ORIGINAL RESEARCH ARTICLE

Socio-economic status and fertility behaviour among households in Enugu State, Nigeria

DOI: 10.29063/ajrh2026/v30i3.14

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Abstract

Fertility patterns in Nigeria are strongly influenced by socioeconomic and cultural factors. This study examined the effects of income, educational attainment, occupational status, contraceptive use, and cultural beliefs on fertility behaviour among households in Enugu State. A descriptive cross-sectional design was employed, involving 422 adults selected through a multistage sampling technique from six purposively chosen communities. Data were collected using structured questionnaires and in-depth interviews. Quantitative data were analysed using descriptive statistics and chi-square tests in SPSS version 25, while qualitative data underwent thematic analysis.Findings revealed significant associations between low income and higher fertility ($\chi^2 = 54.87$, $p < 0.001$), higher education and lower fertility ($\chi^2 = 41.32$, $p < 0.001$), formal-sector employment and reduced fertility ($\chi^2 = 36.19$, $p < 0.001$), and contraceptive use and smaller family size ($\chi^2 = 29.45$, $p < 0.001$). Traditional sociocultural norms including male-child preference, perception of children as economic assets, and religious opposition to contraception were also significantly associated with higher fertility ($\chi^2 = 38.76$, $p < 0.001$).These findings underscore the complex interplay of structural and cultural factors in shaping reproductive behaviour. Addressing fertility disparities in Enugu State requires integrated interventions that enhance economic opportunities, expand female education, and provide culturally sensitive reproductive health services. *(Afr J Reprod Health 2026; 30 [3]: 170-182).*

Keywords: Contraceptive Use; Cultural Beliefs; Fertility Behaviour; Reproductive Health; Socioeconomic Status.

Résumé

Au Nigéria, les tendances en matière de fécondité sont fortement influencées par des facteurs socio-économiques et culturels. Cette étude a examiné l'impact du revenu, du niveau d'instruction, de la situation professionnelle, de l'utilisation de contraceptifs et des croyances culturelles sur les comportements de fécondité au sein des ménages de l'État d'Enugu. Une étude descriptive transversale a été menée auprès de 422 adultes sélectionnés par échantillonnage à plusieurs degrés dans six communautés choisies de manière ciblée. Les données ont été recueillies au moyen de questionnaires structurés et d'entretiens approfondis. Les données quantitatives ont été analysées à l'aide de statistiques descriptives et de tests du χ^2 (chi-carré) avec le logiciel SPSS version 25, tandis que les données qualitatives ont fait l'objet d'une analyse thématique. Les résultats ont révélé des associations significatives entre un faible revenu et une fécondité plus élevée ($\chi^2 = 54{,}87$, $p < 0{,}001$), un niveau d'éducation plus élevé et une fécondité plus faible ($\chi^2 = 41{,}32$, $p < 0{,}001$), un emploi dans le secteur formel et une fécondité réduite ($\chi^2 = 36{,}19$, $p < 0{,}001$), ainsi qu'entre l'utilisation de contraceptifs et une taille de famille plus petite ($\chi^2 = 29{,}45$, $p < 0{,}001$). Les normes socioculturelles traditionnelles, notamment la préférence pour les garçons, la perception des enfants comme un atout économique et l'opposition religieuse à la contraception, étaient également significativement associées à une fécondité plus élevée ($\chi^2 = 38{,}76$, $p < 0{,}001$). Ces résultats soulignent l'interaction complexe des facteurs structurels et culturels qui façonnent les comportements reproductifs. Pour réduire les inégalités en matière de fécondité dans l'État d'Enugu, il est nécessaire de mettre en œuvre des interventions intégrées visant à améliorer les perspectives économiques, à développer l'éducation des filles et à fournir des services de santé reproductive adaptés aux réalités culturelles *(Afr J Reprod Health 2026; 30 [3]: 170-182).*

Mots-clés: Utilisation de la contraception ; Croyances culturelles ; Comportements liés à la fécondité ; Santé reproductive ; Statut socio-économique

Introduction

Fertility patterns and reproductive behaviour are key demographic indicators with significant implications for social development, public health, gender equity, and economic planning.[1,2] Globally, high-income countries have experienced steady declines in fertility, driven by improvements in female education, increased workforce participation, urbanisation, and broader access to

modern contraceptive methods.[3,4] These trends align with the Demographic Transition Theory, which links economic and social development to reductions in fertility as societies shift from agrarian to industrial structures.[5,6] In contrast, many developing regions, including sub-Saharan Africa, continue to exhibit moderate to high fertility rates, often influenced by poverty, limited educational opportunities, and restricted access to reproductive health services.[7,8] Nigeria exemplifies this trend, with a total fertility rate of 5.3 children per woman.[25,19]

Socioeconomic status (SES) encompassing income, education, occupation, and access to health services is widely recognised as a primary determinant of fertility behaviour. Consistent with Becker's Economic Theory of Fertility[4,6], households make rational reproductive decisions by weighing the costs and benefits of childbearing relative to available resources. Children may serve as economic contributors in low-income or informal-sector households, whereas higher-income and educated families often prioritise smaller family sizes and greater investment in child health, education, and long-term social mobility.[21,18] Empirical studies in Nigeria support these patterns, showing higher fertility among women with limited education, lower income, and inadequate access to reproductive health services.[2,32,29,14] Cultural, religious, and gender norms—including male-child preference and opposition to contraception-further mediate fertility behaviour, sustaining high fertility even in contexts with knowledge of modern contraceptives.[28,20]

Enugu State in southeastern Nigeria presents a unique context for examining these dynamics, given its socioeconomic diversity, urban–rural differences, and strong traditional norms. Urban and economically advantaged households tend to adopt fertility-limiting behaviours, while rural and low-income households often maintain higher fertility rates. Despite these variations, limited empirical research has explored how income, education, occupation, and access to reproductive health services interact to shape fertility patterns specifically within Enugu State.

This study aims to fill this gap by examining the influence of SES on reproductive behaviour and fertility preferences among households in Enugu State. The objectives are to investigate how income, educational attainment, and occupational status shape fertility decisions; explore the role of cultural norms and beliefs in influencing reproductive behaviour; evaluate access to and utilisation of contraceptive methods across socioeconomic groups; and identify sociocultural and economic factors mediating the relationship between contraceptive use and fertility outcomes. Findings from this study are expected to provide context-specific evidence to inform culturally sensitive and socioeconomically targeted family-planning policies and programmes.

Research hypotheses

This study was guided by three primary hypotheses designed to examine the influence of socioeconomic characteristics on fertility behaviour among households in Enugu State. The first hypothesis assessed the association between overall socioeconomic status and fertility outcomes. The null hypothesis (H_0) posited that there is no significant relationship between socioeconomic status and fertility, whereas the alternative hypothesis (H_1) proposed that a significant association exists.

The second hypothesis examined the effect of educational attainment on reproductive behaviour. The null hypothesis stated that education does not significantly influence fertility patterns, while the alternative hypothesis asserted that educational attainment has a significant effect on fertility outcomes.

The third hypothesis investigated whether household income and occupational status are significant predictors of fertility levels. Here, the null hypothesis suggested that neither income nor occupation significantly predicts variations in fertility, whereas the alternative hypothesis proposed that both income and occupational status significantly influence fertility patterns among households in the study area.

Review of related literature

Conceptual clarification

Socioeconomic status, indicated by income, education, and occupation, shapes fertility

behaviour by influencing access to reproductive health information and family-planning services.[1] Fertility behaviour includes decisions on family size, timing and spacing of births, and contraceptive use, reflecting both socioeconomic conditions and cultural norms.[2] Fertility outcomes, such as total number of children, birth intervals, and contraceptive adoption, reveal social and demographic disparities linked to education, income, and occupation.[3,4] Cultural beliefs, including male-child preference, resistance to contraception, and the perception of children as economic or social assets, further guide reproductive intentions.[5] Attitudes toward childbearing reflect the values and motivations regarding ideal family size, birth spacing, and the perceived social and economic roles of children, shaped by material conditions, gender norms, and cultural expectations.[6]

Socioeconomic and cultural influences on fertility: Empirical evidence

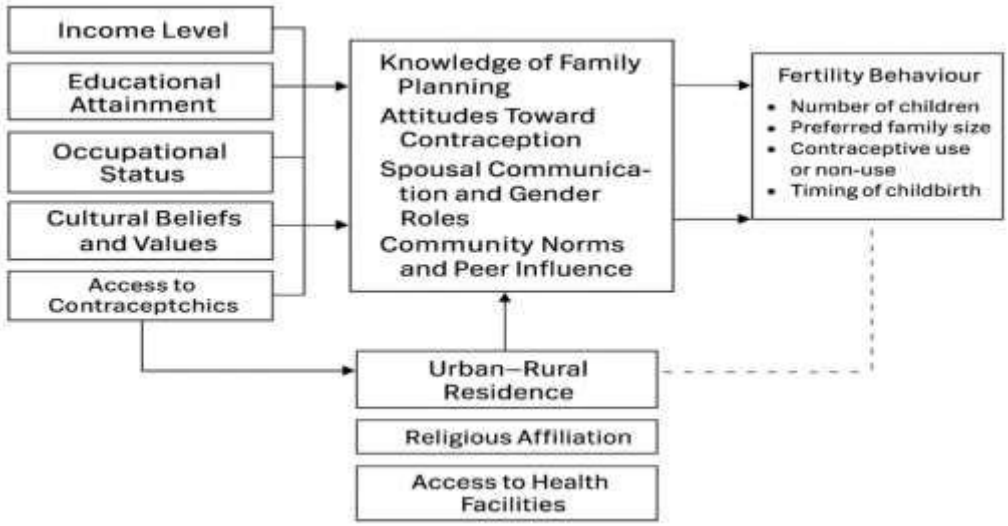
Fertility behaviour in sub-Saharan Africa is strongly shaped by socioeconomic and cultural factors. Persistently high fertility in the region is driven by structural poverty, limited educational opportunities, and entrenched norms linking large families to social and economic security.[7,23] Children are often regarded as economic contributors, particularly in agrarian and informal economies, where they assist with household labour and provide financial support to parents.[23]

Socioeconomic disparities significantly influence reproductive outcomes. Urban residents and higher-income households generally have better access to modern contraceptives, reproductive health information, and skilled healthcare providers, contributing to lower fertility rates. Conversely, rural populations, low-income groups, and women with limited education face barriers to family planning, including cost, distance to facilities, misinformation, and limited household decision-making power.[21,26] Empirical studies indicate that women engaged in informal employment or with lower educational attainment tend to have higher fertility, reflecting both economic necessity and adherence to traditional expectations regarding motherhood and family size.[26]Cultural and religious beliefs further shape fertility patterns. Norms such as male-child preference, religious opposition to contraception, and perceptions of fertility as divinely ordained reinforce high fertility across communities.[10,12] Traditional values, including the social prestige associated with large families, marital stability, and lineage continuity, continue to influence reproductive choices even when contraceptive methods are accessible.[28,20]

Attitudes toward childbearing vary by socioeconomic group. Higher-income, educated, and formally employed households prioritise child "quality" over quantity, investing in education, healthcare, and planned family sizes.[5,19] In contrast, low-income and informal-sector households often perceive larger families as economically advantageous and culturally expected.[21,15] These patterns demonstrate the interaction of socioeconomic and cultural factors in shaping fertility behaviour, with disparities in education, income, occupation, and access to reproductive health services contributing to persistent differences in family size and contraceptive uptake.

In Nigeria, national and regional studies consistently report higher fertility among rural residents, low-income households, and women with limited education.[31,16] Women without formal education have an average of 6.7 children compared to 3.1 children among women with higher education, highlighting the strong association between educational attainment and fertility outcomes.[27,21] Access to and utilisation of modern contraceptives is also higher among wealthier and formally employed women, while rural and socioeconomically disadvantaged populations encounter financial, informational, and cultural barriers.[1,3,22,14]

Overall, empirical evidence indicates that fertility behaviour is shaped by the intersection of socioeconomic status, cultural norms, and access to reproductive health services. In contexts such as Enugu State, these factors mediate household decisions regarding family size, birth spacing, and contraceptive use, highlighting the need for context-specific interventions that address both structural and cultural determinants of fertility.



Source:Adapted from Becker's Economic Theory of Fertility (1981) and Demographic Transition Theory (Notestein, 1945); modified by the researcher (2025) to reflect the contextual realities of fertility behaviour among households in Enugu State, Nigeria

Figure 1: Conceptual framework linking socioeconomic status and fertility behavior

Figure 1 illustrates how socioeconomic status shapes fertility behaviour through pathways involving education, income, occupation, access to services, and cultural norms.

Drawing on Becker's Economic Theory of Fertility, the framework shows that households make childbearing decisions by weighing available resources against the costs and benefits of additional children, while contextual and sociocultural factors further influence reproductive outcomes.

Theoretical framework and application

This study is grounded in Becker's Economic Theory of Fertility, which views fertility behaviour as a rational, utility-maximising process whereby families weigh the costs and benefits of additional children against available resources and overall welfare.[4–6] Central to the theory is the quantity–quality trade-off, whereby higher household income and resources encourage parents to prefer fewer children while investing more in each child's health, education, and development.[4–6] In Enugu State, these theoretical propositions are evident: low-income households, particularly in rural areas such as Obukpa and Mmaku, exhibited higher fertility, reflecting the perception of children as economic contributors and adherence to traditional pronatalist norms.

Conversely, higher-income, educated, and urban households, including those in Enugu East and Nsukka Town, preferred smaller families, delayed childbearing, and reported greater contraceptive use.

Occupational differences mirrored these patterns, with informal-sector workers reporting higher fertility, while civil servants and entrepreneurs demonstrated smaller family preferences, consistent with rational cost–benefit decision-making.

Overall, the findings highlight how income, education, occupation, and sociocultural perceptions jointly shape fertility behaviour, confirming Becker's framework as a robust lens for understanding reproductive choices and guiding interventions that address socioeconomic and cultural determinants of fertility.

Methods

Research design

A descriptive cross-sectional survey design was employed to investigate the influence of socioeconomic status on reproductive behaviour

and fertility preferences among households in Enugu State, Nigeria. This design was appropriate as it allowed data collection from a representative sample at a single point in time, facilitating the assessment of associations between variables such as income, educational attainment, contraceptive use, and sociocultural beliefs in relation to fertility outcomes.

Description of the study area

The study was conducted in Enugu State, located in southeastern Nigeria. The state is divided into three senatorial zones: Enugu East, Enugu North, and Enugu West and encompasses rural, semi-urban, and urban settlements predominantly inhabited by the Igbo ethnic group. The local economy is largely driven by agriculture, petty trading, and public service employment. This socioeconomic and cultural diversity provides an appropriate context for examining variations in fertility behaviour across different demographic and occupational groups.

Study population

The study population comprised married men and women aged 15–49 years residing in households across the three senatorial zones of Enugu State. This demographic represents individuals actively involved in reproductive decision-making within family settings. Both urban and rural households were included to capture the socioeconomic and cultural heterogeneity of the state. According to projections by the National Population Commission (NPC, 2025), approximately 1.4 million individuals in Enugu State fall within the reproductive-age bracket.Sampled households were drawn from six communities: Abakpa Nike and Akwuke (Enugu East), Nsukka Town and Obukpa (Nsukka), and Awgu Urban and Mmaku (Awgu LGA). A total of 422 respondents were recruited using a multistage sampling approach, ensuring representation across different socioeconomic and geographic contexts.

Sample size determination and sampling techniques

Cochran's (1977) formula for finite populations was applied to determine the required sample size:$n = \frac{z^2pq}{e^2}$where z = 1.96, p = 0.5, q = 1 – p, and e = 0.05. The minimum computed size was 384 respondents. Accounting for a 10% non-response rate, the final sample size was increased to 422 respondents.A multistage sampling approach was employed to ensure both geographical and cultural representation. In the first stage, one Local Government Area (LGA) was purposively selected from each senatorial zone: Enugu East, Nsukka, and Awgu. In the second stage, two communities-one urban or semi-urban and one rural were selected from each LGA. In the final stage, systematic random sampling was used to select households from community registers. When multiple eligible adults were present in a household, one respondent was randomly chosen. This approach ensured that the sample adequately reflected the socioeconomic and cultural diversity of the study population.

Instruments for data collection

Two instruments were employed for data collection. A structured questionnaire was used to collect quantitative information on respondents' socio-demographic characteristics, education, income, occupation, contraceptive knowledge and use, and cultural beliefs regarding fertility. Additionally, an in-depth interview (IDI) guide was employed to obtain qualitative insights into community-level perceptions and motivations influencing fertility decisions.

Pre-testing and reliability

The questionnaire was pre-tested in Emene, a community not included in the main study, to assess clarity and reliability. The instrument demonstrated good internal consistency, with a Cronbach's alpha coefficient of 0.81. Face and content validity were confirmed through expert review by specialists in medical sociology, demography, and reproductive health, and necessary adjustments were made prior to field administration.

In-depth interviews

In-depth interviews (IDIs) were conducted to complement the survey findings and capture the sociocultural nuances influencing fertility

behaviour. Participants included married men and women aged 15–49 years, community and religious leaders, and health or family planning personnel. Purposive sampling, facilitated by community gatekeepers, was used to select 24 participants (four per community): two married respondents (one male, one female) and two key informants (a religious or community leader and a health worker).

Interviews were conducted in English or Igbo, according to participant preference, and lasted between 45 and 60 minutes. All interviews were audio-recorded with participants' consent, transcribed verbatim, and analysed thematically to provide a deeper understanding of the socioeconomic and cultural factors influencing fertility behaviour.

Data analysis

Quantitative data were coded and analysed using SPSS version 26. Descriptive statistics, including frequencies, percentages, and means, were used to summarise respondents' characteristics and fertility behaviour. Associations between socioeconomic variables (education, income, and occupation) and fertility outcomes were examined using Chi-square (χ^2) tests, with statistical significance set at $p< 0.05$.Qualitative data were analysed thematically, following Braun and Clarke's (2006) six-stage framework. Transcripts were repeatedly reviewed, coded, and organised into themes that contextualised and enriched the quantitative findings, providing a deeper understanding of the sociocultural and economic factors influencing fertility behaviour.

Ethical considerations

Ethical approval for this study was obtained from the University Research Ethics Committee of Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus (Ref: COOU/UREC/PH/2025/041). All participants were fully informed about the purpose of the study, the voluntary nature of their participation, and their right to withdraw at any stage without penalty. Written and verbal consent were obtained prior to data collection. To protect participants' privacy, personal identifiers were not recorded; instead, identification codes were used to maintain anonymity and confidentiality. All data collected were handled securely and used solely for academic and research purposes

Results

This section presents the findings on the influence of socioeconomic status on reproductive behaviour and fertility preferences among households in Enugu State, Nigeria. Quantitative data are complemented by qualitative insights from in-depth interviews (IDIs).

The socio-demographic characteristics of respondents (Table 1) indicate that most were within reproductive and economically active age groups; with 40.3% aged 25–34 years and 33.6% aged 35–44 years. Educational attainment was relatively high, as 73.9% had completed secondary or tertiary education, reflecting substantial exposure to formal learning, including reproductive health knowledge. Household income varied, with nearly half (49.1%) earning below ₦100,000 monthly, while respondents were engaged in both formal and informal occupations, including civil service, artisanal work, petty trading, and entrepreneurship.

Fertility outcomes were closely associated with socioeconomic status: respondents with lower education and income tended to have larger families, whereas those with higher education and formal-sector employment preferred smaller, planned families. Qualitative narratives corroborated these findings, emphasizing the influence of education on delaying parenthood and fostering informed reproductive decisions. These results highlight the interplay of age, education, income, and occupation in shaping fertility behaviour in Enugu State.

The findings reveal a significant inverse relationship between household income and fertility preferences.

Table 1: Socio-demographic characteristics of respondents (n = 422)

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	15–24	50	11.8
	25–34	170	40.3
	35–44	142	33.6
	45–49	60	14.2
Educational level	No formal education	32	7.6
	Primary	78	18.5
	Secondary	158	37.4
	Tertiary	154	36.5
Household monthly income	Below ₦50,000	115	27.3
	₦50,001–₦100,000	134	31.8
	₦100,001–₦200,000	96	22.7
	Above ₦200,000	77	18.2
Occupation	Petty trader	75	17.8
	Farming	49	11.6
	Artisan/Craftsman	79	18.7
	Civil servant	86	20.4
	Private sector employee	64	15.2
	Business owner/Entrepreneur	69	16.3

Table 2: Distribution of fertility preferences by household income (n = 422)

Monthly income	1–2 children	3–4 children	>4 children	Total
Below ₦50,000	14(12.2%)	39 (33.9%)	62 (54.9%)	115
₦50,001–₦100,000	35(26.1%)	71 (53.0%)	28 (20.9%)	134
₦100,001–₦200,000	2(30.2%)	53 (55.2%)	14 (14.6%)	96
Above ₦200,000	33(42.9%)	22 (28.6%)	22 (28.6%)	77
Total	**111**	185	126	422

Table 3: Occupational group and fertility distribution (n = 422)

Occupation	1-2 children	3–4 children	>4 children	Total
Petty trader Farmer	24	36	**64**	**124**
Artisan	24	37	**18**	**79**
Civil service/employee	52	64	**34**	**150**
Business owner/entrepreneur	11	32	**26**	**59**

Chi-square (χ^2) = 38.61, df = 6, $p < 0.001$

As shown in Table 2, over half of respondents from households earning below ₦50,000 per month (54.9%) preferred more than four children. Conversely, in the highest-income group (above ₦200,000), the largest proportion (42.9%) preferred one to two children, indicating that higher income is associated with deliberate fertility limitation. These patterns are consistent with Becker's Economic Theory of Fertility, which posits that rising economic opportunity costs encourage smaller family sizes.

Qualitative data further elucidated the economic considerations shaping family-size decisions. One participant stated, "We planned for two children so we can give them the best we can afford" (IDI 01, Male, 42, Civil Servant), while another explained, "We chose to wait before having our second child" (IDI 02, Female, 34, Teacher).

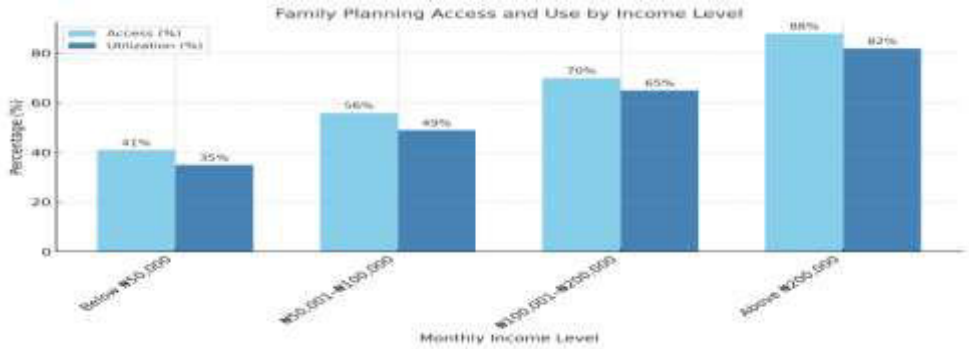


Figure 2: Family planning access and use by income level (n = 422)Source: Field survey, 2025

Table 4: Sociocultural beliefs influencing fertility (n = 422)

Belief / Narrative	Income Group Affected	Associated Fertility Pattern
Children as economic security	Low-income	>4 children
Male child preference	All groups (esp. low-income)	>3 children
Religious opposition to contraception	Low- to middle-income	Low contraceptive use
Fertility as divine will	Low-income	>4 children
Large family as a symbol of prestige	Rural / traditional households	>4 children

Source: Field survey, 2025

Respondents emphasized the rising costs of living particularly education and healthcareand expressed a desire to ensure optimal child welfare. These narratives underscore the influence of household income on fertility preferences, highlighting how economic resources shape perceptions of affordability, opportunity costs, and investment in child quality.

Table 3 presents the distribution of fertility preferences across occupational groups, revealing significant variation in reproductive behaviour. Petty traders and farmers reported the highest fertility levels, with 64 respondents (51.6%) having more than four children, 36 respondents (29.0%) reporting three to four children, and 24 respondents (19.4%) having one to two children. Among artisans, the majority (37 respondents, 46.8%) reported three to four children, 24 (30.4%) reported one to two children, and 18 (22.8%) reported more than four children.

Civil servants and other formal-sector employees generally preferred smaller families, with 52 respondents (34.7%) having one to two children, 64 (42.7%) reporting three to four children, and 34 (22.6%) having more than four children. Business owners and entrepreneurs exhibited a mixed pattern: 32 respondents (46.4%) reported three to four children, 26 (37.7%) more than four children, and 11 (15.9%) one to two children. Statistical analysis confirmed a significant association between occupation and fertility distribution ($\chi^2 = 38.61$, df = 6, $p < 0.001$), indicating that occupational group significantly influences fertility preferences.

Qualitative insights support these quantitative findings. A farmer explained, “My children will help me on the farm… If you have many, you have security” (IDI 11, Male, 55), highlighting the economic and traditional value of children in informal occupations. In contrast, a civil servant noted, “In my office, family planning is covered… I planned my three children well” (IDI 06, Male, Civil Servant), reflecting the impact of stable income, workplace support, and access to reproductive health information on fertility decisions.

Figure 2 shows a clear positive relationship between household income and the use of modern contraceptives. Among respondents in the lowest income bracket (below ₦50,000 monthly), only 35% reported using contraceptives, whereas 82% of respondents in the highest-income group (above ₦200,000) reported contraceptive use. Lower-income respondents frequently cited financial constraints, inconsistent supply of contraceptives, and distance to health facilities as key barriers to accessing family planning services.

Qualitative data further highlighted these structural inequities. A rural farmer noted, "Even transport to the health centre is a problem… sometimes they don't have the injection" (IDI 12, Female, Rural Farmer). These narratives emphasize how socioeconomic disparities restrict access to reproductive health services, limit the adoption of modern contraceptive methods, and reinforce inequalities in fertility regulation. The findings underscore that household income not only shapes fertility preferences, as seen in Tables 2 and 3, but also directly influences the practical ability to implement family planning strategies.

Table 4 presents the sociocultural beliefs that shape fertility behaviour among respondents. Among low-income households, children were often perceived as a source of economic security, which contributed to a preference for more than four children. Similarly, the belief that fertility is determined by divine will was prevalent in this group and was associated with higher fertility levels. A preference for male children was reported across all income groups, particularly among low-income households, and corresponded with a tendency to have more than three children. Religious opposition to contraception, especially among low- to middle-income respondents, was associated with low contraceptive use, while in rural and traditional households; large families were regarded as a symbol of prestige, reinforcing high fertility.

Qualitative accounts further illustrate these constraints. One participant remarked, "We just have children as God gives us" (IDI 20, Female, No Formal Education), while another noted, "Family planning is against our culture" (IDI 11, Female, Housewife). Despite the persistence of patriarchal authority, evidence of shared decision-making is emerging among urban, educated couples, reflecting gradual shifts in family dynamics.

Overall, the findings indicate that higher income, education, and formal-sector employment are strongly associated with lower fertility and deliberate reproductive planning. In contrast, economic constraints and entrenched cultural values continue to reinforce high fertility in rural and low-income households. Gender dynamics and religious beliefs remain influential in shaping contraceptive behaviour, although gradual shifts toward joint decision-making are observable.

These patterns align with Becker's Economic Theory of Fertility, which posits that rational family-size decisions are based on economic resources and opportunity costs. The qualitative insights underscore the intersection of socioeconomic and cultural factors, highlighting a transition toward quality-focused parenting among aspirational and educated households, while traditional pronatalist systems persist in resource-constrained settings

Discussion

This study investigated the influence of socioeconomic factors on reproductive behaviour and fertility preferences among households in Enugu State, Nigeria. The findings indicate that fertility decisions are shaped by the combined effects of income, education, occupation, access to family planning services, and sociocultural norms, reflecting a transitional fertility pattern in which traditional pronatalist values coexist with emerging modern reproductive attitudes driven by socioeconomic development.[1,-,4]

A clear inverse relationship was observed between household income and fertility. Respondents from low-income households reported larger families, viewing children as contributors to household labour and as sources of future social security, particularly in agricultural and informal-sector settings[5,6]. In contrast, higher-income households preferred smaller families, prioritising investments in education, healthcare, and overall child welfare, consistent with Becker's Economic Theory of Fertility.[7,9] Educational attainment also played a significant role: respondents with secondary or tertiary education tended to delay childbearing,

practise birth spacing, and use modern contraceptives, whereas limited education was associated with higher fertility and lower contraceptive uptake.[10,11,12]

Occupational status further reinforced these socioeconomic patterns. Individuals engaged in informal occupations including farmers, petty traders, and artisans reported higher fertility due to income instability and reliance on children for labour and old-age support.[13,14,15] Formal-sector employees exhibited lower fertility, benefiting from structured health information systems and employer-linked reproductive services[16,17]. Access to family planning varied across socioeconomic groups, with rural and low-income participants facing financial, logistical, and social barriers, while utilisation was higher among educated and urban respondents.[18,19]

Sociocultural and religious factors remained significant determinants of fertility behaviour. Pronatalist norms, male-child preference, and religious opposition to contraception reinforced high fertility among low-income and less-educated households.[20,21,22] Gender dynamics limited women's autonomy in reproductive decision-making, although joint decision-making was increasingly observed among educated urban couples.[23],[24] Overall, the study indicates that a fertility transition is underway in Enugu State, driven by socioeconomic advancement but moderated by enduring cultural and gender norms.[2,3,4] Effective interventions must integrate women's education, economic empowerment, expanded access to reproductive health services, and culturally sensitive community engagement to promote informed fertility choices and sustainable demographic outcomes.[5,6,18].

Strengths of the study

A key strength of this study is its mixed-methods design, which enabled a comprehensive understanding of fertility behaviour across diverse socioeconomic groups. By combining quantitative surveys with qualitative in-depth interviews, the study captured both statistical patterns and the motivations underlying reproductive decisions.
Wide geographic coverage, encompassing rural, semi-urban, and urban communities across Enugu State, enhanced representativeness and allowed meaningful comparisons across socioeconomic and cultural contexts. Additionally, by empirically examining fertility through both sociocultural and socioeconomic lenses in southeastern Nigeria-a region with limited prior research—this study provides valuable evidence to guide policy, reproductive health programming, and scholarly discourse on fertility transitions in sub-Saharan Africa.

Limitations of the study

Despite its contributions, this study has several limitations. The cross-sectional design restricts causal inference, meaning the findings reflect associations rather than temporal changes in fertility behaviour. Data were primarily self-reported, which may be influenced by recall or social desirability biases, particularly on sensitive topics such as contraceptive use and desired family size. While qualitative interviews provided rich cultural and contextual insights, they may not fully capture the diversity of sociocultural influences across all communities in Enugu State. Future research using longitudinal designs, larger qualitative samples, and integration of administrative or clinical data could enhance understanding of evolving fertility norms and improve the reliability of findings.

Implications for policy and practice

Addressing fertility disparities in Enugu State requires strategies targeting both socioeconomic and cultural determinants. Expanding girls' and women's education enhances autonomy and informed reproductive choices, while economic empowerment initiatives reduce reliance on children for labour and social security. Decentralising family planning services, particularly in rural areas, and engaging community and religious leaders can improve contraceptive uptake and challenge pronatalist norms. Promoting gender-responsive policies that support women and encourage male involvement in reproductive decisions further strengthens fertility regulation.
Together, these measures can enhance reproductive autonomy, household well-being, and sustainable demographic development.

Conclusion

This study reveals that reproductive behaviour and fertility preferences in Enugu State are strongly shaped by socioeconomic status, with distinct differences across income, education, and occupation. Households with higher socioeconomic resources-greater income, higher educational attainment, and formal employment tend to have lower fertility intentions, higher contraceptive use, and more informed reproductive decision-making, reflecting a gradual shift toward smaller family norms. This transition is driven by economic considerations, increased awareness of reproductive health options, and greater autonomy in fertility choices.

Conversely, households in lower socioeconomic strata and informal-sector occupations continue to exhibit higher fertility, limited contraceptive uptake, and adherence to traditional and religious norms. These patterns underscore the persistent influence of cultural expectations, economic insecurity, and constrained access to reproductive health services on fertility behaviour.

Reducing fertility disparities in Enugu State requires integrated, context-sensitive interventions that enhance socioeconomic empowerment, expand access to education and reproductive health services, and engage communities through culturally appropriate behavioural-change strategies. Promoting gender equality and encouraging male participation in reproductive decision-making are also critical to supporting a sustainable and voluntary fertility transition. Collectively, these measures can improve family well-being, strengthen public health outcomes, and contribute to broader demographic and development goals in Enugu State and Nigeria.

Recommendations

The findings of this study suggest several strategies to improve fertility behaviour and reproductive health outcomes in Enugu State and similar contexts. Strengthening household economic conditions should be central, as financial constraints were found to influence reproductive choices and often encourage larger family sizes. Expanding livelihood programmes, vocational training, and small-scale economic support can alleviate these pressures, enabling households to make more deliberate and informed fertility decisions.

Improving access to education, particularly for girls and women in rural and low-income areas, is critical. Higher educational attainment was associated with more informed fertility choices, highlighting the importance of continued investment in secondary and tertiary education. Integrating age-appropriate reproductive health education into school curricula can further equip young people with the knowledge and skills needed for responsible fertility and family-planning decisions.

Gaps in the utilisation of modern contraceptives underscore the need to strengthen family planning services at the community level. Bringing these services closer to households through primary health centres, outreach initiatives, and trained community health workers supported by culturally sensitive awareness campaigns can increase uptake and address misconceptions.

Cultural norms and community expectations continue to shape reproductive behaviour. Interventions should therefore actively engage traditional leaders, community actors, and religious authorities to promote favourable perceptions of planned family sizes and mitigate social pressures that reinforce high fertility. Supporting women's economic participation is equally important, as higher socioeconomic status enhances reproductive autonomy. Initiatives that facilitate access to formal employment, entrepreneurship, and workplace support systems can encourage smaller, well-planned families.

Male involvement in fertility decisions should also be prioritised, with provision of accurate reproductive health information to foster joint decision-making and greater support for family planning. Finally, establishing mechanisms for continuous demographic monitoring and socioeconomic research will enable policymakers to track fertility trends and evaluate the impact of interventions over time. Collectively, these strategies can strengthen reproductive autonomy, improve household well-being, and support a sustainable and equitable fertility transition in Enugu State and comparable settings.

Acknowledgements

The authors sincerely appreciate all participants who contributed to this study. Their time, openness, and willingness to share their experiences were invaluable to the success of this research. We are also grateful for the support of community leaders, households, and health personnel, whose cooperation facilitated smooth data collection.
We extend special thanks to Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus, Anambra State, Nigeria, for providing the academic environment and institutional guidance that enabled the completion of this study. Their support has been instrumental in advancing research on reproductive health in Nigeria.

Funding

This study did not receive financial support from any governmental, commercial, or non-profit funding agency. All research-related expenses were covered by the authors.

Conflict of interest

The author declares no conflicts of interest related to this research. The study was conducted with full academic independence, and no external party influenced its design, data collection, analysis, interpretation, or reporting.

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