

Effect of counseling on sexual function and behavior in postmenopausal women and their spouses: a randomized, controlled trial (RCT) study

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Abstract

Sexual dysfunction is present the most important problem among menopausal women and thus counseling may have a major role for improving menopausal sexual state in this population. We aimed to assess effects of counseling on sexual function of menopause women and their spouses. An interventional trial study was performed on 120 consecutive Iranian couples (menopause women and their spouses) who were resident in Hamadan, Iran in 2015. The subjects were randomly assigned to receive counseling service ($n = 60$) or did not receive this service ($n = 60$). Couples were asked to complete a standardized validated questionnaire assessing sexual function and behaviors. The frequency of sexual intercourse was considerably increased following first and second counseling sessions compared with the time before counseling in former group, while sexually state was remained unchanged in those who not received these counseling. Furthermore, dyspareunia in interventional women with counseling was significantly reduced after the first and second counseling, whereas this complaint was not significantly removed in the control group within the study period. Also, unsuccessful intercourse was significantly decreased in men who received counseling sessions, while this parameter was remained unchanged in other men. In addition, talking with the partner about sexually and Satisfaction degree of wife's love was significantly improved in both men and women in interventional groups compared with the control groups. Active and structured counseling effectively improve sexual functions and behaviors in menopausal women and their spouses.

Key words: counseling, sexual function and behavior, postmenopausal women, spouses.

Introduction

The success of a marriage mainly depends on the sexual relationship between the couple and this relation can be seen throughout the life of the youth years to the senescence. However, what is important is that the union between couples should be achieved to happiness, pleasure, compassion, love, as well as to a reliable means for satisfaction of sexual desires [1]. On the other hand, because of identified causal association between psychological aspects and sexual hormonal changes within different periods of life, sexual ability and satisfaction may be considerably affected by entering postmenopausal period [2, 3]. Menopause is naturally a period with a complex interplay of psychological, biological, and even genetic factors influencing mental, physical, and sexual well-being of women [4]. In this regard, menopausal transition may impair the integrity of multiple biological systems involved in the normal sexual

response that affect feminine identity and sexual relationships [5]. Besides, some authors could show that the overall sexual satisfaction and sexually related anxiety may be unchanged in postmenopausal women. So sexual dysfunction is present and considered the most important problem among menopausal women [6]. In this context, counseling may have a major role for improving menopausal sexual state. In fact, an expert counselor can focus on different sexual and behavioral aspects of menopause to modifying women sexual function and preventing various risk conditions related to the appearance of this natural period [7-9]. In the present study, we aimed to assess effects of counseling on sexual function of menopause women and their spouses.

Material and methods

An interventional trials study was performed on 120 consecutive Iranian couples (menopause women and

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their spouses) who were resident in Hamadan in 2015. The main inclusion criteria included age ranged 50 to 60 years for men and 45 to 55 years for women, and passing at least one and a maximum of 5 years from the time of menopause. Those women with the history of hysterectomy or experienced radiotherapy, using hormone replacement therapy, or had any psychological problems histories were excluded. Also, couples with the history of systemic disorders including cardiovascular diseases, diabetes mellitus, renal insufficiency, thyroid disorders, hypertension, hypercholesterolemia, Asthma, or chronic obstructive pulmonary disease were also not included. The cases in this study were selected by simple random method; in this way and after complete description of the study goals, health administrators were asked to randomly select 120 couple out of all available referred subjects according to the study criteria. Finally, 120 couple selected with random number table form among 250 couples that were identified suitable, thus were assigned to receive counseling service as intervention group ($n = 60$) or did not receive this service as control group ($n = 60$) randomly (paired numbers were selected for the intervention group and Non-paired number were selected for the control group). Baseline information including data of demographics and socioeconomic information was collected by a self-administered questionnaire. Couples were also asked to complete a standardized validated questionnaire assessing sexual function including questions about the number of monthly sexual intercourse, the presence of dyspareunia, unsuccessful intercourse in men, talking with the partner about sexually and duration of taking with spouse and satisfaction degree of wife's love. For assessing reliability of the questionnaire, test-retest analysis was performed so that the questionnaire was collected by 20 eligible individuals and was also repeated 10 days later resulting a good correlation ($r = 0.80$). Content validity was also assessed by a panel of ten content experts with professional expertise in health science, midwifery, and nursing. The researcher completed the questionnaires by interview after introducing himself and expressing the goals of the research and obtaining informed consent from the two groups of intervention and control, which was considered as a pretest. Then in the intervention group, counseling by the researcher was conducted in the form of 5 sessions counseling in the homes of the units under study in two stages. Each session was programmed for one hour. The first stage consisted of four sessions with intervals of 4 to 7 days, and the second stage (5th session) was held at intervals of 2 months from the fourth session for the couples of the intervention group. Therefore, the sexual function assessment was performed before counseling, and also after the first stage (2 months later) and second stage (2 months after the first stage) of counseling. The control group did not receive any counseling. The questionnaires were completed for women and their

spouses separately. Ethics approval was obtained from the Institutional Review Board of Tehran University of Medical Sciences. This study was registered at the participating university (clinical trials registry: ID no.138 807 432 432 N22). Results were reported as mean \pm standard deviation (SD) for quantitative variables and percentages for categorical variables. The groups were compared using the t test or Mann-Whitney U test for continuous variables and the χ^2 test, Fisher's exact test or Mc Nemar test if required for categorical variables. The paired t test was used to assess changes in lifestyle scores after counseling. P values of 0.05 or less were considered statistically significant. All the statistical analyses were performed using SPSS version 19.0 (SPSS Inc., Chicago, IL, USA) for Windows.

Results

There were no significant differences between the two groups in terms of demographic and socioeconomic characteristics, in the initial stage of the study. Demographic characteristics of two couple groups showed in table1. Frequency of sexual intercourse in intervention and control groups compared before and after counseling programs, as shown in Table 2, although the monthly number of intercourse at baseline was comparable in the two intervention and control group ($p = 0.85$), the frequency of sexual intercourse was considerably increased following first counseling ($p = 0.034$), and second counseling ($p < 0.001$) sessions compared with the time before counseling in former group, while sexually state was remained unchanged in those who not received these counseling ($p = 0.31$). Furthermore, dyspareunia in interventional women with counseling was significantly reduced after the first and second counseling, whereas this complaint was not significantly removed in the control group within the study period; also unsuccessful intercourse was significantly decreased in men who received counseling sessions, while this parameter was remained unchanged in other men (Table 3). In addition, talking with the partner about sexually, duration of taking with spouse and satisfaction degree of wife's love was significantly improved in both men and women in interventional groups compared with the control groups (Table 4).

Discussion

The result showed significant difference in the frequency of sexual intercourse, dyspareunia, unsuccessful intercourse and talking with partner about sexually, duration of taking with spouse and Satisfaction degree of wife's love between first and second stage counseling in both men and women in interventional groups compared with the control groups.

Table 1. Demographic characteristics of two couple groups

| Demographic characteristics | | Control group | | Intervention group | |
|-------------------------------|----------------|---------------|-------------|--------------------|-----------------|
| | | Women | Men | Women | Men |
| Age (years) M ± SD | | 3.09 ±50.71 | 5.02 ±57.08 | 2.81 ±50.85 | 4.30 ±57.21 |
| Menopausal age (years) M ± SD | | 1.82 ±48.33 | – | 2.16 ±48.35 | – |
| Educational level | Illiterate | 25% | 11.7% | 33.3% | 8.3% |
| | Primary school | 36.7% | 36.7% | 35% | 40% |
| | High school | 21.7% | 31.7% | 20% | 35% |
| | Graduate | 6.6% | 20% | 11.7% | 16.7% |
| Job status | Practitioner | 18.3% | 63.3% | 16.7% | 58.3% |
| | Retired | 16.7% | 20% | 11.7% | 26.7% |
| | Unemployed | – | 16.7% | – | 15% |
| | Housewife | 65% | – | 71.6% | – |
| Number of child | 0 | | 3.4% | 5% | <i>p</i> = 0.98 |
| | 1 | | 10% | 8.4% | |
| | 2 | | 25% | 25% | |
| | 3 | | 25% | 25% | |
| | 4 | | 20% | 18.3% | |
| | ≥5 | | 16.6% | 18.3% | |
| Number of dependent children | 0 | | 26.7% | 30% | <i>p</i> = 0.87 |
| | 1 | | 30% | 30% | |
| | 2 | | 25% | 28.3% | |
| | 3 | | 11.7% | 8.3% | |
| | 4 | | 6.7% | 3.3% | |
| Family income | Good | | 58.3% | 51.7% | <i>p</i> = 0.32 |
| | Average | | 23.3% | 18.3% | |
| | Poor | | 18.3% | 30% | |

Table 2. Number of intercourse after counseling in couples

| | Intervention group(%) | | | Control group(%) | | |
|----------------|-----------------------|------------------------|-------------------------|-------------------|------------------------|-------------------------|
| | Before counseling | After first counseling | After second counseling | Before counseling | After first counseling | After second counseling |
| 0 | 58.3 | 36.6 | 10.0 | 61.6 | 60.0 | 60.0 |
| 1 | 26.7 | 31.7 | 50.0 | 25.0 | 30.0 | 30.0 |
| 2 | 8.3 | 15.0 | 20.0 | 6.7 | 5.0 | 5.0 |
| 4 | 5.0 | 15.0 | 18.3 | 6.7 | 5.0 | 5.0 |
| More than 4 | 1.7 | 1.7 | 1.7 | 0.0 | 0.0 | 0.0 |
| <i>P</i> value | | < 0.001 | | | 0.31 | |

Sexual counseling is a main part of human relationship management especially in couples. This schedule should be contained all living-related aspects including sexual attitude, mood status, eating behavior and marital adjustment. This programming counseling should be especially focused on some steps of living such as puberty in adolescents as well as menopausal period in couples. In latter period, both men and women suffered from considerable psychological changes can potential-

ly influence sexual relationships. Not only physiological conditions related to menopause has a major role in changing tendency to sexual intercourse, but also it has been clearly demonstrated that mood changes due to entering this period of life in women can negatively affect this tendency. In an observation by Nappi *et al.* [10] lower scores for state anxiety were significantly associated with better sexual function and also higher scores for depression predicted poor sexual function in

Table 3. Frequency of unsuccessful intercourse in men and degree of dyspareunia in the past month

| | Unsuccessful intercourse in Men (%) | | Degree of dyspareunia (%) | |
|-------------------------|-------------------------------------|--------------|---------------------------|--------------|
| | Intervention | Control | Intervention | Control |
| Before counseling | 36 | 26.1 | 88 | 86.9 |
| After first counseling | 18.4 | 29.2 | 55.3 | 83.3 |
| After second counseling | 11.1 | 20.8 | 24.1 | 83.3 |
| p-value | <i>p</i> = 0.025 | <i>p</i> = 1 | <i>p</i> = 0.004 | <i>p</i> = 1 |

Table 4. Comparing the frequency distribution and mean some features of sexual function

| | Duration of taking with spouse (hours) (M ± SD) | | Satisfaction degree of wife's love (%) | | Talking about sexuality women (%) | | Talking about sexuality men (%) | |
|-------------------------|-------------------------------------------------|-----------------|----------------------------------------|--------------|-----------------------------------|--------------|---------------------------------|--------------|
| | Intervention | Control | Intervention | Control | Intervention | Control | Intervention | Control |
| Before counseling | 1.96 ±0.95 | 2.43 ±1.03 | 28.3 | 25 | 20 | 21.7 | 36.7 | 40 |
| After first counseling | 3.16 ±0.69 | 2.41 ±0.94 | 71.7 | 23.3 | 51.7 | 23.3 | 66.7 | 40 |
| After second counseling | 3.76 ±0.42 | 2.38 ±0.94 | 95 | 23.3 | 90 | 23.3 | 86.7 | 41.7 |
| p-value | <i>p</i> = 0.000 | <i>p</i> = 0.58 | <i>p</i> = 0.000 | <i>p</i> = 1 | <i>p</i> = 0.000 | <i>p</i> = 1 | <i>p</i> = 0.000 | <i>p</i> = 1 |

these women. Hence, it is clear that proper psychological counseling in this population can effectively modify their knowledge and attitude toward sexual activity by preventing appearance of mood changes.

In the present study, we attempted to determine beneficial effects of counseling on sexual behaviors in menopausal women and their partners. In this survey, we considered aspects of sexual function including frequency of sexual intercourse, dyspareunia, unsuccessful intercourse and talking with partner about sexually, duration of taking with spouse and satisfaction degree of wife's love and found significant improvement in all aspects following counseling. It seems that five aspects are strongly linked to psychological aspects and thus by proper counseling with the focused on mood modifying, improvement of sexual functioning can be predictable. It has been defined that sexual dysfunction in women is a multifaceted problem that includes physiologic, psychological, and emotional components. According to Sexual dysfunction is defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), sexual dysfunction not only includes the category of impairment in normal sexual functioning due to hormonal changes, but also include distress and impairment resulting from a disturbance in sexual desire and the emotional and physiologic changes of the sexual response cycle [11]. In addition, some studies have introduced multiple factors influencing female sexuality including the general health of the woman, the woman's previous sexual function, partner's erec-

tile dysfunction, changed life- and partner status, the woman's expectation to her sexual life during the premenopausal and postmenopausal and her acceptance of physiological and psychological changes [12-16] that most of these factors are strongly linked to psychological women background. Thus, because of major role of psychological aspects on sexual function in couples, considering psychological components in counseling programs aimed to improvement of sexual behavior is necessary.

In this study, the reduction of dyspareunia in participants can be explained by increasing their awareness of the availability of lubricant gel, which can be used before the relationship, it is consistent with the study by Nazarpour *et al.* [17]. In the study of Nazarpour *et al.*, two methods of formal sexual education and the teaching of Kegel excises in postmenopausal women have increased the overall score of sexual performance [18], this finding is similar to our study, although in the two studies mentioned, the female sexual function index questioner had been used. In the study of Smith *et al.* and Khaleghi Yale Gonbadi *et al.* in the educational program for women with functional impairment, there was a clear improvement in the overall score of sexual function and the indexes of sexual dysfunction, except for pain [19, 20], which it is contradict with the findings our study; this controversy may be due to the fact that their study was aimed at women of reproductive age who did not have vaginal dryness. In a study by Mardi *et al.*, Yazdkhashti *et al.* and Foroughi *et al.* with

using of educational program and the quality of life questionnaire for menopause, there was a significant improvement in the dimensions of the quality of life, including sexual dimensions [21-23], which is similar to the results of our study.

Sexual education is an opportunity for women to learn about sexual problems and prevent to them, to meet sexual needs and to balance in family, social and individual life. Misconceptions and negative beliefs about postmenopausal women about sex may be due to lack of information, lack of training programs, so implementing a sexual health promotion counseling program may improve the sexual performance of couples by eliminating misconceptions about sexual issues. The strength of this study is to hold several training sessions and opportunity to answer questions during each session and have 16 weeks' follow-up period. Men's participation in couples counseling is also important point because other studies have only given women, and we know that men have an important and undeniable role in couple sexual behavior.

Conclusions

Present study showed that active and structured counseling effectively improve sexual functions and behaviors in menopausal women and their spouses that should be considered as a main program in early menopausal period, especially in couple who were susceptible to psychological impairment and those with psychological background.

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Disclosure

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