Social Support, Exposure to Family Planning Messaging, and Family Planning Use Among Women in Angola

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Introduction and Theoretical Focus:

Social support, often described as an individual's access to help and support in stressful situations, has been hypothesized to be an important factor in women's decisions and ability to use contraceptives. Recent work in Uganda, for example, has suggested that women without social support for family planning use are unwilling or unable to use contraceptive methods themselves, even if they want to (Adams 2013).

Similarly, exposure to messaging about family planning likely plays an important role in women's decisions to use family planning services. Messaging provided through media outlets and personal contact enhances women's knowledge of available services and may help inform them of when and where they can obtain such services.

Governments and NGOs often work to increase the visibility and acceptability of family planning services as a way of expanding the potential social support that would be available for women wanting to use family planning. However, little is known about the potential pathways through which social support and exposure to family planning messaging might act together to promote contraceptive use. These issues can have critical implications for family planning service delivery, especially in contexts where fertility is high and contraceptive use is low. In Angola, for example, the TFR is 6.4, the MMR is estimated to be 610, and approximately 17% of women nationwide are currently using contraception (Instituto Nacional de Estatistica 2011). Luanda Province, which encompasses the capital city of Luanda, is home to approximately 1/3 of the country's population, and recent unpublished studies suggest that women in Luanda have contraceptive prevalence rate between 17 and 35%. Using data from a population-based survey of women of reproductive age living in Luanda Province, Angola, we explore associations between social support and family planning use, and between exposure to family planning messaging and family planning use. We then test our hypothesis that exposure to family planning messaging may confound or modify the relationship between social support and family planning use, and that women with both exposure to messaging and strong social support will be even more likely to use family planning than women with only one of these factors.

Methods:

Study Population

In 2013, our study team, in collaboration with Population Services International (PSI) Angola, conducted a household survey using a random sample of approximately 1,500 women of reproductive age living in Luanda Province, Angola. The survey instrument, modeled on the DHS Women's Questionnaire, collects basic sociodemographic information from the sampled women as well as information about their fertility history, contraceptive knowledge, attitudes, and practices, and fertility preferences. The analyses presented here are restricted to women who reported being both fecund and sexually active.

Measures

Social Support

We first developed a list of potential items existing in our data set that addressed social support for contraceptive use based on our review of the relevant literature. The items specifically addressed women's perceptions about how contraception is perceived by members of their community and whether certain people such as friends, family, and partners would be willing or able to help them obtain contraception. Using polychoric principal components analysis (PCA), we then constructed a scale of overall social support and divided women into quintiles based on their score on the scale.

Exposure to Family Planning Messaging

Based on our literature review, no consistently defined measures of exposure to family planning messaging exist. We thus created an index using the items available in our data set. We thus looked at exposure to family planning through media sources (radio, TV, or magazines) as well as through personal contact (at a pharmacy, at a clinic, or from a fieldworker). Our index was first created as a categorical variable (as the sum of all sources of exposure), and then dichotomized (as any exposure or no exposure).

Outcome

The outcome of interest, family planning use, relied on the question (duplicated from DHS surveys): "Are you currently using something or doing something to delay or avoid getting pregnant?"

Statistical Analyses

We first examined the relationship between social support and family planning use using logistic regression. We then examined the relationship between exposure to family planning messaging and family planning use, also using logistic regression. In both cases, we ran unadjusted models as well as models adjusted for the following socio-demographic characteristics: age, education, marital status, and wealth quintile, a variable that is constructed from information about household income and assets, including possession of a TV or radio. We then considered the possibility that exposure to family planning messaging could be a confounder of the relationship between social support and family planning use.

We additionally hypothesize that exposure to messaging might serve as an effect measure modifier, meaning that the relationship between social support and family planning use might differ for those who are exposed to messaging compared to those not exposed to messaging. This hypothesis will be tested by including interaction terms between social support and exposure to messaging in our regression analyses. Analysis and interpretation of this hypothesis is forthcoming.

Preliminary Results:

The exposure status and sociodemographic characteristics of our study population are described in Table 1. Women with low social support (quintiles 1-3) and those with high social support (quintiles 4-5) have similar levels of exposure to family planning messaging and similar mean age. A higher proportion of women with high social support have ever been married than women

with low social support, and women with high social support also seem to be slightly wealthier and better educated on average.

Table 2 presents the initial results of our multivariable logistic regression models. As Models 1 and 2 illustrate, social support and exposure to family planning messaging each have strong independent associations with family planning use (Adjusted OR for social support: 1.305 [1.177, 1.448]; Adjusted OR for exposure to messaging: 1.592 [1.210, 2.096]). Model 3 includes both social support and exposure to family planning messaging in the same model, testing the hypothesis that exposure to family planning messaging confounds the relationship between social support and family planning use. The adjusted odds ratio for social support from Model 2 does not differ meaningfully from that in Model 3 (Model 3 adjusted OR:1.526 [1.155, 2.016]), thus providing no evidence for confounding by exposure to family planning messaging.

Subsequent analyses will examine the hypothesis that exposure to family planning messaging modifies the relationship between social support and family planning use. Additional analyses may also include other potential confounding factors such as correct knowledge of family planning methods and access to family planning services.

Discussion:

While these results are only preliminary, they suggest that both social support for contraceptive use and exposure to family planning messaging are significantly associated with women's self-reported current use of family planning. We are limited by the cross-sectional nature of the data and the significant amount of missing outcomes, but these findings do suggest that efforts to build social support for contraceptive use in these communities could result in more uptake of family planning.

Table 1. Selected sociodemographic characteristics

	Low Social Support (Quintiles 1-3)	High Social Support (Quintiles 4-5)	Total
N	709	472	1,181
Any Exposure to FP Messaging	447 (63.0%)	328 (69.5%)	775 (65.6%)
Age (mean (min, max))	25.6 (15, 49)	27.9 (15, 49)	26.5 (15, 49)
Ever Married	206 (29.1%)	242 (52.3%)	448 (37.9%)
Education			
No Education	12 (1.7%)	9 (1.9%)	21 (1.8%)
Primary	286 (40.3%)	168 (35.6%)	454 (38.4%)
Secondary	301 (42.5%)	203 (43.0%)	504 (42.7%)
University or Higher	110 (15.5%)	92 (19.5%)	202 (17.1%)
Wealth Quintile			
1	151 (21.3%)	80 (16.9%)	231 (19.6%)
2	145 (20.4%)	98 (20.8%)	243 (20.6%)
3	146 (20.6%)	89 (18.9%)	235 (19.9%)
4	140 (19.8%)	94 (19.9%)	234 (19.8%)
5	125 (17.6%)	107 (22.7%)	232 (19.6%)
missing	2 (0.3%)	4 (0.9%)	6 (0.5%)

Table 2: Results of Multivariable Logistic Regression Analyses

	Current Family Planning Use		
	Model 1	Model 2	Model 3
Social Support	1.305*** [1.177, 1.448]		1.293*** [1.165, 1.435]
Exposure to Family Planning Messaging		1.592*** [1.210, 2.096]	1.526*** [1.155, 2.016]
Ever Married	1.159 [0.831, 1.616]	1.417** [1.021, 1.967]	1.229 [0.878, 1.721]
Education	1.107 [0.912, 1.344]	1.107 [0.914, 1.342]	1.086 [0.894, 1.319]
Wealth	1.118** [1.010, 1.239]	1.115** [1.007, 1.234]	1.104* [0.996, 1.223]
Age	0.993 [0.974, 1.013]	0.994 [0.975, 1.013]	0.991 [0.972, 1.011]

**p<0.1, **p<.05, ***p<.01*