

The Nature and Extent of Unintended Births among Couples in Ghana

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ABSTRACT

Most studies on pregnancy and its related issues are based on data obtained from only women. To fill this gap, this study focused on couples. This study was undertaken to estimate the level of unintended births between couples, identify the characteristics of couples with unintended births and establish the differences between wives and husbands with regards to unintended births.

Couples' data from the 2014 Ghana Demographic and Health Survey were used. It consisted of 1,771 couples. Binomial logistic regression analyses were used to examine the relationship between wives and husbands' characteristics and unintended births, using two estimates (children ever born and number of living children) of unintended births. Generally, using number of children ever born provided lower estimates of unintended births than using number of living children. Binomial logistic regression analyses showed that as age increased, unintended births reduced. Also, the longer couples had been in marriage, the lower they experienced unintended births. Wives had lower unintended births than husbands. The results of this study indicate that unintended births estimated using responses from wives only could be lower than that which uses couples. It is more appropriate to estimate fertility intentions using responses from couples. This paper focused on unintended births using couples instead of only women. The estimates are not derived directly from the couples but rather indirectly through estimates using number of children ever born and number of living children and their deviation from ideal number of children. This is novel and makes this paper different from others.

Keywords: couples, wives, husbands, unintended births, children.

INTRODUCTION

Unintended births consist of two types of births: those that are unwanted and those that are mistimed. The former refers to births that were not wanted at all and the latter to births that occurred earlier (usually two years) than they were wanted (Sedgh, Singh, & Hussain, 2014). Unwanted and mistimed births reflect the concerns of both men and women at different points in their lives (Santelli et al., 2003).

Most studies on pregnancy and its related issues are based on data drawn from women and these usually depend on women's perceptions to measure their partner's pregnancy intentions. Data collected from only women, however, may not accurately

reflect the perceptions of men. Therefore, there is the need to obtain data directly collected from men to have a comprehensive view of unintended births. This also helps to understand the dynamics of fertility behavior with regards to couples (Barden-O'Fallon & Speizer, 2010).

Differences exist between men and women with regards to the level of unintended births especially in sub-Saharan African countries. In some cases, men are more likely than women to want large families and therefore men are less likely than women to classify births as unintended (Singh, Sedgh, & Hussain, 2010). A number of studies have revealed the importance of both males and females in reproductive health decisions. In Ghana for instance, male partners' denial of paternity and non-

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provision of financial support contribute to whether a woman would seek abortion or not (Gipson & Hindin, 2008; Kumi-Kyereme, Gbagbo & Amo-Adjei, 2014; Schwandt et al., 2013). In other countries such as Bangladesh, although husbands are the sole decision makers with regards to abortion, couples make decisions together based on mutual preferences (Gipson & Hindin, 2008).

Other studies have found that couples may not necessarily have explicit plans with reference to their reproduction. These studies indicate that plans may be vague, underspecified, and subconscious (Barrett & Wellings, 2002; Gribaldo, Judd, & Kertzer, 2009). The implication is that although plans may exist, they cannot be relied on as they may end up not being implemented. This has led Testa (2012) to indicate that reproduction is dyadic in nature and therefore, the couple is the most suitable context for studying reproductive decision-making. She therefore calls for the collection of data from both members of each couple so that the analysis of the partner's actual desires can complement the analysis of the partner's perceived desires.

Estimates of unplanned births usually rely on women's retrospective reports. Using retrospective response to measure unintended births can be problematic. This is because pregnancy intentions may not always reflect accurately a woman's desires at the time of conception. There is the likelihood of such reports being influenced by changes that may have occurred in the woman's attitudes toward these births over time (Casterline & El-Zeini, 2007; Sedgh, Singh, & Hussain, 2014).

Also, some pregnancies which were not wanted at the time of conception could become wanted after birth. Similarly, there is the possibility of some wanted pregnancies becoming unwanted overtime depending on the relationship between spouses especially if the relationship becomes sour. Moreover, a woman may be reluctant to indicate that a child that has been born was not wanted (Doskoch, 2012). Rackin and Morgan (2018) p.61 refer to this as 'rationalisation bias'. This has also led Sedgh, Singh and Hussain (2014) p.311 to state that women 'reclassify the planning status of births after they occur'. Therefore, estimates of unintended births intention using the retrospective measure have the tendency of underestimating the real extent of unintended pregnancy and subsequently unintended births (Roca, Krishnan, Barrett, & Wilson, 2010). Thus, unplanned births are a non-random subset of unplanned pregnancies (Hayford & Guzzo, 2010). This is an indication that unintended births estimated using retrospective data may not be a true reflection of what actually pertains.

Some researchers have argued that the ideal estimate is to use the prospective measure as this would enable implementers including clinicians to provide appropriate preconception contraceptive messages to improve pregnancy outcomes (Trussell, Schwarz, & Guthrie, 2010). However, prospective measures, although they assess prior intentions of pregnancy and so more valid in capturing individual intentions, are usually not available in large scale surveys because they do not follow individuals over time (Rocca, Krishnan, Barrett, & Wilson, 2010).

Comparing retrospective measures with prospective measures, Rackin and Morgan (2018) are of the opinion that although both are bridled with issues. The prospective measure according to them is flawed because fertility preferences are usually unstable. The prospective measure produces higher estimates of unintended births than the retrospective measure. In addition, the retrospective measures are biased by rationalization, the prospective measures are biased when women change their expectations prior to conception (Rackin & Morgan, 2018). To them, it is easier to assign births as wanted or unwanted using the retrospective measure than the prospective measure.

Based on the literature reviewed, this current study intends to assess the extent of unintended births among couples in Ghana, explore the differences in unintended births between couples and examine the relationship between the characteristics of couples and unintended births.

MATERIALS AND METHODS

Data

The data for this paper were obtained from the latest (2014) Ghana Demographic and Health Survey (GDHS). It was a nationally representative survey of 9,396 women between the ages of 15-49 years and 4,388 men between the ages of 15-59 years from 11, 835 interviewed households. The GDHS collected data on fertility and family planning among others. It is the sixth in the series of population and health surveys conducted as part of the global demographic and health surveys program. The survey was implemented by the Ghana Statistical Service in collaboration with the National Public Health Reference laboratory and the Ghana Health Service (Ghana Statistical Service, 2015).

There were three questionnaires namely household questionnaire, the woman's questionnaire and the man's questionnaire. The household questionnaire collected information on the characteristics of each person listed. The woman's questionnaire was used to collect information from all eligible women between the ages of 15 and 49 years. The man's questionnaire collected much of the same information found in the woman's questionnaire but was shorter because it did not contain detailed reproductive history or questions on maternal and child health. The survey protocol was reviewed and approved by the Ghana Health Service Ethical Review Committee, Research and Development Division, Ghana Health Service and the Institutional Review Board of Inner City Fund (ICF) International.

Couples' data were used in this paper. The unit of analysis for the couples' data was married woman and man. It contains data for women and men who both declared that they are married to each other or living together and with completed individual interviews. This data set is the result of linking the women's file to the men's file based on when they both declared they were partners. In polygynous unions, a man's data may be linked to more than one woman's data. Data were weighted using the sample weights provided by Demographic and Health Survey (DHS). PASW Statistics 18 was used in analysing the data.

Variables

The variables used in the analyses are described as follows:

Age: current age in five-year age groups

Highest Educational Level: highest education attained but not necessarily completed

Occupation: employment in the 12 months preceding the survey and they were grouped

Number of Unions: whether a respondent had been married or lived with a man/woman more than once

Number of Partners: whether husband had other wives or lived with other women as if married, including respondent.

Recent Sexual Activity: the last time respondent had sexual activity.

Place of residence: in Ghana, a place is designated as urban if it has a population of at least 5,000; otherwise, it is designated as a rural area.

Wealth Index: It is an index calculated using household ownership of a number of consumer items. The sample is then divided into population quintiles – five groups with the same number of individuals in each to create the break points that define wealth quintiles as: lowest, second, middle, fourth and highest.

Knowledge of ovulatory cycle: whether respondent knew when during the menstrual cycle a woman was most likely to get pregnant

Living with Partner: whether partner lived in the household or lived elsewhere

Duration of cohabitation: Is the number of years elapsed since the start of first union

Irrespective of whether respondent was still married to the first partner or not.

Ideal number of children: the ideal number of children the respondent would have liked to have irrespective of the number she/he already had.

Children ever born: total number of children ever born to respondent (either alive or dead).

Number of living children: current number of children alive. For husbands, it was the total number of children that the man had fathered and may include children born to more than one wife or partner. For wives, it was the total number of children she had given birth to including any current pregnancy.

RESULTS

Characteristics of respondents

The characteristics of couples are shown in Table 1. In terms of age distribution, while the cut-off point for wives was 49 years, that of husbands went beyond 50 years. This may be due to the fact that husbands usually tend to be older than their wives. For both wives and husbands, most of them were between

25-44 years and as expected, there were more wives than husbands within the youngest age group (15-19 years) - 2.0% and 0.1% for wives and husbands respectively. There were differences in the educational level between spouses. Generally, husbands tended to be more educated than wives. Twice as many husbands as wives had education beyond secondary level. Also, while nearly a third of wives had no education, for husbands, it was a fifth. Following from the distribution of education of spouses, there were relatively more husbands (13.4%) who were in professional/technical/managerial/clerical jobs compared to 5.8% of wives. There were also more wives (12.3%) than husbands (0.7%) who were not working. Furthermore, compared to other occupations, wives tended to be engaged more in sales (38.5%) while husbands engaged more in agriculture (41.4%).

On the number of times couples have been in any type of union, Table 1 shows that wives were more likely to have married only once (79.7%) compared to husbands (67.3%). While wives were asked how many partners their husbands had, husbands were asked how many partners they had. The distribution of these responses in Table 1 shows some level of consistency between wives and husbands. This is an indication that this is a true reflection of what pertains. Recent sexual activity was measured as having had sex within four weeks of the survey. The results showed that slightly more husbands (77.4%) than wives (73.0%) had had recent sexual activity. For the women who were not recently sexually active, it was due to either postpartum abstinence or other reasons which were not stated.

More than half (52.2%) of the couples stayed in urban areas with the rest in rural areas. This is quite representative of what obtains in the country (Ghana Statistical Service, 2012). The distribution by wealth index was somehow even with the extremes – poorest and richest being slightly higher (21.8% and 24.4% respectively). Almost all couples (99%) stayed together and slightly more husbands indicated that they had more than one wife (88.4%) compared to wives who stated that their husbands had other wives (85.8%). These percentages were estimated but not shown in Table 1.

Table 1: Percentage distribution of characteristics of couples

Characteristics	Wives	Husbands
Age		
15-19	2	0.1
20-24	12.2	2.2
25-29	21.2	11.3
30-34	21	17.7
35-39	20.7	19.9
40-44	13.8	20
45-49	9.2	13.8

50+	-	15
Highest Educational Level		
No Education	29.4	19.9
Primary	19.5	12.6
Secondary	45.9	56.6
Higher	5.2	11
Occupation		
Not working	12.3	0.7
Professional/ Technical/ managerial/Clerical	5.8	13.4
Sales	38.5	8.2
Agriculture	28.8	41.4
Services	1.5	2
Manual	13.1	34.3
Number of Unions		
Once	79.7	67.3
More than once	20.3	32.7
Number of Partners		
0	85.8	88.4
1	11.6	10.1
2	1.6	1.4
3	0.3	0.1
Do not know	0.7	0
Recent Sexual Activity		
Active in last four weeks	73	77.4
Not active in last four weeks (Postpartum abstinence)*	11.2	22.6**
Not active in last four weeks (not postpartum abstinence)*	15.8	

Source: computed from the 2014 GDHS

*Applicable to only wives

**Not sexually active

The Extent of Unintended Births

To estimate the level of unintended births among couples, two measures were used - the difference between ideal number of children and number of children ever born and the difference between ideal number of children and number of living children. For these two measures, three variables were used. The variables were:

Ideal number of children - if a respondent could choose exactly the number of children to have in his/her whole life how many would that be.

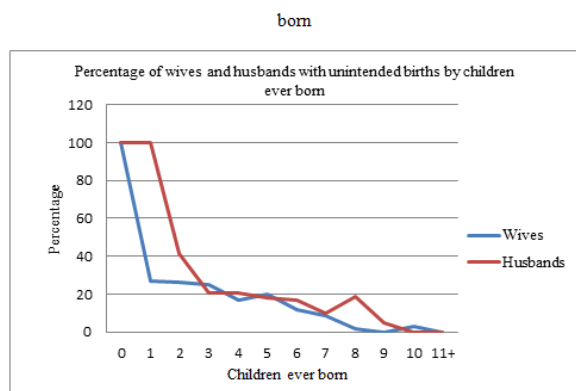
Number of children ever born - total number of children including those who were dead.

Number of living children - total number of children alive at the time of the survey.

This paper used number of births instead of pregnancies because even though both may be affected by memory lapse, births are more likely to be remembered than pregnancies. The following assumption was made: That the number of children a husband or wife wanted in his or her whole life is the ideal number of children and so any number of children beyond that was not wanted. Any husband or wife therefore, whose number of children ever born or number of living children was greater than his or her ideal number of children was deemed to have unintended births. Therefore, using number of children ever born, unintended births were estimated as the difference between ideal number of children and the number of children ever born. Similar estimates were made using number of living children. The estimates thus obtained are presented in Figures 1 and 2 for number of children ever born and number of living children respectively.

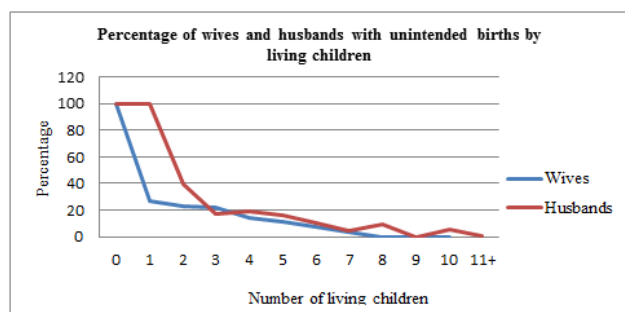
Figure 1 shows that unintended births generally tended to be lower among wives than husbands. When both wives and husbands had no children, neither of them had unintended births. However, when they had one child, about a third of wives had unintended births, while for husbands none of them had unintended births. In other words, wives started having unintended births when they had one child, while for husbands this occurred when they had at least two children. For wives, the percentages kept on declining until number of children they had ever given birth to was nine in which case they did not have any unintended births and thereafter fluctuated. The pattern for husbands was similar that is, declined throughout however, with no fluctuations. Husbands who had at least 10 children did not have any unintended births. Using number of living children, the percentage of unintended births among wives declined as number of living children increased. Here, women with at least eight children did not have any unintended births. Unintended births among husbands declined from when number of living children was two to when number of living children was seven and thereafter, there were fluctuations.

Figure 1: Percentage of wives and husbands with unintended births using number children ever born



Source: computed from 2014 GDHS

Figure 2: Percentage of wives and husbands with unintended births using number of living children



Source: computed from 2014 GDHS

Characteristics of Couples With Unintended Births

To identify which characteristics of couples were associated with unintended births, the estimates of unintended births were cross classified by the characteristics of couples. The results are presented in Table 2. Before analyzing unintended births by characteristics by couples, there was the need to see the common pattern running through the whole table irrespective of any specific background. The observation was that estimates based on number of children ever born tended to be generally higher than those based on number of living children. In the few exceptional cases, the percentages were the same.

A significant observation in Table 2 is that for both wives and husbands as expected, for those within the youngest age group that is, 15-19 years, no one had unintended births. In addition, generally, the proportion of both wives and husbands with unintended births tended to increase with age for both estimates (number of children ever born and number of living children). Also, wives tended to have higher unintended births at all ages than husbands. Generally, respondents in urban areas had lower unintended births than their counterparts in rural areas. Also, wives in urban areas had lower unintended births than husbands irrespective of the measurement used. Subsequently in rural areas, the contrary occurred.

The relationship between education and unintended births was such that while unintended births reduced as education increased for wives, in the case of husbands, unintended births

increased with increase in education. Comparing wives and husbands, holding education constant, Table 2 shows that wives were likely to have more unintended births than husbands irrespective of the measurement used. The only exception is secondary+ education where wives had lower unintended births than husbands in both measurements.

Wealth index by unintended births showed that generally, wealth was associated with unintended births in that the poor had higher unintended births than the middle while the middle had higher unintended births than the rich for both wives and husbands. The difference between wives and husbands was that for wives, there was a sharp decline from the middle to the rich while this was not so with husbands. Among the poor, more wives tended to have unintended births than husbands. However, among the rich, wives tended to have lower unintended births than husbands.

Knowledge of the ovulatory cycle may be a factor worth considering when studying unintended births. This is because its knowledge and probably its usage may be associated with unintended births. The respondents were asked "when during the menstrual cycle of a woman is she most likely to get pregnant?" The responses were categorized as 'incorrect' for respondents who did not provide the correct answers and for those who provided the correct answers, they were categorized as 'correct'. There was a third group of respondents who stated that they did not know when during the menstrual cycle, a woman could get pregnant and as such were categorized as "do not know". For wives, those who provided incorrect responses were more likely to have higher unintended births than those with correct responses and those with correct responses also had higher unintended births than those who did not know when a woman could get pregnant during the menstrual cycle. Husbands on the other hand had a different pattern. For them, those who responded correctly had higher percentage of unintended births than those with incorrect responses with those who did not know having the lowest percentages.

Wives who were in their only union had less unintended births than husbands who were also in their first union although the situation differed for those who had been in more than one union. There, wives tended to have higher percentages of unintended births compared to husbands. For wives, living with their husbands contributed to having lower unintended births than their husbands. Subsequently for wives whose husbands stayed elsewhere, they were likely to have higher unintended births than their husbands. For husbands who did not stay with their wives, the level of unintended births was the same irrespective of the measurement used.

Table 2 also shows that generally, being in a monogamous marriage was likely to reduce unintended births for both wives and husbands. Using number of children ever born for instance, while for wives in monogamous marriages the percentage of unintended births was 16.8% the percentage for those in polygynous marriages was 20.0%. The percentages for husbands in similar situations were 18.7% and 26.7% respectively for those in monogamous and polygynous unions. It is worth noting that there were wives who did not know whether they had co-partners or not although there were no husbands in this

category. However, the level of unintended births among wives who did not know whether they had co-wives or not was the same (25%) irrespective of the measurement used.

Duration of cohabitation refers to the number of years elapsed since the start of the first marriage or union to the date of the interview irrespective of whether the respondent was still married to the first partner or not. The responses were grouped into five-year durations. For both wives and husbands, the level of unintended births increased with increase in duration of cohabitation. However, between durations of 20-24 years and 25-29 years, there were declines in all cases. Another observation with regards to duration of cohabitation for these two same durations is that wives tended to have higher unintended births than husbands although the contrary occurred with other durations.

One important thing worth noting in Table 2 with regards to occupation is that husbands who were not working did not have unintended births irrespective of the measurement used. Furthermore, whether it was number of children ever born or number of living children used in the estimation, the highest percentage of unintended births was among agricultural workers for wives and services for husbands.

Table 2: Characteristics of couples by unintended births

Characteristics	Wives		Husbands	
	CEB†	LC††	CEB†	LC††
Age				
15-19	0	0	0	0
20-24	1.4	0.9	0	0
25-29	2.9	2.1	2	1.5
30-34	15.9	10.8	6.7	5.7
35-39	27.8	21.8	14.2	11.9
40-44	29.1	24.6	27	23.1
45-49	37	26.4	27.8	22.5
50-54	-	-	39.9	32.5
55-59			43.6	33.7
Place of residence				
Urban	12.2	9.3	19.3	17
Rural	21.9	16.6	20	15.6
Education				
None	21.1	15.4	12.2	7.1

Primary	18.8	15.1	15.3	12.2
Secondary+	14.5	11.2	22.7	19.7
Wealth Index				
Poor	22.4	17.5	20.8	15.1
Middle	20.9	14.8	18.4	17.1
Rich	11.3	8.6	19	17
Knowledge of ovulatory cycle				
Incorrect	18.9	14.9	20.2	16.9
Correct	15.6	11.7	22.5	18.5
Do not Know	14.3	8.6	9.7	7.7
Number of Unions				
One	14.5	11.2	16.9	14.3
More than one	28.1	20.6	25.2	20.2
Living with Partner				
Living with spouse	17.1	13.2	19.7	16.4
Living elsewhere	28.6	15	6.3	6.3
Number of wives				
One	16.8	13	18.7	15.7
More than one	20	13.3	26.7	20.9
Do not Know	25	25	-	-
Duration of cohabitation				
0-4	0.8	0.8	2.5	2.2
9-May	3.1	2.2	7.4	6.3
14-Oct	15.7	11.1	19.1	16.1
15-19	26.6	20.8	28	22.1

20-24	38.5	31.5	35.5	31.1
25-29	34.7	25.8	32.3	22
30+	43.3	30	45.3	41.7
Occupation				
Not working	11.1	8.8	0	0
Professional /Technical/ Managerial/ Clerical	8.8	6.9	19.4	16.5
Sales	16.4	12.5	11.8	11.8
Agriculture	25.3	18.4	20.4	15.3
Services	7.7	3.8	22.9	20.6
Manual	12.9	12.1	20.9	18.4

Source: computed from 2014 GDHS

†Children ever born

††Living children

Multivariate Analysis

To further explore the relationship between the characteristics of couples and unintended births, binomial logistic regression analyses were made. The variables used in the analyses are described as follows:

Dependent variable – unintended birth: unintended birth = 1, otherwise, 0.

Independent variables –

- Age - continuous variable
- Place of residence – urban or rural
- Education – was categorized as none, primary and secondary+
- Wealth index – was categorized as poor, middle and rich
- Knowledge of ovulatory cycle – was categorized as incorrect, correct, and do not know.
- Number of unions – once and more than once
- Current residence – with husband/wife and staying elsewhere.
- Number of wives – was categorized as one, more than one and do not know
- Duration of co-habitation – 0-4, 5-9, 10-14, 15-19, 20-24, 25-29 and 30+
- Occupation –categorized as not working, professional/technical/managerial/clerical, services and manual.

Age had an inverse relationship with unintended births in that as age increased, unintended births reduced and this relationship was very significant especially among husbands. Compared with couples who did not have any education, those with primary and those with at least secondary education were more likely to have lower unintended births and those with at least secondary education had lower levels of unintended births

than their counterparts with primary education. While all the relationships for both wives and husbands with at least secondary education were significant, in the case of those with primary education only those of husbands were significant.

The only significant relationship between knowledge of the ovulatory cycle and unintended births is that of husbands who did not know when specifically, during a woman's cycle she can get pregnant. These husbands were more likely than those with incorrect knowledge of the ovulatory cycle to have unintended births. With respect to residence, the general observation was that while wives who did not stay with their husbands were less likely than wives who stayed with their husbands to have unintended births, among husbands, it was the contrary. However, the only significant relationship was among wives using number of children ever born.

The only significant relationship with regards to number of wives is husbands who had more than one wife compared with husbands who had only one wife. Husbands with more than one wife were significantly less likely than husbands with one wife to have unintended births. Duration of co-habitation is the independent variable that had the most significant relationship with unintended births. Apart from co-habiting duration of 5-9 years, all the other durations had significant relationships with unintended births. Generally, compared with co-habitation duration of 0-4 years, couples who had cohabited for all other durations for both wives and husbands were less likely to have unintended births and these relationships were very significant.

Table 3: Logistic regression results showing unintended births of wives and husbands by demographic, social and economic characteristics

Characteristics	Wives		Husbands	
	CEB†	LC††	CEB†	LC††
	β	β	β	β
Age	0.947**	0.946*	0.928***	0.943***
Place of Residence				
Urban	1.461	1.357	0.926	0.892
Rural (RC)				
Education				
None (RC)				
Primary	0.806	0.716	0.437*	0.332**
Secondary+	0.681*	0.635*	0.216***	0.161***
Wealth Index				
Poor (RC)				

Middle	0.858	1.158	1.154	0.856
Rich	1.353	1.599	1.186	0.95
Knowledge of ovulatory cycle				
Incorrect (RC)				
Correct	1.209	1.295	0.888	0.905
Do not Know	1.3	1.817	2.172*	1.918*
Number of Unions				
Once (RC)				
More than once	0.797	0.906	1.107	1.248
Current Residence				
With Spouse (RC)				
Staying elsewhere	0.274*	0.487	1.333	1.166
Number of Wives				
One (RC)				
More than one	1.311	1.51	0.504*	0.420**
Do not Know	0.649	0.419	-	-
Duration of co-habitation				
0-4 (RC)				
9-May	0.342	0.502	0.344*	0.334
14-Oct	0.070***	0.100***	0.142***	0.133***
15-19	0.045***	0.060***	0.112***	0.110***
20-24	0.033***	0.042***	0.091***	0.070***
25-29	0.050***	0.072***	0.147***	0.150***
30+	0.037***	0.064***	0.118***	0.071***
Occupation				

Not working (RC)				
Professional	1.023	1.057	0.134	0
Sales	1.09	1.168	0.222	0.000***
Agriculture	0.895	1.085	0.107	0.000***
Services	1.611	3.466	0.073	0.000***
Manual	1.335	1.079	0.092	0.000***

Source: computed from 2014 GDHS

*p>0.05 **P>0.001 ***P>0.000

†Children ever born

††Living children

DISCUSSION

This present study has shown that generally, husbands tend to have lower levels of unintended births than wives. This supports evidence available to date that shows that in many sub-Saharan African countries, men are more likely than women to want large families, and, therefore, they might be less likely to classify births as unintended (Singh, Sedgh, & Hussain, 2010). This is also similar to studies elsewhere where apart from more males than females wanting more children, more females than males do not want pregnancies (Sipsma et al., 2012). However, there are other situations where women partners have more fertility desires than their male partners (Ray, Harcey, McQuillan & Greil, 2020). Wives may be having slightly higher unintended births than husbands probably because more women are now moving out of the house to work and childbearing and rearing may interfere with such activities. With the passage of time, women now may have some say in their reproductive health issues but may still not have total control over their fertility behaviors. Therefore, responses by only women should not be taken at face value because they could be misleading (Rocca, Krishnan, Barrett, & Wilson, 2010).

As observed in Table 1, most of the respondents in this study were between the ages of 25-44 years for wives and 30-49 years for husbands and the binomial logistic regression results show that age has an inverse relationship with unintended births. This means that as age increases, unintended births tend to decline and this was more highly significant among husbands than wives. The reason that could be attributed to this observation is that in the past, having many children was the norm so older couples may tend to want to have more children and therefore did not see any births as unintended. With the passage of time however, things have changed therefore, younger couples are more likely to want to have fewer children than their older counterparts. This could be as a result of educational campaigns in different forms but particularly the mass media as this channel reaches many people within a relatively short space of time. The media is an agent of change through the dissemination of information for the masses (Nwaolike, 2018).

As such, younger couples are more likely to state that some of their births were unintended. Another reason that could be given is that, as occurs in other countries such as the United States, births to older mothers have been more likely to be planned than births to younger mothers (Hayford & Guzzo, 2010). Furthermore, even though the world has become more liberal and thus affecting cultural norms, disapproval of childbearing at young ages in some social groups may still persist and make young women more likely to report births as unwanted (Hayford & Guzzo, 2010).

Generally, it has been observed that formal education makes people accept new ideas. It is therefore likely that with increase in formal education, both wives and husbands have come to the realization that their future does not lie with having many children. They may have therefore put some measures in place (including the use of contraceptives) to ensure that they have only the number of children that they would like to have. Thus, it is not surprising that for both wives and husbands, those with at least secondary education were the least likely to have unintended births. This being the case, it would be appropriate to implement policies that will enable all citizens to have at least secondary education with the hope of among other things, to reduce the rate and level of unintended births. It is in this vein that the current government of Ghana's policy of introducing free Secondary High School (SHS) and 'double track' system which has doubled the intake of students at the secondary level of education, hopefully will help many people attain secondary education. It must be noted however that, as stated by Hayford and Guzzo (2010), the education of these wives and husbands may or may not have preceded their fertility.

Modern family planning was introduced into Ghana as far back as the 1970s with the establishment of the Ghana National family planning program and the formulation of a population policy in 1969. The main aim was to slow down population growth due to high birth rates, yet, there are still people who are reluctant to use modern methods due to issues such as health concerns and opposition to use (GSS, GHS, & ICF International, 2015). These people then could rely on traditional methods of family planning such as the use of knowledge of the ovulatory cycle. However, it is sad to note that there are still some people who may not have been able to use it accurately to prevent unintended births simply because they do not know when during the menstrual cycle of a woman, she is likely to get pregnant.

In Ghana as in other African countries, polygyny is practiced and men who marry traditionally are all potentially polygynous husbands. Sometimes, they may have married more than one wife because their first wives could not bear them children. In Ghana, there is this tradition that first wives are not to be divorced. If that is the case, then it will be very unlikely for husbands in such situations to have unintended births compared to husbands in monogamous marriages all things being equal. It is very unlikely in Ghana to come across any wife or husband who does not want to have any children. This encourages husbands to marry additional wives who would give them children.

This study has shown that generally, the longer one has stayed in a relationship, the less likely it is for that person to have unintended births. Perhaps, close marital relationships influence agreement with partners about reproductive issues (Dodoo et al., 2019). Another explanation that could be given is that it is likely that those who have stayed in unions for a long time are older who value having a lot of children and so having had a lot of children already, they try to justify that the number of children they have is what they actually wanted. The additional reason could be that these couples being older, may have had all the children they would like to have and are using long term family planning methods to prevent unwanted births. As occurred in the United Kingdom, the increased use of highly effective reversible contraceptive was expected to reduce unintended pregnancy and eventually unintended births (Trussell, Schwarz, & Guthrie, 2010). Since husbands and wives can influence each other's fertility attitudes and family planning use, both husbands' and wives' pregnancy attitudes should be taken into account at the time of screening and method selection (Barden-O'Fallon & Speizer, 2010).

LIMITATIONS

This study had some limitations which included the use of retrospective data on births which may suffer from memory lapse. Secondly this paper is solely a quantitative one therefore some of the real reasons behind unintended births may not have been captured which could have been achieved if qualitative data had been used. Future studies on topics of this nature should include qualitative data to provide more meaning to the quantitative data.

CONCLUSION

The level and extent of unintended births between husbands and wives could vary depending on the measurement used. Using number of children ever born provided higher estimates than that number of living children. Furthermore, wives tended to have lower levels on unintended births than husbands. Education beyond the secondary level tended to reduce unintended births for both husbands and wives. It may therefore be appropriate for non-governmental organizations, corporate organizations and traditional authorities among others, to partner with the government to provide education to the citizens of Ghana so that in the future all Ghanaians would attain at least secondary education. This would hopefully enable couples to among other things prefer to have fewer children and also reduce unintended births which could have implications on other aspects of life.

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