



Title: A Lifecourse Perspective on Fertility Dynamics Associated with Early Menopause in Uganda

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Abstract:

Background. Early menopause (age at menopause 40-44 years) and premature ovarian insufficiency (age at menopause <40 years) are common causes of infertility worldwide and are associated with an increased morbidity and mortality [1-6]. By adopting a life course approach, the study explores the connection between reproductive history and earlier menopause, taking into account socio economic context, to produce insights about Ugandan women, a population underrepresented by current research.

Methods. Using the Demographic and Health Survey in Uganda (2016), multivariate logistic regression was used to examine the independent and interactive associations between earlier onset of menopause and reproductive factors (contraception use, age at first birth, and number of children) and socioeconomic factors (wealth, education, residence, and marriage). Marginal effects were used to estimate predicted probabilities.

Results. This study found that the prevalence of menopause in Ugandan women aged 30-49 in 2016 was 9.0%. Results from the independent model found that there was a steep negative trend between age at first birth and earlier menopause. Women who first gave birth as 12-15 year-olds had 173% greater odds of earlier menopause compared to women who first gave birth at 20 or later ($p < .001$). Compared to women with eight or more children, women with 1-3 children had 89% higher odds of earlier menopause ($p < .001$). As the number of children increased, the odds ratios decreased. Subsequent models revealed evidence of interdependencies between reproductive and socioeconomic variables. Women who first gave birth at ages 12-15 and never used contraception had the highest probability of earlier onset of menopause, compared to women whose first birth was at an older age and used contraception.

Conclusion. Through this exploratory analysis, we found that there are various interactive effects of reproductive health factors associated with earlier menopause. There is an urgent need to characterise determinants of earlier menopause in women who live in developing countries. Whilst there is a need for a better understanding of the experiences of African women, there is also a duty to investigate similar determinants within distinct communities in higher income countries. "