

# The effectiveness of problem-solving approach consulting on sexual satisfaction of married women: A single case method

Behnaz Enjezab<sup>1</sup>, Mina Salehichampiri<sup>2\*</sup>, Hassan Zareei Mahmoodabadi<sup>3</sup>, Mitra Molaeinezhad<sup>4</sup>

<sup>1</sup> Research Center for Nursing and Midwifery Care, Shahid Sadoughi University of Medical Sciences, Yazd, Iran. <sup>2</sup> Student Research Committee, Shahid Sadoughi University of Medical Science, Yazd, Iran. <sup>3</sup> Departments of Psychology, Yazd University, Yazd, Iran. <sup>4</sup> Behavioral Sciences Research center Isfahan University of Medical Sciences, Isfahan, Iran.

**Correspondence:** Mina Salehichampiri, Student Research Committee, Shahid Sadoughi University of Medical Science, Yazd, Iran, Email: minasalehi37@gmail.com.

## ABSTRACT

**Background:** Sexual satisfaction is the couple's satisfaction with their sexual relationship. Anecdotal evidence showed that sexual satisfaction is an important factor in marital satisfaction and sexual dissatisfaction in many cases may aggravate marital disputes. **Objective:** The aim of this study was to evaluate the effectiveness of consulting with the problem-solving approach on sexual satisfaction of married women. **Materials and Methods:** During a semi-experimental study and based on an AB-type single case study design with follow-up stage, four married women recruited using purposive sampling through a semi-structured interview. Participants were referred for Iranian women's health survey or their children's growth monitoring in urban health centers, Shahin Shahr, Iran. Their sexual satisfaction was assessed using Married Women's Sexual Satisfaction Questionnaire at baseline, from the third to the eight sessions, post completion of intervention, and after four weeks sat follow-up session. The intervention included eight weekly sessions based on a problems-solving approach that assisted by the second author. Data were analyzed using visual analysis. **Results:** Results of the present study showed that consulting based on problem-solving approach significantly increased the mean score of sexual satisfaction in the participants. Also a repeated measure analysis and Bonferroni post hoc test showed that there was a significant increase between the mean scores for all four subjects who received counseling based on the problem-solving approach in overall sexual satisfaction and its four domains from pre-test to intervention and follow-up stages ( $p < 0/05$ ) That this increase was maintained from intervention to follow-up, and overall, the results indicated that there was an increase in sexual satisfaction. Furthermore, this result was maintained during the follow-up session. **Conclusions:** Although we had no experimental control group, the consulting approach with single case method demonstrated an appropriate effectiveness in increasing sexual satisfaction of married women. Further studies that include a control group and greater sample size are warranted to evaluate the efficacy of this method for promotion of women's sexual and marital satisfaction.

**Keywords:** Problem Solving, Sexual Satisfaction, Consultation, Women, Clinical study.

## Introduction

Sexual desires are the innermost feelings and the deepest wishes of an individual for giving sense to a relationship [1]. Sexual needs one of the human's inherent requirements, in a way that Maslow has categorized this need along with physical needs or

the basic physiological needs [2]. A sexual relationship is one of the main components of successful marital relationship and the couples' who have the ability to please each other sexually, have greater marital satisfaction [3]. The individuals' judgment and analysis of a sexual behavior that would please them are considered as sexual satisfaction [1]. Sexual satisfaction is not just physical pleasure and includes all the perceived sensations resulted from individual's subjective evaluation of the positive and negative aspects of the sexual relationship [4]. Besides the warmth and passion that sexual satisfaction would bring into couples' life, it is also an important factor for prevention of sexual distress among women [5]. Sexual dissatisfaction could increase the incidence of many psychosomatic disorders such as tension headaches, migraines, and symptoms of premenstrual syndrome [6]. Low sexual satisfaction may significantly increase marital instability and the possibility of divorce. According to

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one report, 50-60% of the occurred divorces are caused by sexual problems and disorders <sup>[2]</sup>. Different studies have shown that marital dissatisfaction may lead to infidelity, deepening and complicating the marital problems, increasing jealousy, competition, a sense of revenge, lack of self-confidence, and feeling ignored <sup>[7, 8]</sup>. It has been mentioned that 40 percent of infidelities and extramarital relationships among Iranian spouses are caused by the sexual dissatisfaction of one of the spouses <sup>[8]</sup>. Many Iranian couples suffer from sexual dissatisfaction but feel ashamed or guilty to talk about it or to express their feelings, while they are unaware of its effect on marital satisfaction and consequently satisfaction with their life <sup>[9]</sup>. Marital counseling/therapy with focusing on sexual counseling is a process for improving sexual satisfaction had would increase individuals' knowledge about sexual interests, attitudes, and their related cultural values and would improve and promote effective communications about sexual issues <sup>[10]</sup>. So far, a wide-ranging of consulting interventions have been used, including transactional analysis, interventions based on choice theory, and couple cognitive behavioral therapy, solution-focused counseling, emotional focus therapy and educating life skills, to increase couples' marital and sexual satisfaction <sup>[7, 11]</sup>. One of the consulting interventions is a problem-solving approach that was presented during the 60s and the early 70s as a part of the cognitive behavioral movement for justifying behaviors <sup>[12]</sup>.

Nowadays having life skills is one of the principal criteria for improving marital problems that mental health experts have a significant emphasis on it <sup>[13]</sup>. Problem solving skill is the process of logical thinking which, as a life skill, would help the individual in solving personal and social problems by understanding the complexity of the problem's nature <sup>[12]</sup>, so that, when encountering problems, they would search for multiple solutions and choose the best answer <sup>[14]</sup>.

Although a number of studies have been conducted using problem-solving approach for promotion of women's sexual satisfaction in other countries <sup>[15-17]</sup>, But few studies have been performed in Iran <sup>[12]</sup> Also, studies have not been conducted in a single-subject manner.

Providing consultation about women's sexual health is one of the midwives' responsibilities and it seems that, in case of using interventional approaches, midwives could provide effective solutions for improving couples' sexual relationship.

Therefore the present study was conducted to assess the effectiveness of consulting based on problem-solving approach on sexual satisfaction of married women using single subject design.

## Materials and Methods

This quasi-experimental study was conducted from August to November 2016, a single subject design was applied. Single subject design refers to an experimental study on a person or a small group of participants and has a long and important history in psychology <sup>[18]</sup>. This type of study is sensitive to personal

differences and since they do not require a control group, it can be easily integrated into a regular clinical work. In this type of study a fewer number of participants are needed and even one participant could be enough <sup>[19]</sup>. Single subject designs have many positive features, such as the formation of the baseline, proportional control of treatment status and constant evaluation <sup>[20]</sup>.

This design has different types (ABA, ABAB, AB, and multiple baselines) which AB type with follow-up stage is used for the present study. AB design consists of two conditions or period of times. The first condition is called period A which is also called the baseline or the pre-test period. The second condition is called period B which is also called the treatment period. During this period the dependent variable is manipulated so that its effect on the understudy behavior would be assessed and the behavior would repeatedly be observed. This act would continue until completion of consulting sessions and the follow-up period <sup>[19]</sup>. Sometimes, in AB design and other single subject design, another stage would be added to the main stage which is the follow-up stage. At this stage which happens after the intervention, the changed behavior by the intervention would be observed for a period of time at normal conditions. Results of this stage would also be represented as a diagram along with other results of the study <sup>[21]</sup>.

In the analysis of group studies "the mean score of group's changes" or "the number of participants with changed situation" are being described within the group, while, we have missed the personal experiences of the participants. The privacy of participants' sexual experiences, the effect of personal differences on the intervention and heterogeneity of the samples were some of the reasons in the present study for using single subject design <sup>[22]</sup>.

Participants Forty married women who referred to the health centers of Shahin Shahr, Isfahan were recruited using purposeful sampling and through semi-structured interviews by the second author. Participants completed Married Women's Sexual Satisfaction Questionnaire (MWSSQ). From them, nine women gained a score of less than 50 and eventually, 6 of them who had the inclusion criteria were enrolled in the study.

The inclusion criteria were as being able to read and write in Persian, being at the first marriage and for at least one year, having Iranian nationality, 20-40yr old, not being pregnant, having appropriate privacy (a separate bedroom), willingness to participate in the study, not having any diagnosed sexual disorder based on DSM-5 criteria, no history of diagnosed chronic mental or physical diseases, not participating in any other similar studies at the same time, husband's consent, not being in the process of divorce and separation, and gaining a score of less than 50 from MWSSQ.

The exclusion criteria were as follow: missing more than two sessions, not completing the questionnaire at the sessions, becoming pregnant, and lack of cooperation during the intervention.

Two of the participants missed more than two sessions so they were excluded from the study. Therefore the study was continued with 4 participants.

The number of intervention's sessions was eight and each session lasted about 1.5-2 hr. Consulting sessions were conducted by the second author who was studying consulting in midwifery with the license of practice "life skills courses" and under the supervision of a consultant psychologist. Sessions were held individually once a week based on a plan made by the consultant and the participant in the consulting room of the health center. The participants were evaluated using MWSSQ before and after consulting, at the beginning of each session since the third to the eight session. Also to determine the stability of the intervention, four weeks after the eight-session intervention, participants were assessed again. Questionnaires were completed by the second author through questionnaires from participants. Their sexual satisfaction was assessed using MWSSQ baseline, from the third to the eight sessions, post completion of intervention, and after four weeks sat follow-up session.

The protocol of consulting sessions based on a problem-solving approach for the sexual satisfaction of married women was developed based on review articles and its content validity was assessed by the research team and through an expert panel consisted of five expert clinicians in psychology, sexology and marital therapy<sup>[11-13]</sup>.

The protocol was consisted of sexual anatomy and sexual response cycle, practicing about identification of negative and unhelpful thoughts, feelings, and physical sensations, identifying and accepting the situation, defining the problem, brainstorming, identification the advantages and disadvantages of the different solutions, prioritization of the good solutions, practicing for designing a step-by-step executive plan, determining and resolving the barriers and identification of new different thoughts and emotions of the participants (Table I).

During each session, besides reviewing the assigned homework, participant's advancements were assessed and she was asked to express her experiences of the changes made in each mentioned field and then, her questions were answered. If the previous session's homework was done acceptably, new homework was assigned for the participant and if needed, were repeated the contents of the previous session. To remind the homework and follow-up the participants, messaging and phone calls were used.

## Data collection tools

### Married Women's Sexual Satisfaction Questionnaire

Considering the undeniable cultural effects on sexual matters and especially sexual satisfaction, the researchers used MWSSQ which was designed to evaluate sexual satisfaction among Iranian married women and is appropriate and adapted to Iranian culture. This questionnaire was designed during the study by Shahvari et al<sup>[23]</sup>. Its validity was approved using

content validity and its internal reliability was shown as appropriate using, Cranach's alpha coefficient (0.91). MWSSQ contains two parts; the first part is demographic characteristics and the second part has four subscales and 27 items: 1) "antecedents of sexual satisfaction" (matters that should happen in women the concept of sexual satisfaction) with 8 items<sup>[23]</sup>.

2) "Mental and physical barriers to sexual satisfaction" (women's barriers to having a joyful and pleasant sexual intercourse), with 9 items, 3) "dominant cultural values" (non-sexual boosters of marital relationship) with 5 items, and 4) "factors related to the husband" (factors related to the man which affect women's sexual satisfaction) with 5 items. This questionnaire is scored based on 5-point Likert scale with a score of 100 for always, 75 for most, 50 for sometimes, 25 for rarely and 0 for never. Twelve items are scored in reverse (3, 4, 5, 6, 9, 10, 14, 19, 21, 23, 24, and 27). Higher scores indicate more satisfaction<sup>[23]</sup>.

## Ethical considerations

The present research project was approved by the Ethics Committee of Shahid Sadoughi University of Medical Sciences Yazd, Iran (Grant no: 4584 and the ethics code (IR.SSU.REC.1395.42), and was registered in the Iranian Registry of Clinical Trials (IRCT) (code: IRCT2016062328602N1).

## Data Analysis

Visual analysis is the dominant method of analysis for single-case time series<sup>[24]</sup>. Data were analyzed using the charting method and visual analysis; providing the mean score for each participant in each field, the trend of changes in participant's mean score in each field and its relevant chart. Also, repeated measurement analysis and Bonferroni post hoc test were used and ( $p < 0.05$ ) were considered significant.

## Results

Two of the participants missed more than two sessions so they were excluded from the study. Therefore the study was continued with 4 participants. The mean age of women in this study was 31.75 yr and the mean duration of their marriage was 11.25 yr (Table II). For data analysis, charting method and visual analysis were used. Results indicated that the trend of changes in the mean scores of all four participants was ascending and indicated improvement. Figure 1 illustrates the results from pre-test, intervention, and post-test yielded by this method.

According to the results, the trend of changes in the mean scores of all four participants who received consulting based on problem solving approach in all the domains of sexual satisfaction and also the general trend of change in the score of sexual satisfaction from pre-test to the intervention and follow-up was ascending and indicated improvement (figure 1 & 2). Also a repeated measure analysis and Bonferroni post hoc test showed that there was a significant increase between the mean scores for all four subjects who received counseling based on

the problem-solving approach in overall sexual satisfaction and its four domains from pre-test to intervention and follow-up stages inclusive in the domain of antecedents of sexual satisfaction ( $F_{(2,6)}=25/20$ ,  $p < 0/001$ ), in the domain of mental and physical barriers of sexual satisfaction ( $F_{(2,6)}=42/25$ ,  $p < 0/001$ ), in the domain of cultural values belonged on the sexual satisfaction ( $F_{(2,6)}= 27/67$ ,  $p < 0/001$ ), in the domain of husband-related factors of sexual satisfaction ( $F_{(2,6)}=8/88$ ,  $p < 0/05$ ) and in the total score of sexual satisfaction ( $F_{(2,6)}=63/39$ ,  $p < 0/001$ ).

## Discussion

Using problem-solving approach to resolve marital conflicts has become of great importance in marital therapy<sup>[13]</sup>.

The single subject design is sensitive to individual differences, and individuals are involved in this plan as their own control, which is more than merit of group interventions. In the present study, a small number of sample individuals, due to the privacy of the subjects' sexual relations, the impact of individual differences in intervention, and the heterogeneity of sample individuals, were the reasons for using the single-subject plan<sup>[20, 22, 25-28]</sup>.

The results of the current study indicated the effectiveness of consulting with the problem-solving approach on the trend of changes in the total mean score of sexual satisfaction among studied women.

Regarding the domains of sexual satisfaction, results showed an improvement in the field of "antecedents of sexual satisfaction". Researchers believe that a direct relation exists between sexual performance and sexual satisfaction and women with high self-express ability have more sexual satisfaction which is consistent with results of others studies<sup>[29]</sup>. It means that most of the marital problems are caused by not having or not using appropriate communicational skills and problem-solving skill is one of the productive skills that may decrease the communicational problems of the couples. In problem-solving skill, by accepting problems as challenges, the individual would try to discuss the problem that occurs during a communication, express her/his feelings and find a solution for the problem<sup>[13, 30]</sup>.

In the domain of "physical and mental barriers to sexual satisfaction" also had an improvement after consulting with a problem-solving approach from the pre-test to the intervention and follow-up. MacNeil and Byers also showed that interest in the life partner is associated with sexual satisfaction<sup>[31]</sup>. Lundbland and Hansson stated that educating communicational and problem-solving skills to couples with the problem in marital interactions may increase their mental health<sup>[32]</sup>. Scott et al showed that mental and physical health is associated with higher sexual satisfaction<sup>[33]</sup>. However, Bakhshayesh and Mortazavi found no significant relationship between sexual satisfaction and general health<sup>[34]</sup>. The problem-solving approach would enable the individual to identify and solve daily living problems successfully. Therefore problem-solving could

be effective on the emotional reactions of couples and may decrease their pressure and stress and consequently raise the level of general health<sup>[30]</sup>.

Results of the present study also showed an ascending trend in the mean score of "dominant cultural values of sexual satisfaction". Many studies have also shown that problem-solving skill is associated with improved relationship and marital satisfaction, and logical problem solving that are problem-solving efficient patterns, are predicted marital and life satisfaction in the positive direction<sup>[12, 13, 35, 36]</sup>. Therefore, through practicing a problem-solving skill, couples learn how to have a positive orientation toward the problems. Their knowledge about their conflicting needs and the normality of disagreements and differences between the husband and wife will increase. So they will learn to observe the conflict as a problem or a challenge that should be resolved and not as a threatening and destructive factor. This approach is associated with an increased likelihood of adaptive resolving strategies toward the problem<sup>[30, 36]</sup>. In fact, learning this skill, by the formation of positive behaviors, would make individuals feel more responsible to solve problems with mutual satisfaction and lead to a better feeling about one's self and others<sup>[37]</sup>.

The mean score of the field of "husband-related factors of sexual satisfaction" also had an ascending trend in the present study. These findings are consistent with other studies which have shown that learning life skills would significantly improve self-efficacy and enhance individual's performance in the family<sup>[38, 39]</sup>. One explanation for this finding might be that following learning problem-solving skills, our participants were able to develop the skills and coping abilities necessary to achieve self-efficacy for better sexual and marital conducts. So instead of avoiding the problem, individuals with high self-efficacy would face the problem as a manageable challenge<sup>[40]</sup>. Also learning a problem-solving skill is associated with taking positive orientation toward problems which is a reflection of individual's beliefs about solvability of the problems, which might lead to increase in self-efficacy, effort and perseverance and commitment toward problem-solving<sup>[36]</sup>. These factors would lead couples to provide more effective solutions for their problems in life and to have more joy in their life<sup>[41]</sup>.

Finally, in the present study, consulting with problem-solving approach has been able to improve the total score of sexual satisfaction of all the four participants. Therefore, learning problem-solving skill would help individuals to prioritize the problems before solving them; so they would solve the problems that have more impact on their relationship first and by improving interpersonal relations, they would experience an appropriate physical relation and consequently increased sexual satisfaction<sup>[42]</sup>.

## Conclusions

Finally, although consulting with a problem-solving approach and single subject design has been an efficient method and the participants were satisfied, but it is a time-consuming method

and requires privacy for consulting sessions, efficient time and consultant's proficiency and interest.

Also, a number of important limitations of this study was lack of men's participation and lower generalizability of the results due to the single subject design of the study.

Despite these limitations, we suggest problem-solving approach as a useful consultation method for improvement of sexual and marital satisfaction of couples. Results of the present study indicated that consulting with a problem-solving approach and single subject design had a positive effect on sexual satisfaction of married women and had increased it. Therefore midwives, consultants, and family psychologists could use this method to improve women's sexual satisfaction. This study is also important because it demonstrated the need for a larger randomized controlled trial that uses this highly relevant approach/ intervention.

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## Conflict of interest

The authors declare no conflicts of interest.

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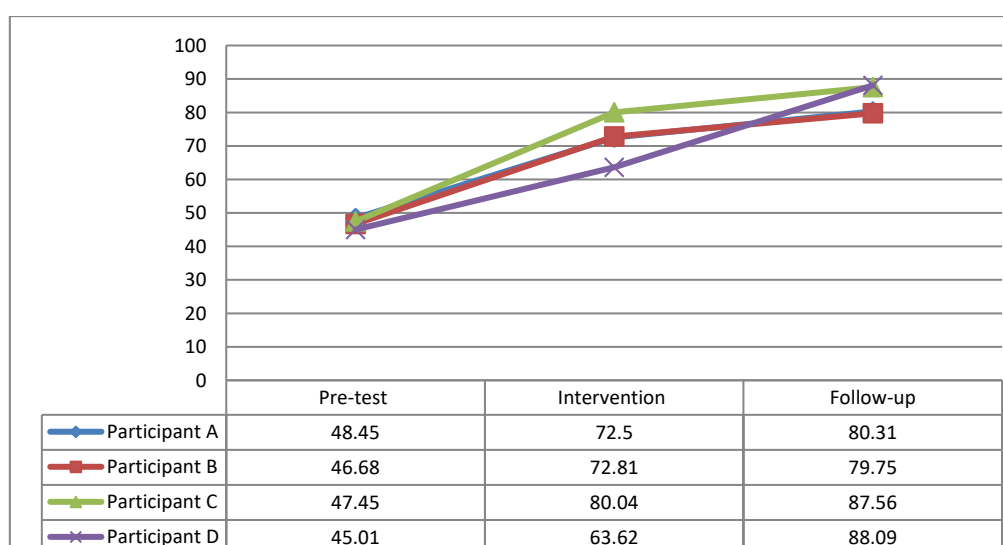
**Table 1. the protocol of consultation sessions based on problem-solving approach for sexual satisfaction**

Session number	Topic
1	Performing the pre-test with <b>MWSSQ</b> , Warm up, presenting the intervention goals and plan, discussing the confidentiality rights and issues, invitation for participation, and obtaining informed consent
2	Discussing sexual anatomy and sexual response cycle, practicing about identification of negative and unhelpful thoughts, feelings, and physical sensations, identifying and accepting the situation, practicing for adopting a positive attitude and optimistic toward the problem and promoting the person's ability to deal with the problem using examples, the introduction of problem-solving steps, presenting the homework
3	Reviewing previous sessions' homework, defining the problem, using examples of the negative thoughts and practice about categorizing them into main problems, practice about turning the problem into a complete question, practice for determining realistic goals, setting time limits, presenting the homework, performing the <b>MWSSQ</b>
4	Reviewing previous session's homework, introducing brainstorming techniques, practice for providing creative solutions for the problems, presenting the homework, performing the <b>MWSSQ</b>
5	Reviewing previous session's homework, reviewing examples of participant's life experiences situations, identification of solutions, reviewing and weighing each solution separately and assessing their advantages and disadvantages, aligning top-bottom solutions based on advantages, presenting the homework, performing the <b>MWSSQ</b>
6	Reviewing previous session's homework, practice for weighing the solutions by assigning percentage to each item and averaging using examples, practice for top-bottom prioritizing based on the advantages, practice for separating the first solution and writing it down again as the best solution, presenting the homework, performing the <b>MWSSQ</b>
7	Reviewing previous session's homework, introducing the method of developing as step-by-step executive plan, practice for determining and resolving the existing barriers to execute the selected solution in real life using examples, presenting the homework, performing the <b>MWSSQ</b>
8	Conclusion, answering the questions, evaluating the taught methods using examples by dairy kept of participants, performing the post-test <b>MWSSQ</b> , acknowledgments participants' for their sincere cooperation in the study

MWSSQ: Married Women's Sexual Satisfaction Questionnaire

**Table 2. Demographic information of subjects**

participant D	participant C	participant B	participant A	Participant Variable
29	35	28	35	Age
Higher than diploma	Diploma	Lower than diploma	Diploma	education
housewife	housewife	housewife	housewife	Employment status
10 years	14 years	11 years	10 years	Duration of marriage (years)
1	1	4	2	number of children
NVD	CS	NVD	NVD	Type of delivery
withdrawal	IUD	withdrawal	withdrawal	The method of contraception
38	36	31	36	Spouse's age
Employee	Free job	Free job	Free job	Wife employment status

**Figure 1.** The trend of changes in the mean scores of participants in the total score of sexual satisfaction

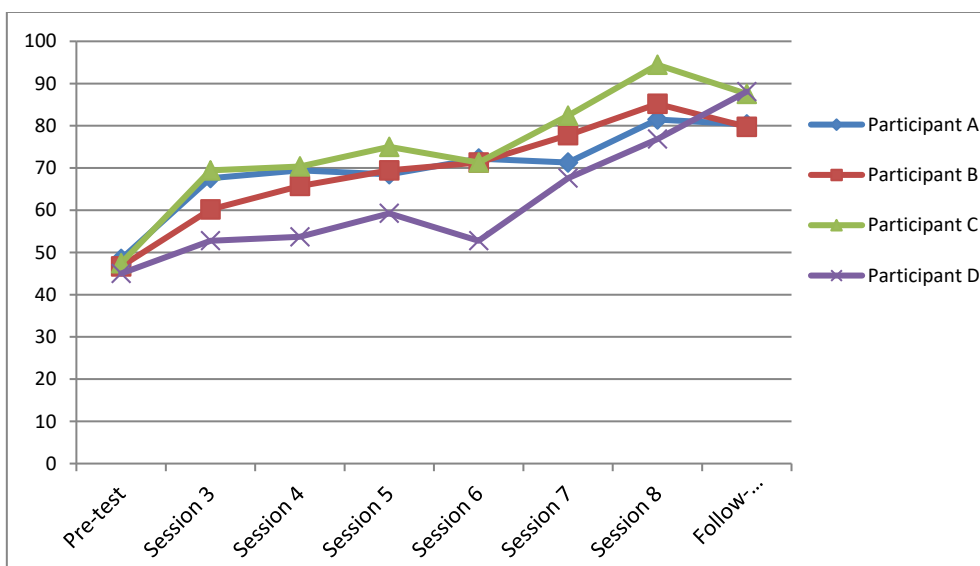


Figure 2. The trend of changes of scores of participants in the total score of sexual satisfaction