

**Research Article***Open Access, Volume 2****Sexual Counseling in Breast Cancer*****Kowsar Hakami Shalamzari\****Mashhad University of Medical Sciences, Iran.***Introduction**

Sexual changes in breast cancer occur after its diagnosis and treatment include mastectomy and are affected by various factors, such as decreased sexual desire, fear of body deformity, fear of rejection by a sexual partner, and sexual dissatisfaction [1]. Sexual assertiveness is an effective factor in sexual satisfaction that means the ability to convey sexual feelings, beliefs, and thoughts, and to defend sexual rights logically [2]. Alberti and Emmons (1970) defined sexual assertiveness as individuals' ability to act on and stand up for their interests without anxiety and to express their rights without violating others' rights [3]. Sexual assertiveness is defined as a psychosocial feeling about individuals' perception or interpretation of how their feelings are expressed in marital relationships. Sexual assertiveness is regarded as individuals' ability to have sex to meet sexual needs and to guide sexual behavior with their spouses [4].

Asadi (2011) found that sexual assertiveness was a significant factor in sexual and marital satisfaction [5]. Mirshamshiri (2015) found that increase of sexual assertiveness decreased marital conflict and burnout [6]. Examination of the role of sexual assertiveness in women's sexual desire, Hurlbert found that women with high sexual assertiveness had higher sexual activity, orgasm, sexual satisfaction, and marital satisfaction [2].

Difficulty in communicating and expressing needs and wants is the main cause of sexual and relationship problems after cancer treatment. Akbari et al. (2020) indicated that sexual assertiveness was a major factor in sexual satisfaction, and since the sexual activity pattern was unsatisfactory in most women with breast cancer, their sexual assertiveness was also low [7]. Studies indicated that both women and their sexual partners used the silent method for coping and compliance, and even avoided telling healthcare providers about sexual issues [8].

Yusuf et al. (2013) found that women had changes in their perception of their body image owing to breast loss and changes after surgery, considered themselves incomplete and unattractive, and worried that their husbands would reject them due to the changes [9]. If women talk to their sexual partners about their conditions, abilities, disabilities, and limitations after completing their cancer treatment, and in other words, obtain their sexual assertiveness, they will be able to manage changes in sexual relations easily and better [8].

It is not easy to express sexual problems in Iran because of cultural and religious reasons so the existence of these problems occurs secretly in daily behaviors in the form of unnecessary anger and family conflicts [10]. Khajeh Aminian et al. (2014) conducted a study to identify the sexual function of women after mastectomy. The results showed that Iranian women consider sexual and intimate relations as one of the factors in maintaining the foundation of the family and therefore try to meet the needs of their husbands. In fact, they respond to new sexual situations in two possible ways: by refraining from sexual intercourse or accepting sexual intercourse with undesirable changes caused by mastectomy [11].

Studies demonstrate that lower sexual assertiveness is associated with higher marital incompatibility, psychological distress, and emotional divorce [6]. Taheri (2020) found that higher sexual assertiveness decreased emotional divorce [12]. Therefore, the design and implementation of a counseling-educational method are essential to promote sexual relations and intimacy in women with breast cancer.

The PLISSIT model (Permission, Limited Information, Specific suggestions, and Intensive therapy) has been widely used in sexual counseling [13]. The BETTER model is another approach to sexual counseling in cancers [14]. and consists of 6 stages as fol-

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lows: The first stage (Bringing up): Discussing the issue of sexual relations with the patient. The second stage (Explaining): Counseling on the importance and impact of sexual issues on quality of life. The third stage (Telling): Informing and explaining sexual problems. The fourth stage (Timing): Paying attention to scheduling. The fifth stage (Educating): Educating about changes in sexual function due to cancer and its treatments, and recognizing and correcting misconceptions. The sixth stage (Recording): Recording important aspects of discussions, evaluations, and interventions.

The PLISSIT model is a simple way to address sexual issues. One of its benefits is allowing to express sexual concerns freely in the first stage, which examines sexual problems at the outset of counseling without marginalization. In fact it is a simple way to address sexual issues [15]; however, it has a linear format, and due to entering from one stage to another, the therapist cannot recognize that it may be necessary to return to the previous stage to address the patient's sexual concerns. This model places little emphasis on patient feedback. A limitation of the model is that due to the need for knowledge and skills at the third and fourth levels of PLISSIT, midwives and nurses can only intervene in the first and second stages [16,17].

On the contrary, the BETTER model is defined as a client-centered model and is a tool to facilitate the express of sexual issues between the client and the therapist. Martinez (2007) maintains that this model has been introduced owing to its simplicity and focus on improving sexual discourse. The emphasis of the BETTER model is on recording conversations to expand and advance sexual discourse. This model provides a wider range of sexual negotiations based on the client's schedule and necessary information [14,18].

Considering the cultural beliefs of the Iranian society about the difficulty of talking about sexual function problems, especially after changes in the appearance of sexual organs and the client's participation in these two models, And the contradictions about the performance of the PLISSIT model and on the other hand the simplicity of the BETTER model, the researcher aimed to conduct research in order to compare the effect of counseling based on PLISSIT and BETTER models on women's sexual assertiveness after mastectomy.

## Materials and methods

### Study design

The present quasi-experimental study examined 78 mastectomized women who visited the Cancer Clinic of Omid Hospital in Mashhad from May 2021 to January 2022.

### Participants

Inclusion criteria of the study were as follows: Informed consent to participate in research, literacy, being married, being at the age of 18-49, passing at least one year after mastectomy. Sexual function score less than 28 based on FSFI questionnaire, non-use of drugs and alcohol in wife and husband, no use of drugs affecting sexual function by the person or her husband, not receiving sexual counseling during the last 6 months, not suffering from psychiatric illnesses, and moderate and severe depression, and lack of experience of accidents in the last 1 month.

Exclusion criteria were as follows: absence from a counseling session, recurrence of symptoms of breast cancer or its metastasis or other cancers, and death of the patient.

### Sample size

The sample size was obtained 33 per group according to one study conducted by Karimi et al [19]. using the formula of the mean of two independent populations, the minimum sample size, and considering a confidence interval of 95%, and test power of 80%. By considering the 20% probability of loss, the final sample size was 40 per group and a total of 80 individuals.

$$n = \frac{(z_{1-\frac{\alpha}{2}} + z_{1-\beta})^2 (s_1^2 + s_2^2)}{(\bar{x}_2 - \bar{x}_1)^2}$$

### Sampling method, data collection and randomization

Sampling was performed after obtaining the approval of the University Ethics Committee and submitting a written letter of recommendation from the School of Nursing and Midwifery to the Breast Cancer Clinic of Omid Hospital and obtaining their consent. First, approximately 400 cases of breast cancer patients were studied from 2011 to 2020, and approximately 250 patients with primary conditions were selected. Then, they were contacted, and 80 patients with the inclusion criteria were selected, and written consent was obtained from them after providing the necessary information about the study and its objectives. They completed the questionnaires after receiving information on how to respond to each questionnaire and assuring them that the information would be confidential.

After selecting eligible individuals, random allocation of individuals to the two consulting groups, BETTER and PLISSIT, was performed in random blocking using the table of random numbers from the website of [www.randomization.com](http://www.randomization.com). The created sequences were recorded on small sheets and placed in sealed envelopes. The envelopes were opened according to the order of the arrival of the research units, and the assigned group was revealed. The final study was conducted on 78 individuals due to the loss of 2 units (One in the BETTER group due to death, and another in the PLISSIT group due to absence from counseling sessions).

### Outcome measurements

The research tools included the demographic information form and the Hulbert index of sexual assertiveness (HISA), which were completed by the units before the intervention. The demographic information form included 37 questions prepared by studying new and valid references and articles. The HISA consisted of 25 questions with a score ranging from 0 to 100. The higher score indicated higher sexual assertiveness, and the lower score exhibited lower sexual assertiveness [20]. The reliability of the tool was 0.83 using the Cronbach's alpha coefficient in one study conducted by Azmoude et al. [21], and it was 0.87 by the Cronbach's alpha in the present study. Validity of all Questionnaires was confirmed by 7 faculty members of Mashhad University of Medical Sciences.

### Intervention procedure

In the PLISSIT counseling group, four 60-90-minute individual counseling sessions were held one week apart. First session: In

a safe and trustworthy environment, the counselor allowed the clients to talk about sexual issues and express their concerns and problems. At this stage, the counselor began to talk to the patient and obtains complete information about the patient's sexual issues by removing communication barriers. In fact, the first step was to accept the patient and validate his concerns. Second session: The counselor provided limited, real, and fact-based information in response to a question or potential sexual problems admitted by the clients. Providing limited information related to the client's concern can have a significant impact on his attitude and behavior. Limited information usually accompanies the first step, permission, and the counselor should only provide limited information that is directly relevant to the client. Despite providing a wide range of sexual information, evidence suggests that giving limited information about a client's problem, can make a significant difference in a person's attitude. Third session: At this stage, the counselor offered specific and appropriate suggestions for the patient's sexual problem. The main solution to the problems at this stage is developed by the authorities' decisions and the counselor's guidance. These suggestions may included psychological, medication, or specific exercises. Fourth session: If the problem persisted, the clients were referred to a sex therapist or specialist (Table 1).

In the BETTER counseling group, four 60-90-minute sessions of individual counseling were held one week apart based on the BETTER model as follows:

First session (Bringing up and Explaining): The issue of sexual relations with the patient was raised and then Beliefs and sexual activity were assessed. The counselor explained the importance and impact of sexual issues on quality of life and reassuring the patients for being comfortable in expressing their sexual issues. This was to help normalize sexual discourse and reduce the client's sense of shame. With the help of counselor, the client realizes that she is not the only one in trouble, so she does not feel lonely. The counselor asked the client if she has ever talked to her spouse about this and what solutions she has sought to solve the sexual problems, thereby encouraging the client to talk. Second session (Telling and Timing): Informing and explaining the patients' sexual problems using available scientific references and Paying attention to scheduling and discussing when the person is ready. Since sexual relation is an ongoing process, a counselor is available at any time to address the clients' concerns and answer their questions. Third session (Educating): The patients were Educated about potential changes in sexual function due to cancer and its treatments, and recognizing and correcting the clients' misconceptions about sex after cancer. Forth session (Recording): important aspects of discussions, evaluations, and interventions were Recorded (Table 2).

In both groups the first session was held in the breast cancer clinic of Omid Hospital and the next sessions were held in what-sapp space by video call.

In addition, both groups provided the researcher with access to ask questions via mobile phone, and the WhatsApp chat.

The intervention was performed by the trained researcher with the support of clinical psychologist in both groups. The validity of the counseling content was evaluated qualitatively by a survey of 3 faculty members related to the subject under study, including one reproductive health specialists, one psychologists and sex therapist and one oncologist.

Four weeks after the intervention, the HISA was re-completed by the research units.

### Statistical analysis

After collecting and encoding the study data, they were inserted into the computer and analyzed by the Kolmogorov-Smirnov test, paired t-test, independent t-test, and Chi-square in SPSS 25. Significance level was considered 5%.

### Ethical considerations

This two-group randomized trial was approved by the Research Ethics Committee of Mashhad University of Medical Sciences with the code NO. IR.MUMS.REC.1399.681. Written informed consent was obtained from all participants and they were assured that their information would be kept confidential.

### Results

The mean±standard deviation of women's age was equal to  $41.3 \pm 4.6$  and  $42.2 \pm 4.3$  years in BETTER and PLISSIT groups, respectively. The mean ± standard deviation of the duration of marriage was  $18.8 \pm 6.8$  and  $19.8 \pm 6.8$  years in BETTER and PLISSIT groups, respectively. The mean±standard deviation of weight was  $73.5 \pm 12.3$  and  $69.8 \pm 9.3$  years in BETTER and PLISSIT groups, respectively. The two groups were homogeneous in terms of other demographic characteristics that were examined and compared before the intervention (Table 3).

Before the intervention, the mean score of sexual assertiveness was 46.7 and 43.07 in BETTER and PLISSIT groups, respectively. The independent t-test indicated no significant difference ( $P=0.253$ ). Four weeks after the intervention, there was a significant difference in the mean scores of sexual assertiveness in both groups, but the difference was greater in the BETTER counseling group: 54.8 vs. 48.6 ( $P=.027$ ). After the intervention, sexual assertiveness increased by 8.07 and 5.58 points in BETTER and PLISSIT groups, respectively. The independent t-test revealed a significant difference in sexual assertiveness scores ( $P=0.026$ ). The paired t-test indicated a significant difference in the sexual assertiveness scores of both groups compared to the time before the intervention ( $p<0.001$ ) (Table 4).

**Table 1: Sexual Counseling Content In The BETTER Group**

Sessions	The aim of the counseling sessions	Counseling content based on the BETTER model
1	Bring up and explain sexual problems * Consultant is the initiator of counseling.	<ul style="list-style-type: none"> <li>- Talking to the patient and stating that she can talk easily.</li> <li>- Discussion about the level of awareness about breast cancer and its side effects</li> <li>- Ask questions about sexual problems to identify the patient's concerns</li> <li>- Question about how to express sexual desires with a spouse</li> <li>- Explain about sex and its importance in quality of sexual life</li> <li>- Explain sexual changes in breast cancer and its treatments, including mastectomy</li> </ul> <p>Homework: In order to monitor spontaneous thoughts in sexual situations, the patient was asked to ask herself what is going on in his mind when she notices a change in her mood? And write them down on a card until next week</p>
2	Reassuring the client about the availability of counselors and telling coping strategies for sexual problems of breast cancer	<ul style="list-style-type: none"> <li>- Reassuring the client to solve the problem or refer to special services in special cases</li> <li>- Reassuring that a counselor is available at all times to address sexual concerns</li> <li>- Examining the patient's efficient and inefficient beliefs about sexual problems in breast cancer</li> <li>- Provide appropriate coping strategies and adaptive response to disturbing thoughts that were requested in the previous session.</li> <li>- Examining dysfunctional beliefs about sex during breast cancer and mastectomy</li> <li>- Correcting the patient's misconceptions</li> </ul> <p>Homework: The patient was asked to make a list of strengths and positive self-talk about his body.</p>
3	Focused education on sexual assertiveness	<ul style="list-style-type: none"> <li>- Educate the patient about strategies to deal with sexual changes caused by breast cancer and mastectomy according to the patient's problem</li> <li>- Teaching the use of alternative methods to have satisfactory sex</li> <li>- Training to express sexual needs and feelings</li> <li>- Learning to talk about how a woman feels about her body with her husband</li> <li>- Advising to play games and sexual fantasies</li> </ul> <p>Homework f: Patients were asked to discuss their mental image of their body after a mastectomy with their spouse at home and to write down their feedback as homework for the next session.</p>
4	Record evaluations, interventions and treatment outcomes	<ul style="list-style-type: none"> <li>- Investigate how deals with sexual problems</li> <li>- Assessing the client's recovery from the consultant's expectations</li> <li>- Recording and reflecting all the experiences, feedback and the degree of recovery of the client compared to the previous sessions</li> </ul>

**Table 2: Sexual Counseling Content In The PLISSIT Group.**

Sessions	The aim of the counseling sessions	Counseling content based on the PLISSIT model
1	Allowing the patient to express sexual issues * The client initiates counseling.	<ul style="list-style-type: none"> <li>- Ask open-ended questions about sex to start counseling</li> <li>- Identify the patient's thoughts on sexual issues</li> <li>- Question about sexual and psychological changes due to mastectomy</li> <li>- Question about the reaction of the patient and her partner to the changes</li> </ul> <p>Homework: In order to monitor spontaneous thoughts in sexual situations, the patient was asked to ask herself what is going on in his mind when she notices a change in her mood? And write them down on a card until next week.</p>
2	Give limited information to the patient	<ul style="list-style-type: none"> <li>- Explain the physical changes associated with breast cancer and its treatments</li> <li>- Explain the changes made in relation to the main problem mentioned by the patient</li> <li>- Provide appropriate coping strategies and adaptive response to disturbing thoughts requested in the previous session.</li> </ul> <p>Homework: The patient was asked to make a list of strengths and positive self-talk about his body.</p>
3	Specific suggestion to the patient with a focus on increasing sexual assertiveness	<ul style="list-style-type: none"> <li>- Provide how to start sexual negotiation, sexual daring and expressing sexual desires</li> <li>- Talk about sexual fantasies</li> </ul> <p>Advise to talk about affection, needs and sexual desires with your spouse.</p> <p>Homework: Patients were asked to discuss their mental image of their body after a mastectomy with their spouse at home and to write down their feedback as homework for the next session.</p>
4	Centralized treatment and patient referral	<ul style="list-style-type: none"> <li>- Encourage the patient for her efforts and progress during the counseling period</li> <li>- Examining negative thoughts caused by damaged sexual self-concept and anxiety caused by these negative thoughts</li> <li>- Referral to a relevant specialist such as a sex psychotherapist or gynecologist</li> </ul>

**Table 3:** Demographic characteristics of the participants in the BETTER and PLISSIT groups.

Variable	BETTER group n (%)	PLISSIT group n (%)	P value	
Education level				
Under Diploma	(25.6)10	(25.6)10	.867	
Diploma	(46.2)18	(41.0)16		
University education	(28.2)11	(33.3)13		
Spouse's education level				
Under Diploma	(30.8)12	(30.8)12	.862	
Diploma	(38.5)15	(33.3)13		
University education	(30.8)12	(35.9)14		
Occupational status				
housewife	(74.4)29	(79.5)31	.122	
worker	(15.4)6	(2.6)1		
Employed	(10.3)4	(17.9)7		
Spouse's occupational status				
worker	(61.5)24	(63.9)27	.348	
Employed	(28.2)11	(20.5)8		
Retired	(5.1)2	(0)0		
Unemployed	(5.1)2	(10.3)4		
Separate room for sexual intercourse				
yes	(69.2)27	(59)23	.345	
No	(30.8)12	(41)16		
drugs affecting on sexual function				
yes	(10.3)4	(7.7)3	1	
No	(89.7)35	(92.3)36		
Chemotherapy history				
yes	(89.7)35	(92.3)36	1	
No	(10.3)4	(7.7)3		
Radiation therapy				
yes	(61.5)24	(64.1)25	.815	
No	(38.5)15	(35.9)14		
Hormone therapy				
yes	(71.8)28	(66.7)26	.624	
No	(28.2)11	(33.3)13		
Vaginal dryness				
yes	(71.8)28	(87.2)34	.092	
No	(28.2)11	(12.8)5		
Hot flash				
yes	(92.3)36	(84.6)33	.481	
No	(7.7)3	(15.4)6		
Vaginal burning				
yes	(35.9) 14	(38.5)15	.815	
No	(64.1)25	(61.5)24		
Variable	BETTER group	PLISSIT group	T	P
Age	4.6± 41.3	42.2 ± 4.3	- .860	.393
Weight	12.3± 73.5	9.3 ± 69.8	1.524	.132
Marage date	6.8± 18.8	6.8 ± 19.8	- .642	.523

**Table 4:** Mean (SD) of sexual assertiveness before and after the intervention in the PLISSIT and BETTER group.

Sexual assertiveness	BETTER n=39	PLISSIT n=39	Result t-test
Before the intervention	46.7 ± 14.6	43.07 ± 13.4	P=.253, t=1.151, df=76
after the intervention	54.8 ± 11.5	48.6 ± 12.5	P=.027, t=2.255, df=76
Changes before and after the intervention between the groups	8.07 ± 4.9	5.58 ± 4.7	P=.026, t=2.266, df=76
<b>Result paired t-test</b>	p<0.001 t=-10.192 , df=38	p<0.001 t=-7.357 , df=38	



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## Discussion

The present study aimed to compare the effect of sexual counseling based on BETTER and PLISSIT models on mastectomized women's sexual assertiveness. The results demonstrated that the BETTER model had a more significant increase in sexual assertiveness than the PLISSIT model. It appears that the BETTER model can improve the conversation between the counselor and the client about sexual issues by creating a safe and intimate atmosphere, since the BETTER model is client-centered and provides a wide range of sexual negotiations based on the client's schedule and information. Since there was no study to compare the effects of the above two models on sexual assertiveness in women with breast cancer, we reviewed the most relevant research in this field.

Jassim et al. (2014) showed that some women consider themselves responsible for meeting their husband's sexual needs, despite their low sexual desire and try to meet their husband's sexual needs in all circumstances and in fact they may not pay attention to their sexual rights in this regard [22]. Takahashi et al. (2008) showed that women experience sexual problems after breast cancer treatment and experience a decrease in sexual arousal with their partner. In this study, sexual intercourse affected by psychological and physical improvement of women, sexual intercourse for couples and fear of negative reaction by the spouse, which indicates the advice and assistance to patients in reducing existing problems and resumption of sexual intercourse [23].

One quasi-experimental study conducted by Akbari et al. indicated that the four-factor psychotherapy had no effect on the sexual assertiveness of women with breast cancer [7]. In this study, the sexual function scores of women were not screened, while only individuals with a score less than 28 in the FSFI were included in the present study. Akbari argued that the quality of women's sexual function was affected by cancer treatments and problems, such as body image change, atrophy, vaginal dryness, and numbness of the breasts, and this factor was an obstacle to sexual assertiveness and expression of sexual desire; hence, the use of special strategies and the participation of medical staff, along with psychotherapy appear necessary.

Nabila El-sayed demonstrated that the implementation of the PLISSIT model was effective in improving sexual function, sexual satisfaction, and body image in breast cancer patients undergoing various treatments [24]. The findings of this study were consistent with those of the present study on the effectiveness of the PLISSIT model; however, one study conducted by Merghati Khoei, aiming at comparing sex counseling based on the PLISSIT model, and group sex education in Iranian women with breast cancer, indicated that although the PLISSIT model was an effective and well-known model, group counseling based on the sexual health model in the Iranian culture was more effective in improving sexual behaviors [25]. The results of this study were consistent with the results of the present study and somehow show the effectiveness of a counseling model such as BETTER that is more in line with Iranian culture. Because group counseling also provides an opportunity for more interaction with peers, patients benefit from each other's experiences and therefore express their problems more easily [26].

In many societies, women have difficulty in sexual assertiveness and have low self-esteem, and it is difficult for them to express their needs or maintain their independence in marital relationships. Therefore, counseling approaches, including BETTER, have been used to encourage couples to discuss sexual issues with each other and with healthcare providers. In this regard, Shahin et al. found that nursing counseling with the BETTER model had a considerable effect on improving sexual desire, sexual satisfaction, and psychological status of women with breast cancer. They indicated that although the BETTER model was designed for a specific group of patients and specialists, it had also been considered in other chronic diseases owing to its simplicity and focus on sexual discourse [27].

Zamani et al. (2020) found that the BETTER model-based couple training and counseling were effective in improving sexual satisfaction of women with type 1 diabetes, and the effect remained until 3 months after the intervention [28]. The result was consistent with the result of the present study.

Karakas et al. found that the BETTER model improved infertile women's sexual function and satisfaction. They stated that the BETTER model provided a suitable treatment environment for solving sexual function problems and helped women to express their sexual problems more easily [29]. Their results were consistent with the results of the present study.

Karimi et al. also compared the two counseling methods, BETTER and PLISSIT, in the sexual assertiveness of women with sexual problems after childbirth, and found that the BETTER model was more effective than the PLISSIT model in increasing women's sexual assertiveness, and their results was consistent with those of the present study [19].

The BETTER model's view about sexual issues is more than just having sex and it is a discussion of the role of sexuality, intimacy in life, and most importantly, the recording of these conversations to expand and advance sexual discourse between the client and the counselor. In the BETTER model, the counselor starts a conversation, clarifies the importance of sexual issues to patients, encourages women to talk more about their problems, and attempts to break the taboo of discussing sexual problems, thereby eliminating the barriers to couples' communication. Hence, it leads to a higher desire for sexual assertiveness, and ultimately increases the couple's sexual satisfaction.

The strength of the present study was that it first compared the two counseling methods, BETTER and PLISSIT, in women with breast cancer who underwent a mastectomy. The research limitation was the absence of husbands in the study. Given the roles of husbands in couple communication, and the importance of mutual communication in sexual intimacy, the presence of both couples will help to make educational-counseling interventions more effective.

## Conclusion

The BETTER model can have a considerable impact on increasing the sexual assertiveness of women with breast cancer by focusing on sexual relations, expressing sexual needs and preferences, paying attention to the sexual counseling timing, emphasizing the record of evaluations, and providing feedback. Thus, it can be used as an advanced easy-to-use framework for healthcare pro-

viders. It is suggested that a study similar to the present study be conducted in the presence of couples to compare BETTER and PLISSIT methods regarding sexual assertiveness.

### Declarations

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**Conflicts of interest:** Nothing to declare.

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