

Article

Analysis of Couples' Discordance on Fertility Desire in Ghana

Isaac Yeboah ^{1,*} , Joshua Okyere ² , Henry Ofori Duah ³ , Andrew Kweku Conduah ¹ 
and Mary Naana Essiaw ¹

¹ Institute of Work, Employment and Society, University of Professional Studies, Accra 23321, Ghana; andrew.conduah@upsamail.edu.gh (A.K.C.); mary.naana-essiaw@upsamail.edu.gh (M.N.E.)

² Department of Population and Health, University of Cape Coast, Cape Coast 00233, Ghana; joshuaokyere54@gmail.com

³ College of Nursing, University of Cincinnati, Cincinnati, OH 45221, USA; duahhenryofori@gmail.com

* Correspondence: isaac.yeboah@upsamail.edu.gh

Abstract: Generally, men in sub-Saharan Africa make reproductive decisions that affect their partners. We examined the predictors of fertility desires among married men across three age cohorts: 20–35 years, 36–50 year, and 51–59 years. Using the 2014 Ghana Demographic and Health Survey dataset, we conducted ANOVA and multivariate binary logistic regressions on 1431 monogamous married men aged 20–59 years. Two indicators of fertility desire are constructed: (i) the comparison of men's ideal versus women's ideal family size, and (ii) the desire for more children. The results indicate that the fertility desire of men is stronger than that of women. The predictors of fertility desire are age, parity, religion, contraceptive use, wealth quintile, couples' age difference and couples' difference in education. At ages 20–35 years, men using modern contraceptives were more likely to desire more children compared with those not using any modern contraceptives. However, at ages 36–50 years, men using modern contraceptives were less likely to desire more children. This finding suggests that men change their fertility desires in response to changes in their ages.

Keywords: Ghana; couple; discordance; sub-Saharan Africa; married men; fertility desire



Citation: Yeboah, Isaac, Joshua Okyere, Henry Ofori Duah, Andrew Kweku Conduah, and Mary Naana Essiaw. 2023. Analysis of Couples' Discordance on Fertility Desire in Ghana. *Genealogy* 7: 48. <https://doi.org/10.3390/genealogy7030048>

Received: 20 April 2023

Revised: 13 July 2023

Accepted: 17 July 2023

Published: 20 July 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Globally, there is evidence to show that there is a significant decline in total fertility rates (TFR) although some sub-Saharan African countries continue to have high fertility rates (Matovu et al. 2017; Mbizvo et al. 2019; Novignon et al. 2019). Ghana is among the countries in sub-Saharan Africa performing remarkably in relation to reducing high fertility (Ahinkorah et al. 2021b). This is evident in the reduction in TFR from 6.4 in 1988 to 4.2 in 2014 (Ghana Statistical Service et al. 2015). Notwithstanding, the desire for more children continues to be a major demographic issue in sub-Saharan African countries including Ghana (Bongaarts and Casterline 2013; Van Lith et al. 2013).

While men in most sub-Saharan African countries prefer to have a higher number of children than their partners, those in developed countries prefer to have fewer children compared to their partners (Matovu et al. 2017). This situation is what is referred to as fertility desire discordance (FDD). Fertility desire discordance refers to the situation whereby partners have different fertility goals and expectations (Gibbs and Moreau 2017). In sub-Saharan Africa, men play a dominant role regarding the reproductive decisions of women (Dodoo 1994; Vouking et al. 2014). Furthermore, FDD can happen as a result factors that may include age, relationship duration, and presence of children from previous relationship (Gibbs and Moreau 2017). Unintended and mistimed pregnancies can happen within unions and marriages (Tsegaye et al. 2018); therefore, understanding the factors associated with FDD underscores a great opportunity for developing countries like Ghana to reduce the likelihood of unintended and mistimed pregnancies in marital unions. In Ghana, although the TFR declined from 6.4 in 1988 to 4.2 in 2014, women and men desire

large families: 4.3 children for all women and 4.5 children for all men (Ghana Statistical Service et al. 2015). The preference among married women and men is for 4.7 and 5.1 children, respectively (Ghana Statistical Service et al. 2015).

Extant studies on fertility desires have focused mainly on women (Ahinkorah et al. 2021b; Kebede et al. 2021; Keesara et al. 2018; Yeboah et al. 2021b) and persons living with HIV (Kimani et al. 2015), with few studies having been conducted on men (Akinyemi and Odimegwu 2021; Wawire et al. 2013). Sarnak and Becker (2022) examined the accuracy of wives' proxy reports of husbands' fertility preferences in SSA and found that wives across a number of countries either inaccurately perceive or are uncertain of their husband's fertility preferences. Nevertheless, most studies measuring the concordance of couple's fertility preferences rely on the report of women as proxies regarding the fertility desire of their partners (Diro and Afework 2013; Gebreselassie and Mishra 2011; Uddin et al. 2017; Yeboah et al. 2021b; Matovu et al. 2017). As such, little is known about the factors associated with fertility desires' discordance between husband and wife from men's perspective. This paucity in empirical evidence limits the comprehensive understanding of men's fertility desires. The number of children an individual wants to have during his/her reproductive life is not fixed but changes due to changing circumstances at the individual level (Trinitapoli and Yeatman 2018; Yeboah et al. 2021a). Hence, factors influencing fertility preferences may not be the same across different age cohorts.

Gaps in age, education and economic circumstances among couples predispose their marital relationship to an unequal sexual behaviour (Longfield et al. 2004; Luke 2005). Men usually have greater control over decisions regarding family size and contraceptive use. This study examines the association of age difference and education difference between marriage couples with men's fertility behaviour. Specifically, this study seeks to determine whether age difference, education difference and other covariates between marital partners are negatively associated with men's fertility desire.

To the best of our knowledge, not many studies have undertaken a quantitative assessment using nationally representative data from Ghana on the relationship between men's characteristics and fertility desire, and whether it is similar across different age cohorts. Using nationally representative data would aid our understanding of Ghanaian men's fertility desires. We assess three synthetic cohorts of men, 20–35-year-olds, 36–50-year-olds and 51–59-year-olds, to examine differences in individual characteristics according to fertility desire across the three age groups. Drawing on the husband-and-wife reports on fertility desires, this study examined characteristics associated with men who desire a higher number of children than their partners. This paper also seeks to ascertain the contribution of the fertility behaviour, socio-economic and cultural characteristics of married men as well as couple characteristics on their fertility desires in Ghana using the 2014 Ghana Demographic and Health Surveys (GDHS).

2. Methods

2.1. Data Source

Data for this study come from the 2014 Ghana Demographic and Health Surveys (GDHS). The GDHS is a cross-sectional, comparable and nationally representative survey that collects data on key populations and health indicators from women aged 15–49 years and men aged 15–59 years. The DHS uses a three-stage sampling technique, through a multistage, stratified cluster design. The GDHS uses three different questionnaires: household, women's and men's questionnaires. We relied on data from the couple datasets file. The couple data were derived by linking eligible interviewed men and women from the same households who are in a union. The sample size was restricted to couples in monogamous marriages because we were able to match the husbands' responses to any specific wife or partner within a monogamous marriage. Therefore, the results from this analysis are generalized only to men in monogamous marriages.

Among married men aged 15–59 (1828), 83.6% were in a monogamous marriage, while 16.4% were in polygamous marriage. The number of couples in monogamous marriages

was 1528. Of this sample, we further restricted the data to men and women who provided a numerical response to questions on ideal family size. Thus, couples with non-numerical response ($n = 39$) were excluded from the study. Finally, sterilized and infecund men ($n = 90$, 5.7%) were excluded from the study since they do not have any fertility desire. We applied weighting to the dataset to obtain unbiased estimates according to the DHS guidelines. The survey command in Stata was used to adjust for the complex sampling structure of the data in all of the analyses. A weighted sample size of 1431 was used for the analysis.

2.2. Measurement of Variables

Dependent variable: Fertility desire was the dependent variable. We constructed two indicators of fertility desire. The first indicator is based on the ideal family size question: “If you could go back to the time, you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?” This question yielded both numerical and non-numerical responses; however, the data were restricted to men and women who provided numeric responses. This variable was used to compare men’s ideal family size with women’s ideal family size. The difference yielded three outcomes: ‘wives desire more’, ‘same couple desire’ and ‘husbands desire more’. Since the study’s focus was on husbands’ or partner’s desire for more children, we excluded ‘wives desire more’ and reduced the multivariate analysis to two categories (equal desire = 0; and husbands desire more = 1). The second indicator was a prospective measure of fertility desire derived from the question “Would you like to have a (another) child with your partner, or would you prefer not to have any more children with her?”. Men who responded they want another child were considered as having a desire for more children and coded as 1. On the contrary, those who responded that they want no more were considered as not having a desire for more children and coded as 0. For our multivariate analysis, we relied on using the second indicator since research has confirmed it as more reliable and valid than the first indicator (Casterline and Han 2017; Fayehun et al. 2020). Nevertheless, the first indicator was also used for comparison purposes (See Supplementary Material Table S1).

Independent variables: The study used nine independent variables, grouped into individual- and couple-level factors. The individual characteristics were age, current contraceptive use, parity (number of living children), place of residence, religion, wealth quintile and age at first marriage/cohabitation. The couple characteristics are age difference and difference in education. Details of how each of these variables were coded can be found in Table 1.

Table 1. Characteristics of all married men aged 20–59 years, Ghana 2014.

| | All Married Men 20–59 Years | | Age (Years) | | |
|-----------------------------------|--------------------------------|------|-------------|-------|-------|
| | n | % | 20–35 | 36–50 | 51–59 |
| Characteristics | | | % | % | % |
| <i>Individual Characteristics</i> | | | | | |
| Age | | | | | |
| <36 | 547 | 38.3 | | | |
| 36–50 | 726 | 50.7 | | | |
| 51–59 | 158 | 11.0 | | | |
| Parity | | | | | |
| 0–1 children | 315 | 22.0 | 39.8 | 12.6 | 3.9 |
| 2–3 children | 531 | 37.1 | 46.9 | 34.6 | 15.1 |
| 4 or more | 585 | 40.9 | 13.3 | 52.8 | 81.0 |

Table 1. Cont.

| | All Married Men 20–59 Years | | Age (Years) | | |
|------------------------------------|--------------------------------|------|-------------|-------|-------|
| | n | % | 20–35 | 36–50 | 51–59 |
| Characteristics | | | | | |
| Current contraceptive use | | | | | |
| No method | 1057 | 73.9 | 72.8 | 74.7 | 73.9 |
| Any method | 374 | 26.1 | 27.2 | 25.3 | 26.1 |
| Place of Residence | | | | | |
| Urban | 734 | 51.3 | 50.1 | 54.0 | 43.3 |
| Rural | 697 | 48.7 | 49.9 | 46.0 | 56.7 |
| Religion | | | | | |
| Christian | 1023 | 71.5 | 71.5 | 72.6 | 66.3 |
| Islam | 246 | 17.2 | 16.3 | 17.6 | 18.4 |
| Other | 162 | 11.3 | 12.2 | 9.8 | 15.3 |
| Wealth Quintile | | | | | |
| Poorest | 224 | 15.6 | 16.6 | 13.0 | 24.5 |
| Poorer | 238 | 16.6 | 14.7 | 16.4 | 23.9 |
| Middle | 276 | 19.3 | 21.3 | 19.1 | 13.2 |
| Richer | 307 | 21.5 | 23.9 | 20.1 | 19.2 |
| Richest | 386 | 27.0 | 23.4 | 31.4 | 19.1 |
| Age at first marriage/cohabitation | | | | | |
| <20 years | 174 | 12.2 | 15.9 | 10.2 | 8.0 |
| 20 years+ | 1257 | 87.8 | 84.1 | 89.8 | 92.0 |
| Couple Characteristics | | | | | |
| Age Difference | | | | | |
| Same age | 124 | 8.7 | 14.5 | 6.2 | 0.0 |
| Husband older 1–5 years | 588 | 41.1 | 56.5 | 35.6 | 12.6 |
| Husband older 6+ years | 719 | 50.2 | 29.0 | 58.2 | 87.4 |
| Difference in Education | | | | | |
| Same education | 422 | 29.5 | 30.9 | 29.2 | 26.1 |
| Husband more educated | 728 | 50.9 | 48.5 | 51.2 | 57.5 |
| Wife more educated | 281 | 19.7 | 20.6 | 19.7 | 16.4 |
| N | 1431 | | 547 | 726 | 158 |

2.3. Statistical Analysis

Analyses of data were carried out at three levels—univariate, bivariate and multivariate—with the use of Stata software. Frequencies and percentages were used at the univariate level to describe the socio-demographic and other characteristics of respondents, while one-way ANOVA was carried out at the bivariate level of analysis to examine the differences in mean ideal family size (fertility desire) among couples across the three age cohorts (see Table 2). Multivariate binary logistic regression models were conducted to assess the relationships between men’s characteristics and fertility desire. Models were run for all men aged 20–59 years, as well as across the three age cohorts using the two different measures of the outcome variable and the fertility desire. The statistical software package,

STATA version 16, was used for the analyses. For all models, an adjusted odds ratio (AOR) with its respective 95% confidence interval (95%CI) was computed and reported.

Table 2. Mean differences in fertility desire among couples by age cohort.

| | Husband | | | | Wife | | | |
|--------------------|-------------------|-------|-------|---------|-------------------|-------|-------|---------|
| | 20–35 | 36–50 | 51–59 | Overall | 15–35 | 36–40 | 41–49 | Overall |
| | Ideal Family Size | | | | Ideal Family Size | | | |
| Mean | 4.9 | 5.4 | 6.6 | 5.4 | 4.4 | 5.0 | 5.3 | 4.7 |
| Standard Deviation | 3.3 | 3.0 | 4.1 | 3.3 | 1.9 | 1.9 | 2.1 | 2.0 |
| <i>p</i> -value | <i>p</i> < 0.001 | | | | <i>p</i> < 0.001 | | | |

2.4. Ethical Approval

The DHS survey obtained ethical clearance from the Ethics Committee of ORC Macro Inc. as well as the Ethics Boards of the partner organizations, such as Ministry of Health and Ghana Health Service. During the survey, written or verbal consent was provided by the women. In this study, we sought permission from MEASURE DHS website for access to the data. Hence, the data analysed are available in the public domain “www.measuredhs.com” (accessed on 3 April 2023) after obtaining the necessary approval. The data do not contain any identifying information.

3. Results

The distributions of the two indicators are displayed in Figures 1 and 2. The results indicate that both Figures 1 and 2 show differences in fertility desire, and age is statistically significant. Comparing the two distributions, the first indicator shows that 41.1% desire to have more children (Figure 1). According to the second indicator, 39.9% desire to have more children (Figure 2). This is a clear indication that the first indicator is upwardly biased, while the second indicator is downwardly biased. Both indicators show that desire for more children increases with age.

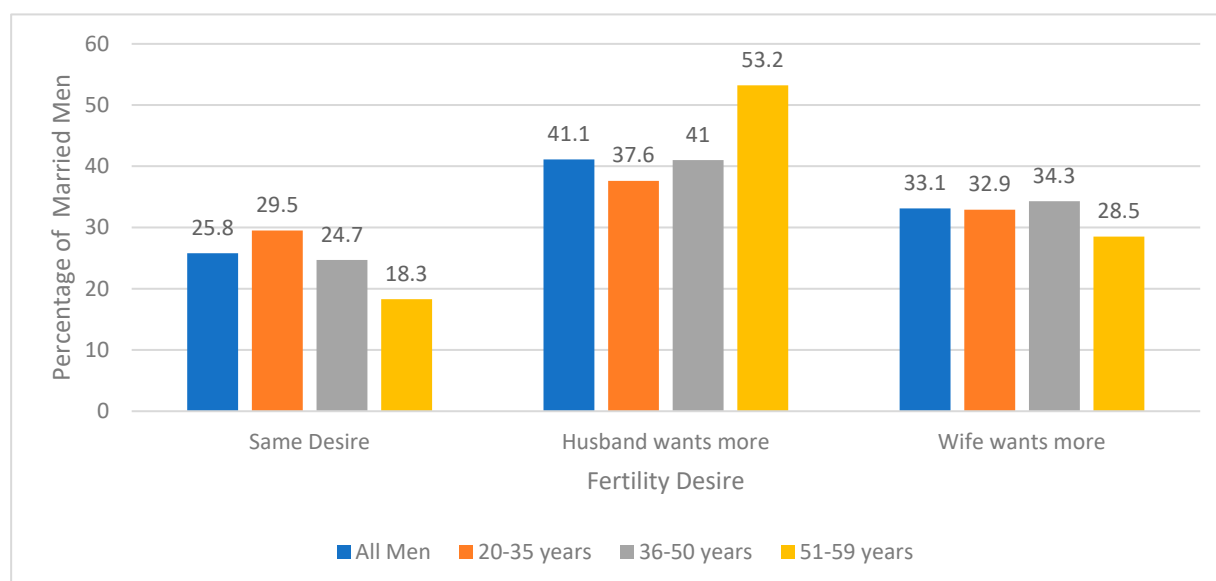


Figure 1. Distribution of couples' ideal family size according to husband's age.

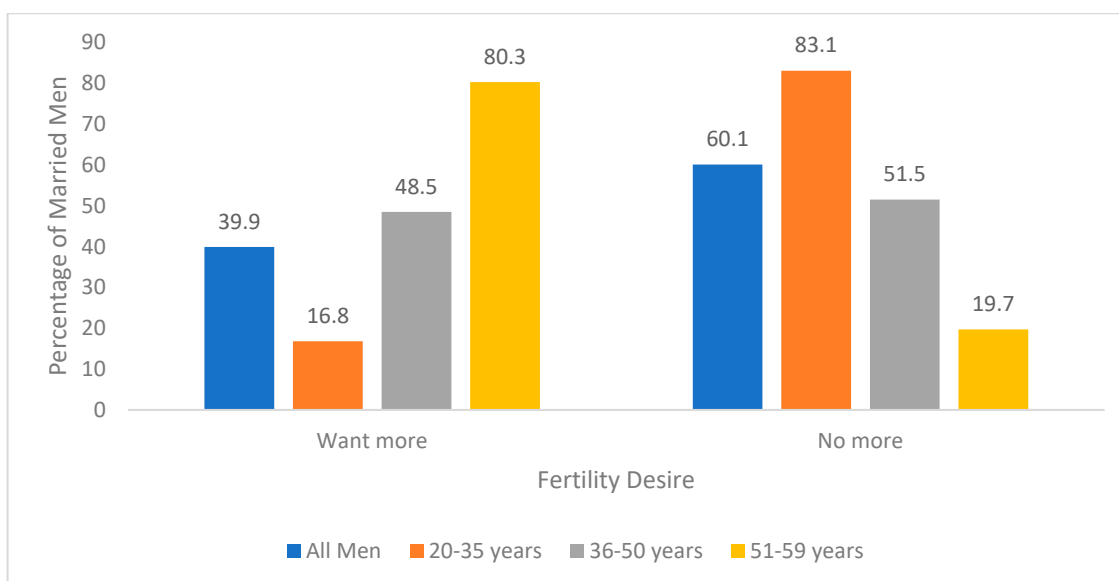


Figure 2. Distribution of men's desire for more children according to age.

The individual and couple characteristics of all married men across the age groups in our sample are depicted in Table 1. The majority of the married men were aged 36–50 years (50.7%), were not using any contraceptive methods (73.9%), lived in urban areas (51.3%), were adherents of the Christian religion (71.5%) and were first married at 20 years and over (87.8%). A little over 90% of the men in this study's sample were older than their spouses; specifically, half of men (50.2%) were 6 or more years older than their partners. Half of the men (50.9%) were more educated than their spouses.

Table 2 displays the mean of the ideal family size (fertility desire) of couples. We categorized the ages into three cohorts for both men and women. For men, we were focused on young men (ages 20–35 years), young male adults (36–50 years) and older male adults (51–59 years). For women, we were focused on young women (15–35 years), young female adults (36–40 years) and women ending their reproductive life (41–49 years). Generally, the mean ideal number of children for men and women was 5.4 and 4.7, respectively. The mean fertility desire of both men and women increases with age.

Table 3 shows the multivariate level of analysis where age, religion, wealth quintile, contraceptive use, parity and differences in education were the significant predictors of a desire for more children (using the second indicator). The model revealed the adjusted odds ratios of the selected independent variables on fertility desire. Men belonging to the Islam religion (OR: 5.14; 95%CI: 3.07–8.60) were more likely to desire more children compared with those adhering to Christianity. The likelihood of desire for more children was lower among those aged 36–50 years (OR: 0.45; 95%CI: 0.29–0.71), those aged 51–59 years (OR: 0.09; 95%CI: 0.05–0.19), those using any contraceptive methods (OR: 0.85; 95%CI: 0.62–1.18), those with a parity of 2–3 children (OR: 0.06; 95%CI: 0.03–0.15) and those with a parity of 4+ (OR: 0.01; 95%CI: 0.00–0.03), and those who were more educated than their spouse (OR: 0.47; 95%CI: 0.32–0.69). In addition, we found that as the wealth quintile increased, the desire for more children significantly decreased. Across the three age groups, we observed similar patterns in the relationship between religion and fertility desire, wealth quintile and fertility desire, and parity and fertility desire, as well as differences in education and fertility desire. We observed similar patterns in the relationship between contraceptive use and fertility desire, except for the 20-to-35-year-olds, as those using any contraceptive methods were more likely to desire more children compared with those not using contraceptive methods.

Table 3. Factors associated with desire for more children among married men aged 20–59 years in Ghana, 2014.

| Characteristics | All Men 20–59 Years | | Age | | | | | |
|-----------------------------------|------------------------|-----------|-------------|------------|-------------|-----------|-------------|------------|
| | | | 20–35 Years | | 36–50 Years | | 51–59 Years | |
| <i>Individual Characteristics</i> | aOR | 95%CI | aOR | 95%CI | aOR | 95%CI | aOR | 95%CI |
| Age | | | | | | | | |
| 20–35 (ref) | | | | | | | | |
| 36–50 | 0.45 ** | 0.29–0.71 | | | | | | |
| 51–59 | 0.09 *** | 0.05–0.19 | | | | | | |
| Place of Residence | | | | | | | | |
| Urban (ref) | | | | | | | | |
| Rural | 0.99 | 0.57–1.71 | 0.58 | 0.25–1.35 | 0.99 | 0.59–1.65 | 0.36 | 0.07–1.87 |
| Religion | | | | | | | | |
| Christian (ref) | | | | | | | | |
| Islam | 5.14 *** | 3.07–8.60 | 4.58 ** | 1.72–12.22 | 5.44 *** | 3.25–9.13 | 3.35 ** | 0.87–12.91 |
| Other | 1.52 | 0.86–2.67 | 1.43 | 0.62–3.28 | 1.56 | 0.89–2.74 | 3.05 | 0.92–10.06 |
| Wealth Quintile | | | | | | | | |
| Poorest (ref) | | | | | | | | |
| Poorer | 0.40 ** | 0.23–0.70 | 0.23 ** | 0.09–0.56 | 0.52 * | 0.29–0.92 | 0.14 * | 0.03–0.66 |
| Middle | 0.33 ** | 0.17–0.63 | 0.28 ** | 0.11–0.72 | 0.35 ** | 0.19–0.65 | 0.06 * | 0.01–0.52 |
| Richer | 0.25 ** | 0.12–0.55 | 0.21 ** | 0.07–0.64 | 0.28 *** | 0.14–0.57 | 0.13 ** | 0.00–0.21 |
| Richest | 0.21 *** | 0.09–0.47 | 0.12 ** | 0.03–0.48 | 0.21 *** | 0.09–0.45 | 0.11 | 0.01–1.00 |
| Current contraceptive use | | | | | | | | |
| No method (ref) | | | | | | | | |
| Any method | 0.85 * | 0.62–1.18 | 1.26 * | 0.70–2.65 | 0.65 * | 0.43–0.99 | 0.11 * | 0.01–0.98 |
| Age at first marriage | | | | | | | | |
| <20 years (ref) | | | | | | | | |
| 20 years+ | 1.33 | 0.85–2.08 | 0.97 | 0.48–1.96 | 1.51 | 0.84–2.72 | 2.35 | 0.19–28.43 |
| Parity | | | | | | | | |
| 0–1 (ref) | | | | | | | | |
| 2–3 | 0.06 *** | 0.03–0.15 | 0.09 *** | 0.03–0.23 | 0.04 *** | 0.01–0.18 | 0.05 | 0.00–1.79 |
| 4+ | 0.01 *** | 0.00–0.03 | 0.18 *** | 0.01–0.05 | 0.01 *** | 0.00–0.04 | 0.04 ** | 0.00–0.17 |
| <i>Couple Characteristics</i> | | | | | | | | |
| Difference in Education | | | | | | | | |
| Same education (ref) | | | | | | | | |
| Husband more educated | 0.47 *** | 0.32–0.69 | 0.39 ** | 0.20–0.77 | 0.76 | 0.50–1.14 | 0.28 * | 0.09–0.89 |
| Wife more educated | 0.63 | 0.38–1.07 | 0.40 | 0.18–0.91 | 0.96 | 0.56–1.66 | 3.02 | 0.71–12.84 |
| Age Difference | | | | | | | | |
| Same age (ref) | | | | | | | | |
| Husband older 1–5 years | 1.04 ** | 0.54–2.00 | 0.84 | 0.37–1.89 | 2.05 | 0.89–4.67 | | |
| Husband older 6+ years | 1.16 * | 0.61–2.20 | 0.66 | 0.27–1.61 | 2.97 | 1.32–6.68 | | |

Note: p value < 0.05 = *, p value < 0.01 = **, p value < 0.001 = ***; Abbreviations: aOR means adjusted odds ratio; CI means confidence interval.

To complement the multivariate findings, using the first indicator, we found that correlates of fertility desire included religion, wealth, parity and age difference. There was consistency with the first indicator of fertility desire regarding the direction of coefficients of religion and wealth (See Supplementary Material Table S1). However, men with 4 or more living children were more likely to desire more children compared with those with a 0–1 parity. We observed the same pattern across the age cohorts of 20–35 years and 36–50 years. In addition, men older than their spouse by 1–5 years were more likely to desire more children compared to those couples with same age. Men older than their spouses by 6 or more years were more likely to desire more children compared to couples

of the same age. This pattern was similar across those aged 20–35 years and 36–50 years (See Supplementary Material Table S1).

4. Discussion

This study investigated the discordance in the fertility desires among monogamous married men in Ghana. Generally, men are observed to have higher fertility desires compared to their partners/wives. This was true in all the different age categories of married men. This finding means that married couples have to deal with the perceived differences in fertility preferences. The high fertility desire of husbands compared to that of wives showed the pronatalist tendency of men in sub-Saharan Africa, including Ghana. It is interesting to note that men are likely to wish for more children compared to their spouses because they do not primarily go through the physical and psychological demands of pregnancy. Women, who primarily undergo the stress associated with pregnancy and child birth, seem to be modest in their fertility desires compared to their partners. The gendered discordance in fertility desires has been previously described in other studies carried out in Africa ([Ibisomi and Odimegwu 2011](#); [Wawire et al. 2013](#)). Within the West African context, women are often coerced to meet the higher fertility desires of the men; however, persuasion is often used when the women have higher fertility desires ([Ibisomi and Odimegwu 2011](#)). This differential resolution of conflicts arising from discordance in fertility desires is underpinned by cultural values that assert a male dominance in fertility decision making ([Ibisomi and Odimegwu 2011](#); [Wawire et al. 2013](#)). Men in sub-Saharan Africa are the heads of most families, are usually older than their partners and are expected to make decisions affecting their wives.

This study found the following factors to be significant independent predictors of discordance in fertility desires between husbands and wives in monogamous marital unions: age, religion, wealth quintile, contraceptive use, parity, and differences in education. This study showed an inverse relationship between age and the desire for more children. As the age of men increases, the less likely it is for them to desire more children. This is similar to the results of a previous study carried out in China ([Eklund 2016](#)). The study found that men who had attained a higher education than their partners were less likely to have a desire for more children compared to that of couples with the same level of education. This observation was similar in the age-stratified analysis carried out for married men aged 20–35 years and those aged 51–59 years. It appears that after receiving some level of formal education, men are able to have a more informed expectation regarding their fertility desires matching those of their female partners. There is a mixed relationship between educational attainment and fertility desires in men ([Berrington and Pattaro 2014](#)). However, higher education attainment and aspirations may reduce fertility desires in men as they would not want childbirth to interfere with their educational attainment, especially when career growth and fertility desires are difficult to attain at the same time ([Berrington and Pattaro 2014](#)). As seen in this study, this was especially the case for married men aged 20–35 years, who are more likely to be focused on career advancement than higher fertility desires. Our finding is in agreement with those of a recent study in Nigeria, which reported that higher education was associated with decreased fertility desires among men ([Ahinkorah et al. 2021a](#)).

The relationship between wealth and fertility is generally reported to be positive among men but negative among women ([Stulp and Barrett 2016](#)). This study found that those who were poorer were less likely to have higher fertility desires than their female partners. Therefore, household wealth appears to be protective against higher fertility desires. This finding is in contrast with the tenets of microeconomic theory on fertility, which assume a positive association between income and fertility desires ([Robinson 1997](#)).

This study found that the number of living children is negatively associated with having higher fertility desires. This was not surprising given that one would have expected men to have decreased fertility desires as the number of living children increases ([Ahinkorah et al. 2021a](#)). In addition, men with a large family size in Ghana may not desire to

have additional number of children due to economic and social problems. This finding contradicts the results of a study in Europe which found that fertility expectation of parents increases after the birth of additional children (Heiland et al. 2008). Our finding may be attributable to the sense of satisfaction in family life in the presence of few living children, which reinforces the desire of the men for more children. Nevertheless, using the first indicator of fertility desire, we found that high parity increases with men's desire for more children. This suggests that the measurement of fertility desire influences the direction of the independent variables used in a model.

Interestingly, we found that as compared to men not using contraceptive methods, men using any contraceptive method were less likely to have higher fertility desires. We find similar patterns across the age groups 36–50 years and 51–59 years. The only exception observed was with those aged 20–35 years. Among young women (<36 years) using any contraceptive method, they were more likely to desire more children. At a younger age, men may be using contraceptives with the intention of spacing out childbirth and not necessarily for limiting childbirth. This finding is similar to those of the study carried out by Yeboah et al. (2021b) who explained that modern contraceptives used by women were used to space out high parity rather than with the intention of limiting child births. However, at older ages, men might use contraceptive methods to prevent having additional children. Further studies, including the use of a qualitative methodology, are recommended to explore and better understand this finding. The odds of a large family size desire were higher among Muslims than among Christians. This finding corroborates those of studies conducted in Nigeria (Odusina et al. 2020). The desire of Muslim men for more children could be due to the practice of polygamy, which is mostly affiliated with the Muslim religion. From a policy standpoint, our findings highlight the discordance in fertility desires between Ghanaian men and their female partners. Our study uncovers some socio-economic factors that underpin such a discordance. Public health professionals can use our findings to guide their public health practices by taking into account the socio-economic complexities of the gendered discordance regarding fertility desires.

5. Limitations of the Study

Despite the merits of our study, this study used secondary data from a cross-sectional survey; hence, the associations observed in this study do not imply a causal relationship. Our study was also restricted to only variables available in the dataset.

6. Conclusions

We investigated the discordance in fertility desires among couples with reference to a high fertility desire in men and its associated factors among married men. The independent predictors of discordance in fertility desires between husbands and wives in marital unions included education, wealth status, religion and parity. The findings reflect the pervasive role of education, wealth and socio-cultural norms on the complexities of the gendered discordance regarding fertility desires.

Supplementary Materials: The following are available online at <https://www.mdpi.com/article/10.3390/genealogy7030048/s1>, Table S1: Multivariate analysis of factors associated with married men desire for more children (0 = equal desire and 1 = husband desire more).

Author Contributions: Conceptualization, I.Y.; methodology, I.Y.; formal analysis, I.Y.; writing—original draft preparation, I.Y., J.O. and H.O.D.; writing—review and editing, I.Y., J.O., H.O.D., A.K.C. and M.N.E. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: We did not seek ethical clearance for this study because the dataset used is freely available in the public domain. However, we sought permission from the MEASURE DHS, and approval was given before using the data for this study. We ensured that all the ethical guidelines concerning the use of secondary datasets in the publication were strictly adhered to.

Informed Consent Statement: Detailed information about DHS data usage and ethical standards is available at <http://goo.gl/ny8T6X>, accessed on 3 April 2023.

Data Availability Statement: The dataset freely accessible at www.measuredhs.com, accessed on 3 April 2023.

Acknowledgments: We are grateful to the DHS programs, for the permission to use all the relevant DHS data for this study.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Ahinkorah, Bright Opoku, Abdul Aziz Seidu, Eugene Budu, Ebenezer Agbaglo, Collins Adu, Kwamena Sekyi Dickson, Edward Kwabena Ameyaw, John Elvis Hagan, and Thomas Schack. 2021a. Which factors predict fertility intentions of married men and women? Results from the 2012 Niger Demographic and Health Survey. *PLoS ONE* 16: e0252281. [\[CrossRef\]](#) [\[PubMed\]](#)
- Ahinkorah, Bright Opoku, Abdul Aziz Seidu, Ebenezer Kwesi Armah-Ansah, Edward Kwabena Ameyaw, Eugene Budu, and Sanni Yaya. 2021b. Socio-economic and demographic factors associated with fertility preferences among women of reproductive age in Ghana: Evidence from the 2014 Demographic and Health Survey. *Reproductive Health* 18: 2. [\[CrossRef\]](#) [\[PubMed\]](#)
- Akinyemi, Joshua Odunayo, and Clifford Obby Odimegwu. 2021. Social contexts of fertility desire among non-childbearing young men and women aged 15–24 years in Nigeria. *Reproductive Health* 18: 186. [\[CrossRef\]](#) [\[PubMed\]](#)
- Berrington, Ann, and Serena Pattaro. 2014. Educational differences in fertility desires, intentions and behaviour: A life course perspective. *Advances in Life Course Research* 21: 10–27. [\[CrossRef\]](#)
- Bongaarts, John, and John Casterline. 2013. Fertility Transition: Is sub-Saharan Africa Different? *Population and Development Review* 38 (Suppl. S1): 153–68. [\[CrossRef\]](#) [\[PubMed\]](#)
- Casterline, John B., and Siqi Han. 2017. Unrealized fertility: Fertility desires at the end of the reproductive career. *Demographic Research* 36: 427–54. [\[CrossRef\]](#)
- Diro, Chala Wegi, and Mesganaw Fantahun Afework. 2013. Agreement and concordance between married couples regarding family planning utilization and fertility intention in Dukem, Ethiopia. *BMC Public Health* 13: 903. [\[CrossRef\]](#) [\[PubMed\]](#)
- Dodoo, Francis Nii-Amoo. 1994. Relative spousal status and child health in sub-Saharan Africa: The case of Ghana. *The Sociological Quarterly* 35: 507–19. [\[CrossRef\]](#)
- Eklund, Lisa. 2016. Preference or Aversion? Exploring Fertility Desires among China's Young Urban Elite. *Intersections: Gender, History & the Asian Context* 39: 1.
- Fayehun, Olufunke, Olutobi Adekunle Sanuade, Anthony Idowu Ajayi, and Uche Isiugo-Abanihe. 2020. Ethnicity, sex composition of living children, and unrealized fertility in Nigeria. *Population Studies* 74: 351–61. [\[CrossRef\]](#)
- Gebreselassie, Tesfayi, and Vinod Mishra. 2011. Spousal agreement on preferred waiting time to next birth in sub-Saharan Africa. *Journal of Biosocial Science* 43: 385–400. [\[CrossRef\]](#) [\[PubMed\]](#)
- Ghana Statistical Service, Ghana Health Service, and ICF International. 2015. *Ghana Demographic and Health Survey 2014*. Rockville: Ghana Statistical Service. [\[CrossRef\]](#)
- Gibbs, Susannah E., and Caroline Moreau. 2017. Perceived partner fertility desires and influence on contraceptive use. *The European Journal of Contraception & Reproductive Health Care* 22: 310–15. [\[CrossRef\]](#)
- Heiland, Frank, Alexia Prskawetz, and Warren C. Sanderson. 2008. Are Individuals' desired family sizes stable? Evidence from West German. *European Journal of Population* 24: 129–56. [\[CrossRef\]](#)
- Ibisomi, Latifat, and Clifford Odimegwu. 2011. Understanding resolution of differential fertility preferences among couples in. *International Journal of Business and Social Science* 2: 98–105.
- Kebede, Endale, Erich Striessnig, and Anne Goujon. 2021. The relative importance of women's education on fertility desires in sub-Saharan Africa: A multilevel analysis. *Population Studies* 76: 137–56. [\[CrossRef\]](#)
- Keesara, Sirina, Pamela A. Juma, Cynthia C. Harper, and Sara J. Newmann. 2018. Barriers to postpartum contraception: Differences among women based on parity and future fertility desires. *Culture, Health and Sexuality* 20: 247–61. [\[CrossRef\]](#)
- Kimani, James, Charlotte Warren, Timothy Abuya, Richard Mutemwa, Susannah Mayhew, and Ian Askew. 2015. Family planning use and fertility desires among women living with HIV in Kenya Global health. *BMC Public Health* 15: 909. [\[CrossRef\]](#)
- Longfield, Kim, Anne Glick, Margaret Waithaka, and John Berman. 2004. Relationships between older men and younger women: Implications for STIs/HIV in Kenya. *Studies in Family Planning* 35: 125–34. [\[CrossRef\]](#)
- Luke, Nancy. 2005. Confronting the 'Sugar Daddy' Stereotype: Age and Economic Asymmetries and Risky Sexual Behavior in Urban Kenya. *International Family Planning Perspectives* 31: 6–14. [\[CrossRef\]](#)
- Matovu, Joseph K. B., Fredric Makumbi, Rhoda K. Wanyenze, and David Serwadda. 2017. Determinants of fertility desire among married or cohabiting individuals in Rakai, Uganda: A cross-sectional study. *Reproductive Health* 14: 2. [\[CrossRef\]](#)
- Mbizvo, Michael T., Nicole Bellows, Joseph G. Rosen, Stephen Mupeta, Chisha A. Mwiche, and Ben Bellows. 2019. Family Planning in Zambia: An Investment Pillar for Economic Development. *Gates Open Research* 3: 1459. [\[CrossRef\]](#) [\[PubMed\]](#)
- Novignon, Justice, Nadege Gbetoton Djossou, and Ulrika Enemark. 2019. Childhood mortality, intra-household bargaining power and fertility preferences among women in Ghana. *Reproductive Health* 16: 139. [\[CrossRef\]](#) [\[PubMed\]](#)

- Odusina, Emmanuel Kolawole, Titilayo Ayotunde, Michael Kunnuji, Dorothy N. Ononokpono, Ghose Bishwajit, and Sanni Yaya. 2020. Fertility preferences among couples in Nigeria: A cross sectional study. *Reproductive Health* 17: 92. [\[CrossRef\]](#) [\[PubMed\]](#)
- Robinson, Warren C. 1997. The Economic Theory of Fertility Over Three Decades. *Population Studies* 51: 63–74. [\[CrossRef\]](#) [\[PubMed\]](#)
- Sarnak, Dana, and Stan Becker. 2022. Accuracy of wives' proxy reports of husbands' fertility preferences in sub-Saharan Africa. *Demographic Research* 46: 503–46. [\[CrossRef\]](#)
- Stulp, Gert, and Louise Barrett. 2016. Wealth, fertility and adaptive behaviour in industrial populations. *Philosophical Transactions of the Royal Society B: Biological Sciences* 371: 20150153. [\[CrossRef\]](#)
- Trinitapoli, Jenny, and Sara Yeatman. 2018. The Flexibility of Fertility Preferences in a Context of Uncertainty. *Population and Development Review* 44: 87–116. [\[CrossRef\]](#)
- Tsegaye, Adino Tesfahun, Menderie Mengistu, and Alemayehu Shimeka. 2018. Prevalence of unintended pregnancy and associated factors among married women in west Belessa Woreda, Northwest Ethiopia, 2016. *Reproductive Health* 15: 201. [\[CrossRef\]](#)
- Uddin, Jalal, Muhammad Zakir Hossin, and Mohammad Habibullah Pulok. 2017. Couple's concordance and discordance in household decision-making and married women's use of modern contraceptives in Bangladesh. *BMC Women's Health* 17: 107. [\[CrossRef\]](#)
- Van Lith, Lynn M., Melanie Yahner, and Lynn Bakamjian. 2013. Women's growing desire to limit births in sub-Saharan Africa: Meeting the challenge. *Global Health: Science and Practice* 1: 97–107. [\[CrossRef\]](#)
- Vouking, Marius Zambou, Christine Danielle Evina, and Carine Nouboudem Tadenfok. 2014. Male involvement in family planning decision making in sub-Saharan Africa- what the evidence suggests. *Pan African Medical Journal* 19: 349. [\[CrossRef\]](#) [\[PubMed\]](#)
- Wawire, Salome N., An-Magritt Jensen, and Joyce N. Mumah. 2013. Differences in fertility desires between men and women: The role of gender context. Paper presented at Annual Population Association of America Meeting, New Orleans, LA, USA, April 11–13.
- Yeboah, Isaac, Stephen Owusu Kwankye, and Faustina Frempong-Ainguah. 2021a. Consistency of the determinants of achieving fertility desires in Ghana: Insights from 2003, 2008 and 2014 Ghana Demographic and Health Survey data sets. *Genus* 77: 27. [\[CrossRef\]](#)
- Yeboah, Isaac, Stephen Owusu Kwankye, and Faustina Frempong-Ainguah. 2021b. Predictors of underachieved and overachieved fertility among women with completed fertility in Ghana. *PLoS ONE* 16: e0250881. [\[CrossRef\]](#) [\[PubMed\]](#)

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.