



A SURVEY ON PERCEPTION, KNOWLEDGE AND USE OF CONTRACEPTIVES AMONG FEMALES IN IKOT ABASI, AKWA IBOM STATE

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ABSTRACT: *The rate of unwanted pregnancies and maternal morbidity can be significantly reduced by the use of various forms of contraception. This study assesses the perception, knowledge and use of contraceptives among women in Ikot Abasi local government area of Akwa Ibom State. A pre-tested, structured interviewer-administered questionnaire was the tool for data collection and multi-staged sampling technique was used to select 512 females of reproductive age from the five clans of Ikot Abasi. The method of multinomial logistic regression was used to determine the contraceptive methods and determinants of contraceptive use while the Chi-Square test was applied to determine the perception of contraception. The results revealed that about 97% of the women have knowledge about contraceptives and their major source of information about contraceptives were from their friends/relatives which account for about (37%). Women in the age category 33 – 38, M.Sc/Ph.D level of education and income earners of more than ₦100,000 per month have a high relative risk ratio of contraceptive use of 3.90, 2.48 and 3.32 respectively. Finally, Age group, level of education, level of income per month and relationship status were discovered to be the main determinants of contraceptives use among women in Ikot Abasi.*

KEYWORDS: Contraception, Multinomial logistic regression, Relative risk ratio, Perception, Knowledge.



INTRODUCTION

In Nigeria today, particularly some parts of the South-South region, unwanted pregnancies have become the fad, despite government's efforts to reduce its recurrence. It is noteworthy that researchers believe that uncontrolled sex can lead to unwanted pregnancies, resulting in unwanted children, population explosion, maternal mortality, child raising complications, anti-social behaviors and weak state control. (National Population Commission, 2018, The International Classification of Functioning, Disability and Health (ICF) International 2019; Nigeria Demographic and Health Survey, 2018). In most cases, women within maternal age may be too ignorant to bother about birth control, while in some cases, socio-religious beliefs engender attempts to control birth flow. For instance, most African communities believe that child-bearing is a gift from God (Terefe et al., 2024). As much as it can be true among religionists, the belief should not encourage unprotected sex culminating in unprepared pregnancies and childbirth.

A research by Caning and Schultz (2012) however argued that “developing” economies would improve with modern birth control methods. But, importantly, the level of education and location of residence cannot be detached from the participation factor. Studies consistently highlight the positive impact of contraceptive use on maternal and child health by preventing unintended pregnancies and reducing pregnancy-related health risks. Determinants of contraceptives use are key variables in the evaluation of family planning programmes (Ogboghodo et al., 2017). Indeed, knowledge and practice of contraceptive use for females of child-bearing age are relevant, important and beneficial in the South-South region of Nigeria (Briggs & Abo, 2024). However, studies have shown that the knowledge of contraceptive forms, methods and application hardly translate to the actual usage of it (Sule et al., 2016). Above all, Briggs and Abo (2024) found out that contraceptive use, perception and knowledge is directly or indirectly associated with education level, age, wealth level, being married and living with a partner, number of children alive and number of children born already.

A lot of articles have been published concerning knowledge, perceptions and use of contraceptives among females. To have a full understanding of this topic, we conducted a search in September 2024 using Google Scholar on this order to have an understanding of the volume of research activity in this area, number of studies on knowledge, perceptions and use of contraceptives among females published in the last 15 years (2010–2024). The search was based on the title of any article containing the keywords “knowledge” “perceptions” and “use of contraceptives”. The records returned by Google Scholar were then individually screened, and duplicates were identified and removed. The final search results were summarized in Figure 1.

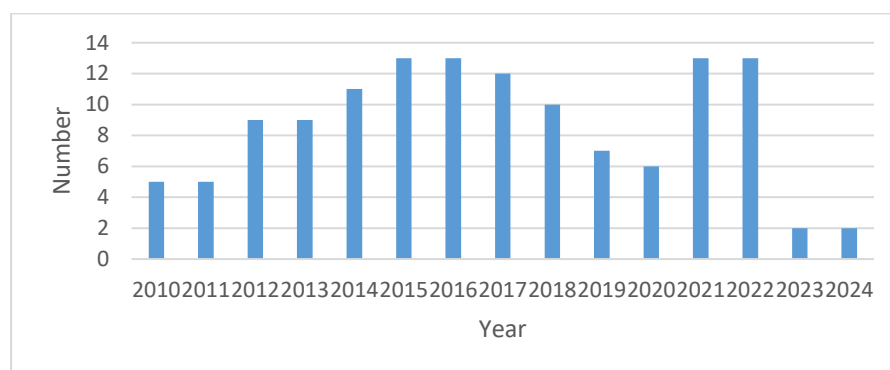


Figure 1: Number of published articles on knowledge, perceptions and use of contraceptives by year.

Knowledge and Use of Contraceptives in South-South Nigeria

Traditional contraceptive methods such as the male condom, withdrawal, and rhythm methods, have been used for many earlier decades earlier, whereas others, such as the pill and intrauterine device (IUD), vaginal rings, emergency contraception, subcutaneous injections, and implants called the modern contraceptive methods became available decades later (Terefe et al., 2024). Different pregnancy prevention needs, such as ceasing or delaying childbirth, should be provided with appropriate and effective techniques. The goal of contraceptive methods is to achieve contraception in the most comfortable and private way. The knowledge, perception and use of contraceptives among women is a global topic, but this section concentrates on literature that centers on the South-South region of Nigeria.

Eniojukan et al. (2016) carried out a study on knowledge, perception and practice of contraception among staff and students of a University community in Delta State, Nigeria. They employed a descriptive cross-sectional approach in the Abraka and Oleh Campuses of Delta State University using appropriately designed, validated and pre-tested questionnaires. They observed that unplanned pregnancies have become a recurrent behavior among young women, resulting in unwanted child birth, abortions, rising mortality and fatality among young women. The research further revealed that about 84% of the respondents had recommendable knowledge of contraceptives. Condoms and oral pills were the preferred methods and safety, reliability and accessibility were proffered as reasons for choice.

Similarly, Aronu et al. (2018) did a quantitative study survey on the knowledge and use of contraceptives among women in Delta State Nigeria. The survey was done to determine the demographic variables that can impact on the use and knowledge of contraceptives by women in Oghara, Delta state as well as ascertain the medium adopted for information acquisition and the contraceptive method used by the women. The survey used primary source of data collection, aided by questionnaire distribution to the targeted audience. The result showed that the majority of the respondents were married with secondary school certificates. The research also revealed that demographic variables such as age, religion, marital status of the respondent and level of education contributed immensely to the use of contraceptives among women in Oghara, Delta state.



Eze et al. (2018) examined the sexual behaviour and Patterns of contraceptive use among Students of two tertiary institutions in Delta State Nigeria. Result revealed that condoms and oral pills were the most used and preferred method. In Edo State, Ogboghodo et al. (2017) studied the prevalence and determinants of contraceptive use among women of child-bearing age in Awuyemi community of Etsako East LGA, Edo State. The study revealed that the prevalence of contraceptive use was low in the studied population and determinants of contraceptive use among sexually active were cost of contraceptives, informed choice and level of education. Agbo et al. (2020) examined the knowledge of modern forms of contraceptive methods and its uptake among female students in Otuoke, Bayelsa State. The study revealed that the respondents demonstrated a high level of knowledge and awareness of family planning, but showed low patronage of modern forms of contraceptives use.

Ukoji et al. (2022) made a landmark discovery about the women of South-South, Nigeria. They conducted a research to determine the extent of knowledge of contraceptives in relation to actual use of the family planning methods. The elaborate study involved a cross section of 4,553 child bearing women of South-South zone drawn from 2018 National Demographic and Health survey data. The result of the survey showed that 82 percent of the respondents, at least, had a knowledge of one form of contraceptive method. Apart from fear of side effects of contraceptive use, religious, educational barriers and limited information concerning the efficiency of contraceptives for birth control, child spacing and protection against STI, there seems to be more socio-marital factors affecting the usage of contraceptives.

In Cross River State, Undelikwo et al. (2023) examined the factors influencing contraceptive use among women of reproductive age in plantation farming communities of the state. The study focused on three farming areas, namely: Akparabong, Ekom Agoi/Agoi Ibami and Mbarakom all located in Cross River State. The result showed that of the 609 participants recruited, 31.03% were currently using a contraceptive. Women with secondary education were less likely to use contraceptives compared to the uneducated. In Rivers State, Osaro et al. (2017) examined the knowledge of modern contraceptives and their use among rural women of childbearing age in Rivers State Nigeria. The study showed a gap between general awareness about modern contraceptives and adequate knowledge needed to make an informed decision about its usage. Also, nearly all the rural women have heard of modern contraceptives, about 67% of them have good knowledge about the contraceptives. Also, Briggs and Abo (2024) examined family planning knowledge and its determinants among mothers attending antenatal clinics at a health facility in Rivers State. The study revealed that about 73.6% of women agreed that family planning was beneficial, and age, marital status, educational status, occupation, and antenatal clinic attendance were significantly associated with the level of family planning knowledge. Outside the South-South region of Nigeria, Sule et al. (2015) and Anate et al. (2021) carried out a study to assess the knowledge and utilization of family among women and post-partum women attending primary healthcare centers in urban and selected rural healthcare centers across Lagos State respectively. Nwankwo et al (2021) examined knowledge, attitude and practice of emergency contraception among Students in the Northwestern Nigeria

This study however is undertaken to determine whether the government's efforts to disseminate information on contraception backed up by distribution of contraceptives in some health centers have yielded positive results about the knowledge, perception and use of it, in Ikot Abasi local Government Area of Akwa Ibom State. The aim was achieved with the objectives to determine the proportion of females that use the modern and traditional contraceptive methods and determine the demographic variables that impact on contraceptive use and the



perception of contraceptives among females in Ikot Abasi local Government Area of Akwa Ibom State.

METHODOLOGY

A population study was conducted using a descriptive cross-sectional study design among women of reproductive age in the five clans Ikot Abasi L.G.A of Akwa Ibom State, Nigeria. A pre-tested, structured interviewer-administered questionnaire was the tool for data collection. A community survey was done using multi-staged sampling techniques to select 512 females of reproductive age from the five clans of Ikot Abasi. Three levels of statistical analysis were carried out in the study. At the univariate level, frequency distribution and percentages were used to describe the demographic characteristics of the respondents. At the bivariate level, unadjusted multinomial logistic regression coefficients were used to examine the association (positive or negative) between specific explanatory or control variables and contraceptive methods and use. At the multivariate level, the adjusted multinomial logistic regression was used to further examine the determinant of contraceptive use. Chi-square test analysis was carried out to test the perception women have on the use of contraceptives. The Chi-Square analysis is suitable for the study because the four categories of the outcome variable categories were ordered.

Logistic Regression

Most research problems need statistical analysis of dichotomous types of data. Many of these researches use logistic regression methodology to deal with such kind of data. Binary logistic regression is the method to explore relation and influence between the dependent binary data and continuous and/or categorical independent variables. It is a statistical model that is used to predict the probability of a binary outcome based on one or more predictor variables. Suppose we have an independent observation with p explanatory variables. The qualitative response variable has k categories. To construct the logits in the logistic case one of the categories is considered the base level and the other logits constructed relative to it. Any category can be taken as the base level, we shall take category k as the base level in our description of the method. Since there is no ordering, it is apparent that any category may be labeled k . Let π_j denote the probability of an observation falling in the j th category. To obtain the relationship between this probability and the p explanatory variables, x_1, x_2, \dots, x_p . The logistic regression model is expressed as

$$\log\left(\frac{\pi_j(x_i)}{\pi_k(x_i)}\right) = \beta_{0j} + \beta_{1j}x_{1i} + \dots + \beta_{pj}x_{pi} \quad (1)$$

for $j = 1, 2, \dots, k-1$ and $i=1, 2, \dots, n$

letting all π 's add to unity then eqn (1) will then have the form

$$\log(\pi_j(x_i)) = \frac{\exp(\beta_{0j} + \beta_{1j}x_{1i} + \dots + \beta_{pj}x_{pi})}{1 + \sum_{j=1}^{k-1} \exp(\beta_{0j} + \beta_{1j}x_{1i} + \dots + \beta_{pj}x_{pi})} \quad (2)$$



Specifying the logistic model required for estimating perception, knowledge and use of contraceptives respectively with demographic variables as predictors is given as

$$\log(\pi_j x_j) = \frac{1}{1 + \exp - (\beta_0 + \beta_1 x_1 + \dots + \beta_6 x_6)} \quad (3)$$

Where x_1 represents the clan of residence, x_2 represents of age, x_3 represents level of education, x_4 represents the income status per month, x_5 represents the religion affiliation and x_6 the relationship status of the respondents.

Odd Ratio or Relative Risk Ratio

The ratio $\pi / (1 - \pi)$ is called the odds or relative risk, where π is the probability of success and the natural logarithm of the odds is called the logit. Odds always have values greater than zero and if the odds value is larger than one it means that success will occur more likely than failure. For example, odds = 4 means we will observe four successes for every one failure and if Odds = $\frac{1}{4}$ expect that the reverse will occur. Odds ratio, as the name indicates, is the ratio of two odds. Mathematically,

$$(\pi_1 / (1 - \pi_1)) / (\pi_2 / (1 - \pi_2)) \quad (4)$$

Here, π_1 and π_2 refer to the probability of success in group 1 and group 2 respectively. If the odds ratio value is greater than one, it indicates that the odds of the outcome in group 1 is larger than in group 2. Thus, subjects in group 1 are more likely to have success than subjects in group 2. If the odds ratio is less than the value one, expect that the reverse will occur and if it is equal to one subject the odds of both in group 1 and group 2 will equally likely occur.

RESULTS OF ANALYSIS

Demographic Characteristics of Respondents

Table 1 describes the demographic characteristics of sample women in Ikot Abasi. From the table, about 36% and 26% reside in Ikpa Ibekwe and Edemaya clan respectively, while about 32% and 25% of the women fall between the age group of 21 – 26 and 37 – 32 respectively. Also about 30% and 33% of the women's educational attainment are secondary and B.Sc/HND, respectively. Furthermore, 36% and 25% account for women whose level of income per month lies between ₦5,000 - ₦20,000 and ₦20,000 - ₦50,000 respectively. The major religious groups are the Anglican/Methodist/Presbyterian/Jehovah Witness/Qua Ibo Church which account for about 44%, followed by Catholics which account for about 31% and 21% of the women for Pentecostal. The relationship status of the respondents saw the married women account for about 39% of the respondents while the singles account for about 45% of the respondents.

**Table 1: Demographic Characteristics of the Study Participants in Ikot Abasi**

Clan of Residence	Frequency	Percent
Ikpayong Nnung Assang	39	7.62
Ikpa Ibekwe	184	35.94
Ikpa Nnung	105	20.51
Ukpum Ette/Okon	53	10.35
Edemaya	131	25.59
Age Distribution:		
15-20	73	14.26
21 - 26	163	31.84
27-32	130	25.39
33 - 38	81	15.82
39 and above	65	12.70
Level of Education		
Primary	39	7.62
Secondary	155	30.27
Diploma/NCE	69	13.48
HND/B.Sc	170	33.20
M.Sc/Ph.D	79	15.43
Income Status per month		
less than ₦5,000	67	13.09
₦5,000 - ₦20,000	185	36.13
₦20,000 - ₦50,000	126	24.61
₦50,000 - ₦100,000	92	17.97
More than ₦100,000	42	8.20
Religion Affiliation		
Islam/ African Tradition	26	5.08
Ang/ Meth/Presby/JW/Qua	223	43.55
Pentecostal	105	20.51
Catholics	158	30.86
Relationship Status		
Married	201	39.26
Separated	20	3.91
Widow	37	7.23
Single	229	44.73
Divorced	25	4.88

Table 2 presents the cross tabulation of knowledge and use of contraceptives among women in Ikot Abasi. The table revealed that about 97% of the women have knowledge about contraceptives. The major source of information about contraceptives were from friends/relatives which account for about (37%) followed by social media and health personnel which account for about 24% and 23% respectively.

**Table 2: Knowledge and Use of Contraceptives**

Variables	Frequency	Percent
Have you heard about contraceptives?		
Yes	499	97.46
No	13	2.54
Who informed you about Contraceptive?		
Friend/Relatives	190	37.11
Print Media	30	5.86
Electronic Media	50	9.77
Health Personnel	119	23.24
Social Media	123	24.02
What are contraceptives used for?		
Prevention of unwanted Pregnancy	283	55.27
Prevent sexually transmitted diseases	94	18.36
All of the above	135	26.37
Do you use contraceptives?		
Always	139	27.15
Not at all	58	11.33
Not Always	315	61.52
Which government facility do you access modern contraceptive services and commodities?		
Hospital	128	25.00
Community Health Centers	142	27.73
Family planning clinic	100	19.53
Outreach	14	2.73
Community distributors	14	2.73
Private providers	85	16.60

About 55% of the women's primary aim of using contraceptives is to prevent unwanted pregnancy while 26% of them use contraceptives for both prevention of unwanted pregnancy and sexually transmitted diseases. The rate of usage of contraceptives showed that about 62% of the women do not always use contraceptives while about 27% always use contraceptives. To access modern contraceptive services and commodities, about 28% of the women use community health centers, while 25% of them use hospitals and about 20% of them use family planning clinics.



Logistics Regression Analysis

Table 3 shows the bivariate regression analysis on contraceptive methods by the respondents. Women residing in Ikpa Ibekwe have higher relative risk 3.5 of modern contraceptive methods compared to women in other clans of residence.

Table 3: Bivariate Logistic Regression Analysis on Contraceptive Methods

Variables	Traditional Method		Modern Method	
Clan of Residence	RRR	P-value	RRR	P-value
Ikpayong Nnung Assang	Ref	-	Ref	-
Ikpa Ibekwe	1.51	0.001*	3.5	0.001*
Ikpa Nnung	1.20	0.001*	2.2	0.001*
Ukpum Ette/Okon	0.61	0.002*	1.2	0.009*
Edemaya	1.40	0.000*	2.7	0.000*
Age				
15 – 20	Ref	-	Ref	-
21 – 26	1.51	0.001*	1.5	0.001*
27– 32	0.60	0.001*	2.2	0.001*
33 – 38	0.31	0.092	3.9	0.002*
39 and above	0.30	0.068	3.7	0.000*
Education				
Primary	Ref	-	Ref	-
Secondary	1.60	0.000*	1.34	0.064
Diploma/NCE	0.82	0.014*	2.87	0.232
HND/B.Sc	0.87	0.104	3.97	0.004*
M.Sc/Ph.D	0.52	0.335	2.79	0.001*
Income				
less than ₦5,000	Ref	-	Ref	-
₦5,000 - ₦20,000	4.29	0.002*	1.54	0.365
₦20,000 - ₦50,000	3.09	0.001*	2.72	0.081
₦50,000 - ₦100,000	2.27	0.486	3.74	0.012*
More than ₦100,000	1.44	0.073	4.22	0.002*
Religion Affiliation				
Islam/African Tradition	Ref	-	Ref	-
Ang/Meth/Presby/JW/Qua	2.65	0.0521	1.38	0.723
Pentecostal	2.77	0.0542	1.62	0.421
Catholics	2.74	0.063	1.26	0.917
Relationship Status				
Separated	Ref	-	Ref	-
Divorced	1.13	0.000*	3.01	0.000*
Widow	1.06	0.000*	2.25	0.060
Single	2.86	0.001*	1.62	0.004*
Married	2.61	0.002*	2.02	0.005*

Also, women in the age group (33–38 years, and 39 and above) have a high relative risk of 3.9 and 3.7 respectively of modern contraceptive use as compared to women aged less than 32 years of age. The women earning ₦5,000 - ₦20,000 per month have a high relative risk of 4.29



of traditional contraceptive use as compared to women earning more than ₦20,000 per month. Similarly, women earning more than ₦100,000 per month have a high relative risk of 4.22 of modern contraceptive use as compared to women earning less than ₦100,000 per month. The women in the Anglican/Methodist/Presbyterian/Jehovah Witness/Qua Ibo Church and Pentecostal have a high relative risk of modern contraceptive use though this risk is not significant (P -value > 0.05) compared to women of catholic faith. Finally, women that are divorced have a high relative risk of 3.01 of modern contraceptive use compared to women that are Single, Married or Widow.

Table 4: Logistic Regression Model for Determinants of Contraceptive Use

	β	SE	Wald	RRR	P value
Clan of Residence					
Ikpayong Nnung Assang	Ref	-	-	-	-
Ikpa Ibekwe	0.986	0.102	9.600	1.52	0.133
Ikpa Nnung	-0.093	0.117	0.795	0.83	0.525
Ukpum Ette/Okon	-0.087	0.093	0.935	0.78	0.162
Edemaya	0.834	0.060	13.900	1.21	0.125
Age Group					
15 – 20	Ref	-	-	-	-
21 – 26	1.497	0.137	10.926	1.57	0.001*
27-32	1.088	0.127	8.567	2.22	0.001*
33 – 38	1.590	0.101	15.743	3.90	0.002*
39 and above	0.638	0.105	6.076	3.21	0.001*
Level of Education					
Primary	Ref	-	-	-	-
Secondary	0.511	0.120	4.258	1.48	0.031*
Diploma/NCE	0.267	0.125	2.136	1.65	0.001*
HND/B.Sc	0.926	0.040	23.150	2.08	0.002*
M.Sc/Ph.D	0.259	0.107	2.421	2.48	0.042*
Income per month					
less than ₦5,000	Ref	-	-	-	-
₦5,000 - ₦20,000	0.479	0.140	3.421	1.34	0.011*
₦20,000 - ₦50,000	0.111	0.077	1.442	2.43	0.001*
₦50,000 - ₦100,000	0.136	0.083	1.639	3.11	0.002*
More than ₦100,000	0.030	0.105	0.285	3.32	0.001*
Religion Affiliation					
Islam/African Tradition	Ref	-	-	-	-
Ang/Meth/Presby/JW/Qua	0.516	0.053	9.736	0.83	0.516
Pentecostal	0.481	0.376	1.279	1.14	0.426
Catholics	0.181	0.383	0.473	0.82	0.634
Relationship Status					
Separated	Ref	-	-	-	-
Divorced	-0.358	0.065	5.508	1.34	0.031*
Widow	-0.162	0.051	3.176	2.43	0.001*
Single	0.302	0.058	5.209	2.11	0.002*
Married	0.516	0.053	9.736	1.32	0.042*
Intercept	2.211				



Table 4 shows the determinants of contraceptive use of women in Ikot Abasi. The table revealed that age group, level of education, level of income per month and relationship status were significantly determinants of contraceptive use by women in Ikot Abasi (all P-values < 0.05). Although not significant (P-value > 0.05), women residing in Ikpa Ibekwe clan have high relative risk (1.52) of contraceptive use with coefficient of 0.986 compared to other women residing in other clans. Age group 33 – 38 with coefficient of 1.590, HND/B.Sc class of education with coefficient of 0.926, ₦5,000 - ₦20,000 class of income with coefficient of 0.479 contribute more in the determinants of contraceptive use.

Table 5: Women's Perception of Contraceptive Use

Variables	N	SA (%)	A (%)	DA (%)	SDA (%)	χ^2 value	P-value
Modern contraceptives can cause harm if conception has already occurred	512	284 (55.47)	125 (24.41)	53 (10.35)	50 (9.77)	10.8619	0.012*
Modern contraceptive method inhibits conception after use	512	163 (31.84)	81 (15.82)	130 (25.39)	138 (26.95)	7.8479	0.216
Modern contraceptives hasten menopause	512	79 (15.43)	108 (21.09)	155 (30.27)	170 (33.20)	6.9634	0.112
Modern contraceptives causes overweight in women	512	71 (13.87)	185 (36.13)	126 (24.61)	130 (25.39)	2.8619	0.009*
Contraceptive use promotes promiscuity	512	26 (5.08)	105 (20.51)	158 (30.86)	223 (43.55)	2.8479	0.516
Cultural beliefs and practices influences contraceptive use	512	45 (8.79)	37 (7.23)	229 (44.73)	201 (39.26)	6.9235	0.064

Table 5 shows the women's perception of contraceptive use in Ikot Abasi. The perception that modern contraceptives can cause harm if conception has already occurred and also causes overweight in women were statistically significant (P-values < 0.05)

CONCLUSION

This study assesses the perception, knowledge and use of contraceptives amongst women in Ikot Abasi local government area of Akwa Ibom State. The proportion of females that use the traditional and modern contraceptives methods were determined. The determinants of contraceptives use and the perception of women's use of various contraceptives were all considered. The study showed that the respondents demonstrated a high level of knowledge and awareness of contraceptive methods. Also, age group, level of education, level of income per month and relationship status were discovered to be the main determinants of contraceptives use among women in Ikot Abasi.

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Conflicts of Interest

The authors declare no conflict of interest.

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