

# TRENDS AND MULTI-LEVEL ANALYSIS OF MALE FERTILITY BEHAVIOUR IN NIGERIA



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# Outline

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- Background to the Study
- Main question
- Conceptual Framework
- Methodology
- Results / key findings
- Conclusion and Contribution to knowledge

# Background to the Study

- Fertility level
- Six children per woman.
- Factors sustaining a high level
- Most previous studies on fertility have focused on women.
- Few studies on male fertility



# Background to the Study Cont

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- Male vs female fertility behaviour
- Analysis of male fertility can complement the analysis of female fertility
- Determinants may differ
- Researchers/ previous studies (Rindfuss *et al*, 1996; Smith-Lovin and Tickamyer, 1978; Zhang, 2011; Ushie *et al*, 2011)
  - Men should be the target

# Statement of the Research Problem

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- Fertility level remains high in Nigeria.
- Prior researches focused on individual-level factors
- The neglect - public health and socio economic problems

# Statement of the Research Problem

- The consequences

- Children - chronically malnourished



- High level of unemployment



- Limited access to formal education and shortage of social services.



- Pressure on existing infrastructures

# Objectives of the Study

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- Examine the individual, household and community level factors associated with male fertility in Nigeria

# Summary of literature review

S/N	Author(s)	Title	Methodology	Findings	Missing gaps
1	Zhang Li. (2011)	Male fertility patterns and determinants	He derived his male fertility data sources from The United Nations Demographic Yearbook, The Demographic and Health Surveys (DHS), The World Fertility Surveys (WFS), The National Survey of Family Growth (NSFG) Cycle 6, Other U.S. Surveys Containing Male Fertility Information and Taiwan-Fukien Demographic Fact Book. Highlighting men's role in fertility decision-making and family planning, constructing two-sex fertility models, and comparatively examining fertility differentials by gender	The results show that male and female fertility differ in rates and determinants in various social contexts, which clearly suggests that fertility variation cannot be entirely understood without given equal consideration to males. The book also proposes a number of reasons to explain male and female fertility differentials in rates.	The study is limited the determinants to socio-context only
2	Schounmaker Bruno (2013)	Levels and Patterns of Male Fertility in Sub-Saharan Africa: What can we learn from the Demographic and Health Surveys?	The data come from the Demographic and Health surveys (men's surveys and household surveys) conducted in sub-Saharan Africa. Age-specific male fertility rates were estimated with three methods in four sub-Saharan African countries	The results showed that DHS data allow computing age-specific male fertility rates and male total fertility rates in different ways. The comparison of three methods (date of last birth, criss cross and own children) suggests that estimates of male TFRs are similar across methods.	The study only calculated rates of fertility behaviour
3	Odu O.O., Ijadunola K.T., and Parakoyi D.B. (2005)	Reproductive behaviour and determinants of fertility among men in a semi-urban Nigerian community	They employed a cross-sectional descriptive design. An interviewer administered semi-structured questionnaire was used to elicit information from 360 men in the households. Only males above the age of 15 years resident in the community were selected for interview.	The result showed that in Nigeria, the Mean Number of Children Ever-Fathered (MNCEF), Mean Number of Living children (MNLC) and Mean Ideal Family Size (MIFS) for the men were 5.2, 4.2 and 5.8, respectively. For men above 50 years old who may be considered to have completed their families, these indicators were 9.3, 7.3 and 5.8 respectively.	Level of analysis restricted only to individual-level. Household & community levels not considered
4	Zhang Li (2008)	Religious affiliation, religiosity, and male and female fertility.	He uses data from the 2002 NSFG Cycle 6 on religious affiliation, religiosity, and children ever born (CEB) for both men and women	The findings show a shrinking pattern of fertility differentials among religious groups. However, religiosity, particularly religious beliefs, shows a substantially positive effect on fertility.	Religion is the main focus, other key determinants of fertility not covered
5	Snow Racheal C., Rebecca A.	Gender Attitudes and Fertility Aspirations	Demographic and Health Survey data from five high	findings highlight the overlapping values of male	Level of analysis restricted only to

# Theoretical Framework

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- Proximate determinants
- Easterlin and Crimmins fertility theory

# Conceptual framework

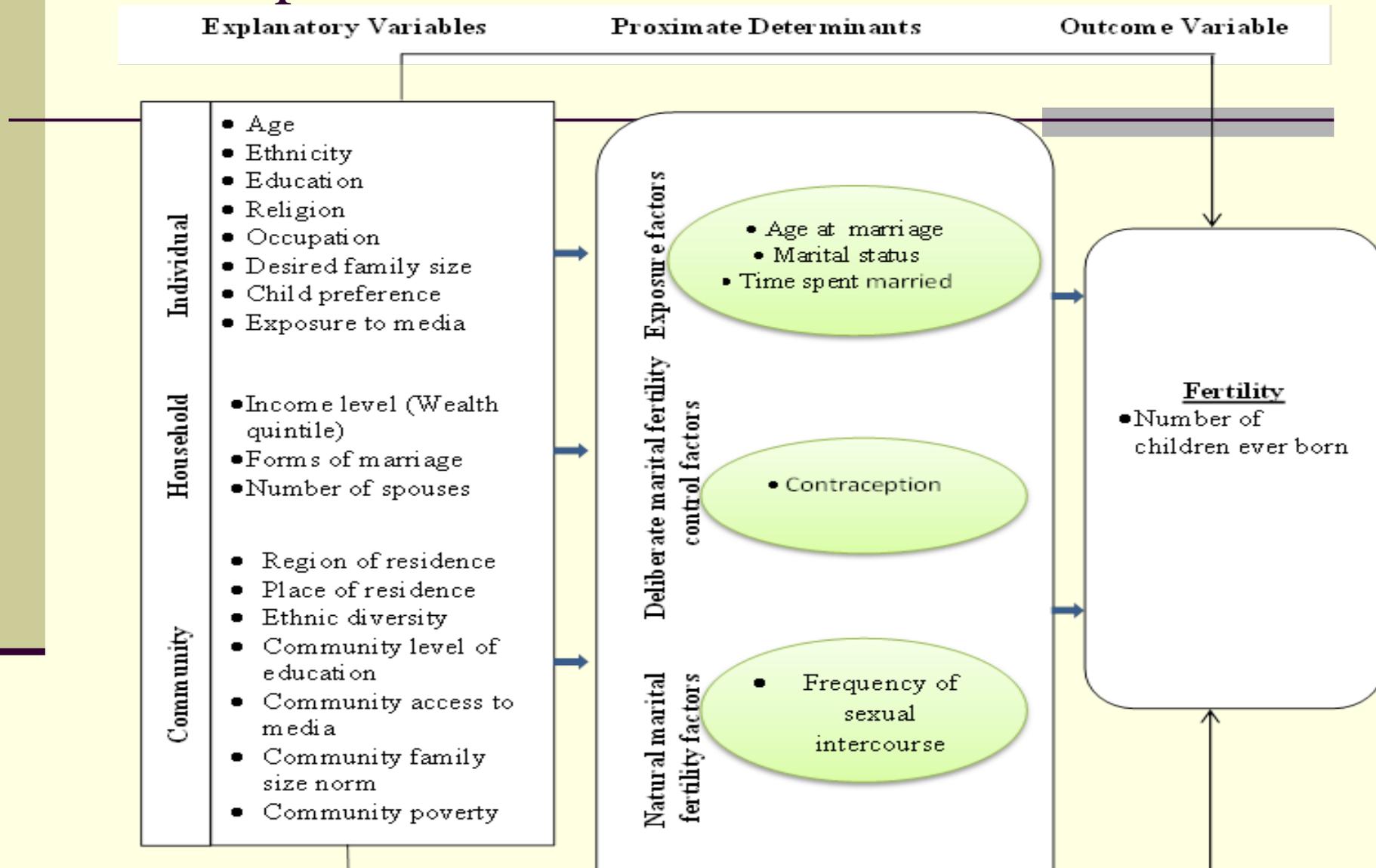


Figure 2.3. Conceptual Framework on the Relationship between Contextual Determinants and Male Fertility (Adapted from Bongaart, 1978 and Easterlin and Crimmins Framework, 1985)

# Research Instruments

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- Secondary data: 2003, 2008 and 2013 NDHS
- **Data analysis**
- multi level analysis

# Results

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- Random effects
- Fixed effects
- AIC and BIC

# AIC and BIC

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- In 2003, the individual level model was better than the community level model, next was the full model
- In 2008 and 2013, full model was preferable followed by the individual/household level model.

# Results

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- Model 0 VPC/ICC for 2003 was larger (15.0%) than 2008 (9.1%) and 2013 (7.8%)
- Model 1 PCV 100.0% (2003), 97.0% (2008) and 96.4% (2013)
- Model 2 PCV 89.7% (2003), 69.7% (2008), and 67.9 (2013) of the variance associated with the number of children a man has ever fathered across communities were explained by communities variables. Communities variables were more significant in 2003 than in 2008 and 2013.

# Results

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- Model two (Table 5.1 to 5.3) present the community level variables in relationship with CEB. In 2003, region of residence, place of residence, community level of education were significant. In addition to the three variables that were significant in 2003, ethnic diversity and community poverty were significant in 2008. Whilst in year 2013, all the community level variables were significant.

# Results

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- Model 3 did not significantly change the number of children ever born. For instance, the odd ratio of number of children ever born slightly declined among the Igbo in 2003 and 2013 from 0.85 and 1.00 (model 1) to 0.75 and 0.90 (model 3); and 0.89 and 0.94 (model 1) to 0.86 and 0.93 (model 3) among the Yoruba.

# Conclusion

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- Access to mass media has effects on male fertility behaviour.
- Education is a significant variable. Those with no education have high birth rates compared to those with education,
- Region of residence is an important determining factor of male fertility behaviour in Nigeria. Highest birth is in the North East and North West.
- Rural-areas were associated with high birth compare to urban area.

# Conclusion cont

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- Ethnic diversity significantly affects male fertility behaviour
- Community poverty is an important characteristic of CEB.
- Community level of education significantly affects CEB.
- The variable, proportion with high family-size norm in community has significant effect on male fertility behaviour.
- Community media access is a very significant factor in determining fertility behaviour.

# Contribution to knowledge

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- The data obtained from the study provide an insight into the trends and determinants of male fertility in Nigeria.
- Community variables are important factors in influencing fertility behaviour.
- Therefore, community structures are to be considered in order to bring down the level of fertility in Nigeria.



■ Thank You