Married Women’s Decision-Making Power in Family Planning Use and its Determinants in Basoliben, Northwest Ethiopia

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Background: Women’s decision-making power influences the use of family planning. It is one of the denied fundamental rights of women, particularly in developing countries.

Objective: This study aimed to assess married women’s decision-making power in the use of family planning and its associated factors among married reproductive age women in Basoliben, Amhara, Ethiopia, 2018.

Methods: A community-based cross-sectional study was conducted among married reproductive age women from March 1 to 30, 2018. A multistage simple random sampling technique was employed in selecting study participants. Data were collected using structured questionnaires and analyzed through SPSS 20 software. The binary and multiple variable logistic regression models were fitted to identify factors associated with women’s decision-making power on family planning use. Statistical significance was declared at p-value less than 0.05.

Results: A total of 734 married women aged 18–49 years are making a 98% response rate included in this study. The level of married women’s decision-making power in family planning among married women was 80%; 95% CI (76.9, 82.8). Monthly income (AOR=2.2; 95% CI: 1.1, 4.2), husband’s desired number of children of <3 (AOR=9.9; 95% CI: 3.6), husband’s desired time for additional child after 3 years postbirth (AOR=4.0; 95% CI: 1.9, 8.5) and women’s information on any contraceptive (AOR=9.6; 95% CI: 2.4, 39.0) were factors significantly associated with married women’s decision-making power in family planning.

Conclusion: Married women’s decision-making power in family planning use was optimal. Household monthly income, husband’s desired ideal number of children, husband’s desired time when to have another child and information about any contraceptive methods were predictors of their decision-making power on family planning use. There should be awareness creation of family planning methods to increase its utilization.

Keywords: decision-making, married women, family planning, Amhara, Ethiopia

Background

Family planning (FP) refers to a conscious effort by couples to limit or space the number of children through the use of contraceptive methods.1 FP safeguards individual health and rights, preserve natural resources, and improves the economic outlook for families and communities.1,2 Low FP usage is considered as a major issue for many developing countries where poor maternal and child health care services are practiced.2,3 More than 222 million women’s pregnancies in developing countries are unplanned.4,5 In sub-Saharan Africa, only 17% of married women are
using contraceptives as compared to 50% in North Africa and the Middle East, 39% in South Asia, 76% in East Asia and the Pacific and 68% in Latin America and the Caribbean.\(^2,6\)

Women’s decision-making power is the most important factor affecting the use of family planning methods.\(^5,7-9\) Empowering and improving autonomy of women on decision-making on contraceptive and other reproductive health issues is critical for the community as a whole.\(^10-14\) Its importance is great especially, for low-income countries like Ethiopia where one in ten teenagers is giving birth.\(^15\) The majority of women in developing countries are denied their fundamental rights.\(^1,2,6,17\) Though husbands have an important role in FP uptake and in preventing unintended pregnancies,\(^18\) they are under collective decision-making of their husbands on issues that affect their reproductive live.\(^7,19-21\) They are often forced to bear a large number of children and only less than one-fourth of women can decide on contraceptive use by themselves.\(^3,10,22,23\) In societies where contraceptive use is low, children are exposed to illnesses and deaths due to the lack of appropriate health and other social services care from their parents and the rest of the family members.\(^2,6\)

The Ethiopian Federal Ministry of Health (FMoH) has applied multi-pronged approaches to reduce maternal and newborn morbidity and mortality.\(^16\) However, family planning usage is still low especially in rural settings.\(^1,3,7,10,24\) Therefore, the objective of this study was to assess married women’s decision-making power on the use of family planning and its associated factors among married women in Basoliben district, Amhara, Ethiopia.

**Methods**

**Study Design, Area, Period and Population**
A community-based cross-sectional study was conducted among married reproductive-aged women in Basoliben district from March 1 to 30, 2018. The district is located 322 km far from Addis Ababa, the capital city of Ethiopia. There were a total of 25 kebeles (the smallest administrative unit in Ethiopia) in the district\(^25\) with an estimated total population of 169,089. More than half (51.5%) of the estimated population were reproductive-aged women.\(^26\) There were five public health centers, one primary hospital, four drug vendors, and five private clinics provided family planning services in the district.\(^25\)

**Sample Size Determination and Sampling Technique**

The sample size for this study was calculated using a single population proportion formula considering the following assumptions: proportion of married women who had decision-making power was 67%,\(^5\) 95% CI, 5% margin of error, 10% non-response rate and design effect of 2 (since multi-stage sampling technique was employed). Accordingly, the final calculated sample size for this study was 748. A multistage sampling technique was used to select the study participants. In the first stage, five out of 25 kebeles were selected using a simple random sampling technique. Then, a total of 748 married reproductive-aged women were selected using simple random sampling techniques using a table of random generation. The list of study population was obtained from health extension workers (the lowest health professionals working at health posts) in the study area. Before data collection, a sampling frame was designed by numbering the list of married reproductive-aged women using the registration book. In this process, the number of women to be included was proportionally allocated to each selected kebele (Figure 1).

**Data Collection Techniques and Instruments**
Data were collected using a structured questionnaire. The tool was adapted from different studies for assessing women’s decision-making power on family planning usage and factors influencing it.\(^1,5,23\) Before data collection, the questionnaire was prepared in English then translated into Amharic. A one-day training was given to data collectors and supervisors on the objectives, confidentiality of information, respondents’ rights and on the techniques of the interview. Following the training, the tool was pretested among 5% of the sample size at Amended woreda (other than selected) and amendments were made to the data collection questionnaire based on the findings of the pretest. Data on socio-demographic characteristics, women’s reproductive related history, knowledge about contraceptive methods and women’s decision-making power were
collected from married women through interviewer-administered questionnaire by eight trained data collectors.

**Data Quality Control, Processing and Analysis Procedures**

The quality of the data was assured through careful design and pretesting of the data collection tool, proper training and close supervision of the data collectors and proper handling of the data by the principal investigators. The data were coded, cleaned and entered into Epi-Data version 4.2 and exported to SPSS version 20.0 statistical software for analysis. Descriptive analysis was computed for all variables and presented using graphs and tables. Bivariate analysis was carried out to test differences in women’s decision-making power on family planning usage by independent variables. Binary and multivariable logistic regressions were employed to identify the predictors of women’s decision-making power on FP usage. Those variables with p-value less than 0.2 in the bivariate analysis were entered in the multivariable logistic regression model. Finally, variables with p-value less than 0.05 in the multivariate logistic regression were considered as statistically significantly associated with women’s decision-making power on FP usage. The results from logistic regressions were expressed using their Odds Ratios (OR) with 95% Confidence Intervals (CIs).

**Definitions of Terms**

Decision-making power: The ability of women to freely make the decision individually, discuss with their partners about FP needs and choice.  

- A score of 1 was given if women decide independently or together by discussing on FP and RH
issues. Zero (0) was scored by partners who decide independently.3,19

- Then, woman who scored below the mean was considered as having no decision-making power and those who scored greater or equal to the mean were considered as having decision-making power.3,19
- Knowledge about family planning: married women who know at least one method was considered as knowing a family planning method.3

Fertility preference: The desire to have another child in the near future or not.3,19

Ethics Approval and Consent to Participate
The study was done in accordance with the declaration of Helsinki. Ethical clearance was taken from Debre Markos University College of Health Science ethical review committees. A formal permission letter was obtained from the district government administrator of Basoliben district before data collection for each kebele. Written informed consent was taken from all study participants after a clear description of the objectives of the study and its procedures by the data collectors before proceeding data collection.

Results
Socio-Demographic Characteristics of the Study Participants
A total of 734 women were included in the study which gives a response rate of 98%. The mean age (± SD) of study participants was 30.23 years (±7.76), and ranges from 18 to 49 years. Nearly half (48.5%) of the participants were housewives. Two-third (65%) of participants were unable to write and read, and only 16.2% attended primary education. The majority (97.1%) of study participants reside in a rural residential area. One-fourth (26.2%) of the participants’ family income was below 700 ETB and around one-third (34.8%) of the participants had a monthly income of 700–1000 ETB. More than one-third (37.9%) of the participants had a family size of 3–4. About 55.6% of participants’ husbands were unable to write and read, similarly majority (94.3%) of participants’ husbands were farmers (Table 1).

Reproductive History and Preference of Study Participants
The number of currently living children of married women ranged from null to nine; 103 (14.0%) of them had no children, 152 (38.7%) had more than four children and the rest had one to two children. The desired ideal number of children ranged from zero to 11 for women and zero to 12 for their partners. The larger proportion (45.4%) of women and their husbands (46.7%) desired to have 3–4 children. Similarly, desired time to have additional child by woman and their partners after 2 years was 30.7% and 32.0%, respectively (Table 2).

Awareness of Contraceptive Methods
The majority (96.2%) of the study participants heard about contraceptives, 618 (84.2%) of the study participants used the modern contraceptive method. The majority (57.1%) of users used injectable; similarly, 39.8% users used implants. Majorities (70.7%) reason for using contraceptive was birth spacing and three-fourth (76.5%) of users took the method from health posts (Table 3). The majority (96.6%) of the participants know injectable, whereas 76.7% and 66.3% of participants know implants and pills, respectively (Figure 2). HEWs were the source of information for 78.6% of the participants; however, television was for only 2.1% of participants (Figure 3).

Decision-Making Power on Family Planning Use
Eighty-four (11.4%) of the total married women reported that they made decisions on the number of children by themselves, whereas 106 (14.4%) of participants FP usage was decided by their husbands alone. The remaining 544 (74.2%) of participants decided jointly with their husbands on FP usage. Regarding birth intervals, the majority (78.1%) participants made decisions jointly with their husbands, while (10.8%) and (10.6%) of participants had decision on birth interval by their husbands alone and by themselves alone, respectively (Table 4). More than three-fourth (78.5%) of participants’ decision on the contraceptive use made by their husbands alone, and (76.4%) participants’ husbands alone made decision on the type of contraceptive. The proportion of women who scored mean and above on the decision-making power indexes for independent decision-making and joint decision-making were 14.2% and 65.8%, respectively. The overall proportion of women who have the decision-making power on family planning use was 80% (Table 5).
Factors Associated with Decision-Making Power on Family Planning Use

Accordingly, monthly income, husband’s desired ideal number of children, husbands’ desire when to have another child and information about contraceptive methods were factors associated with decision-making power on family planning use. The odds of decision-making power on family planning among married women whose monthly income was 700 to 1000 ETB and 1001 to 1500 ETB was about 2.2 times (AOR = 2.2; 95% CI: 1.1, 4.2) and 2.7 times higher (AOR = 2.7; 95% CI: 1.1, 6.8) more likely to have decision-making power on family planning than whose monthly income was less than 700ETB, respectively.

Women whose husband’s desire to have less than 3 children and 3–4 children were 9.9 times (AOR = 9.9; 95% CI: 3.6, 27.8) and 2.1 times (AOR = 2.1; 95% CI: 1.1, 4.2) more likely to have decision-making power on family planning than whose husband’s desire number of children

### Table 1 Socio-Demographic Characteristics of Married Women in Basoliben, Amhara, Ethiopia, 2018

| Variables                        | No  | %    |
|----------------------------------|-----|------|
| Age (in year)                    |     |      |
| < 25                             | 183 | 24.9 |
| 25–29                            | 205 | 27.9 |
| 30–35                            | 169 | 23.0 |
| >35                              | 177 | 24.1 |
| Duration of living with the current husband (in year) |     |      |
| <5                               | 152 | 20.7 |
| 5–10                             | 290 | 39.5 |
| 11–15                            | 141 | 19.2 |
| >15                              | 151 | 20.6 |
| Educational status               |     |      |
| Unable to read and write         | 477 | 65.0 |
| Able to read and write           | 138 | 18.8 |
| Primary level education          | 119 | 16.2 |
| Religion                         |     |      |
| Orthodox                         | 734 | 100.0|
| Occupation                       |     |      |
| Housewife                        | 356 | 48.5 |
| Farmer                           | 357 | 48.6 |
| Merchant                         | 21  | 2.9  |
| Residence                        |     |      |
| Urban                            | 21  | 2.9  |
| Rural                            | 713 | 97.1 |
| Partners educational level       |     |      |
| Unable to read and write         | 408 | 55.6 |
| Able to read and write           | 205 | 27.9 |
| Primary level education          | 121 | 16.5 |
| Monthly income (in ETB)          |     |      |
| <700                             | 192 | 26.2 |
| 700–1000                         | 256 | 34.8 |
| 1001–1500                        | 178 | 24.3 |
| >1500                            | 108 | 14.7 |
| Family size                      |     |      |
| <3                               | 106 | 14.4 |
| 3–4                              | 278 | 37.9 |
| 4–6                              | 203 | 27.7 |
| >6                               | 147 | 20   |
| Husband’s occupation             |     |      |
| Farmer                           | 692 | 94.3 |
| Merchant                         | 42  | 5.7  |

### Table 2 Reproductive History and Preference of Married Reproductive-Aged Women in Basoliben, Amhara, Ethiopia, 2018

| Variables                        | No  | %    |
|----------------------------------|-----|------|
| Number of living children        |     |      |
| 0                                | 103 | 14.0 |
| 1–2                              | 284 | 38.7 |
| 3–4                              | 195 | 26.6 |
| >4                               | 152 | 20.7 |
| Fertility preference by a woman  |     |      |
| Unable to have a child           | 57  | 7.8  |
| Do not want another child        | 224 | 30.5 |
| Want to have another child       | 453 | 61.7 |
| Fertility preference by a husband|     |      |
| Unable to have a child           | 38  | 5.2  |
| Do not want another child        | 226 | 30.8 |
| Want to have another child       | 470 | 64.0 |
| Desired no children by a woman   |     |      |
| <3                               | 150 | 20.4 |
| 3–4                              | 333 | 45.4 |
| ≥5                               | 251 | 34.2 |
| Desired no children by a husband |     |      |
| <3                               | 250 | 34.1 |
| 3–4                              | 343 | 46.7 |
| ≥5                               | 141 | 19.2 |
| Desired time to have additional child by woman |   | |
| Before 2 years                   | 225 | 30.7 |
| 2–3 years                        | 281 | 38.3 |
| After 3 years                    | 228 | 31   |
| Desired time for additional child by a husband |   | |
| Before 2 years                   | 235 | 32   |
| 2–3 years                        | 244 | 33.3 |
| After 3 years                    | 255 | 34.7 |

Accordingly, monthly income, husband’s desired ideal number of children, husbands’ desire when to have another child and information about contraceptive methods were factors associated with decision-making power on family planning use.
was ≥ 5, respectively. Similarly, husband’s desired time to have additional child within 2–3 years and after 3 years was 1.9 times (AOR = 1.9; 95% CI: 1.1, 3.6) and 2.1 times (AOR = 2.1; 95% CI: 1.1, 4.1) more likely to have decision-making power on family planning than whose husband’s desire to have additional child is before 2 years, respectively. Moreover, participants who know any contraceptive method were 9.6 times (AOR = 9.6; 95% CI: 2.4, 39) more likely to have decision-making power on family planning than those who do not know any contraceptive method (Table 6).

### Discussion

Empowering women increase family planning utilization which reduces maternal and neonatal mortality. However, in developing countries, women are the neglected population in decision-making. They are usually dependent on their partners’ decision on family planning usage and reproductive issues.

The current study was conducted to assess the level of married women’s decision-making power towards contraceptive use and its associated factors in Basoliben woreda, northwest Ethiopia. Accordingly, the current study showed the overall decision-making power of married women on family planning use was 80%. While the independent decision-making power was only 14.2% and decision-making power jointly with their husband was 65.8%. This was higher than previous studies conducted in Nigeria, India, Honduras and Pakistan. It was also higher than studies done in Ethiopia; Mizan Aman, Addis Ababa and Dawro Zone. However, the women’s independent decision-making power on family planning usage was lower

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**Table 3 Usage and Awareness of Contraceptive Methods Among Married Reproductive-Aged Women in Basoliben District Amhara, Ethiopia, 2018**

| Variables                                  | No  | %   |
|--------------------------------------------|-----|-----|
| Heard about contraceptive methods          | N=734 |     |
| Yes                                        | 706 | 96.2|
| No                                         | 28  | 3.8 |
| Current contraceptive use                  | N=734 |     |
| Yes                                        | 618 | 84.2|
| No                                         | 116 | 15.8|
| Contraceptive used                         | N=618 |     |
| Pills                                      | 5   | 0.8 |
| Injectable                                 | 353 | 57.1|
| Implant/Norplant                           | 246 | 39.8|
| IUCD                                       | 11  | 1.8 |
| Tubal ligation                             | 3   | 0.5 |
| Length of contraceptive used               | N=618 |     |
| Less than 2 years                          | 89  | 14.4|
| 2–4 years                                  | 408 | 66.0|
| Greater than 4 years                       | 121 | 19.6|
| Purpose of the contraceptive method used   | N=618 |     |
| For limiting the number of children        | 181 | 29.3|
| For birth spacing                          | 437 | 70.7|
| Source of the contraceptive method used    | N=618 |     |
| Hospital                                   | 14  | 2.3 |
| Health center                              | 131 | 21.2|
| Health post                                | 473 | 76.5|

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**Figure 2** Awareness of contraceptive methods by married reproductive-aged women in Basoliben district, Amhara, Ethiopia, 2018 (n=734).
than the studies done in Ethiopia\textsuperscript{34} and India.\textsuperscript{9} This difference might be due to the socio-cultural differences in the study population. This might be due to that decision related to children has an impact on having better decision-making power.\textsuperscript{35}

Similarly, the current study revealed household monthly income, husband’s desired number of children, husband’s desire when to have another child and information on contraceptive methods were found to be significant predictors of married women’s decision-making power on family planning usage. This study revealed that household monthly income was positively associated factor of women’s decision-making power. Those women earned household monthly income 700 to 1000 ETB and 1001 to 1500 ETB were 2.2 and 2.7 times more likely to have decision-making power on

**Figure 3** Sources of information about contraceptive methods for married reproductive-aged women in Basoliben district, Amhara, Ethiopia, 2018 (n=734).

**Table 4** Measurement of Decision-Making Power on Family Planning Use Among Married Reproductive-Aged Women in Basoliben District, Amhara, Ethiopia in 2018

| Decisional Issues                        | Decision Maker         | Woman Alone | Husband Alone | Jointly |
|------------------------------------------|------------------------|-------------|---------------|--------|
|                                          | No | %     | No | %     | No | %     |
| Decision on the number of children      | 84 | 11.4  | 106 | 14.4  | 544 | 74.1  |
| Decision on when to have children       | 78 | 10.6  | 79  | 10.8  | 577 | 78.6  |
| Decision on birth interval              | 80 | 10.9  | 81  | 11.6  | 573 | 78.1  |
| Decision on contraceptive use           | 95 | 12.9  | 63  | 8.6   | 576 | 78.5  |
| Decision on type of contraceptive method choice | 104 | 14.2 | 69  | 9.4   | 561 | 76.4  |
| Decision on where to get a contraceptive method | 117 | 15.9 | 62  | 8.4   | 555 | 75.6  |
| Decision on women RH service need       | 44 | 6.0   | 55  | 7.5   | 635 | 86.5  |
| Decision on women RH expenses           | 22 | 3.0   | 68  | 9.3   | 644 | 87.7  |

**Overall decision-making power**

- Minimum score | 0.0 |
- Maximum score | 8.0 |
- Mean score    | 0.85 |
- Std. Dev      | 1.89 |
- The proportion of women scored | 14.2 |

\(z\text{mean} = 65.8\)
family planning methods, respectively, than whose monthly income was <700 ETB. This was in agreement with studies in Nepal,\textsuperscript{36} Malaysia\textsuperscript{37} and the Ethiopian national-level study\textsuperscript{24} that reported higher household monthly income or in general women in the highest wealth quintile were highly decisive on health care utilization for their health care services utilization. This might be due to they have media exposure. It is evidenced that media exposure increase FP utilization.\textsuperscript{38}

Limitation of the Study
This study is not without limitations. It has all the limitations of cross-sectional study design.

Table 5 The Overall Decision-Making Power on Family Planning Use Among Married Reproductive-Aged Women in Basoliben District Amhara, Ethiopia, 2018

| Variables                                      | No  | %    |
|------------------------------------------------|-----|------|
| The Independent decision-making power of women | 104 | 14.2 |
| Yes                                           | 630 | 85.8 |
| Joint decision-making power of women and husband | 483 | 65.8 |
| Yes                                           | 251 | 34.2 |
| Overall married women decision-making power    | 587 | 80.0 |
| Yes                                           | 147 | 20.0 |

is study also showed participants' husband desired number of children and desired time to have additional child were factors associated with their decision-making power on family planning utilization. Those participants' husbands desired number of children less than 3 and 3–4 were 9.9 and 2.1 times more likely to have decision-making power on FP, respectively, than whose husbands desired number of ≥5. However, those their husbands’ desired time for additional child within 2–3 years and after 3 years was 1.9 and 4.3 times more likely to have decision-making power on FP usage than whose husbands desired time to have additional child was less than 2 years, respectively. Moreover, this study revealed married women who had information on any contraceptive method were 9.6 times more likely to have decision-making power on FP usage than those who had not. It is in line with the previous studies.\textsuperscript{10,19,34,39,40} This might be due to information about contraceptive develops autonomy for FP usage.\textsuperscript{10,41}

Table 6 Factors Associated with Decision-Making Power on Family Planning Use Among Married Reproductive-Aged Women in Basoliben District, Amhara, Ethiopia, 2018

| Variables                                      | Married Women's Decision-Making Power | COR (95% CI) | AOR (95% CI) |
|------------------------------------------------|--------------------------------------|--------------|--------------|
|                                                | Yes                                  | No           |              |              |
|                                                | No                                   | %            | No           | %            |
| HH monthly income                              |                                       |              |              |              |
| <700 ETB                                       | 135                                  | 18.4         | 57           | 7.8          | 1            | 1            |
| 700–1000 ETB                                   | 202                                  | 27.5         | 54           | 7.4          | 1.6 (1.03,2.4)| 2.2 (1.1, 4.2)* |
| 1001–1500 ETB                                  | 149                                  | 20.3         | 29           | 4.0          | 2.2 (1.3,3.6)| 2.7 (1.1, 6.8)* |
| >1500 ETB                                      | 101                                  | 13.8         | 7            | 1.0          | 6.1 (2.7,13.9)| 2.9 (0.9, 8.7) |
| Desired no children by a husband               |                                       |              |              |              |              |              |
| <3                                             | 219                                  | 29.8         | 31           | 4.2          | 3.2 (9.5,4)  | 9.9 (3.6, 27.8)*** |
| 3–4                                            | 271                                  | 36.9         | 72           | 9.8          | 1.7 (1.1,2.7)| 2.1 (1.1, 4.1)*  |
| ≥5                                             | 97                                   | 13.2         | 44           | 6.0          | 1            | 1            |
| Desired time for additional child by a husband  |                                       |              |              |              |              |              |
| Before two years                               | 81                                   | 20.4         | 41           | 10.3         | 1            | 1            |
| Within 2–3 years                               | 120                                  | 30.2         | 32           | 8.1          | 1.9 (1.1,3.3)| 1.9 (1.1, 3.6)*  |
| After 3 years                                  | 110                                  | 27.7         | 13           | 3.3          | 4.3 (2.2,8.5)| 4.0 (1.9, 8.5)*** |
| Knows any contraceptive method                 |                                       |              |              |              |              |              |
| Yes                                            | 569                                  | 77.5         | 137          | 18.7         | 2.3 (1.04,5.1)| 9.6 (2.4, 39.0)*** |
| No                                             | 18                                   | 2.5          | 10           | 1.4          | 1            | 1            |

Note: Statistically significant at P<0.05 = *, P < 0.01 = ** and P < 0.001 = ***.
Conclusion
The overall married women’s decision-making power on family planning use was not low. Household monthly income, husband’s desired ideal number of children, husband’s desired time when to have another child and information about any contraceptive methods were statistically significant factors of married women's decision-making power on family planning use. There should be awareness creation on family planning methods to increase its utilization.

Abbreviations
HEWs, health extension workers; FP, family planning; FMoH, Federal Ministry of Health; SPSS, Statistical Package for Social Science; CI, confidence interval; COR, Crude odds ratio; AOR, adjusted odds ratio; SD, standard deviation; ETB, Ethiopian Birr; RH, reproductive health; IUCD, intra uterine device.

Data Sharing Statement
The data that support the findings of this study are available to the corresponding authors upon reasonable request.

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Author Contributions
All authors made substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; took part in drafting the article or revising it critically for important intellectual content; gave final approval of the version to be published; and agree to be accountable for all aspects of the work.

Disclosure
The authors declare that they have no competing interests in this work.

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