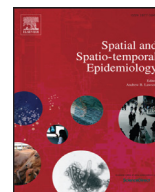




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Geography and correlates of attitude toward Female Genital Mutilation (FGM) in Sudan: What can we learn from successive Sudan opinion poll data?



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ABSTRACT

In Sudan, prevalence of FGM is declining; likely as a result of changing attitude surrounding FGM, as more women believe the practice should be discontinued amid growing awareness about its health dangers.

DFID Sudan opinion poll data collected from 2012 to 2014 was used. Bayesian geo-additive mixed models were used to map the spatial distribution of the likelihood of pro-FGM attitude at the state-level accounting for associated risk factors.

During 2012 to 2014, the overall proportion of pro-FGM was 27.5% and 18.3% respectively with striking variations within states. People with pro-FGM attitude were more likely to be un-educated, living in rural settings with strong tribal identity. Individuals from Darfur were more likely to be pro-FGM when compared to the North state.

The decrease in the practice of cutting observed between the 2006 and 2010 Sudanese Household Surveys and the resulting shift in attitude make a compelling case for public health policy to eradicate the FGM practice.

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1. Introduction

Female Genital Mutilation or cutting (FGM/C) procedure is considered a violation of human rights and has life-long implications for women, including ongoing infection, infertility, psychological trauma and complications during childbirth. Worldwide, at least an estimated 125 million women and girls are thought to have undergone FGM in

29 countries in Africa and the Middle East (United Nations Children's Fund (UNICEF), 2013, Sudan Tribune of February 12, 2014, and Department for International Development, 2013). UNICEF reports that nearly nine out of 10 Sudanese women aged 15 to 49 have undergone some form of cutting in various degrees of severity. The procedure, also known as infibulation or 'pharaonic circumcision', is usually performed on underage girls by traditional practitioners, who have no medical training (United Nations Children's Fund (UNICEF), 2013, Sudan Tribune of February 12, 2014, and Department for International Development, 2013). The procedure is irreversible and no modern medical procedure can fully repair the long-term psychological and physical complications due to FGM such as urinary and genital tract infection, pain and haemorrhage,

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complications in childbirth and social, psychological and sexual complications for mother or daughter mortality and ongoing morbidity concerns (Kandala and Komba, 2015, Kandala, 2014, Karmaker et al., 2011, and Kandala et al., 2009). In other countries in the region, there have been some efforts by multilateral agencies such as the World Health Organization (WHO), United Nations Children's Fund (UNICEF) and Non Government Organisations (NGO's) advocating the abandonment of FGM and attitude change. In Ethiopia, some successful public health programmes have been documented by NGO's such as Kembatta Mentti Gezzimma-Tope (KMG) (KGM, 24 October 2014) and TOSTAN in Senegal, Guinea, Guinea-Bissau, Mali, Mauritania, and the Gambia (TOSTAN, 2014).

However, the comparison of the 2006 and 2010 Sudanese Household Surveys shows a notable decrease in the practice of cutting among for instance, the 5 to 9 age bracket, 34.5% had been cut in 2010, compared to 41% in 2006 with further decrease expected in the next Household Survey (United Nations Children's Fund (UNICEF), 2013, and Sudan Tribune of February 12, 2014). The Eastern Sudan's Kassala state is most affected with 78.9% of girls and women reported to have undergone the procedure – the third-highest prevalence in the country, according to the 2010 Sudan Household Health Survey (United Nations Children's Fund (UNICEF), 2013, Sudan Tribune of February 12, 2014, and Department for International Development, 2013). The origin of the practice is steeped in traditional (especially in the north of the country) and societal ideals of beauty and cleanliness, religion and morality, and is also used as a method of stifling female libido. The Sudanese government has introduced stiff penalties for those who continue to perform the procedure, however, the practice, which is still not criminalised by law in Sudan, remains widespread, particularly in rural communities (United Nations Children's Fund (UNICEF), 2013, Sudan Tribune of February 12, 2014, and Department for International Development, 2013). The eradication of FGM is further complicated by cultural and societal pressures, as well as religious sensitivities surrounding the issue. UNICEF is providing support for a national strategy to abolish FGM known as the Saleema initiative. Conceived in 2008, the campaign is being supervised by the National Council on Child Welfare (United Nations Children's Fund (UNICEF), 2013, Sudan Tribune of February 12, 2014, and Department for International Development, 2013). However, despite the extensive media campaign by the Sudanese government, the strategy of changing the attitudes and tribal habits is not easy, nor that fast within the diverse population in Sudan it has been noted (Sudan Tribune of February 12, 2014). There is a scarcity of studies investigating attitude toward FGM in high prevalence FGM countries such as Sudan. The UNICEF study (United Nations Children's Fund (UNICEF), 2013) is the most comprehensive study today about attitude toward FGM. However, this study was limited in scope and only did an exploratory analysis using descriptive data without examining many of the control variables that can confound the attitude toward FGM (United Nations Children's Fund (UNICEF), 2013).

The present study investigates the geographical variation of attitude shifts of pro-FGM, as well as a wide range

of potential correlates towards the continuation of FGM using the successive DFID Sudan opinion poll (2012/13 to 2014 DFIDSOP) data, while accounting for a number of potential risk factors and socio-demographic correlates. This kind of data is valuable to inform public health policy from educating the younger generations to the prevention of avertable health conditions associated with FGM in Sudan and other settings (LSE Capstone Project - Department for International Development (DFID) Sudan, 2013).

2. Methods

2.1. Study population

As part of its commitment to better understand the context in which it operates, the United Kingdom (UK) Department of International Development (DFID) in Sudan has commissioned three rounds of polling (2012, 2013 and 2014) of the Sudanese public. These polls, which were very similar to each other, utilized a random stratified sampling methodology (of all parts of the country controlled by the government- so excluding rebel controlled and high conflict areas) and asked participants about a range of subjects mostly covering: (1) governance, (2) service delivery, (3) humanitarian and (4) social development areas.

The methods, objectives, organisation, sample design, and questionnaires used in the 2012–2014 DFID Sudan opinion poll data sets (DFIDSOP) and an overview report have been described in detail elsewhere (LSE Capstone Project - Department for International Development (DFID) Sudan, 2013).

Briefly, the two rounds of polling data sets come from a public opinion survey conducted by DFID Sudan from July 2012 through February 2014, where the sample frame was based on the 2008 national census of Sudan.

The data for the household survey was gathered through personal interviews carried out by the Sudan Polling Statistics Centre (SPSC) at the national level for urban and rural areas, in 16 states including the Capital Khartoum. The survey used a two-stage cluster sampling design to collect data on a wide range of issues. Personal (face-to-face) interviews were conducted with a random adult member of a household after obtaining their consent. The questionnaire collected information on whether the participant would like the practice of FGM to be stopped or continued and, if so, why, on attitudes and beliefs about FGM, and the political, cultural and economic context of the participants. The survey procedures and instruments were validated by the Institutional Review Board at SPSC and quality assured by the DFID Sudan statistics adviser (LSE Capstone Project - Department for International Development (DFID) Sudan, 2013). The response rates for the two surveys are 100% for the selected sample excluding people in Darfur and Khartoum that refused to be interviewed. As part of the survey strategy, the replacement sampling and the successful application of the replacement protocol the total number of interviewees is consistent with the set number planned at the beginning of these surveys (1500 for the first survey and a little over 2000 in

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