

# **Study of the Factors Leading to Unintended Pregnancy in Women in Kumasi, Ghana**

## **ABSTRACT**

**Background:** There are high levels of unintended pregnancy in developing countries. The aim of this research was to determine the immediate factors associated with unintended pregnancies in Kumasi.

**Methodology:** A facility-based cross-sectional study was carried on four hundred and forty-two (442) in selected health facilities in the Kumasi business district from January to April, 2014. Data was collected using pre-tested structured questionnaires. The data was analysed using SPSS version 20.

**Result:** The mean age was 29 years, 67% earned income but only 1/3 earned above the national minimum wage; 60% unmarried and 55% had below high school education. The mean gestational age at presentation was 16weeks ( $\pm 10.7$ ). Previous induced abortions respondents were 28.1%. About 68% linked the pregnancy to non-use of contraceptives and 19% from contraceptive failure.

**Conclusion:** There are still high levels of unintended pregnancy mainly caused by the non-use of contraceptives. More education is needed on the benefits of contraceptives and the dangers of unintended pregnancy. Further studies needed to confirm the high contraceptive failure rate and innovative ways of improving contraceptives uptake instituted.

*Keywords: Unintended, pregnancy, mistimed, unwanted*

## **1. INTRODUCTION**

Unintended pregnancy is an unplanned pregnancy at the time of conception (1). Out of about 210 million global pregnancies, about forty (40) percent are not planned and twenty-two (22) percent are aborted (2). This rate was higher in Africa but similar in Ghana (3). Unsafe abortion accounted for 22 to 30% of all maternal deaths (4,5). Knowledge on the immediate factors leading to the occurrences of unintended pregnancies could help in putting in preventive measures. These factors include contraceptive failure, non-use of contraception, using contraception inconsistently or incorrectly, rape/incest and sex for favour (6–8). Hatcher and colleagues associated a relatively small fraction of unintended pregnancies to contraceptive failure when modern highly effective contraceptives are used (7). Incorrect or non-use of contraceptive might be as a result of coercion, rape or involuntary sex in the context of domestic violence. Unintended pregnancies are more likely to be associated with abuse than intended pregnancies. Birth control sabotage; lack of knowledge about sex and reproduction; erroneous beliefs; lack of knowledge or experience with the contraceptive or lack of motivation to use it correctly; lack of planning or ambivalence about whether to have a child; religious or other cultural beliefs that discourage or prohibit contraceptive use; lack of over-the-counter availability of contraceptives and finally, inability or unwillingness to attend healthcare appointments to obtain contraceptives are also implicated (9). Even though, unwanted pregnancies and induced abortion are prevalent, identifying factors that led to unwanted pregnancies are important in enhancing reproductive health service to women (1). The Sub-Saharan Africa (SSA) region has thirty-nine percent (39%) of unintended pregnancies, ranging from thirty percent (30%) in West Africa to fifty-nine percent (59%) in South Africa in 2008 (10). There is also an association between low income earners and more previous births. The study sought to determine the immediate factors associated with unintended pregnancies in Kumasi, Ghana.

## **2. METHOD**

### **2.1 Study Setting**

The study was conducted at purposively selected health facilities within the Kumasi Metropolis. Kumasi is Ghana's second biggest city situated about 300km from the national capital, Accra. It has a busy business district which attracts people of varied social background from all parts of Ghana and neighbouring West African states. The health facilities selected are situated within the business district and they offer a wide range of services including antenatal care, comprehensive abortion care

(CAC) and other sexual and reproductive services. The Maternal and Child Health Hospital (MCHH) is more known for antenatal services while the Marie Stopes International, Ghana (MSIG) facilities are more for sexual and reproductive health, including CAC.

## 2.2 Study Design and Data Collection

A cross-sectional design was employed in this study from 1<sup>st</sup> January-30<sup>th</sup> April, 2014. All participants who registered in the selected facilities and met the inclusion criteria were included in the study. Open and close-ended interviews were carried out in privacy and confidentiality was assured. Informed oral consent was obtained from each individual upon enrolment to the study. Participation was voluntary. In all 227 were recruited from MCHH and 215 from MSIG centres. Four clients did not complete the interview at the MCHH while 16 clients at MSIG also could not complete the interview.

## 2.3 Statistical Analysis

Completed questionnaires were coded and entered into a database in Epi Info 7 (7.1.1.14), cleaned and analysed. The double entry technique was employed in order to improve the accuracy of the data entry. All computations were done at 95% confidence interval. A p-value < 0.05 was considered statistically significant.

## 2.4 Ethical Approval

Approval for the study was given by the Committee of Human Research, Publications and Ethics, Kwame Nkrumah University of Science and Technology. Written permissions were sought from the management of MSIG and MCHH before being allowed to undertake the study in their facilities.

## 3. RESULTS

### 3.1 Socio-Demographic Characteristics

A total of four hundred and forty-two (442) pregnant women responded to the questionnaire. All the participants gave their ages which ranged from thirteen (13) to forty-six (46) years. The mean age was 25.4 years with a standard deviation of 5.52. Of those who responded, 12% (n=53) were under the age of 20 years and 88.0% (n=389) were 20 years and above (see table 1).

With respect to occupation, 385 (87.6%) of the respondents were employed and 57 (12.4%) were unemployed. As indicated, majority of the respondents had never been married (59.8%, n=262).

Those who were currently married, separated or divorced accounted for 40.2% (n=176).

Regarding the educational level of the respondents, two hundred and forty-four (244) (55.2%) had up to basic education (i.e. up to Junior High/Junior Secondary/Middle Schools) and the rest had at least secondary/technical/vocational education (n=198; 44.8%).

The majority of the respondents were Christians (89.3%, n=392) and the rest were Muslims (10.7%, n=47). There was none belonging to the African traditional faith and the other well-known religions.

Three hundred and fifty-five (80.3%) responded to the average monthly income levels and about two-thirds were making either the national minimum wage or below (n=239; 67.3%). The rest were earning above the national minimum wage (n=116; 32.7%).

**Table 1. Socio-demographic Characteristics of Respondents**

| Variables                | Frequency | Percentage (%) | Mean | Standard deviation | Range |
|--------------------------|-----------|----------------|------|--------------------|-------|
| <b>Age</b>               |           |                | 25.4 | 5.52               | 13-46 |
| 13-19                    | 53        | 12.0           |      |                    |       |
| 20-26                    | 215       | 48.6           |      |                    |       |
| 27-33                    | 128       | 29.0           |      |                    |       |
| 34-40                    | 38        | 8.6            |      |                    |       |
| 41>                      | 5         | 1.1            |      |                    |       |
| <b>Occupation</b>        |           |                |      |                    |       |
| Employed                 | 385       | 87.6           |      |                    |       |
| Unemployed               | 55        | 12.4           |      |                    |       |
| <b>Educational Level</b> |           |                |      |                    |       |
| No School                | 24        | 5.4            |      |                    |       |
| Primary                  | 44        | 10.0           |      |                    |       |
| Junior High School       | 169       | 38.2           |      |                    |       |

|                                 |     |      |
|---------------------------------|-----|------|
| (JHS)                           |     |      |
| Senior High School              | 110 | 24.9 |
| (SHS)/Middle School             |     |      |
| Tertiary                        | 89  | 20.1 |
| <b>Marital Status</b>           |     |      |
| Currently or ever married       | 176 | 40.2 |
| Never Married                   | 262 | 59.8 |
| <b>Religion</b>                 |     |      |
| Christian                       | 392 | 89.3 |
| Muslim                          | 47  | 10.7 |
| <b>Average Monthly Income</b>   |     |      |
| National minimum wage and below | 239 | 67.3 |
| Above national minimum wage     | 116 | 32.7 |

### 3.2 Characteristics of Women Experiencing Mistimed and Unwanted Pregnancies

Regarding the obstetric history, 52.5% were non-parous, 57.5% had more than one pregnancy, and 28.1% have had previous abortion. 89.5% were reported mistimed pregnancies whereas 10.5% were unwanted. Table 2 presents the reproductive profile of the participants.

**Table 2. Reproductive profile of respondents**

| Variable                                 | Frequency | Percentage |
|------------------------------------------|-----------|------------|
| <b>Gravidity</b>                         |           |            |
| 1                                        | 188       | 42.5       |
| ≥2                                       | 254       | 57.5       |
| <b>Parity</b>                            |           |            |
| 0 (non-parous)                           | 232       | 52.5       |
| ≥1(parous)                               | 210       | 47.5       |
| <b>Gestational Age (in weeks)</b>        |           |            |
| ≤13                                      | 178       | 50.4       |
| >13                                      | 175       | 49.6       |
| <b>Previous induced Abortions</b>        |           |            |
| Yes                                      | 125       | 28.3       |
| No                                       | 317       | 71.7       |
| <b>Pregnancy Intention at Conception</b> |           |            |
| Unwanted                                 | 44        | 10.0       |
| Mistimed                                 | 377       | 85.3       |

### 3.3 Contraceptive use, knowledge and attitude of unintended pregnancies

From the results, 68.42% of the pregnancies resulted from not using any form of contraception while 31(7.09%) were using contraceptives either inconsistently or incorrectly or both. Intriguingly, 18.76% of the pregnancies was attributed to the contraceptive failure. From the analysis, 4.58% resulted from sex for favour with no contraception and 5 (1.14%) were from rape/incest. Table 3 presents the frequency of the factors associated with unintended pregnancy.

**Table 3. Factors Leading to Unintended Pregnancy**

| Circumstances leading to the pregnancy            | Frequency | Percent |
|---------------------------------------------------|-----------|---------|
| Contraceptive failure                             | 82        | 18.76   |
| Non-use of contraception                          | 299       | 68.42   |
| Rape/incest                                       | 5         | 1.14    |
| Sex for favour without contraception              | 20        | 4.58    |
| Using contraception inconsistently or incorrectly | 31        | 7.09    |

### 3.4 Demographic Characteristics relative to Unwanted and Mistimed Pregnancy

Bivariate analysis indicated that there was a significant relationship between marital status and mistimed pregnancy, with those who were single having more mistimed pregnancies compared with the married who were more likely to plan their pregnancy ( $p < 0.048$ ). There was no significant relationship between educational level and mistimed pregnancy. There was no significant relationship between age and mistimed pregnancy.

**Table 4. Some Variables Relative to Unwanted and Mistimed Pregnancy**

| Variables                                 | Unwanted<br>n (%) | Mistimed<br>n (%) | p-value |
|-------------------------------------------|-------------------|-------------------|---------|
| <b>Age</b>                                |                   |                   | 0.101   |
| 13-19                                     | 7 (13.2)          | 43 (81.1)         |         |
| 20-26                                     | 23(10.7)          | 182(84.7)         |         |
| 27-33                                     | 11(8.6)           | 112(87.5)         |         |
| 34-40                                     | 3(7.9)            | 33(86.8)          |         |
| 41>                                       | 0(0.0)            | 5(100.0)          |         |
|                                           |                   |                   | 0.469   |
| <b>Educational Level</b>                  |                   |                   |         |
| Primary                                   | 6(13.6)           | 35(79.5)          |         |
| Junior High School<br>(JHS)/Middle School | 14(8.3)           | 148(87.6)         |         |
| Senior High School<br>(SHS)               | 17(15.5)          | 86(78.2)          |         |
| Tertiary                                  | 3(3.4)            | 83(93.3)          |         |
| No School                                 | 4(16.7)           | 19(79.2)          |         |
|                                           |                   |                   | 0.048   |
| <b>Marital Status</b>                     |                   |                   |         |
| Currently or ever<br>married              | 11(6.3)           | 153(87.9)         |         |
| Never Married                             | 23(10.2)          | 195(86.3)         |         |
|                                           |                   |                   | 0.037   |
| <b>Contraceptive Use</b>                  |                   |                   |         |
| Non-use of<br>contraceptives              | 38(11.2)          | 285(84.1)         |         |
| Contraceptive failure                     | 5(5.2)            | 88(91.7)          |         |

## 4. DISCUSSION AND CONCLUSION

The study sought to determine the immediate factors associated with unintended pregnancies in Kumasi, Ghana. Majority of the respondents (85.3%) had their pregnancies mistimed, only ten percent (10%) indicated they did not want the pregnancy. There was significant relationship between unintended pregnancy and marital status. From the study, single women were more predisposed to having unintended pregnancies than married women. This agrees with the study conducted in KwaZulu-Natal, South Africa, where single women were more predisposed to have unintended pregnancies compared with the married ones (10). There was no relationship between unintended pregnancy and educational level. This finding is averse to the study conducted in Addis Ababa, Ethiopia, where unintended pregnancy reduced as educational level increased (11). Despite the challenges that come with unintended (mistimed) pregnancies, many single and married couples still fail to use contraceptives to prevent these pregnancies. Knowledge of what led to

unintended pregnancy is vital when it comes to the strategies for prevention. There was significant relationship between unintended pregnancy and the use or non-use of contraceptives. Majority of the participants did not use contraceptives and that led to unintended pregnancies. A study in the Oromiya Region, East Ethiopia, confirms that those who thought they were not fertile failed to use any contraceptives (12). The causes of unintended pregnancies among the women studied were not different from those found in other studies (6,7,13–15) and these include non-use of contraception, inconsistent or incorrect use of contraceptives, method failure, sexual assault and sex for favour. Two out of three of respondents did not use any form of contraception and this may be attributed to the fact that women often feel they are 'safe' and thus do not require any form of contraception and results in pregnancy (16). The 4.7% who became pregnant from being assaulted sexually was consistent with estimates found in the US (17). A group traded sex for favours without contraception such as job placement, financial assistance and good scores in their exams. This group is usually people pushed to the wall with compromised negotiation abilities and might be difficult to tell if they had time to negotiate for contraceptive use in each situation. The figure attributable to non-use of contraception was higher than a study by Frost and colleagues which assigned 52% of unintended pregnancies in the USA to non-use of contraception. The 1 out of 5 respondents who were using a form of contraception consistently and correctly but still got pregnant was also higher than the 5% found by Frost et al, 2008 (18). This is not to suggest that contraceptives have high failure rates in the Ghanaian population than the US but as found by a 2008 Alan Guttmacher Institute, a greater percentage of contraceptive failure is due to reliance on methods with high failure rates under typical use (19). This result should therefore be interpreted cautiously since this was per the assertion of the respondents without subjecting it to the strict assessment by experts to verify whether they were indeed using the methods perfectly and still got pregnant. This is so important because other works also found smaller figures of failure for perfect use of contraception (7,20). There is also the need to find out which method they used and how they typically used them. This will inform policy and educational drives. However, about 7% registered inconsistent or incorrect method use as the cause of the pregnancy which was far lower than the 43% figure published by Frost and colleagues, 2008. This finding is also difficult to ascertain since the study did not include the methods and how they were used typically. The majority of the respondents had their unintended pregnancies resulting from non-use of contraceptives although method failure accounted for almost a fifth. In conclusion, unintended pregnancy is a major challenge in developing countries including Ghana, where the use of contraceptives is still a challenge. There is therefore the need to improve on the campaign on the use of contraceptives among the single and married to prevent unintended pregnancy.

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