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Community influences on contraceptive use in Mozambique

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ABSTRACT

Fertility in sub-Saharan Africa remains the highest in the world. Yet, the average contraceptive prevalence in Africa is the lowest in major world regions and there is limited understanding of the mechanisms through which community context shapes contraceptive use in the region. Using data from the 2011 Mozambique Demographic and Health Survey, we examine the mechanisms through which community context influences women's use of modern methods of contraception in Mozambique. We find that community context influences the use of modern methods of contraception by shaping the environment in which women live.

1. Introduction

Fertility in sub-Saharan Africa remains the highest in the world and the decline in birth rates in the region has slowed further over the past decade (Bongaarts, 2008; Ezeh et al., 2009; Cleland et al., 2011). The use of modern contraceptives is recognized to be the main and the most effective way of controlling births (Bongaarts, 1987). Yet, the average contraceptive prevalence in Africa (about 23.7%) is the lowest in major world regions (WHO (World Health Organization), 2010). Most countries of sub-Saharan Africa are below the continent's average contraceptive prevalence, with the percentage among those countries ranging from 23.5% in Ghana to 2.8% in Chad (WHO (World Health Organization), 2010).

Although there is literature on community effects on contraceptive use in sub-Saharan Africa (e.g., Hogan and Biratu, 2004; Kaggwa et al., 2008; Paek et al., 2008; Stephenson et al., 2007; Dynes et al., 2012), there is still a limited understanding of the pathways through which community context influences contraceptive use in the region. This study attempts contributing for filling this gap by examining the mechanisms through which community context may shape the use of modern methods of contraception in Mozambique.

Mozambique typifies most countries of sub-Saharan Africa with low contraception use prevalence and constitutes an interesting setting for studying the mechanisms through which community context influences modern contraceptive use. It is a southern African country of about 24 million inhabitants (PRB (Population and Reference Bureau), 2013), with a gross national income per capita of $440 (The World Bank, 2012), more than 60% of population below the age of 25 years and about 64% of women illiterate (INE (Instituto Nacional de Estatística), 2010). With maternal mortality ratio of 408 deaths per 100,000 births, Mozambique is among countries where a large number of women are at risk of dying during pregnancy and childbearing (MISAU (Ministério da Saúde), INE (Instituto Nacional de Estatística), ICFI (ICF International), 2013). After the end of civil war in 1992, the population growth rate in Mozambique has been high, ranging from 1.7 in 1997 to 2.8 in 2007 (INE (Instituto Nacional de Estatística), 2010). The total fertility rate in the country remained virtually unchanged between 1997 and 2011: 5.6 in 1997, 5.5 in 2003 and 5.9 in 2011 (MISAU (Ministério da Saúde), INE (Instituto Nacional de Estatística), ICFI (ICF International), 2013).

In Mozambique most women initiate sexual activity and marital union very young, with about 40% of girls aged 15–19 years in union (MISAU (Ministério da Saúde), INE (Instituto Nacional de Estatística), ICFI (ICF International), 2013). Polygyny in Mozambique is common in both rural and urban areas and it has shown a slight decline in recent years—about 27% of women in marriage or union in 1997 were in polygynous unions, nearly 33% in 2003 and 19% in 2011 (INE (Instituto Nacional de Estatística), Marco International, 1998; INE (Instituto Nacional de Estatística), MISAU (Ministério da Saúde), ORC Macro, 2005; MISAU (Ministério da Saúde), INE (Instituto Nacional de Estatística), ICFI (ICF International), 2013). Although Mozambique is ranked high in some dimensions of gender equality in the world (World Economic Forum, 2013), women in Mozambique are in subordinate position and lack autonomy in many aspects of their life, including on family planning issues (Pathfinder International, 2013).

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Mozambique launched a family planning initiative in 1977 as an intervention within the program to protect the health of mothers and children (MISAU (Ministério da Saúde), 2010). Contraceptive products are typically provided free of charge from governmental health outlets. Condoms are also provided by private health outlets (Yao et al., 2011). However, the prevalence of contraceptive use in Mozambique remains very low. The percentage of women married or in union using modern methods of contraception ranged from 5% in 1997 to 12% in 2003 and it has declined or stagnated around 11% in 2011 (INE (Instituto Nacional de Estatística), Marco International, 1998; INE (Instituto Nacional de Estatística), MISAU (Ministério da Saúde), ORC Macro, 2005; MISAU (Ministério da Saúde), INE (Instituto Nacional de Estatística), ICFI (ICF International), 2013). Although still low, the use of modern methods of contraception in Mozambique is high in urban areas compared to rural areas and it shows marked variations among the provinces of the country (INE (Instituto Nacional de Estatística), Marco International, 1998; INE (Instituto Nacional de Estatística), MISAU (Ministério da Saúde), ORC Macro, 2005; MISAU (Ministério da Saúde), INE (Instituto Nacional de Estatística), ICFI (ICF International), 2013). The use of contraception is essential because of its effect on fertility and its implications for the health of mothers and their children (Tawiah, 1997). Therefore, investigating the mechanisms through which community context influences the use of contraceptives in Mozambique may have implications for promoting the health of mothers and children in communities.

2. Background

Geographers and sociologists have long argued that individuals' health and behavior is shaped not only by individual risk factors but also by attributes of places where they live (Cummins et al., 2007; Diez-Roux, 1998). Indeed, in later nineteenth century, Durkheim showed that rates of suicide varied from place to place and that differences in social context were responsible for differing rates of suicide between places (Yen and Syme, 1999). Several studies have indicated also that geographical factors such as disease environment (Root, 1999), distance (Ettarh et al., 2011), farming systems (Balk et al., 2004) influence health outcomes. Two ways of explaining effects of place on health outcomes have been used. On the one hand, there is the notion that geographical patterning of health outcomes is due to clustering of individuals with similar attributes, such as level of education, shared norms, traditions, etc. (Bernard et al., 2007; Macintyre et al., 2002; Cummins et al., 2005). Thus, according to this view, the association between place and health outcomes is related to shared attributes among place's residents (Bernard et al., 2007). On the other hand, there is the idea that there are place's physical and social opportunity structures that shape health experiences of whole groups over and above the influence of aggregate attributes of individuals (Bernard et al., 2007; Macintyre et al., 2002; Cummins et al., 2005).

Studies of mechanisms through which community context may influence health behaviors are scarce (Macintyre and Ellaway, 2000; O'Campo et al., 2009). With respect to women's use of modern contraceptives, possible mechanisms with a bearing in this study could include: (1) access to contraception-related information; (2) women's empowerment and autonomy; (3) fertility desires; and (4) accessibility and quality of family planning services. First, community context may affect the use of modern methods of contraception via access to contraception-related information. Evidence from previous studies suggests that women who report to have had access to family planning information through mass media were more likely to use modern methods of contraception than their counterpart (Jato et al., 1999). At the community-level, the proportion of women who were exposed to family planning messages was positively associated with the use of modern methods of contraception (Kaggwa et al., 2008).

Women's empowerment and autonomy is another important mechanism through which community context may influence the use of modern methods of contraception. It has been argued that empowerment, "essentially refers to a process, requiring change over time or a progression from one state to another (i.e., from gender inequality to gender equality)." (Mullany et al., 2005, p. 1994). Women's education and employment are some of drivers of women's empowerment (Ross and Mirowsky, 1999). Education increases the power for women to take control of their lives and their self-confidence (Sabates and Feinstein, 2006; Ross and Mirowsky, 1999). Those with a sense of personal control know more about health and are more likely to initiate preventive behaviors (Ross and Mirowsky, 1999:446). In a study of fourteen sub-Saharan African countries, Ainsworth et al. (1996) found a positive association between women's education and the use of contraception at all levels of education. At the community-level, studies observed that the mean level of education of other women in the community has an effect on a woman's contraceptive use above and beyond that of her own education (Kravdal, 2002; Moursund and Kravdal, 2003).

The association between women's empowerment (driven by women's employment) and the use of modern methods of contraception in developing countries appears not to be consistent. Some studies have reported a positive association between women's employment and the use of modern methods of contraception (Miles-Doan and Brewster, 1998; Mahmud, 1994). For example, Mahmud (1994) observed that women's involvement in paid employment in rural Bangladesh was positively associated with the use of modern methods of contraception. Other studies have found a positive association between women's employment and the use of modern methods of contraception only in some contexts (Sathar and Kazi, 1989; Agadjanian, 2000). Other studies reported a negative association between women's paid employment and contraceptive use in developing countries (Lloyd, 1991).

With respect to the effect of women's autonomy on the use of modern methods of contraception, studies indicate that communities characterized by higher prevalence of women's autonomy tend to induce more use of contraceptives among their female residents than their counterparts. In a study of two Indian villages, one with much greater women's autonomy, Dharmalingam and Morgan (1996) observed that women in the village with greater women's autonomy were more likely to use contraceptives than those in the village with lower women's autonomy. Similarly, DeRose and Ezeh (2010) in a study in Uganda, reported that women in communities where women more commonly have unilateral control over household decisions were 29% more likely to use modern methods of contraception than their counterparts.

Communities may also influence the use of modern methods of contraception via fertility desires. Previous studies have indicated that African culture encourages early marriages, childbearing and high fertility and is consequently adverse to contraceptive use (Caldwell and Caldwell, 1987; Caldwell et al., 1992). In addition, high polygynous communities, which are common in sub-Saharan Africa, are adverse to the use of contraceptives due to strong fertility desires in these communities (Ezeh, 1997).

Finally, accessibility and quality of family planning services is another via through which a community may influence the use of modern methods of contraception. Evidence for the association between accessibility of family planning services and the use of contraception is mixed. A study of accessibility and use of contraceptives in Vietnam concluded that physical distance from family planning services is not an important determinant of use of modern methods of contraception (Thang and Anh, 2002). This study reported that the use of modern methods of contraception did not differ much between urban and rural areas and among communities with