

Predicting Contraception Methods by Partner Discordance in Attitudes towards Female Empowerment- Bonnie Katalenich, MPH

Introduction: Female empowerment is a known predictor of contraceptive use; women with greater empowerment are more likely to use contraception for pregnancy prevention. (Crissman, Adanu, & Harlow, 2012; Ewerling, et al., 2017) The United States President's Emergency Plan For AIDS Relief (PEPFAR) was initiated under President G. W. Bush in 2003 with 15 countries in Sub-Saharan Africa receiving the majority of funds. The focus of PEPFAR is prevention, treatment and care of those most affected by HIV/AIDS however the impact of the program on social norms like female empowerment is yet to be assessed. Demographic Health Surveys (DHS) measures female empowerment by asking two sets of questions about a women's participation in the decision making process and if wife beating is justified. This research aims at predicting current contraceptive use by spousal discordance in variables related to female empowerment from DHS conducted in nine Sub-Saharan African countries. All nine countries had PEPFAR initiated in 2004 and at least one DHS prior to and at least one DHS after PEPFAR initiation.

Methods: Publically available individual and men's datasets from the DHS Program will be utilized. Logistic regression models will be analyzed to evaluate the impact of spousal discordance for predicting contraceptive use. Spousal discordance will be assessed for each variable of interest for female empowerment. Each variable will be recoded to allow for the same values to correspond; concordance will be valued if both the woman and man are in agreement in who makes the decision, discordance will be valued for any combination of different answers. Further analyses will be conducted on the different combinations of discordance for participation in decision-making process to assess if one combination of discordance has a higher correlation with contraception use when compared to the other combinations of discordance. Contraceptive use will be measured as currently using contraception or not using and will include all types of methods (modern, traditional, and folkloric). Sub-analysis will be done separately to examine the impact of partner discordance on modern and traditional contraceptive methods.

The following structural equation will be used to analysis the data using the event of PEPFAR initiation as an instrumental variable to measure the change in social norms for female empowerment.

$$CU_{icy} = X_{ic}\beta_1 + PEPFAR_{cy}\beta_2 + SD_i\beta_3 + fe_c\beta_4 + fe_y\beta_5 + \varepsilon$$

Where contraceptive use for the individual women, i , in country, c , for year, y , is dependent on the woman's demographics, X_{ic} , if PEPFAR was initiated pre or post survey in the country for that year, $PEPFAR_{cy}\beta_2$, if the spouses are discordant in their responses for female empowerment, $SD_i\beta_3$, fixed effects for both country, $fe_c\beta_4$, and year, $fe_y\beta_5$, and random error, ε .

Results: Descriptive data analysis for the outcome, contraceptive use, and the variables of interest, decision-making process and wife beating questions, as well as demographic and other variables included in the model will be provide. The main results will be the comparison of coefficients from the structural equation using each of the variables of interest; this will assess which variables have a large influence on current contraceptive use. Any sub-analyses will also be presented.

Discussion: Results from this research may provide further evidence of the impact of female empowerment and empowerment. This paper may also show the impact of PEPFAR on unobserved changes in social norms, further supporting the impact of the program and funding.

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References:

Crissman, H. P., Adanu, R. M., & Harlow, S. D. (2012). Women's Sexual Empowerment and Contraceptive Use in Ghana. *Studies in Family Planning*, 43(3), 201-212.

Ewerling, F., Lynch, J. W., Victoria, C. G., van Eerdewijk, A., Tyszler, M., & Barros, A. J. (2017, Sep). The SWPER index for women's empowerment in Africa: development and validation of an index based on survey data. *The Lancet. Global Health*, 5(9), 916-923.

Table 1: Countries and DHS Years Used

Country	Survey Years
Ghana	1993, 1998, 2003, 2008, 2014
Kenya	1993, 1998, 2003, 2008-10, 2014
Malawi	1992, 2000, 2004, 2010, 2015-16
Namibia	2000, 2006-07, 2013
Nigeria	2003, 2008, 2013
Rwanda	2000, 2005, 2007-08, 2010, 2014-15
Uganda	1995, 2000-01, 2006, 2011, 2016
Zambia	1996, 2001-02, 2007, 2013-14
Zimbabwe	1994, 1999, 2005-06, 2010-11, 2015

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Table 2: Female Empowerment Variables and Values

Variables of Interest for Female Empowerment:	Values:
m/v743a- Person who usually decides on one's own healthcare	1: Woman alone 2: Man alone 3: Jointly 8: Don't know or depends on other
m/v743b- Person who usually decides on large household purchase	1: Woman alone 2: Man alone 3: Jointly 8: Don't know or depends on other
m/v743c- Person who usually decides on household purchases for daily needs	1: Woman alone 2: Man alone 3: Jointly 8: Don't know or depends on other
m/v743d- Person who usually decides on visits to family	1: Woman alone 2: Man alone 3: Jointly 8: Don't know or depends on other
m/v743e- Person who usually decides on cooking	1: Woman alone 2: Man alone 3: Jointly 8: Don't know or depends on other
m/v743f- Person who usually decides on spending money earned	1: Woman alone 2: Man alone 3: Jointly 8: Don't know or depends on other
m/v744a- Is wife beating justified if she goes out without permission?	0: No 1: Yes 8: Don't know
m/v744b- Is wife beating justified if she neglects the children?	0: No 1: Yes 8: Don't know
m/v744c- Is wife beating justified if she argues?	0: No 1: Yes 8: Don't know
m/v744d- Is wife beating justified if she refuses sex?	0: No 1: Yes 8: Don't know
m/v744e- Is wife beating justified if she burns the food?	0: No 1: Yes 8: Don't know
m/v822- Is a wife justified to ask husband to use a condom if he has a STI?	0: No 1: Yes 8: Don't know