

## Abstract

**Background** Extra-marital partnerships have been associated with the spread of STIs including HIV among married couples. We sought to establish the actor and partner effects of relationship and sexual satisfactions on extra-marital partnerships among married couples.

**Methods** We conducted a cross-sectional survey of 545 couples. We contacted a proportion to size simple random sample of fishermen on each beach as our index participants and asked them to enrol with their spouses. The consenting couples were separated into different private rooms for simultaneous gender-matched interviews. In addition to socio-economic and behavioural data, we collected information on extra-marital sex partners as well as the scores of participants on a 7-item relationship satisfaction scale and 25-item sexual satisfaction scale. We analysed data using multilevel modelling under the framework of actor-partner interdependent model (APIM).

**Results** Men had a median score of 56 (IQR 52–61) and women 53 (IQR 47–59) on sexual satisfaction scale. Both men and women had same median score of 16 (IQR 14–18) on relationship satisfaction scale. We found a significant partner effect of men's relationship satisfaction on their spouses number extra-marital partnerships such that the more men are satisfied in their relationship the fewer the number of extra-marital partners their spouses report ( $B = -0.10$ ;  $p = < 0.01$ ). Similarly, we found a negative effect of men's sexual satisfaction on their own number of extra-marital partners ( $B = -0.46$ ;  $p = < 0.01$ ) and negative beta estimates for women ( $B = -0.15$ ;  $p < 0.01$ ) - meaning that if women are sexually satisfied, they report fewer number of extra-marital partnerships. Men's sexual satisfaction had a negative interaction with women's extra-marital partnerships ( $B = -0.17$ ;  $p = < 0.01$ ) such that the more sexually satisfied men are, the fewer the number of extra-marital partnerships their spouses report.

**Conclusion** Inculcating and maintaining good relationship and sexual satisfaction within couples in this community reduces their own and their partners' number of extra-marital partnerships.