

The Effect of Counseling Based on Motivational Interviewing on Childbearing Intention in Single-Child Women: A Randomized Clinical Trial

Abstract

Background: Childbearing is the key factor influencing the demographic pyramid of communities. Today, couples' reduced desire to have children or delay it has exerted many adverse effects on various social dimensions. Thus, this study determined the effect of counseling based on motivational interviewing on childbearing intention in single-child women. **Materials and Methods:** This parallel randomized clinical trial was conducted between January 2023 and May 2024 at Rahmat Abad Comprehensive Health Center in Yazd, Iran. Ninety single-child women were randomized to intervention and control groups. The data collection tools included the Child-bearing Motivation Questionnaire and the Demographic Information Questionnaire, which were completed before, immediately after, and 2 months after the intervention. Data were analyzed using SPSS 16, independent t-tests, analysis of variance with repeated measures, and chi-square test. **Results:** There was a significant difference in the score of intention to childbearing between the intervention and control groups immediately ($t_{88} = 11.435, p < 0.001$) and 2 months after intervention ($t_{88} = 13.591, p < 0.001$), and the mean score of the intention to childbearing in each time was greater in intervention group compared to the control group. Furthermore, there was a significant difference in the dimensions of intention to childbearing (positive motivation for childbearing, fertility preferences, fertility concerns, and social beliefs) immediately ($p < 0.001$) and 2 months after the intervention ($p < 0.001$) between the intervention and control groups. **Conclusions:** Considering the effectiveness of counseling based on the motivational interview approach, it is suggested that this method be implemented in health centers for single-child mothers to help increase childbearing.

Keywords: Counseling, fertility preferences, fertility, motivational interviewing, reproductive health

Introduction

Childbearing is considered the most significant factor influencing the demographic pyramid of communities.^[1] Nowadays, the reduced motivation of couples to have more children is likely to cause negative social and economic effects.^[2] Delay in fertility increases the probability of infertility, the possibility of using assisted reproductive techniques (ART), abortion, and complications following pregnancy, such as hypertension, pre-eclampsia, and gestational diabetes.^[3] Various reasons have been proposed to justify reduced fertility and increased prevalence of single-child families such as the distance between marriage and first pregnancy, male sex of the first child, low family income,^[4] parental illness,^[1] lack of social support from the mother's family, employment, long education period,

economic and accommodation problems, fear of the future, lack of social responsibility, and parental addiction.^[5] Delayed pregnancy is generally seen in mothers who have understood the feeling of insecurity in the future and the limitations created by the child^[6]; parents' self-esteem and the feeling of being fruitful are the most important factors that drive a person to have children.^[1] The negative consequences of being single-child parents include the loss of re-experiencing the sense of motherhood, extreme material and emotional attention to the child, excessive protection toward the child, failure to set boundaries, extreme supervision, and extreme compensation for feeling guilty. Moreover, the state of being a single child causes adverse consequences in the child, including^[7] irrational expectations, increased probability of anxiety and depression, weakness in

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independence and decision-making power, adoption and introverted behaviors, impaired growth and development, and feelings of helplessness.^[8,9] Nonetheless, the better meeting of the child's individual needs and the motivation to provide a better future have caused some mothers to remain determined in their view and attitude of having a single child.^[10] The implementation of counseling programs, accompanied by improvements in attitudes, promotion of positive mental norms, and increased empowerment of mothers, can play a significant role in influencing mothers' pregnancy intentions.^[11] Motivational interviewing is a client-oriented and innovative counseling approach that helps identify and solve clients' doubts, thereby strengthening their internal motivation for change.^[12] Compared to other counseling approaches, motivational interviewing employs a targeted and focused structure, emphasizing the client's experiences, goals, values, and plans. In motivational interviewing, instead of using others' efforts to encourage or coerce, one's own goals and values are used,^[13] thence increasing mothers' empowerment, self-awareness, and self-efficacy. Despite the attractiveness and rapid growth of the motivational interviewing and the expansion of its use in various areas of health, the studies conducted with a focus on childbearing are limited.^[14,15] On the other hand, having children in unsafe and uncertain conditions can also be associated with an increase in unwanted pregnancies and increased morbidity and mortality of mothers and neonates. Moreover, implementing population-increase policies cannot be effective without knowing and examining individuals' views on childbearing and single-child families. Hence, the present study determined the effect of counseling based on motivational interviewing on childbearing intention in single-child women. The specific objectives of this study include determining and comparing the mean scores of childbearing intent among women in the counseling group, determining and comparing the mean scores of childbearing intent among women in the control group, and comparing the mean scores of childbearing intent between the test group and the control group.

Materials and Methods

This parallel randomized clinical trial (IRCT20231108059992N1) was conducted between January 2023 and May 2024 at Rahmat Abad Comprehensive Health Center in Yazd, Iran. Ninety single-child women were randomly selected and assigned to either the intervention ($n = 45$) or the control group ($n = 45$).

Inclusion criteria included married mothers with a healthy child over 2 years old, using contraceptive methods, having informed consent to participate in the study, and being Iranian.

Exclusion criteria included unwillingness to participate in the study, positive pregnancy test before intervention, participation in other counseling interventions related to the research, suffering from or a history of infertility, any absolute prohibition of pregnancy, suffering from mental illnesses such as schizophrenia, major depression, or

psychosis, occurrence of stressful events in the past six months such as migration, divorce, or death of relatives and failure to attend more than two sessions of the intervention.

Considering a type 1 error of 5%, a test power of 90%, and a subject attrition rate of 10%, based on the data from the study by Rezaee *et al.*,^[14] the sample size was estimated to be 45 mothers in each group.

To carry out the sampling, the first researcher randomly extracted the names of 90 single-child mothers from files at the comprehensive health center of Rahmat Abad from the Iranian SIB system [Figure 1]. Participants voluntarily entered the study, providing informed consent, and the confidentiality of their information was emphasized at all stages. Subsequently, using the random numbers table, the fourth researcher assigned participants to intervention and active control groups, ensuring the concealment of the allocation. Using SPSS 16 (IBM Corp., IBM SPSS Statistics for Windows, version 16.0, Armonk, NY: IBM Corp., 2008), a list of 90 binary series (0–1) was created by the fourth researcher, along with a column of random numbers. After sorting by these random numbers, the binary list was divided into two groups of 45 mothers.

Five 90-minute collective counseling sessions (three groups of 15 mothers) were conducted using a motivational interviewing approach [Table 1] for the intervention group, once a week on Sundays from 10:30 a.m. to 12:00 p.m., in the form of lectures at Rahmat Abad Comprehensive Health Center. Furthermore, a virtual group was formed on the Eitaa Messenger to remind participants of the day and time of the session, as well as the assigned homework. It should be noted that mothers' questions on childbearing and its challenges were collected at the end of each session and answered at the beginning of the next session. Intervention was carried out from January 2023 to May 2024. Moreover, for both intervention and control groups, a childbearing booklet was provided with contents of challenges of having a single child, consequences of delaying pregnancy, how to prepare for the arrival of a second child, benefits of childbearing for the family, complications of contraceptive methods, unwanted pregnancy, abortion and its complications, and the necessary care after knowing about the pregnancy. After the completion of the research, considering the effectiveness of the motivational interviewing approach in increasing the desire for fertility, to comply with the ethical issues in the research, the contents of the sessions recorded by the researcher were uploaded in the form of an audio file for the control group. After the intervention was completed, the voice recordings of the sessions were shared with the group in Eitaa Messenger. The participants listened to the recordings and increased their engagement by sharing their experiences and discussing them with other mothers, which led to the mothers continuing the sessions for a longer period. It also helped in evaluating the effectiveness of the intervention in the control group. The main outcome of the

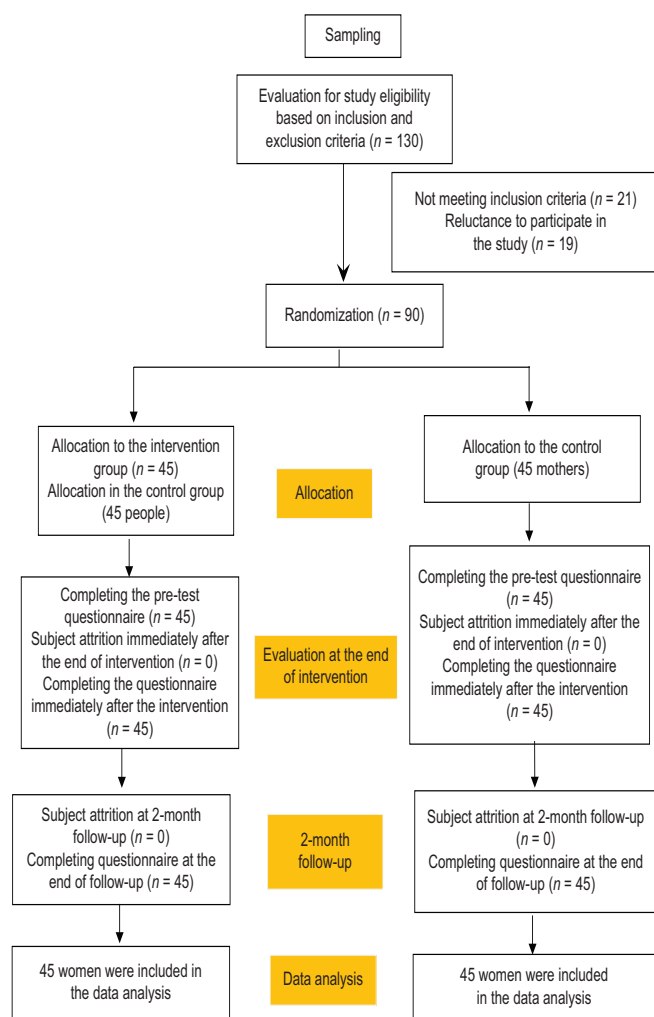


Figure 1: The CONSORT diagram

study was the change in the mean score of mothers' intention for childbearing. In both groups, the Childbearing Motivation Questionnaire was completed in person immediately and 2 months after the intervention. It should be noted that this study adhered to CONSORT guidelines. After collecting the completed questionnaires, the data were imported into SPSS 16 and analyzed statistically. The parametric independent *t*-test and repeated measures analysis of variance were used for data with a normal distribution. In contrast, the nonparametric Mann-Whitney test was used for data with a non-normal distribution.

Demographic Information Questionnaire included items on the mother's age, duration of marriage, educational levels of both the mother and her spouse, child's sex, spouse's age, age at marriage, age at first pregnancy, employment status, economic status, and income level. All information was self-reported by the participants. The Childbearing Motivation Scale was developed by Naghibi *et al.*^[16] and has been confirmed with a content validity coefficient of 0.80 and a content validity ratio of 0.62. Reliability was also assessed by Cronbach's α for subscales and internal

consistency correlations, which ranged from 0.83 to 0.86 and 0.88 to 0.92, respectively. Asadi *et al.* also used this tool to measure the desire to have children.^[17] This scale contains 19 items and has four subscales of positive fertility motives (items 1, 2, 3, 4, 7, 11, and 12), preferences (items 14, 15, and 18), concerns related to fertility (items 5, 6, 8, and 9), and social beliefs (items 10, 13, 16, 17, and 19). Based on a 5-point Likert scale ranging from 1 (completely disagree) to 5 (completely agree), the minimum and maximum scores are 19 and 95, respectively. Items 1, 2, 3, 4, 7, 11, 12, 14, 15, and 18 have positive wording, and items 5, 6, 8, 9, 10, 13, 16, 17, and 19 have negative wording, for which grading is reversed. Each question had 5 options, representing the intensity of the statement from "Strongly Agree" to "Strongly Disagree." Scoring was as follows: Strongly Agree = 1, Agree = 2, Neutral = 3, Disagree = 4, and Strongly Disagree = 5. After answering the questions, the scores were summed. It is worth noting that some items had reversed scoring, where Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, and Strongly Disagree = 1. Finally, a score of 19 indicated a decrease in the willingness to have children, while a score of 95 indicated an increase in the willingness to have children.

The data extracted from the questionnaire were analyzed statistically using SPSS 16 (IBM Corp., IBM SPSS Statistics for Windows, version 16.0, Armonk, NY: IBM Corp., 2008). Descriptive statistics were used to present and describe information, tabulate data, and calculate percentages, means, and standard deviations; inferential statistics were used to analyze the differences in mean scores. First, the normality of quantitative variables was determined by the Shapiro-Wilk test. Thus, a parametric independent *t*-test and analysis of variance with repeated measures were used for data with a normal distribution, and a nonparametric Mann-Whitney test was used to analyze data with a non-normal distribution. To achieve the objectives of the research, independent *t*-tests and analysis of variance with repeated measures were used (IC = 95%, $p < 0.05$).

Ethical considerations

The permission was obtained from the Committee of Ethics in Shahid Sadoughi University of Medical Sciences in Yazd, Iran (IR.SSU.REC.1402.090), and informed consent was obtained from the participants. The provisions of the Declaration of Helsinki were observed in this study, and the researcher explained to the subjects that they could withdraw from the study at any time.

Results

In this study, 90 mothers were assigned to either the intervention group (45 mothers) or the control group (45 mothers) to determine the effect of motivational interviewing on the motivation of single-child mothers to have children. There was no subject attrition in either group. According to the Shapiro-Wilk test, the quantitative variables of the mothers' age ($p = 0.81$) and spouses'

Table 1: Content of motivational interview counseling

Session	Goals	Contents	Assignments
1	Getting to know the researcher and the research process, filling in the informed written consent form, filling in the first stage questionnaire, answering the questions related to the questionnaire, and introducing the motivational counseling approach	Familiarization and introduction, determination of group rules, introduction of motivational counseling approach, expression of consequences of delay in pregnancy, advantages and disadvantages of a single child for the family, and the child	-----
2	Learning behavior and how to change behavior, thinking about the merits and demerits of changing behavior	Reviewing the previous session, expressing feelings and concerns about the desire for a second child and their child being the only child, revealing contradictions (inconsistency) by following motivational interviewing techniques, the scale of the importance of change, practicing the short-term benefits and losses of not changing (single child). expressing the benefits of change (the benefits of having children), discovering the positive principle of changing reproductive behavior and examining, reassuring, and changing priorities and external or internal motivations regarding attitudes and intention to have a second child	<ol style="list-style-type: none"> 1. What worries you about the birth of your second child? 2. What problems arose with the birth of the first child? 3. How many children would you like to have in the next 5 years? 4. What are the benefits of having a second child? 5. What will be different in your life after the birth of the second child? -Writing the positive and negative dimensions of change (desire for a second child) and nonchange (single child)
3	Learning to define values and note down goals and values in the context of childbirth based on priority	Reviewing the previous session, reviewing assignments, defining value and solving value conflict skills, increasing self-confidence to create change with the confidence scale, identifying strengths and supports (strengthening the sense of self-efficacy) and cognitive readiness for change (by asking open-ended questions) practicing prioritizing values, decreasing fertility chances over time, practicing driving force, and learning about the benefits of the law of youthful population	<ol style="list-style-type: none"> 1. It seems that things cannot remain as they are; what do you think you can do? 2. What changes are you thinking of making for the birth of the second child? 3. What do you want to do at this stage (change)? 4. How would you like things to go? 5. When did you make a significant change in your life before? How did you do it? 6. What strengths have helped you make this change? 7. If you could consider a scale from 0 to 10, which would indicate how confident you are to make the change, what score would you give? Why didn't you give less score? Or what's the reason for your low score? What does it take to get a higher score?
4	Learning the impact of thoughts, feelings, and behavior on each other	Reviewing the contents of the previous session, reviewing assignments, explaining the relationship between thoughts, feelings and behavior, teaching and identifying mental traps, wrong and problematic thinking habits in the field of childbearing. Common cognitive traps such as overgeneralization, all-or-nothing thinking, and catastrophic prediction. Effects of mental traps: How they affect decision-making and mental health. Ways to manage mental traps: Methods for changing dysfunctional patterns and replacing them with rational thinking. Wrong and	<ol style="list-style-type: none"> 1. What reasons and evidence prove that your thoughts are correct? 2. What reasons and evidence prove that your thoughts are not correct? 3. What are the benefits and harms of these thoughts for you?

Contd...

Table 1: Contd...

Session	Goals	Contents	Assignments
5	Learning goal-setting skills.	problematic thinking habits in the field of childbearing. Perfectionist thoughts: Expecting ideal conditions for childbearing. Unrealistic fears: Anxiety about parental responsibilities without rational analysis. Cultural and social patterns: The influence of popular beliefs on decisions related to childbearing	4. Does it solve your problems? -Writing down thought traps, thoughts, feelings, and behaviors, evaluating, and replacing appropriate thoughts
		Reviewing the previous session, reviewing assignments, teaching goal-setting skills (setting goals, paying attention to all areas of life, prioritizing, setting goals according to values, writing a summary of sessions)	-----

age ($p = 0.73$) had a normal distribution ($p > 0.05$). However, the parameters of duration of marriage ($p = 0.45$), duration of marriage ($p = 0.26$), and age of the first pregnancy ($p = 0.33$) did not show a normal distribution; therefore, the nonparametric Mann-Whitney test was used.

Quantitative demographic characteristics of single-child mothers in the two groups are displayed in Table 2. The results did not show significant differences in the mother's age, the spouse's age, marriage age, marriage duration, and age of the first pregnancy in both intervention and control groups, and the two groups were homogeneous in terms of the mentioned variables ($p > 0.05$). There was no significant difference in qualitative demographic variables between intervention and control groups [Table 2].

An independent t -test suggested that the two groups did not show any statistically significant difference before the test ($p = 0.064$) and were homogeneous. Nevertheless, there was a significant difference in the score of intention to have a child between the intervention and control groups immediately ($t_{88} = 11.435$, $p < 0.001$) and 2 months after the intervention ($t_{88} = 13.591$, $p < 0.001$). Moreover, the mean score of the intention to have a child each time was greater in the intervention group compared to the control group. Concerning intragroup comparisons, the results of the analysis of variance with repeated measures revealed a significant increase over time in the intervention group ($p < 0.001$) and the control group ($p < 0.001$). Additionally, in cases involving the interaction of time and type of intervention, a significant difference was observed ($p < 0.001$), indicating that counseling with a motivational approach increased the score of intention to have children [Table 3].

Furthermore, the results of the independent t -test demonstrated a significant difference in the dimensions of the intention to childbearing (score of positive motivation for childbearing, fertility preferences, fertility concerns, and social beliefs) immediately after the intervention ($p < 0.001$) and 2 months after it ($p < 0.001$) between intervention and control groups [Table 3].

Discussion

This study determined the effect of the motivational interviewing approach on single-child mothers' intention to childbearing who were referred to healthcare centers in Yazd, Iran. The results indicated that counseling through a motivational interviewing approach was significantly effective on the intention to have more children in single-child mothers, and this increase was stable for 2 months after the intervention. Moreover, the results showed that the mean score of the positive motivation to have more children was higher in the intervention group at both time points compared to the control group. This finding is consistent with the study by Rezaee *et al.*, titled "The effect of group counseling based on motivational interviews on the motivation to have children in female university students at Mashhad University of Medical Sciences. The results of Rezaee *et al.*^[14] study suggested that motivational interviewing led to a significant increase in positive motivations for having children and a significant decrease in negative motivations for having children in female students. There was no change during the 4 weeks, indicating the stability of promoting motivation for having children. However, the present study differed from their study in terms of the research population, sample size, number and manner of holding sessions, inclusion and exclusion criteria, and sampling method. Nonetheless, in terms of the counseling approach and its impact on fertility motivation, the results were similar to those of the study by Rezaee *et al.* The findings of the present study indicated that counseling with a motivational interview approach had a positive effect on other dimensions of the desire to have children (social beliefs, concerns, and fertility priorities) so that there was a significant difference between the intervention and control groups before intervention, immediately after intervention, and 2 months after intervention. Rezamahaleh *et al.*^[18] carried out a study titled: "Comparative Study of the Impact of Two Counseling Approaches on Fertility Motivation of

Table 2: Comparison of quantitative and qualitative demographic variables of single-child mothers in two groups

Group		Intervention	Control	t-test	p
quantitative variables		Mean (SD)	Mean (SD)		
Mother's age (year) *		31.26 (4.46)	30.73 (4.37)	0.596	0.55*
spouse's age (year) *		34.37 (3.98)	33.33 (4.22)	1.206	0.23*
Age of marriage**		24.51 (2.85)	25 (2.48)	-0.749	0.45**
Duration of marriage**		6.77 (4.03)	5.73 (3.29)	-1.128	0.26**
Age of the first pregnancy experience**		26.46 (2.83)	25.97 (2.45)	-0.970	0.33**
*Independent Sample t-test. **Mann-Whitney test					
Group		Intervention	Control	Pearson	p*
qualitative variables		F (%)	F (%)	chi-square	
Occupation	Employed	13 (28.80)	9 (20)	0.963	0.32
	Housewife	32 (71.10)	36 (80)		
Husband's Occupation	Unemployed	1 (2.20)	0 (0)	4.675	0.19
	Freelance job	20 (44)	12 (26.60)		
Husband's education level	Employed	14 (31.10)	17 (37.70)	3.170	0.36
	Worker	10 (22.20)	16 (35.50)		
	High school	7 (15.50)	9 (20)		
	Diploma	7 (15.50)	2 (4.40)		
Mother's education	BS/BA**	13 (28.80)	14 (31.10)	1.196	0.75
	MSc/MA and higher***	18 (40)	20 (44)		
	High school	11 (24.40)	10 (22.20)		
	Diploma	14 (31.10)	13 (28.80)		
Child's gender	BS/BA**	16 (35.50)	13 (28.80)	0.179	0.67
	MSc/MA and higher***	4 (8.80)	2 (4.40)		
	Male	20 (44.40)	22 (48.80)		
	Female	25 (55.50)	23 (51.10)		
Number of children	1	24 (53.30)	18 (40)	1.690	0.42
	2-3	10 (22.20)	14 (31.10)		
	4 and more	11 (24.40)	13 (28.80)		

*Pearson Chi-square test. **Bachelor of Science/Bachelor of Arts. ***Master of Science/Master of Arts

Infertile Couples.” The findings of the study showed no significant difference between the two groups 2 weeks after the intervention in terms of positive motivation towards having children ($p = 0.283$). Besides, there was no statistically significant difference in the mean scores of positive fertility motivation between the vis-à-vis counseling group and the telephone counseling group before and after the intervention. The results for the negative motivation of fertility were similar to those of positive motivation. The researchers concluded that vis-à-vis and telephone counseling did not show any significant effect on the fertility motives of infertile couples, which was not consistent with the present study. Mobasheri *et al.*^[5] conducted a descriptive cross-sectional study titled: “Determining the most important factors influencing the fertility pattern of single-child and childless families in Shahrekord. The results showed that the increase in costs and economic pressure, the lack of sufficient support and welfare facilities from the government, and the mistaken belief that “having more children is a sign of lower social culture” were among the most important factors affecting childbearing. The effect of these factors was confirmed in the present study, except for the economic factor. Behmanesh *et al.*^[10] conducted a qualitative study

entitled “Explaining the causes of single children based on mothers’ point of view during a qualitative study.” The results of the study indicated that the unpleasant experiences of the first pregnancy and childbirth, economic, educational, and training problems, fear of the children’s future, an uncertain future, marital conflict, and emotional divorce strengthened the desire to have only one child. Apart from economic issues, several social issues played a role in families’ decision to have children, which were consistent with the components of social beliefs and concerns related to fertility in the present study. Huczewska and Mynarska^[19] conducted a study entitled “From Parenting to Parenthood: Caregiving Responsibilities in Childhood and Desire to Have Children in Young Adulthood.” The research findings revealed that the past experiences of parents and siblings were positively related to the desire to have children, and these relationships were completely mediated by the positive motivation to have children. In addition, the results showed that the satisfaction of childhood care responsibilities, especially when it arouses the feeling of satisfaction and gratitude in the child, plays a crucial role in shaping the motivations and desires for having children, which forms the basis of their future fertility behaviors. In the present study,

Table 3: Determining and comparing the mean score of mothers' intention and dimensions of the intention for childbearing between the intervention group and the control group

Variable	Group Different time points	Intervention n=45	Control n=45	t-test	p*
		Mean (SD)	Mean (SD)		
Score of intention for childbearing	Before the intervention	62.58 (4.10)	60.69 (4.21)	1.870	0.064*
	Immediately after the intervention	79.82 (5.92)	66.87 (4.76)	11.435	<0.001*
	Two months after the intervention	82.56 (4.93)	69.47 (4.17)	13.591	<0.001*
p-value**(time)		<0.001	<0.001		
p-value**(Group)		<0.001			
p-value**(time*Group)		<0.001			
Positive motivation for childbearing	Before the intervention	27.56 (3.06)	26.07 (2.49)	1.860	0.063
	Immediately after the intervention	31.47 (2.53)	26.49 (2.73)	8.950	<0.001
	Two months after the intervention	32.51 (1.79)	27.38 (2.49)	11.20	<0.001
Fertility Preference	Before the intervention	12.02 (1.57)	10.96 (1.87)	2.927	0.004
	Immediately after the intervention	13.64 (1.54)	11.42 (1.72)	6.446	<0.001
	Two months after the intervention	13.98 (1.34)	11.73 (1.49)	7.490	<0.001
Fertility Concerns	Before the intervention	11.07 (1.82)	11.18 (2.48)	-0.241	0.81
	Immediately after the intervention	15.89 (1.73)	13.38 (1.78)	6.762	<0.001
	Two months after the intervention	16.33 (1.52)	13.89 (1.57)	6.762	<0.001
Social beliefs	Before the intervention	11.93 (2.27)	12.49 (2.30)	-1.153	0.25
	Immediately after the intervention	18.82 (2.89)	15.58 (2.28)	5.906	<0.001
	Two months after the intervention	19.73 (2.65)	16.47 (2.00)	6.580	<0.001

*Independent t-test, **(RM ANOVA)

the existence of challenging issues and the lack of knowledge of mothers in the field of parenting had created exhausting conditions that had a negative impact on their desire to have a second child. In this research, motivational interviewing focusing on the positive points of mothers and empowering them in this field was able to show that with education and awareness, the related challenges could be diminished, and the desire to have children can be enhanced, so that this empowerment and its stability will make raising the second child easier. Nonetheless, the present study was inconsistent with Huczewska and Mynarska research in terms of research method and target group. Lu *et al.*^[20] conducted a study titled "Fertility Preferences in China in the Twenty-First Century." The study results indicated that only a small number of individuals in recent decades wanted more than two children, and a significant number were uncertain about having a second child. Regarding speculation, these changes in preferences regarding the second child were attributed to shifts in family planning policies; however, this finding was not consistent with the present study. Motivational interviewing is a client-centered counseling style that helps clients identify and resolve doubts, thereby strengthening their internal motivation for change.^[12] Doubts about the change are normal, and due to the difficulty of the change process, mothers get involved with their thoughts and feelings. This approach is based on the principle of autonomy, and it is believed that individuals have the ability to change, and hesitation and doubt should be considered part of the work process and resolved.^[21] In this approach, the interviewer creates a safe and supportive environment for the individual to freely express their thoughts and feelings by asking open questions, actively listening, and expressing

empathy. Establishing an emotional connection with participants can help promote empowerment, self-awareness, self-esteem, foresight, and purposefulness.^[22] The overall goal of motivational interviewing is to reduce a person's understanding of their inability to overcome obstacles and achieve success in change. According to Bandura's theory, one factor related to having children is self-efficacy. A sense of self-efficacy enables individuals to rely on their abilities to overcome problems and remove existing obstacles to activities such as childbearing.^[23] A mother's self-efficacy is a result of her feeling of ability to perform motherly duties, which, in addition to its effect on parent-child relationships, predicts her disciplinary style regarding parenting methods.^[24] One limitation of the study can be attributed to the in-person nature of the sessions, which was necessary due to having a young child at home. It is suggested for future research to compare the impact of motivational interviewing conducted virtually versus in person on fertility intentions of single-child women, and to compare the effect of motivational interviewing-based counseling with other counseling approaches on fertility intentions of single-child women. The limitation of this study was the impossibility of blinding due to the nature of the intervention. Moreover, it is recommended that longitudinal studies be conducted to evaluate the long-term effects of motivational interviewing, as well as research that examines its effectiveness in different cultural and demographic contexts.

Conclusion

The counseling based on motivational interviewing showed a positive effect on intention to childbearing in

single-child mothers. Besides, this positive effect remained stable 2 months later in the follow-up. This approach successfully increased the intention to have children by emphasizing the strengths and capabilities of mothers and enhancing their self-efficacy in addressing the challenges and concerns associated with childbearing. Considering the effectiveness of this counseling approach and the importance of the young population, it is recommended that this method be implemented in health and treatment centers for single-child mothers to help increase childbearing. Moreover, it should be noted that in order to increase the effectiveness of interventions aimed at increasing childbearing intentions, emphasis should be placed on economic pressures and social beliefs of individuals. One of the strategies for implementing this approach is to integrate it into the educational programs of the Health Deputy Office and distribute it to health centers for educational classes to be held in collaboration with midwives and esteemed psychologists. Holding childbirth preparation classes in combination with preparing mothers for the challenges of having a second child can help empower mothers and build their confidence in managing challenges.

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Conflicts of interest

Nothing to declare.

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