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The Effect of Companion Training Based on Bandura's Theory on Mother's Attitude regarding Delivery Method

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ABSTRACT

Introduction: childbirth is a physiological phenomenon, and normal delivery is the safest way to end pregnancy. Studies have shown that 3/4 of cesarean sections are for non-medical reasons and negative attitudes about normal delivery. The present study aimed to assess the effect of companion training based on Bandura's theory on mother's attitude about delivery method in Mashhad.

Methods: This RCT were conducted on 60 primiparous mothers who were admitted to Umm al-Banin Hospital in Mashhad and were randomly assigned to the control group which received 8 sessions of 90 minutes of routin preparation and training sessions based on Bandura's theory were held for the intervention group. Two groups completed Demographic and attitude questionnaire about the method of delivery. Data were analyzed using t-test, Mann-Whitney and Wilcoxon in SPSS 16 software. Significance level was less than 0.05.

Results: The mean age of mothers in intervention group is 26.7±8.3 and in control group is 28.3±5.9 years. After the intervention, mean of the attitude towards normal delivery was 94.0 ± 6.4 in the intervention group and 85.9 ± 12.9 in the control group (P=0.005). The positive attitude towards normal delivery after the intervention compared to before the intervention increased by 19.4 ± 10.9 in the intervention group and by 10.1 ± 11.2 in the control group (P=0.002).

Conclusion: the present study showed that training along with Bandura's theory improved the attitude of mothers towards normal childbirth. It is recommended to use it as a training method during childbirth preparation.

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Introduction

Pregnancy and childbirth are a physiological phenomenon, and natural childbirth is the safest way to terminate pregnancy, but sometimes in unnatural cases, cesarean delivery is necessary to save the life of the mother or the fetus. Today, according to the policies of the youth of the population and childbearing, the emphasis is on promoting natural childbirth due to its fewer complications for the mother and the baby, but still the rate of cesarean section is high in the whole world and in our country, which is far from the international standards. Studies have shown that three-fourths of cesarean sections are for non-medical reasons and at the request of mothers, and one of the important factors influencing the choice of mothers is their negative attitude about natural childbirth (1). It is clear that several factors play a role in the attitude of mothers towards the type of childbirth, one of the most important of which is the advice and experiences provided by the mother, sister, friends, wife, or other relatives of the woman (2). Since, in most cases, one of these

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relatives will be present in the hospital as a companion of the mother on the day of delivery, as a result, they can play an important role in the mother's attitude towards childbirth (3, 4). According to data from systematic review studies, companionship during labor improves birth outcomes. Among these consequences are an increase in the rate of natural childbirth, shortening the duration of childbirth, as well as a decrease in the number of cesarean deliveries, instrumental deliveries, the use of painkillers, low Apgar scores in the fifth minute of the baby, and even bad feelings about childbirth experiences (5). Accordingly, in the preparation classes for childbirth, which are held from the second half of pregnancy, the presence of a companion by the mother's side and training is emphasized. This companion is a person chosen by the mother (in accordance with the policies of the hospital in question) and the same person who is supposed to be with the mother on the day of delivery (6). Trainings are given to the mother and her companion based on the standard service package provided by the ministry of health to health centers and hospitals (7). Since education is a key element in gaining patient trust, it is most effective when it is based on a structured model such as Bandura's model. According to Bandura's theory, a person's emotions, thoughts and behaviors in any situation depend on his sense of abilities. In situations where a person is confident about his abilities, his behavior, cognition, and feelings are completely different from situations where a person feels incompetent, insecure, or lacks competence (8). The fact that teaching mothers has an impact on their attitude towards the choice of delivery method has been investigated in many studies and conflicting data have been obtained (9, 10), but the accompanying education can also influence the attitude of mothers towards the choice of the type of delivery. Whether it is or not has been discussed in limited studies (2, 8). It seems that education, along with its interactive, person-directed nature, flexibility and other characteristics, has the ability to overcome some problems about mothers' empowerment, which can provide the basis for helping their attitudes about childbirth which is one of the important goals in improving the quality of midwifery services in programs and policies of population youth and childbearing. Therefore, the current study was designed and implemented with the aim of determining the effect of education along with Bandura's theory on the attitude about the childbirth method among mothers in Mashhad.

Materials and methods

This randomized clinical trial study was conducted on 60 primiparous pregnant mothers who referred to Umm al-Banin Hospital in Mashhad during 2019. To determine the sample size, given that the dependent variable of this study is "mother's attitude regarding delivery method" is quantitative; therefore, the formula for comparing the mean and standard deviation of two independent populations was used to determine the sample size. In this regard, based on the variable of mother's attitude regarding delivery method, the study findings' by Kanani et al. were used; in which the number of people in each group was anticipated 19 persons. Finally, with considering sample attrition, the minimum sample size was estimated 60 people (30 people in each group).

$$n = \frac{\left(z_{(1-\alpha/2)} + z_{(1-\beta)}\right)^2 (s_1^2 + s_2^2)}{(x_1 - x_2)^2} = \frac{(1.96 + 0.84)^2 (21.90^2 + 19.31^2)}{(65.26 - 46.35)^2} = 19$$

The sample size was selected based on the inclusion and exclusion criteria, and were randomly assigned to intervention group and control group by block method. Study inclusion criteria; consent to participate in the research, age 18 to 35 years, literacy, pregnancy age 20 to 37 weeks, singleton pregnancy, absence of known obstacles to natural birth, no pregnancy requiring special care, no history of participation in preparatory classes Giving birth and having no problem in communicating. In case of dissatisfaction with the continuation of cooperation, absence of more than one or more session in the classes or not being able to continue the program due to illness, they were excluded from the study.

Regarding ethical considerations, permission was obtained from the ethics committee (2017-084) of Mashhad University of Medical Sciences. The tools used in this study included the research unit selection form (entry and exit criteria form), informed consent form for participating in the research project, demographic information collection form, and attitude questionnaire towards the type of childbirth.

All the participants in the sampling filled the informed consent form. The demographic information collection form included two parts: a) mother's profile, which included seven questions, and b) profile with eight questions, which were completed by the participants. In order to investigate the attitude about the type of childbirth, a questionnaire measuring the attitude about the childbirth was used. This questionnaire consists of 22 questions and has answers with a 5-point Likert scale (completely agree, agree, have no opinion, disagree, completely disagree) and the scoring in questions 21, 19, 17, 15, 13, 11, 10 , 7, 5, 4, 2 from a score of 5 to the completely agree option to a score

of 1 to the completely disagree option and in other questions reverse scoring and from a score of 5 to the "completely" option "disagree" up to 1 point is "totally agree" option. The lowest score of this questionnaire is 22 and the highest score is 110. The closer the score is to 110, it indicates a positive attitude towards natural childbirth, and the closer it is to 0, it indicates a positive attitude towards cesarean section. Content validity was used to determine the validity of researcher-made tools. In order to check the face validity and content validity of the attitude questionnaire about the type of childbirth, this questionnaire was given to 7 relevant experts (members of the nursing and midwifery faculty of Mashhad University of Medical Sciences) (CVR=0.75 and CVI=0.80). In order to check the reliability of the attitude questionnaire about the type of childbirth, two methods of internal consistency (Cronbach's alpha coefficient 0.7 for all subscales) and stability (retest 0.99) were used. After obtaining permission from the ethics committee of the university and providing permission to the Umm al-Banin educational and treatment center, first and before starting the intervention, the mothers in both groups of 30 completed a questionnaire measuring the attitude about the type of childbirth. Then the birth preparation class for expectant mothers (control group) was held from 20 to 37 weeks of pregnancy (one week apart) in 8 oral and practical sessions (45 minutes each) by trained midwives. The content of the training in the first session: personal hygiene training, adapting to changes during pregnancy, the second session: nutrition during pregnancy, how to consume food, the third session: mental health, the role of the spouse, mood changes during pregnancy, the fourth session: warning signs , diagnosis of normal and abnormal pregnancy pains, the fifth session: planning for childbirth, choosing the type of delivery, the sixth session: getting to know the symptoms of labor pains, the seventh session: postpartum hygiene, postpartum exercises, and the eighth session: care From the baby, breastfeeding education And the danger signs were newborns. But for the intervention group, among these sessions, two joint sessions were held with the companion (mother or sister) (in the fifth and sixth session) and two sessions alone for the companion (the third and fourth session). The content of education about natural childbirth, its benefits, complications of cesarean section and methods of reducing labor pain (non-pharmacological): 1- Stretching exercises, body relaxation, breathing skills. 2- Being in different positions during pain. 3- Opposite pressure. 4- Concentration, creative visualization and thought. 5- Hypnosis. 6- Surface cold 7- Acupuncture, 8- Electrical stimulation, 9- Spinal anesthesia, 10- Inhalation of pain medication. Painlessness). Training for expectant mothers and female companions is based on all four constructs of Bandura's theory, including: 1- successful experience (a woman who had a successful birth in the presence of a companion), 2- surrogate experience (by showing a birth video in the presence of a companion), 3- encouragement through training (Sentences like you can have a good delivery. I support you and...) 4- Improvement of the physical and mental health of the mother (by the presence of a woman's companion next to the pregnant mother and her support) was done and learning feedback from both groups Mothers came to action. Immediately after the completion of the educational program, the questionnaires were completed again by the intervention and control groups. Due to the fact that this two-stage two-group study was evaluated; Therefore, in each of the two stages of evaluation (before and after the training) in order to compare the two groups in terms of normal quantitative variables, independent t-test was used and for non-normal quantitative variables and rank variables, the Mann-Whitney test was used. For intragroup tests and comparing the two stages before and after the intervention, paired t-test was used for normal variables and Wilcoxon test was used for non-normal variables. The data was analyzed using SPSS16 software.

Results

The findings of this research showed that the two intervention and control groups had no statistically significant difference in terms of age, education, occupation, income level, type of insurance, number of pregnancies and deliveries, type of delivery and the proportion of accompanying person and were homogeneous (Tables 1 and 2).

Table 1. The mean and standard deviation of the age in the intervention and control groups

Variable	Intervention	Control	Test Result
	mean±SD	mean±SD	
Mother's age (years)	26.7 ± 8.3	28.3 ± 5.9	t = -0.8 df = 52 P = 0.403 independent t Test
Age of accompanying person (years)	33.5 ± 7.5	33.8 ± 8.6	t = -0.1 df = 58 P = 0.886 independent t Test

Table 2. Frequency distribution of the sample according to the demographic characteristics in intervention and control groups

Variable		Intervention	Control	Test Result
		number(percentage)	number(percentage)	
mother's education	high school	6 (0/20)	2 (7/6)	Z = 1-2/2 P=0.236
	diploma	17 (7/56)	19 (3/63)	Mann–Whitney
	university	7 (3/23)	9 (0/30)	
mother's occupation	employee	5(7/16)	2(7/6)	df= Chi=7/8
	freelancer	0 (0/0)	2(7/6)	P=0.098
	worker	1 (3/3)	0(0/0)	Chi-squared and Fisher's exact test
	student	3 (0/10)	0(0/0)	
	housekeeper	21 (0/70)	26 (7/86)	
Accompanying person's education	reading and writing	5 (7/16)	4(3/13)	Z = 0.5
	high school	6 (0/20)	8(7/26)	P=0.625
	diploma	11 (7/36)	13 (3/43)	Mann–Whitney
	university	8 (7/26)	5 (7/16)	
Job of companion	employee	5 (7/16)	4 (3/13)	df=6, Chi=1/7
	freelancer	0 (0/0)	2(7/6)	P = 0.375
	worker	2 (7/6)	0(0/0)	Chi-squared and Fisher's exact test
	student	1 (3/3)	1(3/3)	
	housekeeper	21 (0/70)	21(0/70)	
	unemployed	1 (3/3)	0(0/0)	
	other	0 (0/0)	2(7/6)	
The type of delivery of the accompanying person	normal	16(3/53)	9(0/30)	Chi=3/4 df=2
	cesarean section	8 (7/26)	12(0/40)	P =0.186
	Both	6(0/20)	9(0/30)	Chi-squared
The relationship between the person and the mother	mother	11 (7/36)	8(7/26)	df=1, Chi=0.7
	sister	19 (3/63)	22(3/73)	P = 0.405 Chi-squared
Total		30(100)	30(100)	

All mothers studied had a gestational age of 20 to 32 weeks. Mothers in both intervention and control groups were homogeneous in terms of age (Table 1). Both intervention and control groups were homogeneous in terms of other demographic characteristics of themselves and companions (Table 2). According to the findings, 86.7% in the intervention group and 76.7% in the control group had a positive attitude towards natural childbirth. Chi-square test did not show the frequency of companion's attitude towards natural childbirth to be significant in two groups (P=0.317) and the two groups were homogeneous in terms of companion's attitude towards natural childbirth (Table 3).

Table 3. Frequency distribution of the sample according to the attitude of the accompanying person towards normal childbirth in intervention and control groups

Variable		Intervention	Control	Test Result
		number(percentage)	number(percentage)	
The attitude of the accompanying person towards normal childbirth	positive	23(7/76)	26(7/86)	df=1, Chi=0.1 P=0.317 Chi-squared
	no comment	7(3/23)	4(3/13)	
Total		30(100)	30(100)	

The results of the present study showed that before the intervention, the average and standard deviation of the attitude towards natural childbirth of the mothers studied in the intervention group was 74.6 ± 10.5 and in the control group it was 75.8 ± 17.1. The Mann-Whitney test did not show this difference to be significant (p=0.318). After the intervention, the average and standard deviation of the attitude towards natural childbirth of the studied mothers was 0.94 ± 6.4 in the intervention group and 85.9 ± 12.9 in the control group. . Mann-Whitney test showed this difference to be significant (P=0.005). The attitude towards natural childbirth increased by 19.4 ± 10.9 after the intervention compared to before the intervention in the intervention group and by 10.1 ± 11.2 in the control group. Independent t-test showed this difference to be significant (P=0.002).

In intragroup comparison, Wilcoxon test showed that in the intervention group, the difference between before and after the intervention is significant (P<0.001). Also, the result of the Wilcoxon test showed that in the control group, the difference between before and after the intervention is significant (P<0.001) (Table 4).

Table 4. Mean and standard deviation of the attitude towards natural childbirth of the studied sample before and after the intervention in two intervention and control groups.

variable		intervention	Control	Between group test result
		mean±SD	mean±SD	
Attitude towards natural childbirth	Before intervention	74.6 ± 10.5	75.8 ± 17.1	Z=-0.1 P = 0.318 Mann–Whitney
	After the intervention	94 ± 6.4	85.9 ± 12.9	Z=-2.8 P = 0.005 Mann–Whitney
The difference after the intervention compared to before the intervention		19.4 ± 10.9	10.1 ± 11.2	df=58 t=3.3 P =0.002 Independent t test
The result of the intragroup test		Z=4.7 P<0.001 Wilcoxon	Z=4.1 P<0.001 Wilcoxon	

Discussion

The findings of this study clearly indicate that psychotherapists are exposed to multiple occupational hazards, including burnout, job stress, secondary trauma, and compassion fatigue. These hazards can have serious impacts on their mental health and professional performance. Specifically, the results demonstrate that various factors, such as the type of clients, the severity of

clients' psychological issues, and the duration of therapy sessions, can influence the extent of these hazards experienced by psychotherapists.

Approximately 23% of the reviewed studies focused specifically on occupational burnout and its related factors in psychotherapists, highlighting the prevalence and significance of burnout within the profession. Work-life balance and self-compassion emerged as the strongest predictors of reduced burnout, underscoring their importance in mitigating this risk. Enhancing these factors could significantly improve the mental well-being of psychotherapists, emphasizing the need for targeted interventions.

The analysis suggests that the development and implementation of self-care programs and organizational support can help mitigate these hazards. Self-care programs may include psychological exercises, recreational and physical activities, and supportive sessions with colleagues. Organizational support could involve providing professional counseling, reducing workload, as well as creating a supportive and respectful work environment.

In addition, around 31% of the studies explored the impact of personality factors and communication

In the present study, the average age of mothers in the intervention group was 26.7 years and, in the control, group was 28.3 years, and the average age of the companions in both groups was 33.5 years. In terms of demographic characteristics, education and occupation, the majority of mothers and companions in the intervention and control groups were graduates and housewives, respectively. These results were consistent with the study of Yousefzadeh et al. (9).

The results obtained from the present study showed that training along with Bandura's theory is effective on mothers' attitudes regarding the choice of delivery method. So that the attitude of mothers towards natural childbirth in the intervention group was improved compared to the control group. Several studies discussed the benefits of training with a partner or mother as an independent educational method (10, 11, 12), but no study was found that directly examined the effect of training with a partner on the attitude of mothers towards the type of childbirth. They investigated the effect of mother's and companion's education on mother's self-efficacy and found a positive relationship in line with the results of the present study (8, 13, 14). Since Bandura believes that self-efficacy affects all aspects of a person's behavior and emotional activities, such as stress, anxiety, and thought patterns, so as a result of increasing self-efficacy, it can improve a person's attitude towards the ability to do work (15). In line with the results of the present study, Hadnett et al also reached similar results that education to the pregnant mother and her chosen companion plays an essential role in increasing self-efficacy and as a result more adaptation to the childbirth process, reducing the fear of natural childbirth and subsequently reducing desire Caesarean section is performed (16). Rastegar et al.'s study also supports the significant effect of childbirth preparation classes on the perceived self-efficacy of pregnant women in childbirth (17). Also, in the study of Yousufzadeh et al., training had a positive effect on mothers' attitudes towards natural childbirth (9). In the study of Abdul Aati et al., self-efficacy training improved mothers in labor pain management and labor outcomes compared to the control group. The average labor pain score in the first and second stage of labor among the case group compared to the control group decreased with very significant differences, and the method of delivery, complications during labor and the duration of labor, the Apgar score of the newborn and hospitalization in the intensive care unit were different between the groups. In the studied case, there was a statistically significant difference (18). On the other hand, in Taghiani et al.'s study, teaching mothers had no effect on their attitude, which could be due to the difference in the content of the educational package, lack of accompanying training, fewer sessions, or earlier time of holding them (7). One of the limitations of the present study was the withdrawal of participants due to the occurrence of high-risk symptoms in the pregnant mother and the difference in the personality characteristics of mothers and companions in the study, which is unavoidable. This research was the first intervention carried out in Iran, which not only emphasizes the presence of the companion during childbirth, but also with the active participation of the companion and her training in childbirth preparation classes, these trainings are changed from the routine mode that only pregnant mothers are taught. They saw, took out and held it in a new way based on Bandura's conceptual framework, which is considered one of its strengths.

Conclusion

In general, the results of this study showed that the accompanying education program improves the attitude towards natural childbirth, or in other words, increases the positive attitude of mothers towards vaginal delivery. Teaching with and participating in childbirth preparation classes can not only make educational programs more fruitful and rich; Rather, through mothers' sense of empowerment, it leads to a change in attitude and an increase in their desire for natural childbirth. Therefore, it can be considered as an independent educational method to achieve educational

goals in the field of making childbirth pleasant and empowering mothers. It is hoped that by using this new educational method, an effective step will be taken to promote physiological childbirth and reduce the rate of cesarean section, and finally, improve the level of mother and family health in the country.

Declarations

Ethics approval and consent to participate

This study obtained approval for the research plan from the medical ethics committee of Mashhad University of medical sciences (IR. MUMS. REC. 2017-084).

Participants were informed of the study's purpose, voluntary nature of participation, their right to withdraw from the study at any time, anonymity and the confidentiality of all their information.

Consent for publication

All authors provide consent for the publication of the manuscript detailed above

Availability of data and materials

Data are available at https://rcm.mums.ac.ir/. Also the data that support the findings of this study are available from the corresponding author, [Sakineh Seddighi], upon reasonable request.

Competing interests

There is no competing interests to be declared.

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Authors' contributions

Writing original draft: S.S, N.M, Z.J and Z.H
Reviewing: S.S, N.M, Z.J and Z.H
Conceptualization: N.M and S.S
Figure design: N.M and S.S

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Declaration of Conflicting Interests

There is no conflict of interest to be declared.

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