in the central business district (CBD) of the Kumasi metropolis. The main objectives of this study were to assess the common contraceptives of misuse, reasons for use or misuse and knowledge of adverse effects associated with the use of contraceptives.

## **2. MATERIALS AND METHODS**

### **2.1 Study Design**

This study employed a descriptive cross-sectional design to evaluate the knowledge attitudes and usage of the common female oral contraceptive pills among female street hawkers in the Kumasi metropolis of Ghana.

### **2.2 Study Site**

The research was conducted in the Central Business District (CBD) Kumasi Metropolis. This area includes the Central Market, Adum Shopping Centre, and the Kejetia Lorry Park. These locations are all found in Adum, a suburb of Kumasi nestled between Bantama and Nhyiaeso. The Kumasi Central Market, founded in 1925, holds the distinction of being the largest traditional market in West Africa. It boasts a daily footfall estimated to be between 15,000 and

20,000 people [15]. The market is composed of 20 % tabletop stores and 80 % brick-and-mortar stores, offering a total storage capacity of 25,000. Kejetia, on the other hand, is primarily a commercial hub with 60% of its area dedicated to vehicle parking facilities. The remaining space is divided between stores (30%), offices (5%), and residential areas (5%) [16].

### **2.3 Sampling Technique and Target Population**

The snowball sampling method was the primary selection technique for participants in this research. This method starts with a single respondent who then identifies others with similar traits to aid the researcher [17]. Due to the transient nature of female hawkers in Adum and Central Market, locating them for the study posed a challenge. However, snowball sampling was effective in reaching this itinerant group.

The process began with a few female hawkers who consented to join the study and were then asked to help locate additional interviewees. These initial participants were discovered by chance during a visit to the potential study locations. The study ultimately involved interviews with 114 participants. When no new insights were collected after 114 interviews, it was presumed that data saturation had occurred, indicating a theoretically adequate sample size.

Participants were selected through a combination of deliberate and random methods to avoid selection bias, and precautions were taken to guarantee that each participant was included in the study only a single time.

### **2.4 Data Collection and Technique**

The primary data for this study was sourced from female head porters, both adults and youth, in the central business district of the Kumasi, Metropolis. A semi-structured face-to-face interview technique was utilized, with an interview guide that allowed the researcher to probe participants' responses when necessary. The interview guide included questions about the socio-demographic profiles of potential research participants, their knowledge, perception and usage of female contraceptives.

Participants were asked questions in local languages because they could not speak the

English language. An individual translator was therefore hired to assist, as the researchers were not familiar with other languages or local dialects. An audio tape recorder was used to record the conversations with research participants after obtaining oral consent. The interviews were conducted at the convenience of the research participants at scheduled times and venues to avoid interfering with their trade.

Using a semi-structured interview approach, probing and follow-up questions were major characteristics of the interview to elicit rich data. Regarding trustworthiness, which Tracy (2010) expresses as qualitative research credibility, the study location, the participants, and even the interview questions were not based on the convenience and subjective opinions of the researchers. The study location and scope were determined by literature and the need to contribute to knowledge on female hawkers' experiences in Kumasi, Ghana. Respondent validation was done for every interview, whereby the researchers repeated the responses the way they understood it to the participants for the latter to confirm the validity of the information. In cases where respondents disagreed with the researcher's interpretation of the data, the former was made to re-present their response for confirmation.

## 2.5 Inclusion Criteria

All female hawkers 18 years and above who consented to participate in the study were included.

## 2.6 Ethical Considerations

During this research, all relevant ethical standards for conducting studies were strictly adhered. In addition to obtaining informed consent from the study participants, disclosures about the objectives and benefits of the study, as well as the confidentiality of their information, were communicated. All participants were volunteers, and all data collected was handled with utmost discretion. In accordance with ethical research practices, there was guarantee of complete anonymity to all participants involved in this study. No personal identifiers were included during any stage of the data analysis or in the published

results, ensuring that the privacy and confidentiality of participants are rigorously protected.

## 2.7 Data Organization, Entry and Analysis

A manual thematic framework was utilized to develop themes for this study. Once the raw data was collected from all respondents, it was transcribed verbatim by one of the researchers into a word document. The transcripts were then read and organized using the two research questions, knowledge and awareness and attitudes and usage patterns, as broad organizing categories [10].

After this organization, the responses under each category were read again, and emerging ideas were represented by simple words/phrases (codes). Similar codes identified across all transcripts were combined to form broad themes, which were primarily data-driven. All the researchers then engaged in drawing meanings, discussion, and presentation of the raw data [15].

## 3. RESULTS

### 3.1 Sociodemographic Characteristics of Female Hawkers

Table 1 displays the sociodemographic details of the participants. The average age of the 114 food vendors is 27.13 years and 91.7% were under the age of 40. A significant portion, 54.9%, are Akan, and 68.75% are unmarried. The majority, 79.2%, identify as Christians, and 20.8% have not received formal education.

### 3.2 Respondents' Knowledge Attitude and Usage of Oral Contraceptive Pills

Table 2 outlines the knowledge, attitude and usage of contraceptives among female street hawkers. A significant portion, 77.8 %, acknowledged being aware of oral contraceptive pills. A large percentage, 45.53 %, reported that their source of information were friends. Approximately 57 % agreed to the use of OCP, and 80.49 % confirmed that they had experienced side effects. Additionally, 63.41 % of the hawkers confirmed the use of OCP after sex as directed by the pharmacist or the pharmaceutical support staff (PSS).

**Table 1. Sociodemographic characteristics of respondents**

Variable	Frequency (n=114)	Percentage (%)
Age		
<40	132	91.67
40+	12	8.33
Educational level		
No formal education	30	20.80
Primary	36	25.00
Junior High school	42	29.20
Senior High school	36	25.00
Tertiary	-	-
Marital status		
Married	45	31.25
Single	99	68.75
Religion		
Christian	114	79.17
Muslim	28	19.44
Traditionalist	2	1.39
Ethnicity		
Akan	79	54.90
Ewe	9	6.30
Mole-Dagbani	56	38.88

**Table 2. A table showing the respondents' usage of oral contraceptive pills**

Variable	Frequency (n)	Percentage (%)
Have you heard of oral contraceptives?		
Yes	112	77.78
No	32	22.22
Source of knowledge		
Friends	51	45.53
TV/Radio advertisement	38	33.93
Salespersons	13	11.61
Others	10	8.93
Have you used oral contraceptives pills		
Yes	82	56.94
No	62	43.06
Reasons for not using OCPs		
Free period method	38	61.29
Virgin	19	30.65
Other methods	5	8.06
Preferred brand of OCPs		
Postinor 2	24	29.27
Lydia	38	46.34
Levon 2	13	15.85
Others	7	8.54
Mode of usage of OCPs		
Before sexual intercourse	25	30.49
During sexual intercourse	4	4.88
After sexual intercourse	52	63.41
others	1	1.22
Was the preferred OCP effective?		
Yes	28	34.15
No	54	65.85
Any side effects encountered?		
Yes	66	80.49

Variable	Frequency (n)	Percentage (%)
No	16	19.51
Side effects encountered		
Irregular menstruation	21	31.82
Profuse bleeding	15	22.73
Menorrhagia	24	36.36
others	6	9.09
Relationship between contraceptive use and infertility		
Yes	69	84.15
No	13	15.85

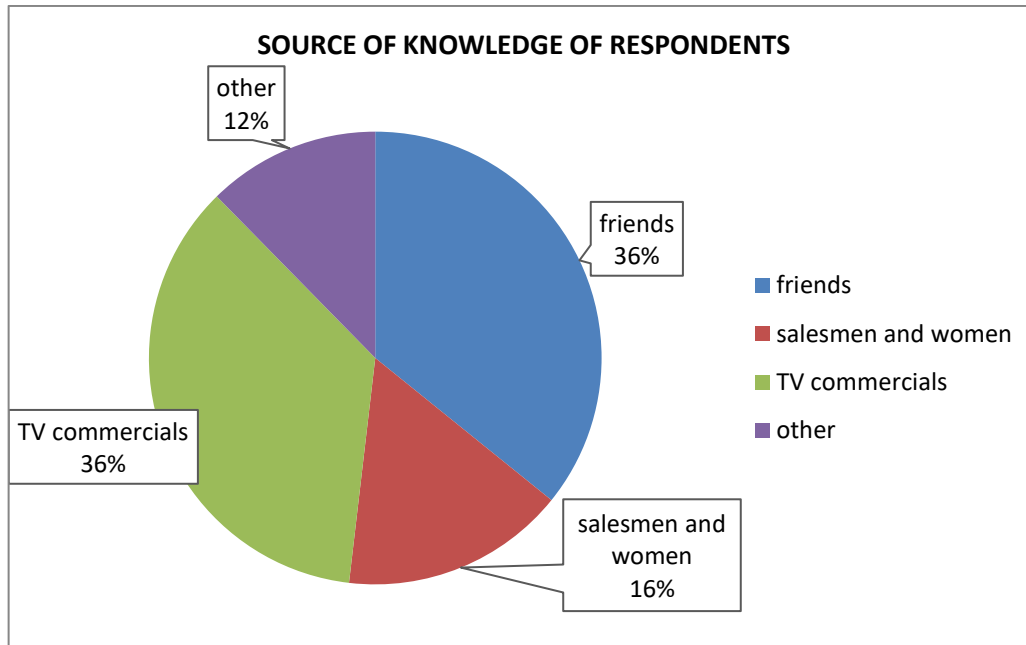


Fig. 1. A chart showing the source of knowledge of respondents on oral contraceptives

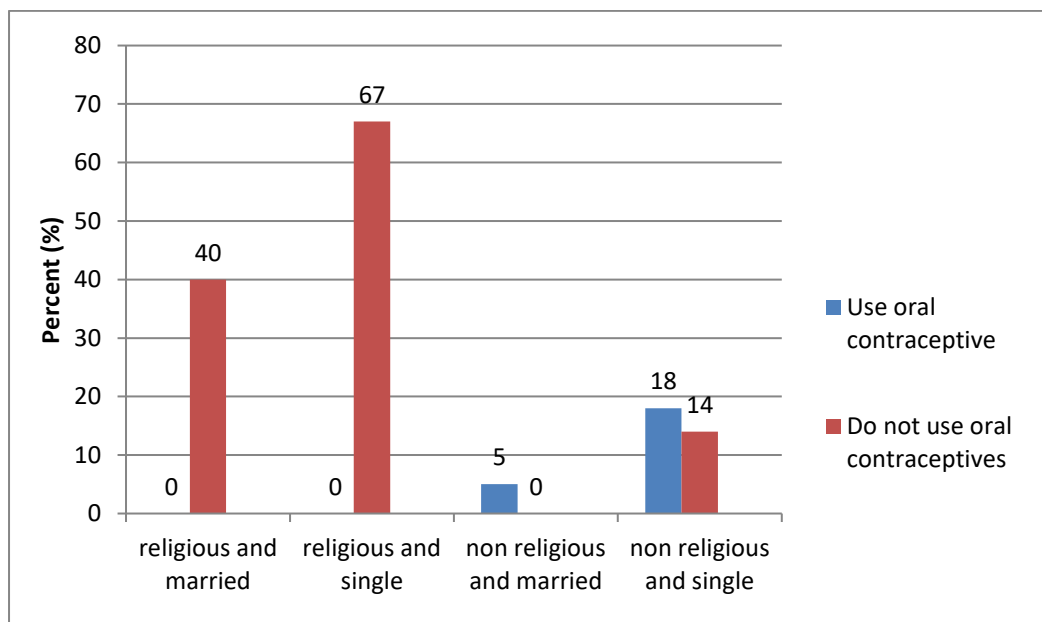
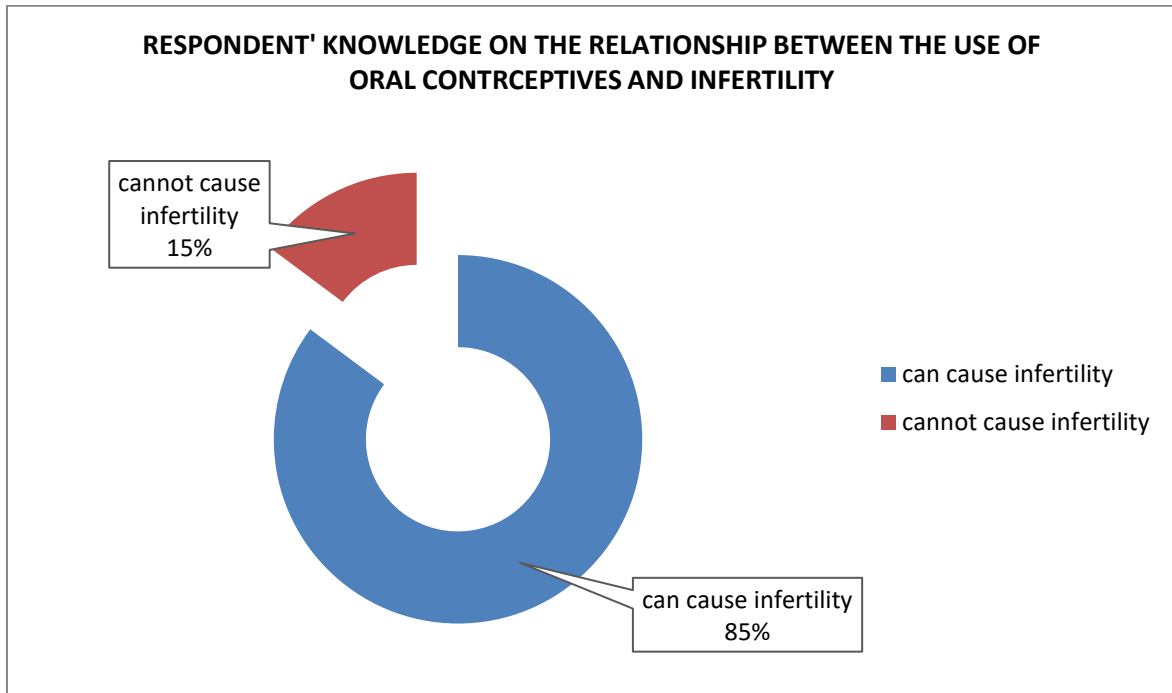


Fig. 2. A graph showing the relation between marital status, religion and the use of oral contraceptive pills among respondents



**Fig. 3. A chart showing respondents' knowledge on the relationship between oral contraceptives and infertility**

#### 4. DISCUSSION

The use of oral contraceptive pills has been the major means of preventing unwanted pregnancy among most women of reproductive age. While oral contraceptive pills offer significant contraceptive benefits that are important to many women, inconsistent use of these pills results in significant failure rate that are at least 20 times higher than failure rates of IUDs and implants (Yeboah et al., 2022). However, if taken correctly, the oral contraceptive pill can prove to be up to 99% effective [18]. Even though the oral contraceptive pill is one of the easiest and safest means of contraception, perceptions and discernments surrounding its usage are immeasurable varying from race, religion, culture and various traditions. While the primary usage of oral contraceptive pills is aimed at preventing contraception, it is fascinating to realize that, it has a range of other benefits other than their primary purpose. Contraception reduces pregnancy-related morbidity and mortality, reduces the risk of developing certain reproductive cancers and can be used to treat many menstrual related symptoms and disorders (Steller et al., 2021). The findings revealed that the majority of the participants had heard about OCP. This finding is similar to the study conducted by Yeboah et al. [19] in Ghana, [20] in Botswana and Mishore et al. [21] in Ethiopia.

Additionally, Adama Town, Ethiopia (38.7%) [22] showed a comparatively low level of OCP awareness among study participants which was contrary to this study's findings. The differences in the level of awareness could be due to differences in the study settings and time variation in relation to the acceleration of reproductive health promotion activities [23].

In this research, friends and media emerged as the primary sources of information regarding oral contraceptive pills (OCP) for most participants, as shown in Fig. 1. This contrasts with other studies where health professionals were the main informants [19]. Notably, a study by Mohammed et al. [24] also found health professionals to be a key source. Concerning OCP, 63.41% of this study's participants were aware of the correct usage timing, a figure that is lower than Tamale's 85% but higher than Botswana's 38.2% Mohammed et al. [24] However, the study in Nigeria (66.7%) showed similar proportions with the present study [25]. Additionally, 80.49% of participants in this study were knowledgeable about OCP side effects, This finding is similar to that of a study conducted in Nigeria which reported that 72.5% of the participants had correct knowledge on the side effects of OCPs but higher than that of the study in India (8.6%) [26]. Menorrhagia was identified as a common side effect by 36.36% of

participants, whereas another study highlighted nausea and vomiting as more prevalent Sibanda et al. [27] Research has indicated that poor publicity of contraceptives and limited availability are possible reasons for low awareness [28]. Thus, the high level of awareness of OCP in the present study could be due to high publicity on social media including TV/radio broadcast.

Religious and cultural beliefs significantly influence the use of oral contraceptive pills. Healthcare advice that conflicts with a patient's religious beliefs may be rejected. For example, many Christians view procreation as a divine command and consider interference with childbirth, including contraception, as sinful [29]. Consequently, Christian couples often rely on natural family planning, which can be unreliable due to various factors, leading to unintended pregnancies. In this study, out of the 144 participants, 31.3% were married, but only 5 continued to use oral contraceptives, none of whom were affiliated with any religion (Fig. 2) [30].

Many traditions and culture relate the use of contraceptive methods to infertility. It is believed by a great number of people that; prolonged and long-term use of oral contraceptives has the tendency of causing infertility or delays conception. This belief has left many women who wish to resort contraception in a state decisiveness. This belief has thus influenced the usage of oral contraceptive negatively as most women who wish to bear children in the future find it difficult to use contraceptive methods. However, this belief is scientifically proven to be false. When it comes to birth control and fertility, there can be a lot of confusion. But hormonal contraceptives don't cause infertility, no matter which method used or how long it is used. What they're designed to do, however, is temporarily delay your fertility and prevent pregnancy [31].

From the results accumulated from this study, out of the 82 respondents who responded to this section, 85.2 % believed that, the use of oral contraceptives can cause infertility. This may account for the reasons why the use of oral contraceptives is not patronized in the study area and the entire country in general (Fig. 3) [32].

## 5. CONCLUSION

The study concludes that oral contraceptive pills offer numerous benefits, from birth control to other therapeutic advantages. However, their

usage is not well-monitored. Many potential users lack the necessary in-depth knowledge to fully benefit from these pills. Socioeconomic factors such as religion and culture greatly influence a person's choice of contraceptive method. Despite this, some individuals disregard their religious beliefs and choose oral contraceptive pills, often facing stigmatization and judgment. These factors have become barriers to the use of oral contraceptive pills among the study's respondents, primarily street hawkers in the Kumasi metropolis.

## ETHICAL APPROVAL

This research received approval from the Committee on Human Research, Publications, and Ethics (CHRPE) at Royal Ann College of Health (RACOH, Kumasi), with the reference number CHRPE/EC/114/3.

## CONSENT

As per international standards or university standards, Participants' written consent has been collected and preserved by the author(s).

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## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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