African Journal of Interdisciplinary Studies *Vol. 9, pp 63-76, December 2016, ISSN: 0855 – 9724*

Foster Asante
University Clinic, University of Education, Winneba. Ghana. Email: pabloe_foster@yahoo.com

Investigating the use of emergency contraceptive pill as against the daily/periodic contraceptive measures

Abstract

The purpose of the study is to determine the factors which may be influencing the choice and usage of the various emergency contraceptive pills (ECPs) among women in their reproductive age (WIRA). Respondents of the study were predominantly young female adults with 60% of them aged between 20 and 29 year and up to 82% of all respondents aged less than 35 years. Up to 81% of all respondents had received formal education between pre-tertiary and the tertiary level. A little over a-third (37%) of respondents were married with some 57% not necessarily married but in some form of sexual relationship whiles 46% of them had no children. More than two-thirds (67%) of all respondents were using ECP as their current method of contraception as against a-third (33%) of the that pie being shared amongst the rest of the other daily/periodic contraceptives including the daily oral pill, the condom, the injectable, the implant, etc. Over a-third (34%) of all ECP users had their first information or knowledge what so ever regarding the product from 'friends' and almost another third (28%) from 'media advertisement'. Nearly half (45%) of all ECP users confirmed relying on it as a general contraceptive measure as against its core purpose of use as an emergency contraceptive measure. Based on the several findings of this study, it is hereby being recommended that, further studies be carried out on a larger scale to gauge specifically the knowledge levels of ECP users regarding the product and whether they truly know and understand the circumstances under which these products are to be used.

Introduction

Family planning implies the ability of individuals and couples to anticipate their desired number of children, spacing and timing of the birth of their children and it is achieved through the use of contraceptive methods and treatment of involuntary fertility (WHO, 2003). In other words, family planning entails the voluntary prevention of pregnancy and the interruption of the chain of events that lead to conception (WHO, 2003). Family planning methods may be classified as traditional methods such as the withdrawal method and the modern methods including the pill, injectables, implants, intra uterine devices (IUD), foaming tablets sterilization, lactation Amenorrhea Method (LAM) etc (WHO, 2003).

Oral Contraceptive Pill (OCP)

Oral contraceptives or birth control pills ("the Pill") are used by women to prevent pregnancy; to regulate the menstrual cycle and to provide hormone replacement therapy. Combined birth control pills (containing estrogen and progesterone) work mainly by stopping ovulation (Finer LB, 2001). Under ideal conditions, oral contraceptives have an effectiveness rate of over 99.5% (WHO 2002). Possible benefits of taking the pill include a decreased incidence of ovarian cysts, benign breast changes, iron deficiency anemia, pelvic infections, ectopic pregnancy, acne, menstrual cramps and long, heavy menstrual flow (Finer, 2001).

Emergency Oral Contraceptive Pill (ECP)

Unintended pregnancy continues to be a major public health issue worldwide (Stewart, 2007). About one-half of the 6-million pregnancies in the United States each year are unintended (Stewart, 2007). The majority of women in their childbearing years (aged 15–44 years) use some form of contraception, but more than one-half of all unintended pregnancies occur when these women experience contraceptive failure

(Frost, 2010). The remaining pregnancies occur in women not using any contraceptive method; therefore, efforts to increase use of the most effective contraceptives would decrease the rate of unintended pregnancy (Frost, 2010). Emergency contraception (EC) has the potential to reduce women's risk of unintended pregnancy, and EC medications are the only contraceptive method that can easily be used post-coitally to prevent pregnancy (Frost, 2010). EC is a therapy for women who have had unprotected sexual intercourse, including sexual assault and known or suspected contraceptive failure, and want to avoid pregnancy. The two most common reasons for seeking EC are failure of a barrier method (usually condoms) and failure to use any contraceptive method (Stewart, 2007).

Even women who do not desire pregnancy may practice contraception poorly or not use a birth control method (Frost, 2010). This contradiction can be explained by a number of factors, including women's ambivalence about potential pregnancy; experiences with contraceptive methods; partner influences; lifestyle factors such as travel, work, and relationships; and interactions with contraceptive care providers. These factors influence gaps in contraceptive use, which heighten the risk of unintended pregnancy (Frost, 2010).

Three types of ECPs are available in the United States: combined ECPs containing both estrogen and progestin, progestin-only ECPs and an ECP containing ulipristal acetate (UPA).Combined ECPs contain the hormones estrogen and progestin (Fine, 2010). The specific agents that have been studied extensively in clinical trials of ECPs are the estrogen ethinyl estradiol and the progestin Levonorgestrel or norgestrel (Finer, 2001). Levonorgestrel, a progestin and the main constituent contained in most of the ECPs on the Ghanaian market (such as Postinor 2, Lydia, Norlevo etc) is a female hormone and works by causing changes in the cervical mucus and uterine lining, making it harder for sperm to reach the uterus and harder for a fertilized egg to attach to the uterus. Levonorgestrel is a progestin hormone and does not contain estrogen.

Progestin-only ECPs have largely replaced the combined ECPs because they are more effective and cause fewer adverse effects. Although ECPs are commonly known as "morning-after pills," the term is misleading; ECPs may be initiated sooner than the name implies or much later than the morning after. Progestin-only ECPs are most effective when taken immediately after unprotected intercourse (Fine, 2010). Efficacy declines as time elapses between sex and drug administration (Fine, 2010). Progestin-only ECPs are approved by the United States' Food and Drug Authority (FDA) for use up to 72 hours after intercourse. They are reasonably effective for up to 120 hours and perhaps longer. However, patients should remember that progestin-only ECPs are more effective the sooner they are taken after unprotected sex (Arowojolu, 2002). The progestin-only products currently approved by FDA for use in the United States contain levonorgestrel. Two progestin-only products currently available may present as two 0.75-mg tablets or a single 1.5-mg tablet (FDA, 2009).

The original treatment schedule was one 0.75-mg dose within 72 hours after unprotected intercourse and a second 0.75-mg dose 12 hours later. However, subsequent studies have shown that a single dose of 1.5 mg is as effective as two 0.75-mg doses 12 hours apart. A single 1.5-mg dose is now considered the evidence-based standard, and it can be effective up to 120 hours after unprotected intercourse. Also, this dosing regimen is easier for women and enhances adherence (Frost, 2010). Progestin-only emergency contraception pills (ECPs) are available without a prescription behind pharmacy counters for purchase by women and men 17 years of age or older in the United States. In the previous decade, the regulatory status for progestin-only ECPs has evolved from prescription-only to over-the-counter (OTC) for those 18 years or older and now to OTC for those 17 years or older (Ellertson, 2003). Some common brands of the progestin-only ECP on the Ghanaian market include postinor-2, Lydia, Norlevo etc which normally contain about 10 times (1.5mg) the amount of Levonorgestrel (the main active constituent) compared to that contained in a daily oral contraceptive pill (OCP) (averagely 0.15mg). It must however be mentioned that whiles most ECPs are single-constituent based (mostly progestin only), most OCPs are multi-constituent comprising of an estrogen derivatives such as ethinyl estradiol, progestin component in the form

of levonorgestrel or norgestrel and a blood enhancing component in the form mostly of an iron salt e.g ferrous fumerate in addition to (FDA, 2013)

Problem statement

A study by Fayorsey, (2002) and many other similar ones have recorded that, a significant number of students had history of sexual intercourse and used emergency contraception especially at the tertiary level; that the belief in the effectiveness of ECP is gradually dwindling the patronage and usage of the other 'traditional' modern contraceptives such as the daily pill and condoms. According to that study, the preference for the pill (ECP) may make users less prepared to practice STI protective behaviors in specific situations and that there is an urgent need to educate especially young people about reproductive health and family planning and skills on how to prevent HIV/STIs.

Winneba is a relatively small town and can best be described as an educational hub. It is home to more than its fair share of educational institution including a university with three campuses, a nursing training institution and other government and private secondary and vocational educational facilities with very huge student numbers. For Some time now it has becoming a regular occurrence where there is a shortage of ECPs every now and then according to sources from two of the busiest retail pharmacy outlets in town; one located near the nursing training school and the other near the North campus of the University. An informal chat with a superintendent pharmacist in one of these pharmacy outlets gave birth to a quote which ignited the conception of ideas to have such a study put together. He said*:*

> '*it is becoming clear that people are either not aware that ECPs are meant for one-off instances and not an everyday contraceptive or they are blindly taking advantage of its dosage convenience'.*

What is worrying about the above stated trend and assertion is that, the strength of the respective constituents of an average ECP (mostly progestin-only) measure sometimes up to 10 times that contained in an average daily oral contraceptive pill OCP (although mostly estrogen and progestin derivatives combined). This raises questions about the long term adverse effects of a medicine meant to be used in 'one-off' situations and yet being used almost on daily basis by some clients as the attendant in these pharmacy would have one believe; especially when there are currently no clear cut national guidelines on their use, accessibility, regulation as anyone can merely purchase one over the counter in any pharmacy or chemical seller's outlets without prescription or being asked any questions.

Significance of the study

This study could go a long way to bring to light why there seem to be this gradual sharp drift towards ECP by contraceptive user. It is hoped that the study would help determine whether this sudden surge in the usage of ECP is a problem of a knowledge gap of users as to exactly what ECPs are to be used for and the circumstances which warrant their use; the increasing public advertisement or perhaps the simple reason of convenience with regards to the dosage regimen. Thus this study is expected to contribute to the body of knowledge, research and literature regarding the use of ECPs.

Research Questions

1. Which women groups rely on ECPs as contraceptive of choice?
2. What factors influence a woman's choice of ECP as a contraceptive of choice?
3. What is the extent of an ECP user's knowledge about the exact purpose of the use of the product?

Objectives of the study

1. To determine the demographic profiles of the ECP users.
2. To determine the factors influencing the users' choice of ECP.
3. To determine the depth of users' knowledge about the purpose and uses of the ECP.

Sampling
Convenient sampling technique was used where anyone who came in to purchase any of the ECPs became a potential respondent. This is because most of the people who enter these pharmacy outlets to buy these ECPs come in 'rushing' and very much in a hurry to get out of the facility due to 'shyness' and would hardly spare time for any questioning or education by pharmacy attendants even if it would benefit these clients. Some would even attempt to send minors (the underage) whom they (users) believe might have no clue about what it is that he/she (minor) has been sent to buy.

Methodology
The approach used was, when a client comes in to purchase any of the ECPs, she is politely asked if she can spare a few minutes to answer few questions regarding ECP by ticking the appropriate boxes on the questionnaire. The purpose of the study is briefly explained to her and if she agrees, then a questionnaire is handed out to her to answer it on her own in the inner office of the Pharmacy and dropped into a designated (sealed) box inside the office. This was to ensure that the respondents were able to express themselves at free will and in privacy. It was envisaged under the circumstances that by using this sampling method over the 3-month period may help generate a critical enough number of respondents for the study.
]
Study design
This is a descriptive cross sectional study. Both quantitative and qualitative data were collected for the study.

Data Collection Instruments
The data collection instrument used were structured questionnaires (180 in all) which made use of both close and open ended questions aimed at capturing as much information as possible and to offer flexibility in the data collection process.

Data collection procedures
A two-paged structured self administered questionnaire was used to collect data. The questionnaire had both closed and open-ended questions. It comprised of three parts. The first part was the preamble which basically introduced the study to the prospective respondents. The second part contained information on the demographic characteristics of the study participants. The third part generally assessed the use of ECP in relation with other regular contraceptives.

The questionnaire was distributed to 5 pre-identified ECP users who did not participate in the study for them to attempt to answer the questions. The completed questionnaires were then studied to identify major issues that needed amendment. As a result, some questions were rephrased. The attendants from the selected facilities were used as research assistants for this study after they had been adequately briefed about all that there is to know about the study and all that is expected of them.

Data processing and statistical analysis
Information from the structured questionnaires was organized through data coding, editing, cleaning and entry. All these were quality control measures to provide valid and reliable information. Data processing was by the use of Microsoft Office Access programme for the data entry and analysed with the Microsoft Office Excel programme and the SPSS software (version 23)

Result and Discussion
This study is being carried out to investigate the apparent surge in the use of Emergency Contraceptive pills (ECP) popularly known as 'the morning after pill' as against the other mainstream daily/regular contraceptives. The first part of this section (results and discussion) which covers figures 1 to 6 deals with the demographic profiles of respondents in an attempt to answer the question of which women group use the ECPs as a contraceptive of choice. The second part (figures 7 to 15) would however attempt to gauge the knowledge level of ECP user's as to whether they actually understands the use of these products and the circumstances that warrant their use and also the factors that may influences a user's choice of ECP.

Out of the several hundreds of persons who may have visited the selected Pharmacy outlets to purchase one ECP or the other over the period of the study, one hundred and eighty (180) in all agreed to partake in the study and hence represent this study's respondents. A careful look at the age distribution patterns of the study respondents revealed that, all 180 (100%) of them were aged between 15 and 44 years. Thus the respondents of this study could safely be described as women in their reproductive age (WIRA) or are women of child bearing age as shown in figure 1.

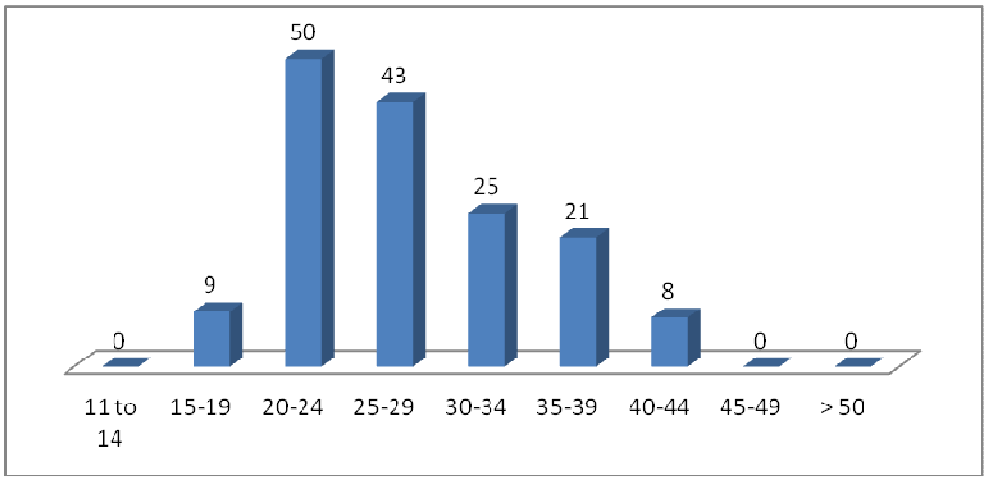

Fig. 1 Distribution of Respondents per Age Range

Again as far as age distribution of the study's respondents are concerned (figure 2), women aged 20-24 years form the largest group with 32%; followed by those aged 25–29 years (28%) with those aged 40-44 years being the least group (5%) followed by those aged 15-19 years (6%).

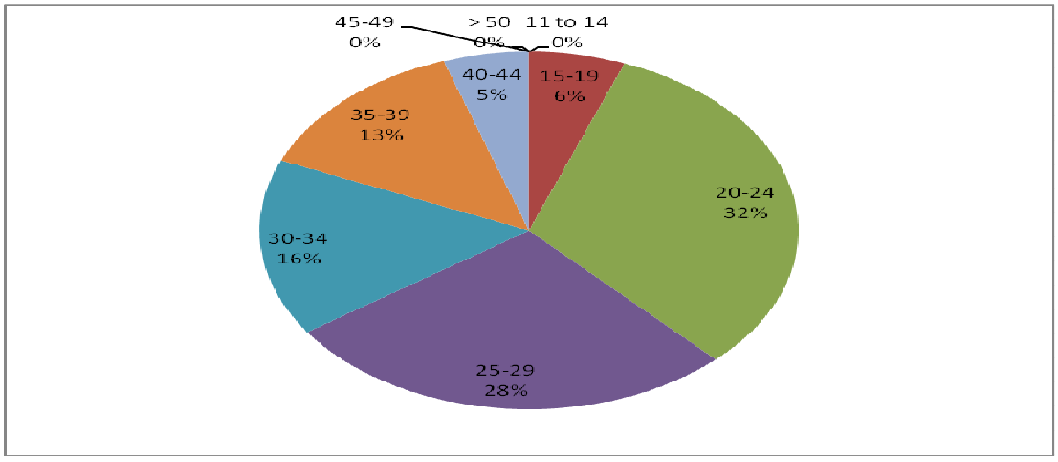

Fig 2: Percentage Age Distribution

This is very much in line with expected trends with regards to sexual/reproductive activities along the age 'tree'. Ages 15-19 years are when most young women and their men counterpart are learning or getting into sexual and reproductive activities of their lives (Coeytaux, 2009). The age range of 20–29 years within which nearly two-thirds (60%) of the study's respondents fall represent a time of life when sexual and reproductive activities are at their peak (Coeytaux, 2009**)** and since the respondents of this study are largely ECP buyers or users, it can be said to be hardly surprising that more than half of the number of respondents fell in this group.

More than half (52%) of all respondents had tertiary education as their highest level attained as far as educational status is concerned, followed by 29% of respondents who managed to get education up to the Senior High School, Ordinary, or Advanced Level (SHS/ O/A-Level) category and just a little more than a tenth (12%) of respondents having had no education at all as shown in figure 3 below.

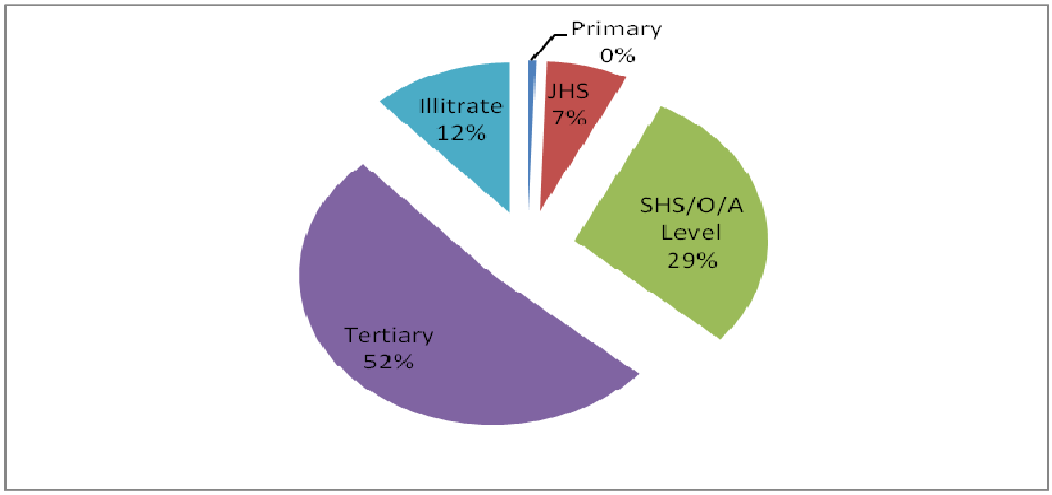

Fig 3 Percentage Distribution per Educational Status

Students represent the biggest group (figure 4) of respondents with 41% as far as occupation is concerned, followed by those in Public/Civil service (18%); those in apprenticeship (12%) with farmers being the smallest respondent group (3%) followed by the unemployed (6%).

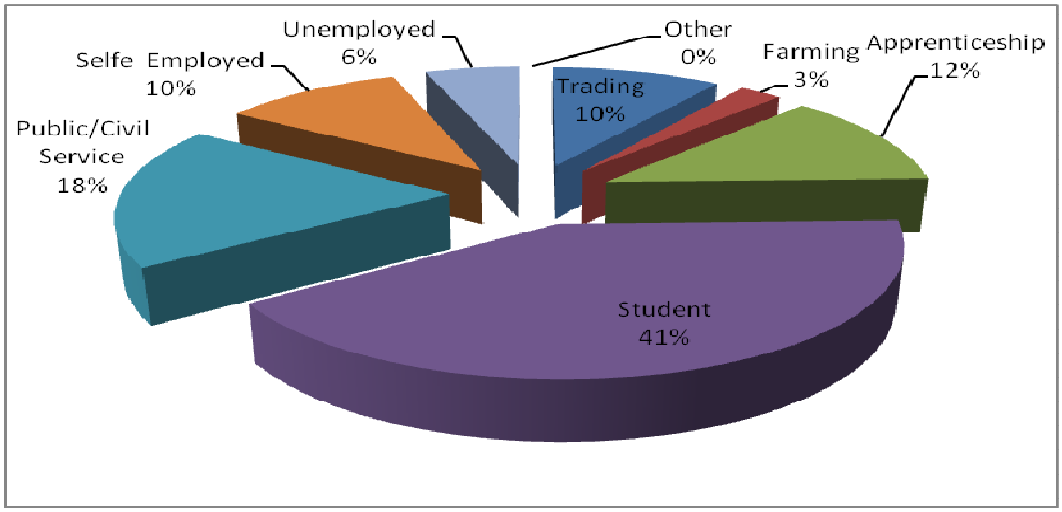

Fig. 4: Percentage Distribution per Occupation

Thus as far as demographic parameters of age, occupation and education status are concerned a picture of a predominantly young group of females (with 60% aged between 20 and 29 years (fig. 2); mostly (81%) fairly educated (fig. 3) between pre-tertiary (SHS/ O/A levels) and the tertiary level seems to be gradually emerging of our respondents who are essentially ECP users.

Again, as shown in the figure 5, more than half (57%) of all respondents fell into the category of 'not married but in a relationship' where marital status is concerned (as 'single' and sexually inactive client

would not have come to purchase ECP in the first place and so would not have necessarily become respondents of this study); with just above a-third (37%) of respondent being in a marital relationship.

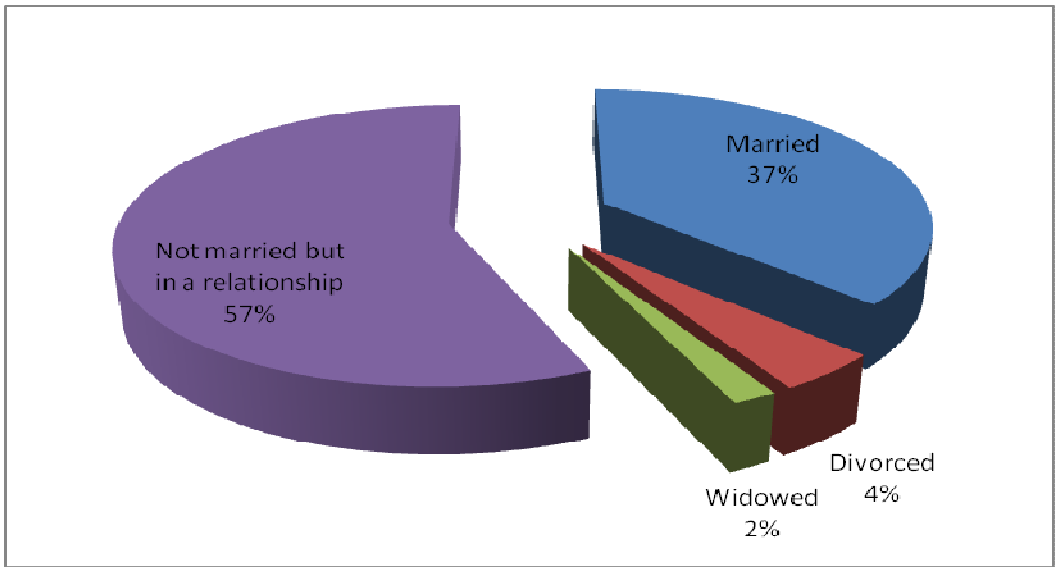

Fig. 5: Percentage Distribution per Marital Status

Nearly half (46%) of all respondents (fig. 6) had no children with a little more than a third (39%) having between 1 and 2 children while 14% had more than 3 children.

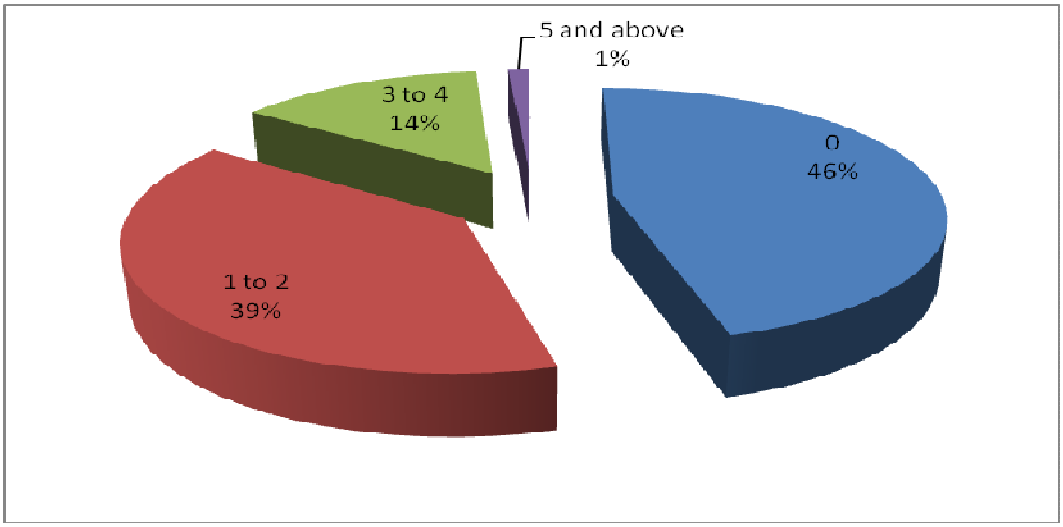

Fig. 6: Percentage Distribution per Number of Children

Again, the findings regarding marital status and parity (number of children per woman) may go to add on to the earlier picture slowly emerging of the study's respondents. Thus a cross section of a young female group (mostly students and apprentices of various trades); predominantly in their reproductive ages (15-44 years); fairly educated (largely pre-tertiary and tertiary); not married but not necessarily single (in some form of sexual relationship, however regular or otherwise) and mostly without children (perhaps due to their being either students or in apprenticeship).

More than two-thirds (67%) (fig.7) of respondent used ECP as their regular contraceptive whiles only 16% relied on the daily pill, with just about 14% using condoms, implants and injectables put together as their regular contraceptives

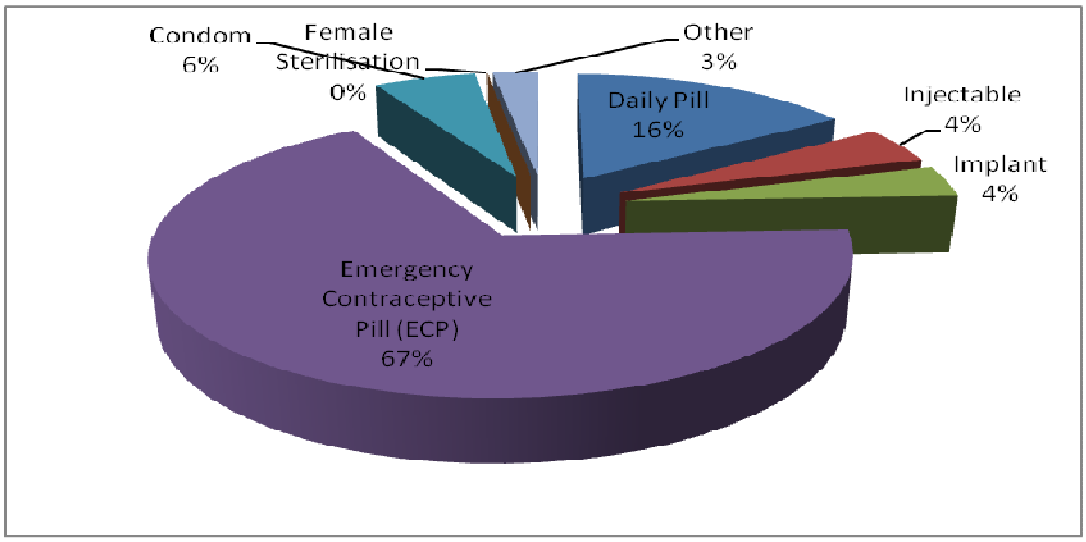

Figure 7: Current Regular Contraceptive Usage

However when asked about their purpose of using ECP as a contraceptive, 55% (fig. 8) used it as an emergency measure while just under half (45%) of respondent alluded to relying on ECP as general contraceptive measure.

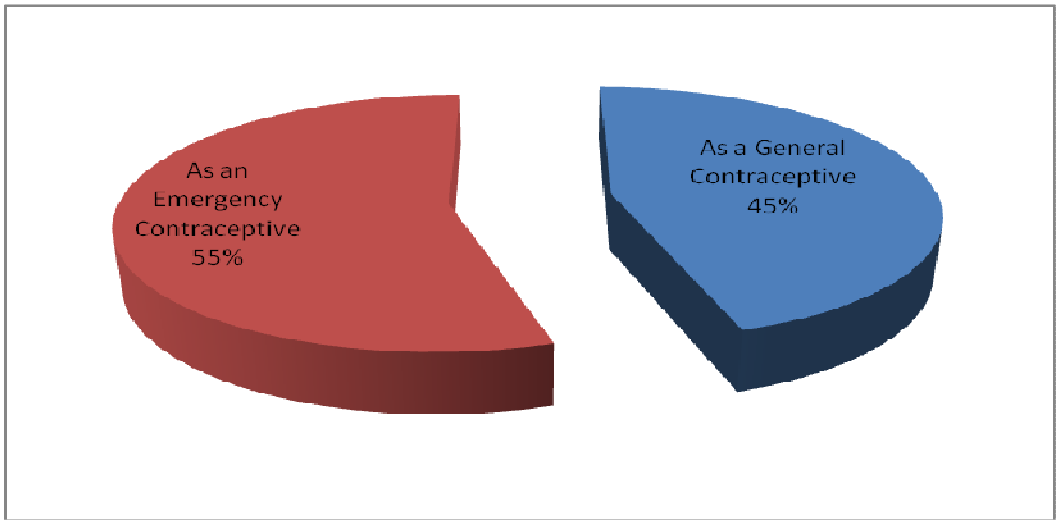

Figure 8: Purpose of usage of ECP

The fact that as much as 67% of respondents relied on ECP as a contraceptive of choice regularly may somewhat confirm the suspicion/assertion that the ECP which is to be relied on in one-off situations such as having an unprotected sexual activity under whatever circumstance to prevent the incidence of unwanted pregnancy is gradually but steadily taking over the use of the well known more regular or main stream modern contraceptive such as the daily pill, the condom, the injectable, the implant etc.

Again, to have of a cross section of a particular female group (respondents) with nearly half (45%) alluding to relying on ECP as a general contraceptives raises questions as to whether the user truly know and understand the circumstances that warrant the use of these ECP; whether they (ECPs) are necessarily not being taken advantage of for their ready availability in almost every pharmacy and chemical sellers outlet; the fact that it can easily be purchased over the counter without prescription in these outlets almost without any national or institutional regulation; and whether users are aware of the possible long term adverse effect of a product containing more than 10 times the strength of a particular constituent meant to be used in one-off situations and yet being used almost on a daily basis? How about perhaps one looking at the 'brighter' side of life regarding the fact that unwanted pregnancy incidences especially among tertiary students are not necessarily at an alarming rate especially compared to their basic and secondary school counterparts (Fayorsey, 2002) and that perhaps the upsurge in the usage of ECPs among this group in the population could be a contributory factor?.

More than a third (38%) of ECP users confirmed to relying on these medicines because of their 'unpredictable/irregular sexual life; 28% because of 'its one-off attribute; 18% due to its effectiveness and 16% due to its ease of availability as shown in figure 9 below.

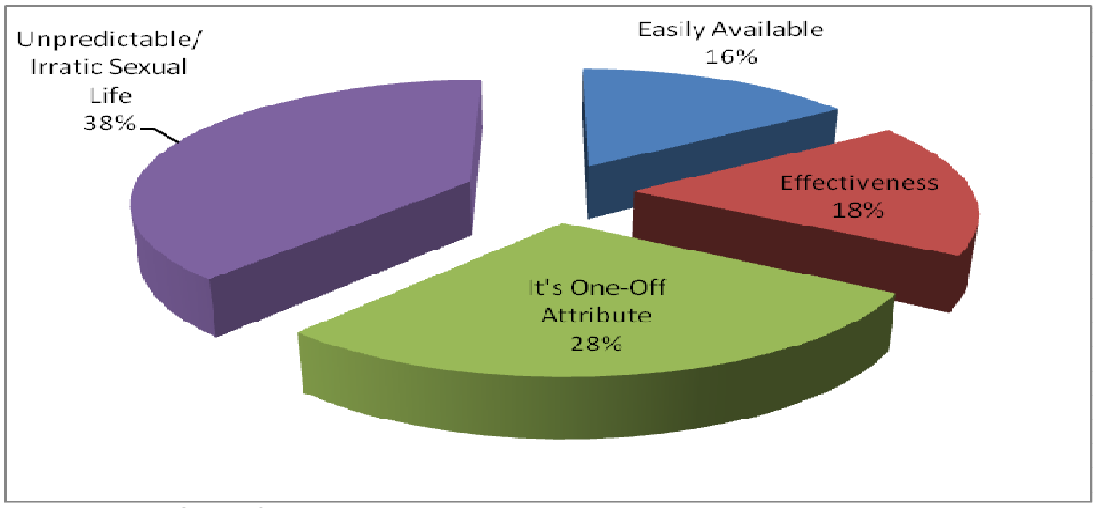

Fig. 9: Reasons for preference to ECP

When asked about how often one fell on ECP as a contraceptive, 62% of the respondents reported to using ECP 'as often as they engage in unprotected sex' while 24% used ECP 'more than once a week' (fig. 10).

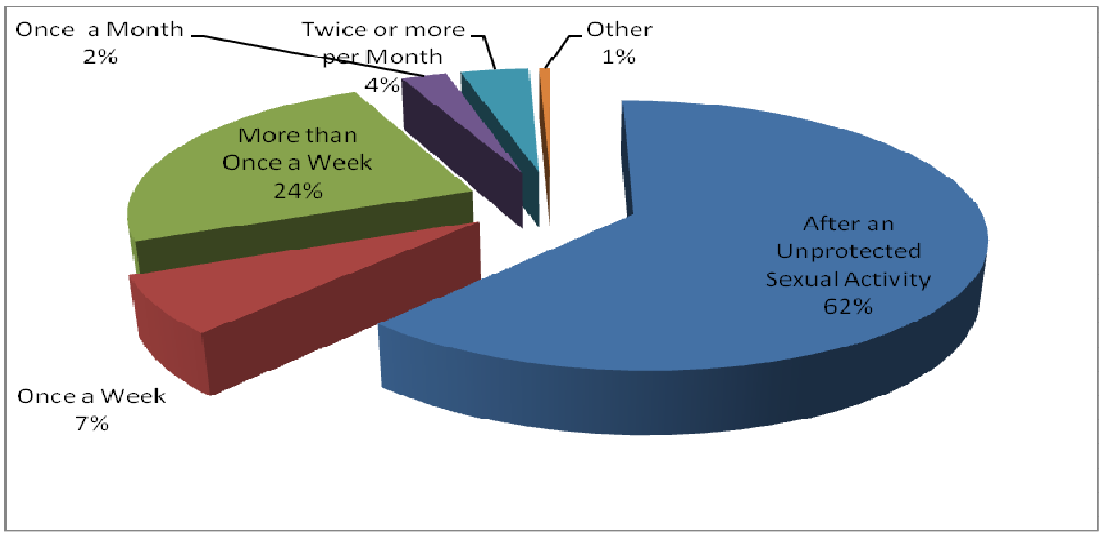

Figure 10: Frequency of ECP usage

The above findings (fig. 10) coupled with the fact that more than half (58%) (fig. 11 below) of respondents (technically) ECP users engage in sexual activity more than once a week and most likely unprotected may probably be what brought them to the pharmacy outlets to purchase ECPs in the first place. Thus to have a cross section of a certain female grouping, 58% of which engage in sexual activity more than once a week coupled with the fact that 62% of them fall on ECP as and when they engage in unprotected sexual activity may fairly suggest that a very high percentage of these woman may be using emergency contraceptive pills (ECPs) more than once a week and this sounds quite an alarming trend.

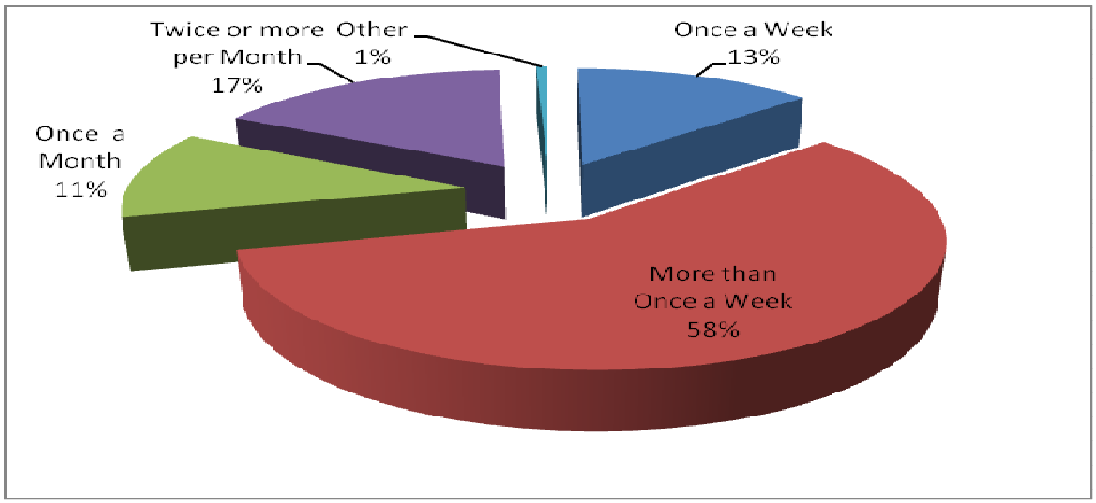

Figure 11: Frequency of sexual activity

Considering the constituents of an average ECP mostly progestin-only with strength sometimes up to 10 times that contained in an average traditional oral contraceptive pill OCP (although mostly estrogen and progestin derivatives combined) and have been designed (ECPs) for one-off usage after an unprotected sexual encounter in whatever circumstance to prevent an unwanted pregnancy and the fact that some of these young woman may be using these ECPs on a daily basis knowingly or unknowingly begs the questions raised earlier about the whether the users of these product are quiet knowledgeable in the products they choose to use; whether enough education has gone round nationally; what the national policy

on their availability, accessibility, regulation are and whether real clinical issues such as the adverse effects likely to be suffered by prolonged and chronic usage of these product especially when more than 90% of the respondent have been using these product for between 6 months to 2 years (Fig. 12) have been or are being addressed?.

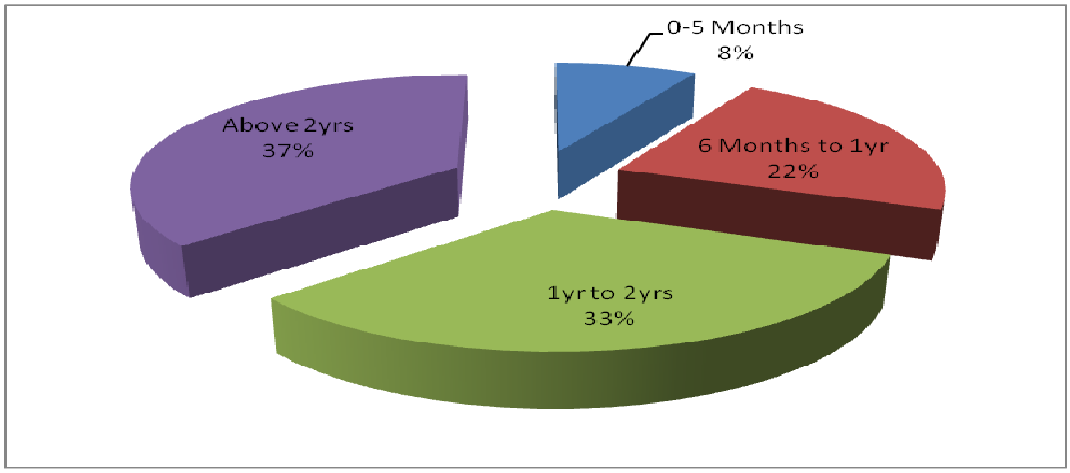

Figure 12: Length of ECP usage

Just above a-third (fig. 13) each of respondents confirmed they heard or learnt anything about ECP for the first time from friends (34%) and health workers (35%) whiles again just under a-third (28%) had their first information on ECP from the media advertisement and news.

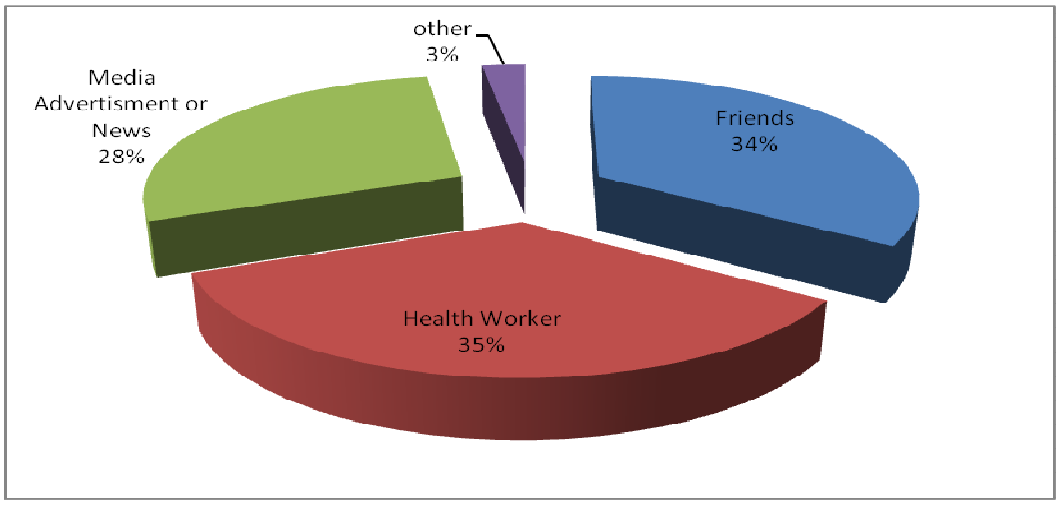

Figure 13: First Knowledge about ECP

Interestingly also figure 14 below shows that, just about a-third (33%) of respondent confirmed that their current usage of ECP was influenced by friends; 30% by health workers; 27% by media advertisement and news whiles only 10% had their decision influenced by their partners.

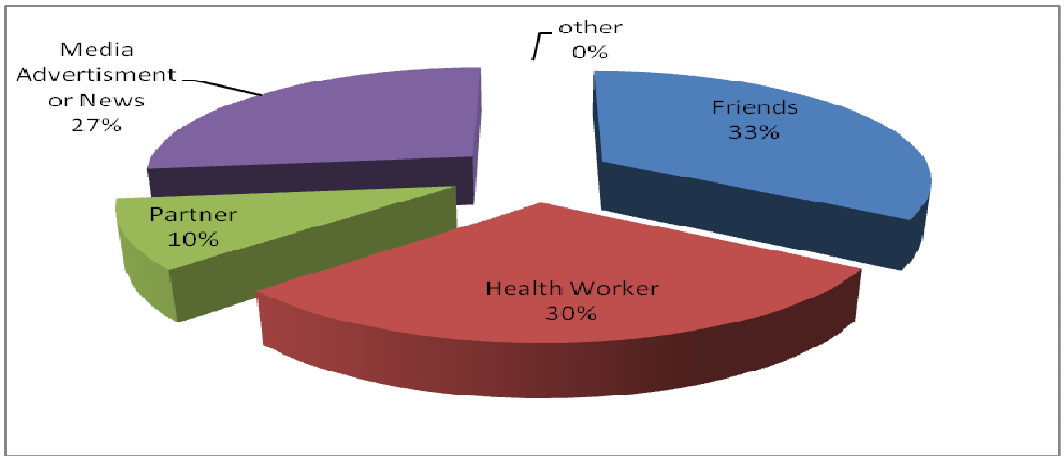

Figure 14: on whose advice users chose to use ECP

The findings on the respondents' first knowledge about ECP (fig. 13) with regards to friends may be in line with the profile built of a typical ECP user so far by this study as has been discussed earlier. Thus these are young adult; predominantly students or in apprenticeship and the fact that they spend a good part of their day with colleagues on and around campus or at work places and so it becomes only natural that they tend to learn these things from friends. Again the fact that a third of the study's respondent had their first knowledge from a health worker may also be celebrated as these health workers including Medical Doctors, Pharmacist, Nurses etc are the prescribed agents/sources of information regarding our medicals needs of which issues of sexual reproductive health is key. However, in much the same way, this piece of finding raises questions as to whether the information and education supposedly being dished out by these health workers to their clients/potential clients are comprehensive enough and on point especially when as much as 58% of these clients may be engaging in unprotected sexual activities more than once a week; with 62% using ECP as and when they engage in unprotected sex (which may be argued to be a good thing anyway on its own merit); with nearly half (45%) of all ECP user using it as a general contraceptive and above all when its beginning to emerge that consistently a lot of these young woman may be using the ECP on a daily basis with over 90% of users having been on it for between 6 months and beyond 2 years (fig. 12), whiles the oral contraceptive pills (OCPs) whose constituents, strength and dosage regimen have been specially designed to meet the daily contraceptive needs of a woman with minimal adverse effects are being almost neglected at least as somewhat proven by this study so far.
Up to 40% (fig. 15) of respondents confirmed their partners' unawareness to their (users) usage of ECP.

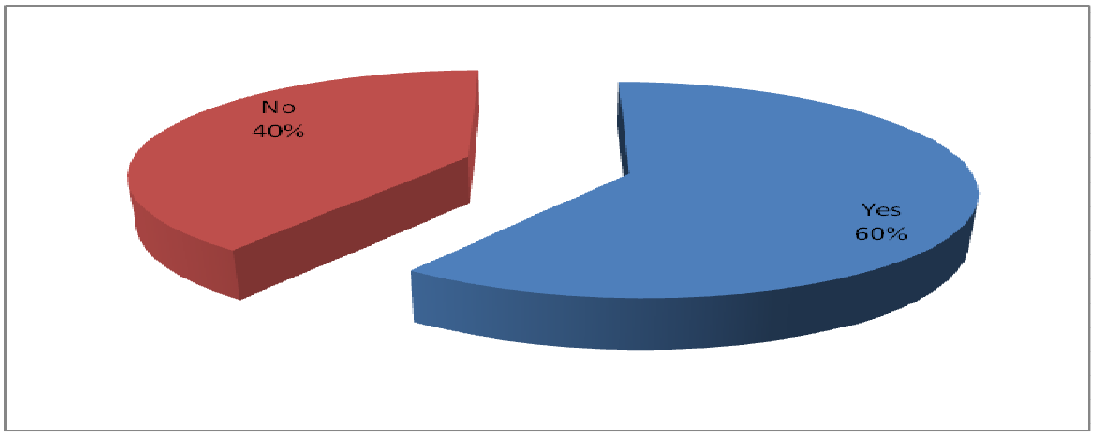

Figure 15: Partner Awareness

Again this finding like those in other similar studies (Asante, 2014) raises questions with regards to the roles that male partners in a relationship play concerning a couple's decision as to whether or not to settle on contraceptive; the type and to what extent that decision becomes the woman folk's to take; or is the case that perhaps the men counterpart do not pay too much attention to contraceptive issues? Perhaps this may confirms something about the demographic credentials of this study's respondents of being mostly students and apprentice or young adult in general and the fact that they may engage in sexual activity however regular or erratic not necessarily to make babies and so the decision to have children or not becomes absolutely theirs' (the females) to take without too much consideration to the male partner although the bright side of this 'controversial coin' is the fact that majority 60% of ECP users had their partners in the known about their usage of the product.

Conclusion

Based on the various findings of this study, it may be concluded that the respondents of this study were predominantly young female adults with 60% of them aged between 20 and 29 year and up to 82% of all respondents aged less than 35 years. Respondents may be said to have been fairly educated with up to 81% having received formal education between pre-tertiary to the tertiary level. Respondents were predominantly unmarried (with just over a third (37%) being married) but were in some form of sexual relationship (57%); with nearly half (46%) of them having no child.

Fifty-Eight percent (58%) of all ECP users engaged in sexual activity 'more than once a week' coupled with the fact that 62% of all users relied on it whenever they engaged in unprotected sexual activities. More than two-thirds (67%) of all respondents were using ECP as their current method of contraception as against a-third (33%) of the that pie being shared amongst the rest of the other daily/periodic contraceptives including the daily oral pill, the condom, the injectable, the implant, etc. With almost half (45%) of all ECP users alluding to relying on it as a general contraceptive measure (as against its core purpose of use as an emergency contraceptive measure); coupled with the fact that more than a third (38%) relied on it due to their (user's) 'unpredictable/erratic sexual life' and another 28% using it due to the ECP's 'one-off' attribute; a picture begins to emerge of a group of young female adults who may be merely taking advantage of these products due to their (user's) peculiar life circumstance of being mostly students or in apprenticeship and so may not necessarily be in a regular relationship (perhaps the reason for their 'unpredictable/erratic sexual life') for them to (perhaps in their minds) require a daily/regular contraceptive measure which may then make the 'one-off' attribute of an ECP rather attractive to users.

With over a-third (34%) of all ECP users having had their first information or knowledge what so ever regarding the product from 'friends' and almost another third (28%) from media advertisement, it is not surprising that almost half (45%) of all users were using the product as a general and sometimes almost daily contraceptive as against its core use as an emergency contraceptive measure especially considering how information is generally handled amongst friends on one hand and how loosely, sexually related or sexually enhancing medicines, beverages and foods are advertised and discussed on our screens and airwaves on the other hand and the intended target audience of these adverts and discussions which majority of this study's respondents may be a part of (mostly young adult). These pieces of findings may go to confirm the earlier assertion that perhaps the users of these products (especially respondents of this study) may not necessarily have all that they need to know and understand about the product and the circumstances under which they are to be relied on.

Recommendation

Based on the findings of the study, it is recommended that;

1.
    i) Further studies be carried out to gauge specifically the knowledge of ECP users and whether they truly know about the products and understand the circumstances under which they to be are used.

ii) Further studies into the cost, effects and benefits of long term use of the ECPs be carried out to determine whether to maintain ECPs as over-the-counter (OCT) medicines as they currently are and almost without any national guide lines and regulations on use or to consider the making them strictly prescription medicines which can only be obtained after one has been seen by a Physician to ensure proper prescription, dispensing, use and regulation of these medicines.

2. Education regarding the ECPs and their use must be intensified by the appropriate governmental agencies and the various stake holders in the nation's health sector. This is because increasingly, more and more women are being attracted to ECPs (at least as found in this study) and yet users seem to have very little knowledge about the product evidenced in the fact that, this study recorded a lot of young women who came in to the pharmacy outlet to purchase the ECP for the first time and it was because a friend had used some previously and has recommended it to her.

References

Arowojolu A.O (2002). Perception and practice of emergency contraception by post-secondary students in southwest Nigeria. *Africa Journal on Reproductive Health* 2000; 4(1):56-65.

Coeytaux, F. (2009), Emergency contraception: have we come full circle? *Contraception*; 80(1):1–3.

Durand, M. (2001), Mechanisms of action of short-term levonorgestrel administration in emergency contraception; *Contraception* 64(4):227-234.

Ellertson C. et al, (2001). Emergency contraception: randomized comparison of advance provision and information only. *Journal* on *Obstetric Gynaecology*; 98(4):570-75;

Ellison, J. (2000), apparent interaction between warfarin and levonorgestrel for emergency contraception. *British Medical Journal* 2000; 321:1382.

Fayorsey, C. (2002), plural marriage and fertility differentials: a study of Yoruba of Western Nigeria. *Human Organization*; 46(1):29, 38

FDA (2013), One-Step emergency contraceptive for use without a prescription for all women of child-bearing; *press release* 1-3

Finer, L. B. (2001), Disparities in rates of unintended pregnancy in the United States, Perspectives *on Sexual Reproductive Health.* 2006; 38(2):90–6.

Fine, P. (2010), Ulipristal acetate taken 48-120 hours after intercourse for emergency contraception. *Journal Obstetric Gyneacology*, 115:257-63.

Frost, J. J. (2010), improving contraceptive use in the USA. Accessed at www.guttmacher.org/pubs/2008/05/09/ImprovingContraceptiveUse.pdf

Stewart F. (2007), Contraceptive Technology, 19th revised Ed. New York: Ardent Media; 87–116.

WHO (2003), Improving Access to Quality Care in Family Planning*: Medical Eligibility Criteria for Contraceptive Use*, Geneva.