

A Cross-Sectional Study on the Factors Leading to Unintended Pregnancy in Women Attending Selected Health Facilities in Kumasi, Ghana

ABSTRACT

Background: Unintended pregnancy is an important public health issue, accounting for about half of the global pregnancies. Fifty percent (50%) of unintended pregnancy ends in induced abortions (mostly unsafe in developing countries, including Ghana, which has 20-30% of maternal deaths from abortion complications). Immediate factors linked to the occurrence of the unintended pregnancies influence decisions and outcomes.

Aim: To determine the immediate factors associated with the unintended pregnancies in Kumasi.

Methodology: A cross-sectional study was carried out in selected health facilities in the Kumasi business district from January to April, 2014. It comprised 442 consecutively selected consenting participants carrying unintended pregnancy using face-to-face exit interviews. Data was analysed at 95% confidence intervals and 5% level of significance.

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 (± 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: Further studies needed to confirm the high contraceptive failure rate and innovative ways of improving contraceptives uptake instituted.

Keywords: Unintended pregnancy, immediate leading factors

1. INTRODUCTION

Unintended pregnancy is an unplanned pregnancy at the time of conception (1). Out of about 210 million global pregnancies, about 38 percent are not planned and 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). There is also an association between place of residence and giving birth at a relatively older or younger (Eggleston E, 1999;). Even though, unwanted pregnancies and induced abortion are prevalent, identifying factors that are lead to unwanted pregnancies are important in enhancing reproductive health service to women (1). There is also an association between low income earners and more previous births. The study sought to determine the immediate factors associated with the unintended pregnancies in Kumasi, Ghana.

2. METHOD

A cross-sectional design was used. 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. Only first-time attendees of women with confirmed unintended pregnancies at these facilities who consented were enrolled into the study to avoid contamination. Exit interviews were conducted with the use of a mixed open and close-ended pretested structured questionnaire using four trained research assistants. The first section of the questionnaire captured the biodata and the reproductive profile which included age, education, religion, occupation, marital status and monthly income earnings, gestational age at presentation, gravidity, parity, previous induced abortions and pregnancy intention at conception. The second section explored the factors associated with unintended pregnancies. The pretesting of the questionnaire was done at the Manhyia Hospital which is also within the business district and offer similar range of services. Within the study period (1st January-30th April, 2014), all clients leaving the selected facilities were approached and whoever met the inclusion criteria were included in the study. All interviews were carried out in privacy and confidentiality was assured. Participation was voluntary. The questions were read to them mainly in the Twi language and occasionally in the English language where appropriate as almost all the respondents were Twi-speaking. The responses they volunteered, if found among the pre-set answers, were circled on the appropriate code and those not available on the sheet, entered at the "other" column. The recruitments were done on a daily basis until the desired numbers were obtained. In all 227 were recruited from MCHH and 215 from MSIG centres. Four clients did not complete the interview at the MCHH. They voluntarily discontinued. At MSIG 16 of those invited could also not complete the interview. The reason for non-completion of the interview for all the 20 dropouts at the initial stages of the demographic data was time constraints on the part of the respondents. The overall response rate was 96.1%. 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 and 5% level of significance ($p < 0.05$). 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

Table 1: Socio-demographic Characteristics of respondents

Variables	Frequency	Percentage
Facility of recruitment		
MSIG	215	48.6
MCHH	227	51.4
Total/response rate	442	100
Age (in completed year)		
< 20	53	12.0
≥20	389	88.0
Total/response rate	442	100.0
Occupation		
Income earners	297	67.2
Non-income earners	145	32.8
Total/response rate	442	100.0
Marital Status		
Currently or ever married	176	40.2
Never married	262	59.8
Total/response rate	438	99.1
Educational Level		

≤Basic	244	55.2
>Basic	198	44.8
Total/response rate	442	100.0
Religion		
Christian	392	89.3
Muslim	47	10.7
Total/response rate	439	99.3

As shown in table 1, a little over half of the respondents were recruits from the antenatal care clinics (n=227; 51.4%). The rest were from the sexual and reproductive healthcare clinics (n=215; 48.6%). All the participants gave their ages which ranged from 13 to 46 completed years. The mean age was 29years with a standard deviation of 5.53. Of those who responded, 12% (n=53) were under the age of 20years and 88.0% (n=389) were 20years and above (see table 1). With respect to occupation, there was a 100% response (n=442). Two-thirds of the respondents were income earners (n= 297; 67.2%) and 145(32.8%) were not earning any income (see table 1). In all, 438 responded to the question of marital status (giving a response rate of 99.1%). As indicated in table 1, the majority of the respondents had never being 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, all the 442 answered (see table 1). Among them were 244 (55.2%) who 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%). Four hundred and forty-one (441) responded to the question on religion (99.3%). The majority of them 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 (see table 1). 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 2 Reproductive profile of respondents

Variable	Frequency	Percentage
Gravidity		
1	188	42.5
≥2	254	57.5
Total	442	100.0
Parity		
0 (non-parous)	232	52.5
≥1(parous)	210	47.5
Total/response rate	442	100.0
Gestational Age (in weeks)		
≤13	178	50.4
>13	175	49.6
Total/response rate	353	79.9
Previous induced Abortions		
Yes	125	28.3
No	317	71.7
Total/response rate	442	100.0
Pregnancy Intention at Conception		
Unwanted	44	10.5
Mistimed	377	89.5
Total/response rate	421	95.2
Average monthly income		
National minimum wage and below	239	67.3
Above national minimum wage	116	32.7
Total/response rate	355	80.3

The response rate (as seen in table 2) for the number of pregnancies was 100% (n=442). It ranged between 1 and 21 with a median of 2, inter-quartile range of 1 to 3 and standard deviation of 1.88. Those who were pregnant for the first time were 42.5% (n=188) and 254(57.5%) were with at least their second pregnancy. All the 442 respondents answered for the number of births. The minimum number of births was zero and maximum of 9. The median was 2, inter-quartile range of 0 to 2 and standard deviation of 1.36. The majority had never given birth (52.5%, n=232); and the rest of 210(47.5%) have had previous birthing experience. Regarding gestational age, 353(79.9%) responded and it ranged from 1 to 39weeks. The mean was 16weeks with a standard deviation of 10.7 weeks. About half were in the 1st trimester (50.4%, n=178) and the rest were 14 weeks or more (49.6%, n=175). The mean gestational age at the antenatal clinic was 15.4(±10.5) weeks whereas that of the sexual and reproductive health clinic was 16.7(±10.9) weeks. The mean gestational age for those choosing to keep the pregnancy was 22.3(±9.0) weeks compared to the 8.0(±6.4) weeks for the abortion option. One hundred and twenty-four (125) (28.1%) of the respondents have had previous induced abortions and the rest had no abortion experience (n=317; 71.9%). Four hundred and twenty-one (421) (95.2%) gave their intentions for the pregnancy at conception. Of these numbers, 377(89.5%) were mistimed whereas 44 (10.5%) were unwanted.

Table 3: Factors leading to unintended pregnancy

Circumstances leading to the pregnancy	Frequency	Percent
Contraceptive failure	82	18.76
None 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
Total/response rate	437	98.9

Four hundred and thirty-seven (98.9%) responded to the question (see table 3). Of this number, 299 (68.42%) resulted from not using any form of contraception; 82 (18.76%) said they were using contraceptives correctly and consistently but got pregnant while 31(7.09%) were using contraceptives either inconsistently or incorrectly or both. Twenty (4.58%) resulted from sex for favour with no contraception and 5 (1.14%) were from rape/incest. Regarding satisfaction with the perceived support services for aborting unintended pregnancies, the response rate was 95.1% (n=422) and of this, about three out of four respondents (76.8%, n=324) were satisfied with the support services in place but 23.2% (n=98) were not. A little over half (56.0%, n=237) said there is enough support for giving a baby out for adoption and the rest comprising 44.0% (n=187) disagreed. Nearly two out of three respondents (64.0%, n=271) said they would have the needed support if they chose to parent but 36.0% (n=153) disagreed.

Table 4: Relationship between Married and Contraceptive Use

		Married	Contraceptive Use
Married	Pearson Correlation	1	.230**
	Sig. (2-tailed)		.000
	N	438	431
Contraceptive Use	Pearson Correlation	.230**	1
	Sig. (2-tailed)	.000	
	N	431	435

** . Correlation is significant at the 0.01 level (2-tailed).

The table above indicates the relationship between married couples and contraceptive use. It is indicated from the table above that there was no relationship between married couples and contraceptive use. Many married couples were predisposed to not using any contraceptives in sexual intercourse.

4. DISCUSSION AND CONCLUSION

Knowledge of what led to the unintended pregnancy is vital when it comes to the strategies for prevention. The causes of unintended pregnancies among the women studied were not different from

those found in other studies (6,7,10–12) and include non-use of contraception, inconsistent or incorrect use of contraceptives, method failure, sexual assault and sex for favour. The two out of three of the respondents who did not use any form of contraception 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 (13). The 4.7% who became pregnant from being assaulted sexually was consistent with estimates found in the US (14). 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 (15). 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 (16). 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 (7,17). 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.

REFERENCES

1. Mulatu T, Cherie A, Negesa L. Prevalence of Unwanted Pregnancy and Associated Factors among Women in Reproductive Age Groups at Selected Health Facilities in Addis Ababa, Ethiopia. *J Women's Heal Care* [Internet]. 2017;06(05). Available from: <https://www.omicsonline.org/open-access/prevalence-of-unwanted-pregnancy-and-associated-factors-among-women-in-reproductive-age-groups-at-selected-health-facilities-in-ad-2167-0420-1000392-94200.html>
2. Hamdela B, G.mariam A, Tilahun T. Unwanted pregnancy and associated factors among pregnant married women in Hosanna town, Southern Ethiopia. *PLoS One*. 2012;7(6). GF14.pdf.
3. Aniteye P, Mayhew S. Attitudes and experiences of women admitted to hospital with abortion complications in Ghana. *Afr J Reprod Health*. 2011 Mar;15(1):47–55.
4. Aniteye P, Mayhew SH. Shaping legal abortion provision in Ghana: using policy theory to understand provider-related obstacles to policy implementation. *Heal Res Policy Syst*. 2013 Jul;11:23.
5. Speidel JJ, Harper CC, Shields WC. Contraception Editorial September 2008: The Potential of Long-acting Reversible Contraception to Decrease Unintended Pregnancy.
6. Hatcher R, Trussell J, Nelson A, Cates W. *Contraceptive Technology*, Revised 20th edition. 20th edition. Bridging the Gap Foundation;
7. Goyal V, Borrero S, Schwarz EB. Unintended Pregnancy and Contraception Among Active Duty Servicewomen and Veterans. *Am J Obstet Gynecol*. 2012 Jun;206(6):463–9.
8. Unintended pregnancy. Wikipedia, the free encyclopedia. 2013.
9. Forrest JD. Epidemiology of unintended pregnancy and contraceptive use. *Am J Obstet Gynecol*. 1994 May;170(5 Pt 2):1485–9.
10. Furedi A. The causes of unplanned pregnancy.
11. Klima CS. Unintended pregnancy. Consequences and solutions for a worldwide problem. *J Nurse Midwifery*. 1998 Dec;43(6):483–91.
12. Nettleman MD, Chung H, Brewer J, Ayoola A, Reed PL. Reasons for unprotected intercourse: analysis of the PRAMS survey. *Contraception*. 2007 May;75(5):361–6.
13. Holmes MM, Resnick HS, Kilpatrick DG, Best CL. Rape-related pregnancy: estimates and descriptive characteristics from a national sample of women. *Am J Obstet Gynecol*. 1996 Aug;175(2):320-324; discussion 324-325.
14. Frost JJ, Singh S, Finer LB. Factors Associated with Contraceptive Use and Nonuse, United States, 2004. *Perspect Sex Reprod Health* [Internet]. 2007;39(2):90–9. Available from: <http://doi.wiley.com/10.1363/3909007>

- 220 16. Finer LB, Zolna MR. Shifts in intended and unintended pregnancies in the United States,
221 2001-2008. Am J Public Health. 2014;104(SUPPL. 1):43–8.
222 17. Trussell J, M.D ALN. Contraceptive Technology. Ardent Media; 2007. 941 p.