Changing Gender Roles and Opportunity Cost of Childbearing: Implications for Family Size in Sub-Sahara Africa

Introduction

Traditionally in Africa, men are regarded as the main income providers for the family. The patriarchal nature of the African society also accrues powers and authority to men with regards to household decision-making. However, the impact of recent economic recession in most African countries and continuing dispersal of gender egalitarianism have weakened the dominance of men as breadwinners for their families. This has increased women's participation in productive and paid activities. Vitali & Arpino (2016) explained that the rising increase in female-breadwinning role was as a result of the growing phenomenon of gender equality, in addition to economic and institutional challenges which have disrupted men's employment and earnings. Women are increasingly engaged in paid work as a result of economic necessity. The increase in women participation in the labour force has also reshaped cultural beliefs, reduced gender differences in parenting experiences and promoted understanding of family life between husband and wife. Men have started to see their wives as partners and contributors to the well-being of the family. Available literature also reveal that greater investment in women's education alongside the economic recession which has led to significant job loss among men had placed women in better positions to contribute to the financial well being of the family (Chesley 2011, Van Bavel, 2012)

However, the inverse relationship between women's labour force participation and fertility has been established in many studies around the world (Adeyemi, Odusina & Akintoye 2016; Arpino, Esping-Andersen, & Pessin, 2015, Tortarolo, 2014; Agüero, & Marks, 2011; Bloom, Canning, Fink & Finlay, 2009; Billari, & Ortega 2006). The dual role played by women as breadwinners and home makers will lower fertility as women may decide either to delay births or prolong cohabitation without childbearing while young women will delay age at marriage or find alternative to family building (Brinton and Lee, 2016). Studies in the United States among college students have revealed that easy access to contraceptives affects the timing of marriage, births and incidence of cohabitation. Women will be able to work for pay, invest on-the-job training and pursue their professional career (Goldin and Katz 2002 Bailey 2006, Guldi 2008, Christensen 2011). The economic theory of women's fertility and work envisages that the competing demands for women's time to work outside the home or to bear and care for children reach equilibrium where the household obtains maximal gain. While human capital theory explained that health and labor force participation are positively correlated, studies have shown that challenges in the individual health will reduce labour force participation, lower productivity and add extra burden to the family income. On the other hand, low productivity as a result of poor health will reduce earning potentials (Zamo-Akono, 2009; Nanfosso & Zamo-Akono, 2010; Cai and Kalb, 2006; Waghorn and Lloyd, 2005).

Notwithstanding, since health is about total well-being in which reproductive health is an integral part, many studies have related health status to labour force participation (Zamo-Akono, 2009, Shareen 2012, Kravdal, 2002). The health status of women is affected by many factors like: frequent pregnancies, unwanted pregnancies, abortion, closely spaced birth, diseases such as

malaria tuberculosis and HIV will have negative impact on the health status of women. Women with better reproductive health status (delay or space their birth, having fewer births) have better opportunity to participate in paid work and contribute to the economic activities of the family as well as assist the family to escape poverty (Sinha, 2005). They also witness a reduction in time spent on childrearing. It has been affirmed that thirty-six percent of a woman's reproductive age is expended on uncontrolled fertility, likelihood of sexually transmitted diseases; maternal mortality and morbidity (Canning and Schofield, 2007). Though higher fertility has been associated with lower participation in the labour force among women during their reproductive life time, access to family planning and reduction in birth increase the female labour participation (Bloom et al, 2009, Shareen 2012). An Indonesian study attests to the likelihood of women participation in the labour force increasing by 20% with the reduction of one birth over the period of 20 years. Women labour participation and increased level of education increase the value of their time, making it more expensive to bear children (Lam and Duryea, 1999).

However, studies have examined the changes in the household income provider role (breadwinners families) with regards to economic recession and social change (Cherlin, 2016, Cory & Stirling, 2015, Bertrand, Kamenica & Pan, 2015, Cho & Newhouse, 2012, Chesley 2011, Cha & Thébaud, 2009), women's participation in labour force and fertility (Busso & Fonseca, 2015, Bloom, Canning,, Fink & Finlay, 2009). However, there are still limited studies on the changing gender roles and its association with fertility choices. It is thus imperative to examine these links and changes across nations in order to unravel the contextual factors that explain the impact of changing gender roles on the cost of bearing children in sub-Sahara Africa. This will serve as a template for policy makers on how to reduce the fertility level in Africa.

Research Questions

- How do changing gender roles (economic dependency) affect use of modern contraceptives and timing of next birth?
- Do changing gender roles (economic dependency) influence family size among married women in SSA?
- How related are changing gender roles, modern contraceptive use and family size in SSA?

Hypotheses

- There is a significant relationship between women's economic dependency (female breadwinner) and use of modern contraceptives
- There is significant relationship between changing gender roles (economic dependency) and fertility among married women in sub-Sahara Africa

Methods

The study used both qualitative and quantitative data. For the qualitative data, secondary data and documents were reviewed while Demographic and Health surveys data were used for the quantitative analysis with the permission from Measures DHS USA. The data sets for women within 15-49 years were downloaded for four countries in sub-Sahara Africa (Congo, Lesotho, Mozambique. and Nigeria). These represent the active population. Each of the countries represent regions in sub-Saharan Africa and their selection was based on the use of modern

contraceptive methods among married women. The data were weighted for national representation. Data for married women were extracted from women's data.

Variables

Outcome Variables

The opportunity cost of bearing children in this study is the alternative forgone which are: using modern contraceptives, delay next birth (birth spacing) and labour force participation (whom the respondent worked for). These three variables were used as dependent variables. Each of these variables was re-categorized into dichotomous variables. Currently using contraceptives was dichotomized into use modern contraceptives=1 & non-use of modern contraceptives=0.. Preferred waiting time for birth of a/another child was used for timing of next birth(birth spacing) this was also dichotomized into < 2years=0 and ≥2 years=1 while whom the respondent worked for was categorized into work for someone else/self employed =1, family member =0. Family size was measured by total children per women (CEB) which is a count data.

Proximate Variables

The proximate variables identified were level of education of respondents, age, religion, place of residence, region, number of living children, total number of children ever born, age at first marriage, age at first intercourse and partner's level of education.

Independent Variable

The independent variable was 'changing gender role' which was measured by economic dependency – whether the respondent earned more than the husband/partner. This was re-categorized into three: respondent earn more (female breadwinner =1); Both earned equal (Both breadwinners=2); and, husband/partner earn more (male breadwinner=3)

Data Analysis

The data for the study were analyzed using three statistical methods, univariate to show the frequency distributions of the socio-demographic characteristics of the respondents, proximate variables and explanatory variables. The Bivariate analysis was used to show the differentials in the economic dependency among women and some selected variables. For multivariate analysis, two statistical techniques were used and four models were constructed to test the formulated hypotheses. Binary logistic regression was used to show the relationship between outcome variables and independent variable. While Binomial Poisson regression was used to estimate the incidence of relative risk (IRR) of economic dependency and opportunity cost of bearing children on family size (count data).

Results

The study established the significant relationship between the economic dependency (female breadwinners) and the socio-economic characteristics of the respondents in all the four countries. Female breadwinners increased with the level of education of the respondents in all the countries except in Mozambique. Except in Nigeria, positive significant differentials were established between female bread winners and use of modern contraceptives in all the countries (Congo

unadjusted β= 1.846 P value=.000, adjusted β= 2.007 P value= .000 ., Mozambique unadjusted β= 1.98 P value=.000, adjusted β= 1.98 P value= .005 , Lesotho unadjusted β= 1.074 P value=.000, adjusted β=1.206 P value= .000, Nigeria unadjusted β= 2,328 P value=.000, adjusted β=.780 P value= .000). While significant inverse relationship was confirmed with female breadwinners and waiting time for the next child in Congo and Nigeria for both adjusted and unadjusted data when compared with the reference category (Nigeria unadjusted β=.800 P value=.000, adjusted β= .818 P value= .000, Congo unadjusted β= .810 P value=.000, adjusted β= .857 P value= .000). In relations with the labour force participation the study reaffirmed the positive significant relationship between labour force participation and economic dependency of women except in Nigeria. The significant inverse relationship between women economic dependency (female breadwinners) on fertility was confirmed in all the countries except Congo(Congo unadjusted β= 2.546 P value=.000, adjusted β= 2.007 P value= .000 ., Mozambique unadjusted β= .669 P value=.000, adjusted β= .669 P value= .005 , Lesotho unadjusted β= .976 P value=.000, adjusted β=.976 P value= .000, Nigeria unadjusted β=.988 P value=.000, adjusted β=.990 P value= .000).

Conclusion and Contribution to knowledge

The study has established the effect of changing gender roles on the fertility behaviour of women in SSA. The dynamics in the household income within the marital unions especially with the emergency of female breadwinners in the last decade is gradually changing the demand for children and the need for child spacing. This will not only reduce the fertility rate in SSA but will also improve the health of women and reduce maternal mortality in SSA. In fact, one of the cardinal goals of Sustainable Development Goals (SDGs), especially goal 5, is to "achieve gender equality and empower all women and girls". By empowering women and allowing them to involve in paid activities, this will not only reduce fertility but also a key to poverty reduction in Africa. It is therefore necessary to educate females up to secondary school level. This will increase their labour force participation and improve their reproductive health status. Government should ensure free education for female up to senior secondary school and check mate all socio-cultural factors that may lead to girls dropping out of school

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