Analysis of Factors Influencing Fertility Rates in Afghanistan in 2015

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ABSTRACT:
Afghanistan ranks among the countries in both regionally and globally the highest fertility rates.so Based on the calculations of Afghanistan's fertility rate in 2015 using DHS data Shows 5.4 children per woman. in this country, given the political instability over recent decades, comprehensive studies on fertility have been don less. This research using the secondary analyse, from the 2015 Afghanistan Demographic and Health Survey (DHS) data to examine the factors influencing fertility among 29,461 married women aged 15-49. The findings of this study shows that 33.8% of Afghan women who are in their early reproductive period (15-24) have at least one child, and 44.7% of women who are in the middle of their reproductive period an average of 4.9% children and 21. 4% of women who are at the end of their reproductive period (40-49) have given birth to 7.1% children. While the average of all live children born in 2015 is 4.3 children. The results of multivariate analysis indicate that the most important factors influencing the average childbearing in this country; Mother's age, fertility preferences, ideal number of children, education, mother's age at first birth, marriage age, birth control methods, number of children died, and women's employment. The persistence of high fertility rates in Afghanistan can be attributed to a combination of traditional economic systems, low educational attainment, minimal contraceptive use, younger ages at marriage, high infant mortality rates, and prevailing socio-economic conditions. This study provides an analysis of fertility determinants in a uniquely challenging context, offering insights for policy and further research.

KEYWORDS: Afghanistan Demographic and Health Survey, Contraceptive Methods, Education, Fertility Preferences, Infant Mortality.

Introduction

Studying and analyzing fertility is one of the most significant topics in the field of population studies. Fertility, as the only biological factor of human resource replacement, allows human societies to continue growing through this process (Chandiok et al., 2016). Fertility, being the most important factor in natural population changes, plays a crucial and vital role in the fluctuations and

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transformations of populations in human societies. An increase in fertility leads to uncontrolled population growth and is one of the factors that hinder development and perpetuate poverty in developing countries. Therefore, controlling and examining the factors influencing fertility fluctuations is of special importance in population studies to improve planning and policymaking in demographic, social, and economic areas in human societies. Changes in fertility (both increases and decreases) not only affect the composition and structure of populations but also cause transformations in the economic structures of societies (Kalantari S, 2010). This socio-demographic phenomenon is itself influenced by biological and behavioral factors. Cultural conditions, economic conditions, living standards, and other determining and influencing factors act as background elements affecting individual reproductive behavior(Laelago et al., 2019). Fertility is not merely a biological dimension but a social phenomenon that undergoes changes and transformations with cultural, social, economic, and political changes in society(Firouzbakht et al., 2020). Afghanistan is one of the countries where, due to political instability, insecurity, and fragile economic conditions, the components and structure of its population have undergone significant changes and transformations. Although there are no precise statistics or regular studies on fertility and other demographic aspects in Afghanistan, according to UN estimates, Afghanistan had one of the highest fertility rates in the world in 1990. However, studies indicate that the fertility rate in this country is declining. The total fertility rate in Afghanistan was estimated at 7.2 children per woman in 1996 (Oskorouchi, 2018), and this figure, following a decreasing trend, was estimated to have dropped to an average of 5.4 children per woman in 2015 based on UN estimates and a study by(Nazari et al., 2023) using data from the Afghanistan Demographic and Health Survey (AFDHS). Although Afghanistan's total fertility rate is experiencing a declining trend, a rate of 5.4children per woman still places it among the countries with the highest fertility rates in Asia and the Pacific (United Nations, 2023). This research aims to identify and explain the most important determinants of fertility in Afghanistan. Considering the existing research gap in explaining fertility in Afghanistan, the findings of this study provide the necessary basis for identifying the determinants of fertility in this country.

Theorical Frimwork and background

The analysis of fertility behavior relies on various theoretical frameworks from social sciences and economics. The demographic transition theory, developed by (Thompson, 1929) and (Notestein, 1945), explains fertility changes as part of broader modernization processes. Modernization transitions societies from traditional to modern frameworks, with economic development driving cultural changes like improved education, communication, gender equality, and individualism, leading to fertility decline (Forty et al., 2022), (Hollos & Whitehouse, 2008). In traditional societies, children are valued for their utility, while modern economic theories link fertility decisions to offspring survival, upbringing costs, and parental opportunity costs(Robinson, 1997). This has led to a preference for fewer, higher-quality children, reflecting increased investments in education and health(Hosseini, 2012);(Fulop, 1977). Leibenstein (1981) argues that economic shifts, inflation, and rising child-rearing costs reduce the economic rationale for high fertility in modern societies(Niazi M, 2017). Institutional frameworks also influence fertility transitions, as norms and behaviors adapt to political, economic, and social changes(Mcnicoll, 1994; 2001) ,(Abbasi-Shavazi et al., 2009)&(Askari-Nodoushan et al., 2013). These frameworks provide a multi-dimensional understanding of fertility, balancing individual choices with broader socio-

economic and institutional contexts. This study applies these theories to analyze fertility determinants in Afghanistan, a nation undergoing rapid demographic transitions amidst political instability.

Fertility, a key demographic dynamic, has been extensively studied worldwide(Chandiok et al., 2016). Research in Moldova shows that education level, urban lifestyle, wealth index, age at marriage, and contraceptive use significantly impact fertility, while women's autonomy has a weak association, constrained by cultural barriers(Forty et al., 2022), In Ethiopia, a study using DHS data identified marriage index and contraceptive methods as key factors in reducing fertility(Laelago et al., 2019). Similarly, research in Eastern Iran found maternal age, age at marriage, and education level to be significant determinants of fertility(Azmoude et al., 2019). In India, age at marriage, educational status, family type, and male child preference were influential, whereas occupational status and income were not(Chandiok et al., 2016). Studies across developing countries reveal a correlation between development levels and fertility transitions, with higher development accelerating fertility decline(Askari et al., 2019). A study on 2,812 non-Hispanic white individuals, using data from the National Survey of Families, examined the impact of intentions to have children on fertility behavior. The findings highlighted marital status as a key factor, significantly influencing childbearing likelihood when paired with parental intentions. For unmarried individuals, fertility intentions were less predictable, indicating that intentional fertility is primarily behavior-driven(Schoen et al., 1999). In Latin America, economic development and urbanization led to reduced fertility rates, particularly among foreign women, due to higher child-rearing costs and a preference for fewer, high-quality children(Carvajal et al., 1996). In Nigeria, ethnic diversity and women's education emerged as key determinants of fertility(Adebowale, 2019). Afghanistan's fertility studies remain limited, primarily relying on surveys like the 2010 Afghanistan Mortality Survey and the 2015 DHS. Analysis indicates a decline in fertility since the early 2000s, linked to higher education, urbanization, and delayed childbearing (Spoorenberg, 2013). (Wong Cedeplar et al., n.d.) analyzed fertility trends in Kabul and five other provinces using Socio-Demographic and Economic Survey (SDES) data from 2016, revealing a declining fertility trend in Afghanistan, attributed to increased education among young women. examined the impact of war on fertility rates in Afghanistan between 2007 and 2010, using data from the Afghanistan Mortality Survey 2010. (Parlow, 2016) Child marriage, influenced by illiteracy and poverty, negatively impacts fertility, as shown by DHS 2015 data(Dadras & Nakayama, 2021). This study addresses gaps in Afghanistan's fertility research, focusing on factors such as age at marriage, first birth, and contraceptive use, based on DHS data. The conceptual framework highlights the correlation between socio-economic factors and fertility behavior, shaping the number of children born to women.

Research Methodology:

This study is a secondary data analysis, and the data source is the Afghanistan Population and Health Survey conducted in 2015. The sampling framework used for this survey was cluster sampling, which collected information on 25,974 clusters in 34 provinces of Afghanistan. From these, 950 clusters were selected, with 260 clusters in urban areas and 690 in rural areas. This included data on residential type (urban or rural), economic status, education, ethnicity, household

size, and more. The data collection technique used was questionnaires, comprising household questionnaires, women's questionnaires, and men's questionnaires. These questionnaires were adapted from the standard questionnaires of the Demographic and Health Surveys (DHS) program to reflect demographic and health issues pertinent to Afghanistan. In this survey, 30,434 married women aged 15 to 49 were identified for individual interviews, and interviews were conducted with 29,461 of these women. The research used various methods to estimate the fertility rate of Afghanistan based on the available data. The total fertility rate (TFR) was calculated directly based on the age-specific fertility rate (ASFR) and indirectly using the Brass P/F ratio and the Rele child-woman ratio (CWR) methods. The marital fertility rate (MFR) and the parity progression ratio (PPR) were also calculated using SPSS, MORTPAK, PASS software packages and Excel spreadsheet available from the IUSSP website. For estimation of determiners of fertility, according to the theoretical framework, variables influencing women's fertility were first identified. These variables were then analyzed using SPSS software. To determine the correlation between variables, a one-way analysis of variance (ANOVA) test was used. To examine the impact of independent variables on the dependent variable, univariate, multivariate, and stepwise regression analyses were employed.

Result

The results of calculates shows the total fertility rate (TFR) of Afghanistan in 2015 is 5.4 children per woman, while the marital fertility rate (MFR) is 7 children per woman. The age-specific fertility rate according to findings show an estimate of 42 births per 1,000 women aged 15-19, 219 births per 1,000 women aged 20-24, 254 births in the 25-29 age group, 218 births in the 30-34 age group, 170 births in the 35-39 age group, 72 births in the 40-44 age group, and 28 births per 1,000 women aged 45-49. As can be seen, the highest fertility rate is in the 25-29 age group of Afghan women. The total fertility rate using this method is 5 children per woman. Although, the indirect methods best on Brass P/F ratio and Rele child-woman ratio (CWR) methods yielded 5 and 5.4 children per woman, respectively. The MFR was 7.1 children per woman based on age and 7 children per woman based on parity. The Marital Fertility Rate based on (DHS) data in 2015, suggest that each woman would have an average of 7.2 children by the end of her reproductive years. The figure 1 shows the Age-specific fertility rate of Afghanistan per 1,000 women, 2015 and the figure 2 shows the Parity Progression Ratio by age group in Afghanistan in 2015.

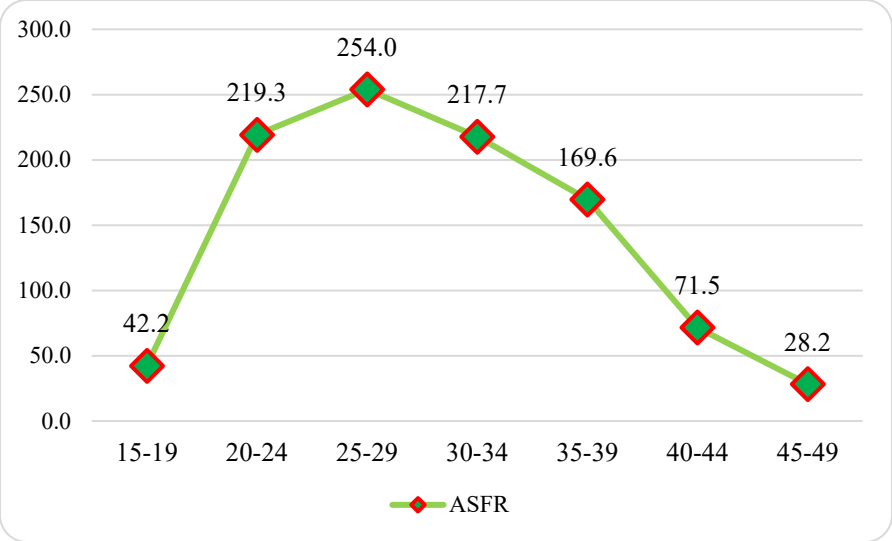

Figure 1: Age-specific fertility rate of Afghanistan per 1,000 women, 2015

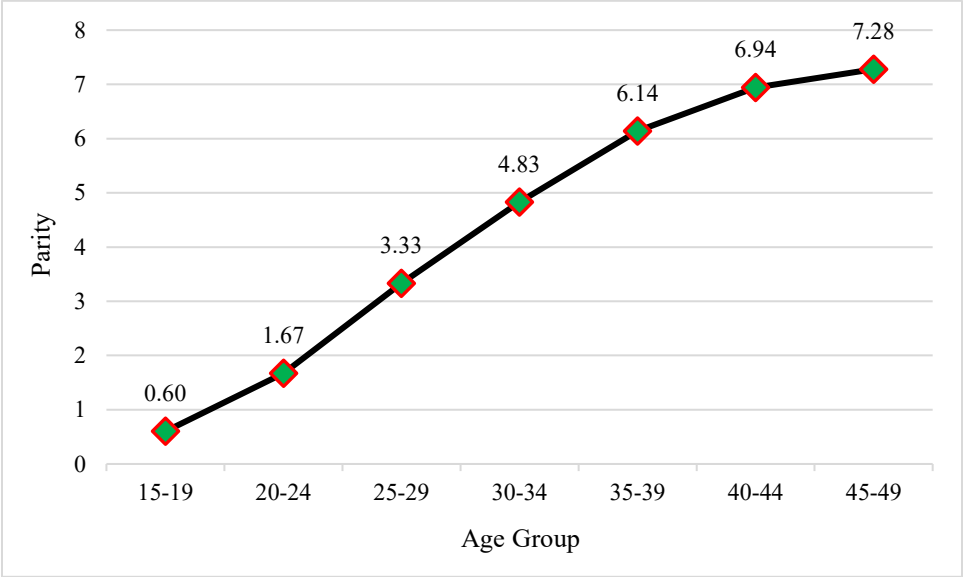

Figure 2- ***Parity Progression Ratio by age group in Afghanistan in 2015***

A review of Afghanistan's fertility results shows that Afghanistan still has high fertility among the majority of countries in the world; Therefore, this research has investigated the determinants of having children in Afghanistan. The results show, Among the 29,461 women aged 15-49 years, 33.8% were young women aged 15-24 years, 44.7% were women aged 25-39 years, and only 21.4% were women aged 40-49 years. A significant portion of these women (48.9%) married before the age of 18, and similarly, 29% of these women had their first child before the age of 18. The most of the women (76.2%) lived in rural areas, and more than 85% were illiterate. In terms of employment, only 4.7% of the women worked in administrative sectors, 4.8% were self-employed, 3.6% were laborers, and 78% were unemployed (housewives). Additionally, 42.1% of the women were in the lowest economic class (poor and very poor). On average, 91% of these women were aware of family planning methods, but only 19.5% used contraception. It is also

noteworthy that 30.2% of the women declared their ideal number of children to be over seven. Furthermore, only about 1.2% of the women were household heads, and 5.0% had experienced child mortality, with the number of deceased children being higher among women living in rural areas. (Table 1 shows the background characteristics of the women.)

Table 1: Demographic and Socioeconomic Characteristics of Afghan Women in 2015

Characteristics	Group Classification	Count	Percentage
Age	15 – 24	9962	33.8
	25 – 39	13182	44.7
	40 – 49	6317	21.4
Age at Marriage	Under 18	14419	48.9
	18 and over	15042	51.1
Age at First Birth	Under 18	8545	29.0
	18 and over	18053	61.3
Ideal Number of Children	1 – 5	10282	34.9
	6 and over	18470	62.7
Place of Residence	Urban	7025	32.8
	Rural	22436	76.2
Economic Status	Poor	12403	42.1
	Average	6356	21.6
	Wealthy	10702	36.3
Educational Status	Illiterate	25201	85.5
	Literate	4260	14.5
Employment Status	Unemployed	25601	68.9
	Laborer	2437	8.3
	Employee	1398	4.7
Awareness of Contraception Methods	Unaware	2583	8. 8
	Aware	26878	91.2
Contraceptive Use	Uses	5752	19.5
	Does not use	23709	80.5
Head of Household	Male	29101	98.8
	Female	360	1.2
Child Mortality	Deceased	1486	5.0
	Alive	25112	85.2

Source: 2015 Afghanistan Demographic and Health Survey (DHS)
N=29,461 married women aged 15 to 49

Table 2 shows that women in the reproductive age group of 15-24 years have an average of 1.7 children, those aged 24-39 have 4.6 children, and those aged 40-49 have 7.1 children. The overall average number of children born in Afghanistan is 4.3 children. The data indicate that most children born alive belong to women who married before the age of 18 and those who declared their ideal number of children to be more than six. Similarly, women in the lower economic class have more children than those in the higher economic classes. Additionally, women with higher education levels have fewer children compared to illiterate women. Women employed in formal and administrative jobs have fewer children than those in informal jobs or who are unemployed.

It is notable that women who are aware of family planning methods and use contraceptives have more children than those who do not use contraceptives, which could be due to the high demand for children among Afghan women. The data show that the use of contraceptives among young women (aged 15-19) is only 5%, while it is 22-23% among women aged 30-39. This indicates that in Afghanistan, the highest use of contraceptives is among women who have reached their ideal number of children or are nearing the end of their reproductive period. Similarly, women who have experienced child mortality have a higher average number of children compared to those who have not had such an experience. Women who prefer to have another child, they had fewer than three alive born children, while those who do not want have another child, they had more than six children born alive. In terms of ethnicity, Tajik women have the highest average number of children, while Hazara women have the lowest.

Table 2: The average of children ever born based on social, economic, and demographic characteristics

Characteristics	Group Classification	Mean (CEB)	Mean SD	F
Age	15 - 24	1.7	1.4	136.348**
	25 - 39	4.9	2.3	
	40 - 49	7.1	7.2	
Age at Marriage	Under 18	4.6	2.9	434.8 **
	18+	3.9	2.9	
Age at First Birth	10 - 17	5.3	2.8	539.0 **
	18+	4.5	2.7	
Ideal Number of Children	1 - 5	3.2	2.6	2053.7 **
	6+	4.8	3.0	
Place of Residence	Urban	4.3	2.9	6.6*
	Rural	4.2	2.9	
Economic Status	Poor	4.4	3.0	23.3**
	Medium	4.2	3.0	
	Wealthy	4.1	2.9	
Literacy	Illiterate	4.5	2.9	1045.7**
	Literate	2.9	2.5	
Employment Status	Unemployed	4.3	3.0	12.6**
	Employee	3.9	2.8	
	Laborer	4.4	2.9	
Awareness of Contraception	Unaware	3.6	2.9	133**
	Aware	4.3	2.9	
Contraceptive Use	Non-user	4.0	3.0	702.8**
	User	5.2	2.6	
Head of Household	Male	4.3	2.9	2.4
	Female	4.0	2.4	
Child Mortality	Death	5.8	2.8	235.3**
	Alive	4.7	2.7	
Ethnicity	Pashtun	4.2	2.9	17.7**
	Tajik	4.4	3.0	
	Hazara	4.1	2.8	

	Uzbek	4.3	3.0	
	Others	4.3	2.9	
($p > 0.05$, * $p < 0.05$, ** $p < 0.001$)				ANOVA (F)

Source: 2015 Afghanistan Demographic and Health Survey (DHS)
N=29,461 married women aged 15 to 49

Factors Affecting the Number of Children Ever Born in Afghanistan in 2015

The analysis of factors affecting the number of live births in Afghanistan indicates that, in the univariate model, all examined variables were statistically significant. However, in the multivariate model, after the gradual inclusion of variables, only some demonstrated a substantial impact on the number of children born. The most influential variables include maternal age, age at first birth, fertility preferences, ideal number of children, age at marriage, use of contraceptives, education, and employment. Regression analysis results shows: Maternal Age; This variable had the most significant positive impact on the number of live births ($\beta = 0.683$), meaning that as a mother's age increases, the number of live births also rises. Age at First Birth; This factor had a significant negative effect on fertility ($\beta = -0.216$), implying that the younger a woman is at the birth of her first child, the more children she is likely to have. Fertility Preferences and Ideal Number of Children; Both variables were significant, with the ideal number of children showing a positive correlation with actual fertility. However, fertility preferences had an inverse relationship, indicating that women with higher fertility preferences tend to have fewer children. Education and Employment; Both variables negatively affected the number of children, but their impact was weak. In the final model, education explained only 4.3% of the variance, while employment accounted for just 1.2%. Use of Contraceptives; Contrary to expectations, this variable had a positive relationship with the number of children. This could be due to the fact that, in Afghanistan, contraceptive use is more common among women who have already reached their desired number of children. Economic Variables and Ethnicity; These had minimal impact on the model and contributed only marginal changes. The R^2 coefficient in the regression model indicates that in the initial model, the variable "maternal age" explained 56% of the variance, and adding "age at first birth" increased this to 46.6%. However, after this point, the inclusion of other variables did not lead to a significant change, with the final model (Model 9) explaining only 56% of the variance. This suggests that economic and social factors have limited influence on the number of children in Afghanistan. Findings suggest that fertility in Afghanistan is still governed by traditional and natural factors and has not yet entered the "fertility transition" phase. The persistently high fertility rates across all social and economic groups, with no significant differences between urban and rural areas, ethnic groups, or education levels, indicate that economic and social factors have yet to reshape fertility patterns. It appears that unless literacy rates and socioeconomic conditions improve, no substantial shift in Afghanistan’s fertility patterns will occur.

Table 3: Factors Affecting the Number of Children Ever Born

Variables		Univariate	Multivariate	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Age		0.735 **	0.610	0.683	0.706	0.643	0.612	0.622	0.617	0.612	0.610	0.610
Maternal Age at First Birth		-0.438 **	-0.130		-0.216	-0.201	-0.195	-0.133	-0.131	-0.130	-0.130	-0.130
Fertility Preferences		-0.152 **	-0.157			-0.149	-0.165	-0.161	-0.160	-0.157	-0.158	-0.157
Ideal Number of Children		0.134 **	0.138				0.139	0.137	0.145	0.139	0.138	0.138
Age at Marriage		-0.139 **	-0.097					-0.097	-0.097	-0.098	-0.097	-0.097
Contraceptive Use		0.153 **	0.064						0.060	0.063	0.064	0.064
Education		-0.185 **	-0.043							-0.045	-0.045	-0.043
Number of Life Children		-0.094 **	-0.019								-0.019	-0.019
Employment		-0.024 **	-0.012									-0.012
Economic Status		-0.039 **	-0.003									
Female Head of Household		-0.008 **	0.610									
Ethnicity	Others	0.012 **										
	Tajik	0.030 **										
	Hazara	-0.005 **										
	Uzbek											
R2		0.010 *	0.560	0.466	0.512	0.531	0.549	0.554	0.558	0.560	0.560	0.560
R2 Change				0.466	0.046	0.018	0.018	0.005	0.003	0.002	0.000	0.000

($p > 0.05$, * $p < 0.05$, ** $p < 0.001$)

Source: 2015 Afghanistan Demographic and Health Survey (DHS)

N=29,461 married women aged 15 to 49

Discussion

In this study, we analyzed the impact of socio-economic factors on women's fertility in Afghanistan using data from the Afghanistan Demographic and Health Survey (DHS) conducted in 2015. The findings reveal that married women in Afghanistan tend to have varying numbers of children depending on their age. Women in their early reproductive years (15-24 years old) typically have given birth to at least one child, while those in their mid-reproductive years have an average of four children, and women in their late reproductive years (40-49 years old) average seven children. This pattern suggests that childbearing among Afghan women commences at a very young age, often shortly after marriage, reflecting a low level of contraceptive use and limited awareness of family planning options.

The data further underscore the minimal usage of contraceptives: only 19.5% of Afghan women aged 15-49 reported using contraception according to the Demographic and Health Survey. This finding is corroborated by a study by(Rasooly et al., 2015), which utilized Afghanistan Mortality Survey (AMS) data from 2010 and found a contraceptive prevalence rate of just 7.4% among Afghan women. Additionally, a report by Human Rights Watch in 2021 highlighted that only 17% of Afghan women aged 12-49 used modern contraceptive methods in 2018(Barr, 2021). The results of this study also highlight significant disparities in the number of children born to women based on various factors such as the current age of the mother, age at marriage, ideal number of children, level of education, maternal age at first birth, contraceptive methods, number of surviving children, and fertility preferences. Notably, there is a clear positive correlation between maternal age and the number of children; as maternal age increases, so does the expected number of children. This indicates that both age and socio-economic factors significantly influence fertility patterns among Afghan women.

Similarly, as hypothesized, women who marry at younger ages tend to have more children compared to those who marry later, as an increased age at marriage negatively impacts average fertility. Early marriage not only marks a woman's entry into sexual relationships and the initiation of childbearing but also extends her reproductive period. This factor is also indicative of increased education and employment opportunities among women. Our findings show that women who marry before the age of 16 have, on average, 8.4 children, while those who marry after the age of 16 have, on average, 4 children. Notably, 1.36% of Afghan women marry before the age of 16. These findings align with research conducted by (Laelago et al., 2019) in Ethiopia and(Chandiok et al., 2016) in India, which both underscore the significant roles of marital status, age at marriage, and contraceptive practices in fertility transitions. Human Rights Watch reports that in Afghanistan, 35% of girls marry before the age of 18, and 9% marry before 15, with the youngest recorded age at marriage being 10 years old. Despite Afghan Civil Law setting the minimum age of marriage at 18 for men and 16 for girls, it contravenes international human rights laws concerning gender discrimination by allowing girls to marry at 15 with permission (Barr, 2021). Furthermore, a study by (Trussell & Menken, n.d.) revealed that women who begin their fertility journeys at younger ages, particularly during adolescence, tend to conceive more quickly, have more children, and experience more unintended pregnancies compared to those who delay childbearing. These patterns are more pronounced within specific racial, educational, and religious

subgroups. Moreover, our study indicates that women who desire a higher number of children tend to have higher CEB than those who prefer fewer children. This preference is a crucial predictor of a woman's inclination to cease childbearing, influencing her acceptance of contraception and engagement in fertility planning. In Afghanistan, the average number of children reported by women is 2.74. Those desiring fewer than six children have, on average, 2.3 children, whereas those desiring six or more children have, on average, 8.4 children. For comparison, the average ideal number of children in OECD[5] countries is around 2.2, which is slightly above the replacement rate of 2.1 children per woman(OECD, 2016).

In conclusion, these findings emphasize the urgent need for comprehensive family planning programs and policies in Afghanistan to address high CEB and early marriages. There should be a focus on increasing awareness about contraception, promoting education, delaying marriage, and empowering women to make informed choices about their reproductive health. Additionally, legal reforms are necessary to combat child marriage and ensure the protection of girls' rights. By addressing these issues, Afghanistan can progress towards sustainable population growth and enhance the health and well-being of its citizens.

Given Afghanistan's traditional social structure, limited female participation in the labor market, and the prevalent low levels of fertility knowledge and high economic poverty among women, the high number of desired children is not surprising. In this context,(Ejaz Ali Khan et al., 2014) found in their study in Pakistan that factors such as women's education, empowerment through decision-making in the family, resistance to violence against women, the age difference between spouses, and women's economic status contribute to reducing the desired number of children. This is also true for Afghanistan, as Afghanistn is a traditional and patriarchal society where women's roles are marginalized. This stems from the lack of awareness and the low level of education among women. At the same time, data indicates that women with higher levels of education and awareness have fewer children compared to women with lower levels of literacy and awareness. According to our findings, women with higher education have an average of 2.9 children, while illiterate women average 4.5 children. Considering that 85% of Afghan women are illiterate, this demographic plays a significant role in the country’s high fertility rate. Similarly,(Mahmoudiani, 2023) study concerning women in Shiraz, Iran, corroborates that higher education and awareness levels are associated with fewer children. (Kaffenberger et al., 2018), using DHS data from 129 rounds of surveys in 54 countries, demonstrated that primary education—defined as six years of schooling—significantly impacts fertility, child survival, and women's empowerment. Their research highlights that completing primary education reduces child mortality by 21%, increases child survival by 36%, decreases fertility by 50%, and boosts women’s empowerment by 80%. The data also indicate that women who have experienced child mortality tend to have more children. Women who have lost children have an average of 5.8 children, compared to 4.7 children among those who have not experienced such losses. This finding is supported by Norouzi's study (1998) in Iran, which confirms a positive correlation between child mortality rates and the number of children, with an average of one additional child for every three child deaths. Although the 2015 Afghanistan Demographic and Health Survey data show a relatively low percentage of mothers

[5] Organisation for Economic Co-operation and Development

who have experienced child mortality, according to the 2022 Ministry of Public Health report in Afghanistan, approximately 13,700 infants died, and about 124,800 children were born prematurely, constituting 10% of all live births in the country, of which 11% resulted in death. Despite significant improvements since 2001, Afghanistan's infant mortality rate remains high at 47 per 1000 live births compared to the global rate of 32.28 per 1000 live births (Barr, 2021). This study identifies fertility preferences as a crucial factor contributing to high CEB among Afghan women, highlighting that women's inclination toward having more children plays a significant role. This is corroborated by(Schoen et al., 1999) study at Johns Hopkins University, which confirms the substantial impact of marital status and fertility intentions on fertility rates.

Conclusion

The findings from this study, based on the 2015 Afghanistan Demographic and Health Survey, highlight the profound influence of socio-economic factors on the fertility patterns of Afghan women. Key determinants of fertility include early initiation of childbearing, low contraceptive use, and the prevalence of early marriages. The study reveals that women who marry before the age of 16 tend to have significantly more children than those who marry later, emphasizing the impact of early marriage on extended fertility. Additionally, the research demonstrates a clear link between educational attainment and fertility preferences, with higher education correlating with fewer children and greater contraceptive use.

Findings suggest that fertility in Afghanistan is still governed by traditional and natural factors and has not yet entered the "fertility transition" phase. The persistently high fertility rates across all social and economic groups, with no significant differences between urban and rural areas, ethnic groups, or education levels, indicate that economic and social factors have yet to reshape fertility patterns. It appears that unless literacy rates and socioeconomic conditions improve, no substantial shift in Afghanistan’s fertility patterns will occur.

These insights underscore the urgent need for targeted family planning programs and educational initiatives to address high fertility rates and early marriages in Afghanistan. Such programs should focus on increasing contraceptive awareness, promoting delayed marriage, and empowering women through improved access to education. Moreover, legal reforms are necessary to protect young girls from early marriage and align domestic laws with international human rights standards. Addressing these issues is crucial for Afghanistan's progress toward sustainable demographic growth, improved public health, and enhanced social and economic development. The country faces significant challenges due to its political and social conditions, which complicate the implementation of effective population policies. However, by integrating education, legal reform, and health services within a comprehensive strategy for reproductive health, Afghanistan can foster a more resilient and empowered female population, leading to broader societal benefits. Future research should further explore the intersections of ethnicity, migration, and political changes to fully understand and address the complex factors influencing fertility in Afghanistan.

This study utilized data from the 2015 Demographic and Health Survey (DHS), the only nationally representative source in Afghanistan, to provide a comprehensive analysis of fertility dynamics in the country. By focusing on key socio-economic factors such as age, education, marital status, and contraceptive use, the study sought to offer valuable insights into the determinants of fertility. It

also identified critical factors like education, early marriage, and contraceptive use as significant influences on reproductive behavior. However, due to limitations in the available data, the study failed to account for ethnic and cultural factors, which play a crucial role in shaping fertility behaviors. Additionally, regional disparities, cultural norms, personal experiences, and gender dynamics—despite their profound impact on fertility patterns—were not thoroughly addressed in the analysis.

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