



The Effectiveness of ‘Good-Enough Sex Model’ on Sexual Satisfaction and Sexual Intimacy in Women with Multiple Sclerosis: A Randomized Trial

Fatemeh Jamalifar¹ · Hedyeh Riazi² · Armin Firoozi³ · Malihe Nasiri⁴ · Ali Montazeri⁵

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Abstract

Most women with Multiple Sclerosis (MS) suffer from disrupted sexual satisfaction and sexual intimacy. The objective of the current study was to evaluate the effectiveness of a tailored education using the Good-Enough Sex Model (GESM) to enhance the sexual satisfaction and intimacy of women with MS. A parallel randomized trial conducted on a sample of 80 women with a confirmed MS diagnosis in Tehran, Iran. Samples equally were assigned to the intervention and control groups. Accordingly, the intervention group received the educational program in three 90-min sessions. The control group did not receive any education. We used the Index of Sexual Satisfaction and the Sexual Intimacy Scale for collecting data before and one month after the intervention. To analyze the data, independent and paired t-test, Mann–Whitney and Fisher’s exact test were applied. The intervention and control groups were similar in demographic and clinical characteristics. The mean age of women in the intervention and control group was 38.35 ± 5.57 and 36.15 ± 6.79 years, respectively ($p=0.12$). Before the intervention, there was no significant difference in sexual satisfaction and sexual intimacy between the two groups. After the implementation of the GESM education, there was a significant difference between the two groups in sexual satisfaction and sexual intimacy ($p=0.001$). The findings showed that the Good-Enough Sex Model is an appropriate educational program for improved sexual satisfaction and sexual intimacy in women who suffer from Multiple Sclerosis.

Trial registration: IRCT20150128020854N6. Registered 12 August 2019, <https://en.irct.ir/user/trial/38583/view>.

Keywords Multiple Sclerosis · Sexual satisfaction · Sexual intimacy · Good- Enough Sex Model · Iran

Abbreviations

MS Multiple Sclerosis
GESM Good-Enough Sex Model

✉ Hedyeh Riazi
h.riazi@sbmu.ac.ir

Extended author information available on the last page of the article

Introduction

Sexual health is a state of the healthy, appropriate, and normal sexual relationship between couples [1]. Detecting and improving sexual problems have an important role in the quality of marital relationships and are effective in preventing family problems and their consequences such as separation, divorce, violence, and depression [2]. Sexual satisfaction is an important part of a sexual relationship that increases intimacy, passion, and happiness in life accompanied by marital gratification [3, 4]. Sexual intimacy is also an important dimension of sexual relationships [5] that consists of talking about romantic experiences, the need for physical touch, sexual intercourse, and all the relations that are planned to create arousal, stimulation, and sexual satisfaction [6]. Individuals who enjoy higher sexual satisfaction and intimacy experience higher general and sexual health as compared with others [7].

Studies have reported that the prevalence of Multiple Sclerosis (MS) is 67.83 per 100,000 in the world [8] and 5.78 per 100,000 in Iran [9]. The disease usually begins at age 20–30 and thus if a young woman affected, she might suffer the rest of her life [10]. The prevalence of sexual disorders in women with MS varies from 34 to 85% [11] while in the general women's population it is about 30.0% [12]. Multiple Sclerosis has a negative effect on women's sexual health and reduces their quality of sexual life and sexual relations [13]. The primary, secondary, and tertiary sexual dysfunction among women suffering from MS is about 52%, 37.5%, and 41% respectively [14, 15]. It has been suggested that sexual inability among women with MS originates from four different roots: physiological pathway (spinal cord damage), treatment side-effects, psychological factors, (anxiety, stress, depression, loss of self-esteem, body image concerns), and physical symptoms (fatigue, weakness and numbness of pelvic floor muscles, and pain) [16, 17]. As such it is argued that the possibility of compromising sexual satisfaction and sexual intimacy which are considered as key factors in the quality of life and well-being is very common in women with MS and are usually neglected [18–22]. Therefore, improving sexual health in MS patients, especially younger patients, is of prime importance.

Different interventions and treatment methods have been used for improving sexual health and quality of marital relations in MS patients [23–26] including psychotherapy [20, 23], PLISSIT (Permission, Limited Information, Specific Suggestions, Intensive Therapy) [24], pelvic floor muscle training and electric stimulation [25], yoga techniques [26], counseling [27], and providing written information such as brochures and booklets [28]. For instance, the PLISSIT is a four-level intervention focusing on what kind of and how much help is needed for a given client. As such it has been suggested that educational interventions for these patients might be a useful approach since in general they are cost-effective and could be helpful [24]. However, a study reported that only about 16% of MS patients receive such interventions [29]. It is argued that training sexual relationships can improve couple's marital satisfaction, and reduce divorces [30, 31] where it is well documented that 50 to 60% of divorces, as well as 40% of sexual infidelity, are caused by lack of sexual satisfaction [32].

One of the models used for reducing sexual problems is the Good- Enough Sex Model (GESM) developed by Metz and McCarthy. The model is adapted for couples with sexual problems and it consists of two fundamental issues: (i) mutual sexual relationships to enjoy the sexual relationship, and (ii) intimacy and adoring in order to achieve maximum pleasure in people with sexual dysfunction based on their capacity. It focuses on replacing the traditional intercourse expectations with pleasure-based and flexible sexual activity [33].

The model is based on six essential concepts that ultimately cover 12 dimensions of the model. The detailed aspects of the model are presented in Table 1. Although the most common sexual dysfunction among MS patients is the orgasmic problem [15, 29], the Good Enough Sex Model is less about physical intercourse (function) or coitus and, more about developing intimacy and a strong sexual relationship that has little to do with orgasm. In general, the model is more about developing intimacy and a strong sexual relationship than sexual intercourse. This concept makes the model well-suited to a disease or disability such as women with MS that affects sexual performance/function. Since no study has so far been conducted using this model to alleviate sexual problems of women with MS, the present study aimed to determine the effect of a tailored education using the GESM on sexual satisfaction and sexual intimacy of women with MS.

Materials and Methods

Study Design

This was a parallel randomized clinical trial (IRCT20150128020854N6) that conducted from December 2018 to August 2019 in Tehran, Iran.

Table 1 A summary of the concepts and dimensions of the Good-Enough Sex Model. Adapted from [33]

Concepts

1. Understanding the complexity of the sexual dysfunction
2. Realistic acceptance of the disease and expectations
3. Focusing on the quality of sexual relationship
4. Understanding the importance of couple's intimacy and the quality of sexual life, and deeper training for more complicated problems
5. Necessity of individualized treatment for sexual dysfunction
6. Complying with therapeutic prescriptions of the disease according to their physician's order and setting goals based on the new sexual lifestyle

Dimensions

- 1 Sex is good for life, intimacy, and pleasure
- 2 Relationship and sexual satisfaction are intertwined
- 3 Appropriate sexual expectations are essential for sexual satisfaction
- 4 Partner's sexual body should be valued
- 5 Relaxation is necessary for pleasure and function
- 6 Pleasure is as vital as function
- 7 Valuing variance, flexible sexual experiences and avoiding perfect performance could help the couple against sexual dysfunction
- 8 The five purposes for sex are integrated into the couple's sexual relationship
- 9 Flexibly use the three sexual arousal styles
- 10 Gender differences are valued and similarities accepted
11. Sexuality is a matter throughout life
- 12 Sex can be special

Participants

The present study conducted on a sample of women with MS referred to MS Society in Tehran, Iran. The inclusion criteria were as follows: being literate, aged between 20 and 45 years (reproductive age), willing to participate in educational classes, being diagnosed more than 6 months (based on medical records), being sexually active (self-reported), lack of psychological diseases (self-reported), not being pregnant or breastfeeding, not having marital conflicts within the past six months (self-reported), the intensity of MS allowing them to have sexual activity and attend classes. The exclusion criteria were unwillingness to continue cooperation, failure to attend all educational classes, and for the control group, receiving training from other sources.

Intervention

The intervention consisted of three 90-min tailored educational sessions with one-week intervals. The women in the intervention group were asked to transfer the information they learned in each session to their partners and do the exercises together. The educational content provided to the intervention group was based on the Good-Enough Sex Model. The GES model, as introduced earlier (Table 1), is a set of educational sessions aiming to improve intimacy and sexual relationship among those who suffer from disabilities. All sessions were presented by a trained midwife with expertise in sexual counseling under the supervision of a psychologist. To the best of our knowledge, this was for the first time that the model was used for the MS patients. The intervention presented as follows:

First session This session was consisted of teaching the sexual response cycle including desire, arousal, orgasm, and resolution, the concepts 1 to 3 of the Good-Enough Sex Model including understanding the complexity of sexual disorders, accepting the disease, having realistic expectations, and focusing on the quality of sexual relationship [33].

Second session This session was contained topics related to concepts 4 to 6 of the Good-Enough Sex Model including understanding the importance of couple's intimacy and the quality of sexual life, deeper training for more complicated problems, individualized treatment for sexual dysfunction, and complying with therapeutic prescriptions of the disease according to their physician's order; and setting goals based on the new sexual lifestyle. This session also covered the dimensions 1 to 6 of the Good-Enough Sex Model including the perception of the positive importance of sexual relationship, considering the couples as an intimate team, the importance of couple's physical health, and realistic sexual expectations based on strong emotional bonding, believing in change, the importance of the quality of sexual relationship instead of focusing on the frequency, and the importance of satisfaction with each stage of a sexual relationship without focusing on orgasm [33].

Third session This session contained teaching issues related to dimensions 7 to 12 of the Good-Enough Sex Model including forming a flexible attitude toward new pleasurable sexual experiences such as enjoying being together, setting new goals before having a sexual relationship based on the new attitude with focus on gaining the highest pleasure considering the current conditions, using emotional styles in sexual relationships such as interaction with the partner, sexual fantasy and role-playing, accepting the differences and each other's desire, enriching sexual relationship and formation of the concept of sexual relationship as a value in marital life, and understanding the importance of this fact that sex is integrated into real life and sexuality is personalized [33].

The control group received no intervention except routine neurologic MS care. After completing the study, all training sessions were held for the control group.

Outcome Measures

Sexual satisfaction The primary outcome was sexual satisfaction and assessed by the Index of Sexual Satisfaction (ISS). This questionnaire contains 25 items and each item is rated on a 5 point Likert scale from rarely or none of the time to most or all of the time giving a score ranging from 25 to 125. The higher scores indicate higher sexual satisfaction [34].

In the present study, the reliability of the questionnaire was assessed through internal consistency by calculating the Cronbach's alpha that was well above the acceptable threshold ($\alpha=0.87$).

Sexual intimacy It was the secondary outcome and assessed by the Sexual Intimacy Scale. This scale was designed by Botlani and colleagues based on the Bagarozzi sexual intimacy questionnaire. The questionnaire has 30 items and each item is rated on a four 4-point Likert scale ranging from always to never [35]. The minimum and maximum score on the scale could range from 30 to 120. A higher score indicates a higher sexual intimacy [36]. The validity and reliability of the scale are confirmed in several studies [37, 38]. In the present study, the internal consistency of the scale was calculated and the Cronbach's alpha was 0.85. The outcome measures were assessed before the intervention and 1-month follow-up assessment.

Patients' Characteristics

In addition to the outcome measures, a short questionnaire including items on patients' age, husband's age, education, husband's education, employment status, economic status, duration of the marriage, number of children, and the disease course also was administered. The intention of recording this information as if there were any significant differences between the two study groups so that the comparison of outcomes could be adjusted for these possible confounding variables. All information including information on economic status was self-reported.

Sample Size

This study recruited 80 women with MS at Tehran MS Society. Assuming that the intervention could improve the sexual satisfaction by 10 points and considering the following variances (pre-intervention $SD=12$ and post-intervention $SD=14$), it was estimated that a study with 36 participants per group would have 90% power at 5% significance level. However, allowing for 10% attrition a sample of 40 women with Multiple Sclerosis per each group was thought.

Randomization

First, the participants were given two-digit codes from 01 to 90. Then, using the website www.Randomization.com, the statistical consultant provided two sets of codes, the first set assigned as the intervention group and the second, as control group.

Statistical Analysis

The data were analyzed using SPSS-20. The analysis was based on difference between groups using Independent Samples T-test, meets assumption of normality. Non-normally distributed and categorical data were analyzed using the Mann–Whitney U-test and Fisher's exact test, respectively. Mean and standard deviation, number and frequency were used to explore the data. Since the outcome measures were normally distributed, for comparing outcomes between the two study groups independent sample t-test and for within group comparison paired t-test were performed and the Cohen's effect size was estimated.

Results

The flowchart of study is shown in Fig. 1. The mean age of women was 38.35 ± 5.57 years in the intervention group and it was 36.15 ± 6.79 years in the control group. Most women in the intervention (60%) and the control group (57.5%) had higher education. There were no significant differences between the study groups. The demographic and obstetric characteristics of the participants are shown in Table 2.

Table 3 shows the comparison of sexual satisfaction and sexual intimacy before and after the intervention in both groups. The results obtained from t-test showed that the two groups did not significantly differ in terms of sexual satisfaction before the intervention ($p=0.13$), while the difference was significant after the intervention ($p=0.001$). Furthermore, the mean score of sexual intimacy was not significantly different between the two groups before the intervention ($p=0.42$) while it was significantly differed after the intervention ($p=0.001$).

The results of paired t-test showed a significant difference before and after intervention in terms of sexual satisfaction in the intervention group ($p=0.001$). Similar analysis also showed a significant difference in sexual intimacy before and after intervention in the intervention group ($p=0.001$) while this difference was not significant in the control group ($p=0.4$).

Discussion

The present study was conducted to determine the effect of a tailored education using the Good-Enough Sex Model on sexual satisfaction and intimacy of women with Multiple Sclerosis. The results showed that this intervention can increase sexual satisfaction and intimacy.

The Good-Enough Sex Model can create an opportunity for the couple to examine, accept and talk about the effects of the disease on sexual dimension of life and its consequences. Using this approach helps the couple to reach a better interaction in terms of sexual relationship and change their sex life. Improved personal interactions and focusing on quality of the relation and creating new constructive and enjoyable experiences could decrease the stress caused by high expectations in sexual functioning. The Good-Enough Sex Model creates new experiences that integrate with one's sex life and cause attitude, cognitive, physical and functional changes that are in line with new life conditions. In this way couples concentrate on the new concepts that they create in their sex life rather than

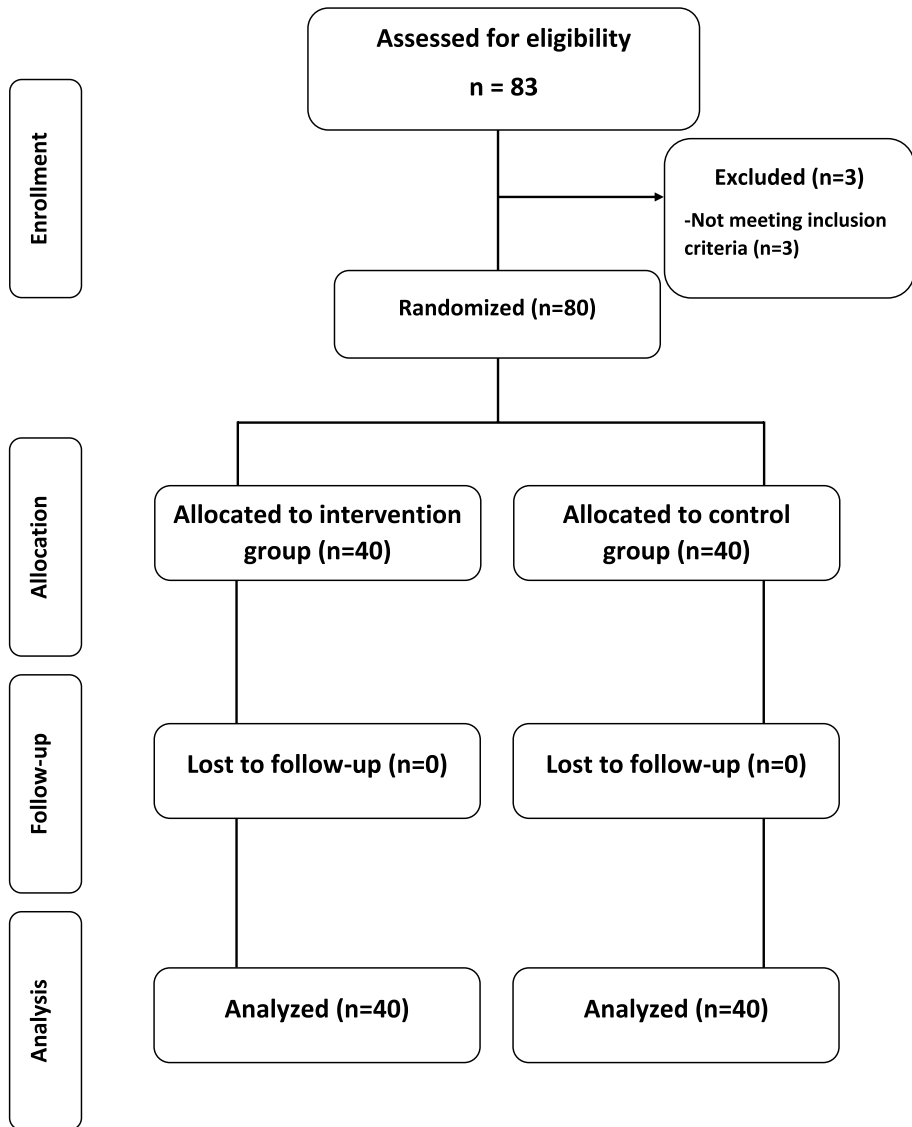


Fig. 1 Flowchart of the study process

focusing on merely physical aspect of the sexual function. Indeed, the role of partners is additional important factor contributing to couples sexual relationship as fortunately the partners in this study had a good cooperation with the research team in order to make the sessions even more effective.

The Good-Enough Sex Model increased sexual satisfaction in women with Multiple Sclerosis, which can be attributed to the effect of different concepts and dimensions of this model. For example, the third concept of Good-Enough Sex Model emphasizes the importance of the quality of sexual relationship through adjusting expectation and

Table 2 The characteristics of the study samples

	Intervention group (n = 40)	Control group (n = 40)	<i>p</i> value
	No (%)	No (%)	
Age			0.12*
Mean ± SD	38.35 ± 5.57	36.15 ± 6.79	
Husband's age			0.06*
Mean ± SD	43.47 ± 7.51	40.25 ± 7.49	
Education			0.83**
Primary	2 (5)	2 (5)	
Secondary	14 (35)	15 (37.5)	
Higher	24 (60)	23 (57.5)	
Husband's education			0.83**
Primary	0 (0)	0 (0)	
Secondary	18 (45)	19 (47.5)	
Higher	22 (55)	21 (52.5)	
Employment status			0.07***
Employed	8 (20)	1 (2.5)	
Unemployed	32 (80)	39 (97.5)	
Economic status			0.81**
Poor	10 (25)	11 (27.5)	
Intermediate	29 (72.5)	28 (70)	
Good	1 (2.5)	1 (2.5)	
Duration of marriage			0.96*
Mean ± SD	13.90 ± 9.30	13.80 ± 10	
Number of children			0.88**
Without children	15 (37.5)	16 (40)	
1	11 (27.5)	9 (22.5)	
≥ 2	14 (35)	15 (37.5)	
Disease course			0.62***
RRMS	29 (72.5)	27 (67.5)	
PPMS and SPMS	11 (27.5)	13 (32.5)	

*Independent-samples t-test

**Mann–Whitney test

***Fisher's exact test

expressing mutual emotions and the fifth dimension focuses on the harmonizing mind and body for reaching calmness. The sixth dimension shifts the quantity of sexual function toward quality through touching and creativity and the eighth dimension focuses on talking and setting goals before sexual relationship. Furthermore, in the tenth dimension there are some educations to enhance sexual satisfaction through accepting the requests and understanding differences and mutual respect for partners [33]. This can affect sexual functioning and moderate individual's expectations to a rational and reasonable level. Therefore, couples cooperate based on their accepted criteria and agreements and experience the pleasure.

Table 3 Comparison of sexual satisfaction and sexual intimacy before and after the intervention

	Intervention Group (n = 40)	Control Group (n = 40)	<i>p</i> value*
	Mean \pm SD	Mean \pm SD	
Sexual satisfaction			
Before the intervention	78.52 \pm 18.34	85.22 \pm 20.39	0.13
After the intervention	102.77 \pm 12.24	86.35 \pm 19.88	0.001
Effect size**	1.32	–	
<i>p</i> value***	0.001	0.12	
Sexual intimacy			
Before the intervention	79.70 \pm 14.78	82.65 \pm 17.71	0.42
After the intervention	104.0 \pm 12.84	82.25 \pm 18.34	0.001
Effect size**	1.6	–	
<i>p</i> value***	0.001	0.4	

*Derived from t-test

**Cohen's d

***Paired t-test

The findings from current study indicated that the Good-Enough Sex Model can increase sexual intimacy. Based on this model, when couples share the challenges caused by the disease, then they gradually experience a new sex life and intimacy. Indeed, mutual understanding, realistic expectations and flexibility in understanding the qualitative nature of sexual relationship, all contribute to affection and love rather than solely relying in orgasm. This model modifies cognitive, behavioral, emotional and relationship factors that ultimately increases cooperation, cohesion and intimacy of the couples [33].

The present study investigated the effect of a tailored education using the Good-Enough Sex Model in women with Multiple Sclerosis. To the best of our knowledge this is the first study that reports on the topic. Most of the existing studies reported on other models and treatment modalities such as PLISIT [24], problem-solving skills [39], pelvic floor muscle exercises and electric stimulation [25]. The findings of these studies are in line with our results and confirm that such interventions could improve sexual function among women with Multiple Sclerosis. Despite physical limitations to sexual intercourse for women with MS, our study showed that a three 90-min sexual education increased sexual intimacy and sexual satisfaction in women with MS.

Strengths and Limitations

To our knowledge, this was the first study that reported on the effect of a tailored education using the Good-Enough Sex Model on sexual satisfaction and sexual intimacy in women suffering from Multiple Sclerosis. Also the study benefited from a randomized design ensuring that the results reported here was sound and robust. However, the study had some limitations. Since the samples were largely educated, the findings might not be generalized to all women. It is recommended to conduct similar studies among more heterogeneous population of women with Multiple Sclerosis. Another limitation was the fact that there was inadequate follow up assessments. It is suggested that similar studies be

performed over a longer period of time. Finally, as stated since it was for the first time that the model was used among women with MS, thus the validity of using this model needs further confirmation.

Conclusion

The results of the present study showed that a tailored education using the Good-Enough Sex Model can increase sexual satisfaction and intimacy among women with Multiple Sclerosis. The findings suggest that there is need to pay attention to sexual health and sex education based on the Good-Enough Sex Model along with medical, physiotherapy and psychotherapy treatments for these patients in order to promote sexual health and family well-being.

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Authors' contributions FJ collected the data. HR designed the study and supervised it. AF was involved in data interpretation. MN participated in data analysis. AM contributed to analysis and provided the final draft.

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Data availability The data is available from the corresponding author on a reasonable request.

Declarations

Competing interests The authors declare that they have no competing interests.

Ethics Approval and Consent to Participate The ethics committee of Shahid Beheshti University of Medical Sciences approved the study (IR.SBMU.PHARMACY.REC.1397, 180). All participants signed written informed consent form after explaining the objectives of the study and ensuring the confidentiality of data for them. At the end of the study, the control group received the educational intervention, as well.

Consent for Publication Not applicable.

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Authors and Affiliations

Fatemeh Jamalianfar¹ · Hedyeh Riazzi²  · Armin Firoozi³ · Malihe Nasiri⁴ · Ali Montazeri⁵

Fatemeh Jamalianfar
fjf.jamalian@gmail.com

Armin Firoozi
arminfiroozi@gmail.com

Malihe Nasiri
Malihenasiri@gmail.com

Ali Montazeri
montazeri@acecr.ac.ir

¹ Students Research Office, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran

² Department of Midwifery and Reproductive Health, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran

³ Department of Psychology, School of Psychology and Social Sciences, Islamic Azad University Roudehen Branch, Tehran, Iran

⁴ Department of Biostatistics, School of Paramedical Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran

- ⁵ Population Health Research Group, Health Metrics Research Center, Iranian Institute for Health Sciences Research, ACECR, Tehran, Iran

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