

# Social network and attitudes towards the timing of the first birth after marriage among married adolescent girls in rural communities in Niger.

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## Extended abstract

**Background:** The first birth plays a significant role in the future life of each individual woman and her family and it is highly influenced by social factors including norms, practices, family and peer pressure (Aminul H. M, and Sayem A. M, 2009). Studies show that social networks change or reinforce norms by providing patterns of behavior that individuals consider and copy (Valente, T.W. 1994; Montgomery, M.R., and al. 2001; Behrman, Kohlar and Watkins, 2002).

**Objective:** This paper aims to examine the relationship between social network characteristics and attitudes towards the timing of first birth among married adolescent girls in Niger.

**Data and methods:** The data used in this paper was collected as part of the baseline assessment for the evaluation of Tipping Point- an intervention utilizing a social network approach to increase modern contraceptive use among married adolescent girls. During the baseline data collection, in order to identify the social network, each married adolescent interviewee was asked to mention the names of influential people in her life in relation to a series of 5 name-generating questions.

The current analysis uses data from 1,538 married adolescent girls (ego) and includes ego's report on their own demographics and attitudes along with their perception of 9,963 nominated alters' attitudes and behaviors.

The *dependent variable* for this analysis is attitude towards the timing of the first birth after marriage. During the data collection, each married adolescent girl was asked the following question: In your own opinion, how long after marriage should a woman have her first child? (coded 0= before first wedding anniversary and 1=*after first wedding anniversary*).

If P is the probability of an ego to have a favorable *attitude towards birth after first wedding anniversary*, this model is provided by the following mathematical formula:  $\text{Logit}(P) = \text{Log}(P/1-P) = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + \dots + B_kX_k + E$  where  $X_j$  denotes each of the k independent variables;  $B_j$  denotes the net effect of  $X_j$  on the probability of an ego to have a

favorable attitude towards birth *after first wedding anniversary*, E represents the prediction error.

As **primary predicting variables**, we used:

- ***Ego's perception of alters' modern family planning (FP)***: To the best of your knowledge, has [ALTER] used any method with his wife to delay or prevent pregnancy? (0=Yes; 1=No; 9=DNK)
- ***Ego's perception of alters' acceptance of reproductive coercion (RC)***: Does [ALTER] think that men have the right to prevent their wives from delaying or preventing pregnancy if they don't want them to? (0=No, men haven't the right; 1=men have the right)

As **moderating variables**, we considered:

- ***The level of alters' influence on ego***: from 1- lowest influence- to 6 -highest influence
- ***The strength of the relationship between ego and alter***: number of times an ego nominated a given alter through five name generating questions (From 1 to 5 times).
- ***The gender of the nominated alter*** (1=male; 2=female).

**Results:** Our preliminary results show that egos' perceptions of alters' modern FP use ever and of alters' acceptance of reproductive coercion are significantly associated with ego's attitude towards the timing of the first birth. Compared to the egos who think that their alters have used a modern FP method, those who think that their alters have not used it ( $Beta = -0.27, se = 0.12, p < 0.05$ ), and those who don't know whether their alters have used it ( $Beta = -0.35, se = 0.13, p < 0.05$ ), are less likely to support first childbirth at least one year after the wedding. The egos who think their alters support reproductive coercion ( $Beta = 0.44, se = 0.11, p < 0.05$ ) are more likely to have a favorable attitude towards birth *after first wedding anniversary* than those who think that their alters don't support reproductive coercion.

Results from our interaction analysis show that the relationship between ego's perceptions about alter FP use and their attitudes towards the timing of first childbirth is moderated by 1) the level of alters' influence on ego (when influence is  $\geq$  mean of influence: *Alter has used ever FP*:  $Beta = -0.37048, se = 0.13778, p < 0.05$ ; *Don't Know*:  $Beta = -0.45871, se = 0.14001, p < 0.05$ ), 2) the strength of ego-alter relationship (when tie strength is  $\geq$  mean of tie strength: *Alter has used ever FP* -  $Beta = -0.6964, se = 0.1453, p < 0.05$ ; *Don't Know*:  $Beta = -0.4512, se = 0.1757, p < 0.05$ ) and 3) alters' gender (when gender is male: *Alter has used ever FP* -  $Beta = -0.71152, se = 0.15987, p < 0.05$ ; *Don't Know*:  $Beta = -0.42438, se = 0.13891, p < 0.05$ ). However, the

relationship between ego's perception about alters' support of reproductive coercion and their attitudes towards the timing of first childbirth was moderated only by the level of alters' influence on egos (when influence is  $\geq$  mean of influence:  $Beta = 0.6836$ ,  $se = 0.1211$ ,  $p < 0.05$ ) and the strength of ego-alter relationship (when tie strength is  $<$  mean of tie strength:  $Beta = 0.565144$ ,  $se = 0.115852$ ,  $p < 0.05$ ).

**Conclusion:** These findings indicate that programs should consider promoting norms in favor of safe motherhood, advantages of FP, and healthy life outcomes through adolescent girls' social networks.