

Contraceptive practices among women of reproductive age in Mbeya, Tanzania

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Abstract

Background: Non-utilisation of contraceptive contribute to unintended pregnancies and unsafe abortions, which are major public health problems in Tanzania and sub-Saharan Africa. Our study investigated contributing factors and contraceptive use practices among women of reproductive age in Mbeya, Tanzania.

Methods: A hospital-based descriptive cross-sectional study was conducted on women attending reproductive and child health clinics. Data obtained included participants' age, education and other demographic characteristics. Awareness of family planning methods, use, attitudes, advocacy and practices were also recorded. A χ^2 test was used to examine the association between selected variables.

Results: A total of 217 respondents participated in the study, of which the majority were between the ages of 21 and 26 (mean age = 26.96, standard deviation = 1.37). The majority of the respondents, 157 (72.4%) were married with mostly 1-2 children and had a primary school education or without formal education, 155 (71.4%). 191 (88.0%) respondents had heard about at least one contraceptive for family planning. Injectable was the most known method of family planning, as reported by 158 (72.8%) participants. Awareness about family planning methods and use was significantly associated with educational level ($\chi^2 = 43.01, p = 0.0002$).

Conclusion: Our study shows awareness and willingness to use family planning methods in Mbeya. Hence, it promotes a better life for families. However, more studies are needed to thoroughly investigate the various reasons affecting some non-utilisation of family planning and how these can be addressed.

Keywords: Contraceptive practices, women, reproductive age, Mbeya, Tanzania

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Introduction

Non-utilisation of contraceptives leads to approximately 80 million women globally (Bearak *et al.*, 2018; Singh *et al.*, 2010) and 14 million in sub-Saharan Africa (Hubacher *et al.*, 2008; Silumbwe *et al.*, 2018) having unplanned pregnancies annually. Consequently, cause 45 million women globally end up in abortions, and more than half a million die from complications associated with pregnancy, childbirth, and postpartum (Calvert *et al.*, 2013). Sub-Saharan Africa produces a total of 7.9 million teenage pregnancies; of this, only 53% were planned, with the rest ending in 16% miscarriages, 13% abortions and 18% unplanned births (Bearak *et al.*, 2018; Hubacher *et al.*, 2008; Singh *et al.*, 2010). Unplanned pregnancies cause several risks, such as maternal death, unsafe abortion, malnutrition, mental illness and transmission of HIV to children (Baschieri *et al.*, 2017; Calvert *et al.*, 2013). Studies have revealed that behavioural practices influencing unintended pregnancies include knowledge of contraceptive use, socioeconomic status and other socio-demographics including marital status, age and level of education (Darroch & Singh, 2013; Muanda *et al.*, 2017).

The use of contraceptives for family planning aims to improve the health of mothers and children by providing safe family planning methods, which can assist clients in planning their families. The primary purpose of any family planning programme is to provide reversible methods

for child spacing and more permanent methods for couples intending to stop childbearing (Butler & Clayton, 2009). In Tanzania, the utilisation rate of contraceptives among women of the reproductive age group is 38.4%, whereas in the Mbeya region is 17%, according to the National Bureau of Statistics (Safari *et al.*, 2019). This low utilisation of contraceptives in Mbeya predisposes women between 15 to 45 to have unwanted pregnancies, anaemia, infections and maternal deaths (Bwana *et al.*, 2019). Contraceptives allow women to prevent unplanned pregnancies during and after unprotected sexual intercourse. In Tanzania in 2010, 34% of all pregnancies were unplanned (Keogh *et al.*, 2015; Mosha *et al.*, 2013). Unplanned pregnancies have economic, social, psychological and physical implications for the mother and the unplanned child. Unplanned pregnancies, especially in teenagers, have led to poverty, as pregnant teenagers often leave school early (Askew *et al.*, 2016; Hultstrand *et al.*, 2019; Sawhill *et al.*, 2014; Sutton *et al.*, 2018). Physical implications, especially in those below the age of 19 years, include hypertension, anaemia, obstructed labour and haemorrhages.

There is a need for continued public health intervention to prevent unplanned pregnancies using contraceptives whereby improving and saving women's lives and their unborn children. It is estimated that the number of modern family planning in various regions in Tanzania is 12% (Safari *et al.*, 2019). Most studies show women to be aware of contraceptive use, but they do not use them for family planning (Damian *et al.*, 2018; Mosha *et al.*, 2013; Yussuf *et al.*, 2020). This study was carried out to examine the current practices of family practice in Mbeya. It was also intended to explain why certain women of reproductive age (15-45 years) aware of current contraceptive methods did not utilise them. Findings from this study will help Mbeya Regional Health Management Teams and Council Health Management Teams in improving the utilisation of contraceptives for family planning.

Materials and methods

Study site

This study was conducted on women attending the Reproductive and Child Health (RCH) clinic at Ruanda Health Centre (RHC) and Mbeya zonal referral hospital (MZRH) in Mbeya, southern Tanzania. Both RHC and MZRH provide family planning services. The study was performed from July to December 2020. The latitude of the Mbeya region is -8.909401, and the longitude is 33.460773 in southern Tanzania. RHC serves the administrative ward of Ruanda, which has a population of 19,959 people (URT, 2013), whereas MZRH received referrals from the Southern Highland regions of Tanzania, which are Ruvuma, Iringa, Songwe, Mbeya, Rukwa and Katavi with a total population of about 8.7 million people (URT, 2013).

Study design

This descriptive, hospital-based cross-sectional study was conducted on women attending the reproductive and child health services in selected sites in Mbeya, Tanzania.

Sample size estimation

The minimum sample size (N) required for this study was 217 participants. Which was calculated using a formula for cross-sectional studies $N = Z^2P(1-P)/e^2$ (whereby the recent prevalence of contraceptive use in Mbeya (P) of 17% was used (Pourhoseingholi *et al.*, 2013).

Data collection

The researchers collected the data via a Swahili version self-administered questionnaire to respondents seeking family planning services at RCH and MZRH. Information on how to complete the questionnaire was provided. The questionnaire was distributed to those who expressed an interest in participating and provided instructions on completing it. The questionnaire's key points were explained. All women aged 15 to 45 who consented to participate in the study were included to reach the estimated sample size. Pre-testing of questionnaires was conducted with 30

respondents, and it was found that the questions were straightforward, with no ambiguity or confusion. Their level of education, age, marital status, occupation, and religion were all recorded as well as their awareness, attitude, and usage of contraception. Participants were assured of confidentiality and using the information obtained solely for research purposes.

Data analysis

The data were statistically analysed using IBM SPSS Statistics 19.0. (IBM Corp., Armonk, NY, USA). The descriptive statistics for categorical variables were expressed in numbers and percentages. Chi-square or Fisher's exact tests were used to determine the association, and it was considered significant when the *p*-value was less than 0.05.

Ethical consideration

Before participating in the study, written informed consent was sought and obtained from all participants. Ethical approval was obtained from the University of Dar es Salaam, Mbeya College of Health and Allied Science ethics sub-committee. Permission to conduct the study was also taken from the regional and district administration.

Results

Socio-demographic characteristics of the study participants

Two hundred seventeen clinic attendees were asked to participate in the study, and all agreed to indicate a 100% response rate. As seen in Table 1, most participants were between the ages of 21 and 26 (mean age = 26.96, standard deviation = 1.37). The majority of the respondents, 157 (72.4%), were married with mostly 1-2 children. Most study respondents, 155 (71.4.1%), had a primary school education or without formal education.

Table 1: Socio-demographic characteristics of recruited participants (N=217)

Variable	Factor	Frequency (%)	X ² (p-value)
Age	15-20	36 (16.6)	63.576037 (< .001)
	21-26	70 (32.3)	
	27-32	66 (30.4)	
	33-38	40 (18.4)	
	39-45	5 (2.3)	
Marital status	Married	157 (72.4)	270.539171 (< .001)
	Single	40 (18.4)	
	Divorced	10 (4.6)	
	Cohabit	10 (4.6)	
Level of education	No formal education	60 (27.6)	68.990783 (< .001)
	Primary education	95 (43.8)	
	Secondary education	53 (24.4)	
	Higher education	9 (4.1)	
Number of children	No child	5 (2.3)	127.313364 (< .001)
	1-2	110 (50.7)	
	3-4	77 (35.5)	
	5 or more	25 (11.5)	

Awareness about contraceptives

Out of the 217 women of reproductive age who participated in the study, 191 (88%) respondents reported having heard about at least the use of one contraceptive (Figure 1A). Injectable was the most known method of family planning, as reported by 72.8% of participants, followed by pills

(68.7%) and implants (62.2%), whereas the Intra Uterine Device (IUD) was the least known method (12%) (Figure 1B). The primary source of information about contraceptive use was reported as being nurses, 98 (45%), followed by friends, 51 (23.5%), as shown in Figure 1C. Awareness about family planning methods and use was significantly associated with educational level ($\chi^2 = 43.01, p < 0.0002$).

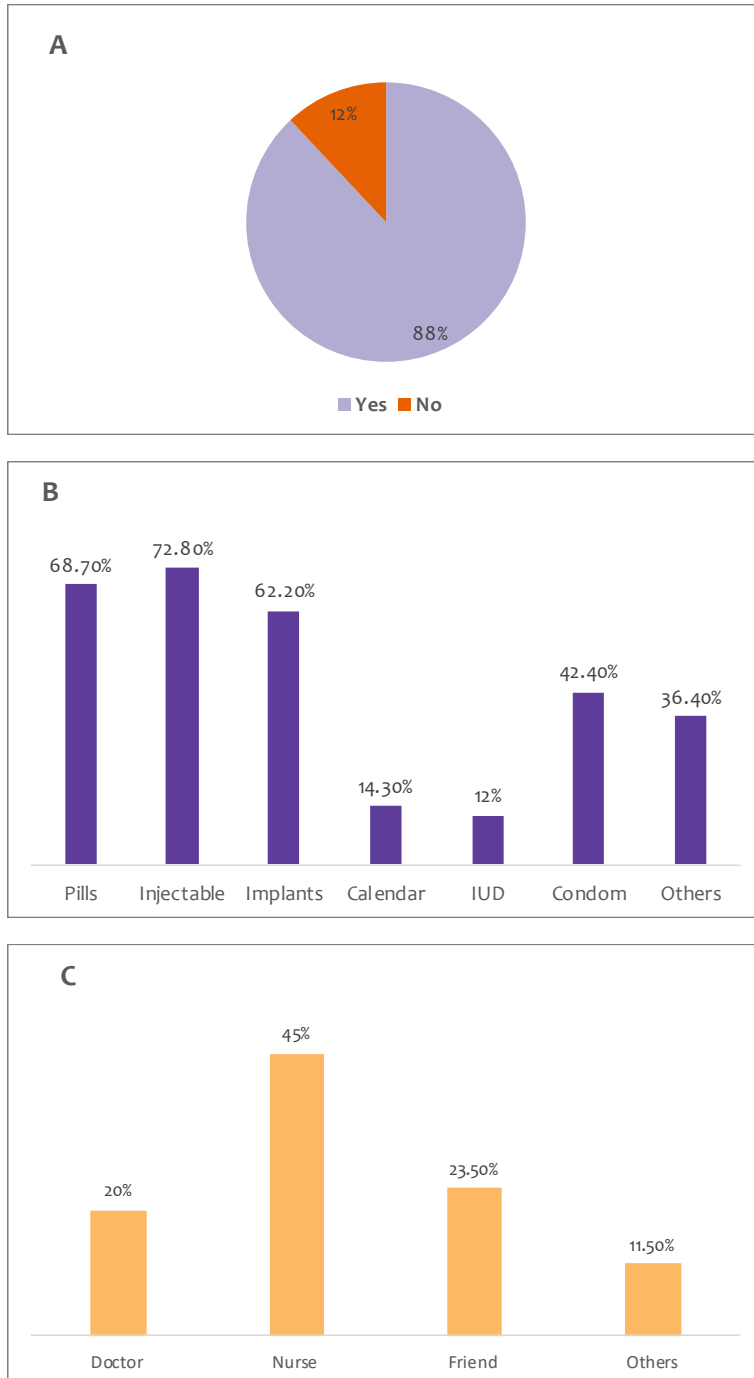


Figure 1: A: Who heard and those who did not hear about any contraceptive B: Who knows about any contraceptive C: Source of information about family planning.

Advocacy and attitudes on contraceptive use

Findings related to contraceptive use among women of reproductive age in Mbeya town, Tanzania, showed that 109 (50.2%) would advocate contraceptives for family planning, whereas 108 (49.8%) would not advocate the use of contraceptives. The primary reason for not advocating

contraceptives was causing excessive bleeding and other menstrual problems by 36 (16.6%) respondents. Other reasons for not advocating contraceptives include Cannot prevent pregnancy by 2 (0.9%) respondents, causing cancer and believing condoms are infected with HIV; each of these responses had 5 (2.3%) respondents, as shown in Figure 2.

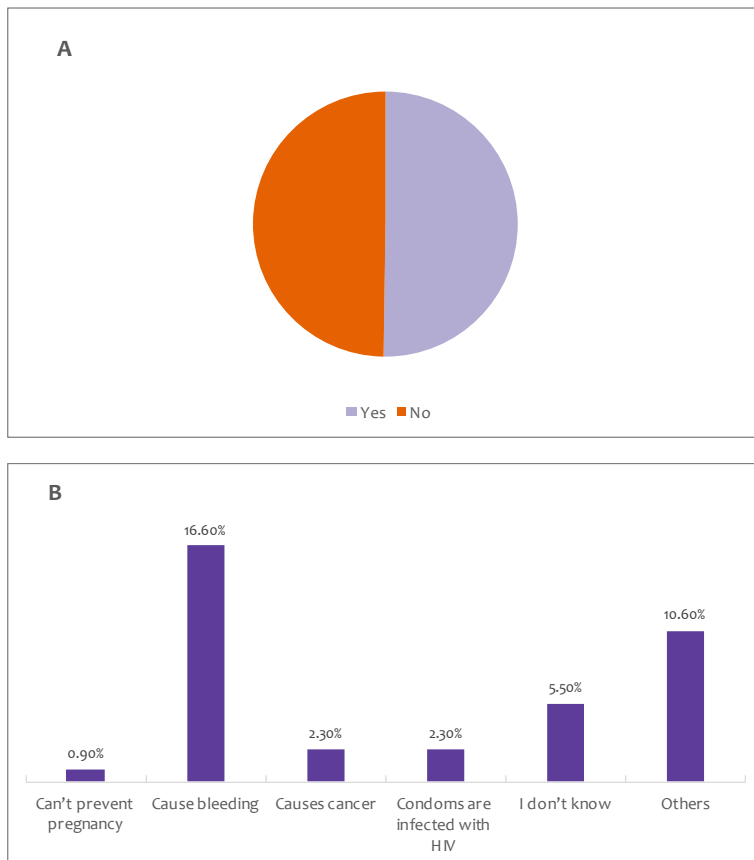


Figure 2: A. Who would advocate the use of contraceptives B. Reasons for not advocating contraceptive use?

Practices on contraceptive use

Findings showed that 174 (80%) respondents used contraceptives at least once. The majority of study participants, 149 (68.7%), agreed to have discussed family planning with their husbands or partners, whereas 68 (31.3%) reported not agreeing to involve their husbands or male partners. 135 (62.2%) agreed to continue using contraceptives in the future for family planning. Only 87 (40%) respondents used contraceptives during previous intercourse with their partners, as indicated in Figure 3. Findings from this study show an association between older age and the use of contraceptives for family planning ($\chi^2 = 36.09, p < 0.0003$). In general, findings from our study indicated that Injectable was a preferable contraceptive method, as shown in Figure 4.

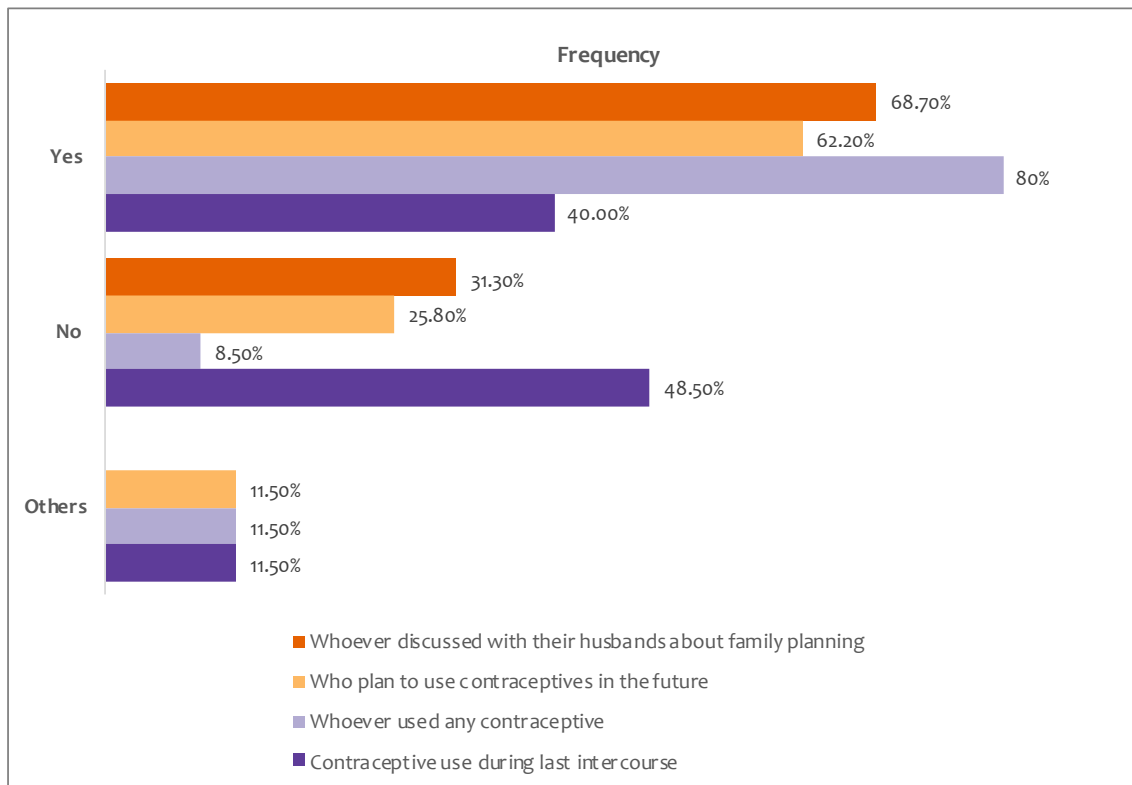


Figure 3: Frequency of study participants discussed with their husbands about family planning, planning to use contraceptives in the future and contraceptive use during last intercourse.

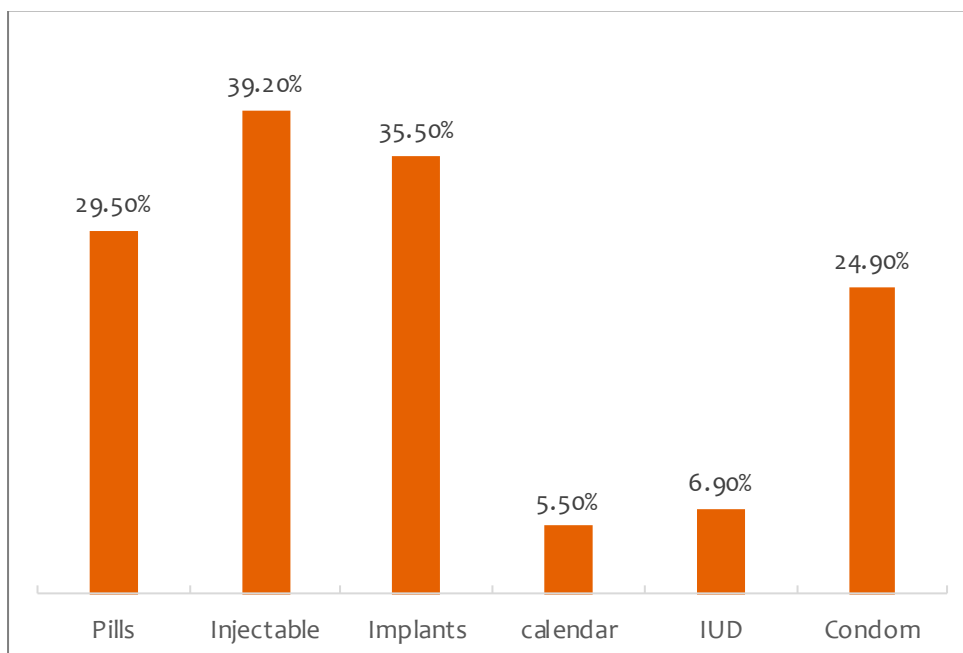


Figure 4: Type of contraceptive preferred by study participants.

Discussion

Our study found that contraceptives among women of reproductive age in Mbeya city are relatively high. The majority of respondents had heard about at least one contraceptive, of which Injectable was the most known method of family planning, which is similar to the findings obtained from other studies which were done in Mali and Columbia, showing that 86% and 95% respectively, respondents had heard about at least one modern contraceptive either condom, pills or Intra

Uterine Device (IUD). However, Injectable as the means of contraception was the most known method (72.8%), unlike the findings in a study done in Cameroon (Nansseu *et al.*, 2015) revealed that the most used was the male condom (96 %). This could be explained that the condom is feasible to use and convenient to obtain compared to others (Tung *et al.*, 2013).

Findings from this study indicate that most (68.7%) of the respondents have ever discussed family planning issues with their partners and want to use them in the future. These findings were similar to those found in a study done in Ethiopia (Tilahun *et al.*, 2013). The possible reasons could be health education on contraceptive use given all over the media and hard life where it has become difficult to raise children (Wodajo *et al.*, 2017). On the contrary, 42.1% of the respondents never discussed family planning issues with their partners and never wanted to use them in the future. This was also found in southern Ethiopia (Kusheta *et al.* 2019), whereby about 41.2% of participants never used and discussed using them. Possible misconceptions could explain the underutilisation of family planning methods, as most think they will be infertile if used. It is encouraged and emphasised that both partners participate in family planning rather than leaving the burden to women only as the main participants. More emphasis on partners about the benefits of using contraceptives in family planning and the disadvantages of not using family planning, especially regarding social-economic and maternal health deteriorations due to grand malt parity and more family planning campaigns about practices and sessions should be conducted.

Our study indicated that 40% of the respondents were active users of contraceptives, which is higher than a study done in Nigeria (Onwuzurike & Uzochukwu, 2001), which revealed that 20.5% of the respondents were active users of contraceptives (Onwuzurike & Uzochukwu, 2001). Most women in this study who completed primary and secondary education practised family planning, similar to the survey done in India (Ramakrishnan *et al.*, 2017). This might be because women who were able to read and write would think that family planning activities are helpful to be economical, self-sufficient, and more likely to acquire greater confidence and personal control in marital relationships, including the discussion of family size and contraceptive use.

Our study showed that the awareness and attitude of women in the reproductive age group related to family planning utilisation were high. Those reproductive-age women who had good awareness utilised family planning better than those with less awareness. Those participants with favourable attitudes practised better than those who had unfavourable attitudes. This might be because awareness and attitude toward specific activities are the key factors to start behaving and maintaining it continuously. According to the study by Abdulai *et al.* (2017), a condom is used to reduce the likelihood of pregnancy and the spread of sexually transmitted diseases (STIs) such as HIV. A male condom blocks semen from entering the body of a sexual partner. The advantages of using this method are that it is immediately reversible. This method is suitable for couples who have sex infrequently. It is free of charge and inexpensive, protects against STIs, has no medical or hormonal side effects, and requires no clinic or doctor visits. Using condoms as a method of contraception can enable men to take responsibility for preventing pregnancy and disease (Abdulai *et al.*, 2017). The main disadvantage that couples have highlighted is interrupting sexual intercourse when there is condom failure. The male condom has a 2% failure rate for perfect use and 15% for typical usage.

Conclusion

Findings indicated a significant contribution of awareness, attitude and practices towards contraceptive utilisation for family planning in the southern highland zones of Tanzania. Our study provides evidence that most women of reproductive age in Mbeya, Tanzania, are aware of the family planning methods and are willing to use them at least once in their lifetime. However, more studies are needed to thoroughly investigate the various reasons affecting some non-utilisation of family planning and how these can be addressed.

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Author contributions

YH, EK and CNM designed the study. YH conducted and contributed to data analysis. YH, EK and CNM interpreted the data. CNM prepared the original manuscript. All co-authors contributed to subsequent revisions. All authors read and approved the final manuscript.

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Conflict of interest

The authors declare that they have no competing interests.

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