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The Effect of Music to Pregnant Women on Birth Anxiety and Mental Well-Being: A Randomized Controlled Study[#]

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Research Article

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ABSTRACT

The research was conducted to determine the effect of music listened to during the third trimester of pregnancy on birth anxiety and mental well-being during pregnancy. The sample of the study included pregnant women who applied to the Gynecology and Obstetrics Polyclinic of a State Hospital in the Central Anatolia region of Turkey for routine examination and Non-Stress Test (NST), and who met the inclusion criteria for the study. A total of 100 pregnant women were included in two groups: the experimental group (50 pregnant women) and the control group (50 pregnant women), who were listened to music. The data of the study were collected by face-to-face interview method using the Personal Information Form, Oxford Birth Anxiety Scale (ODEÖ) and Warwick-Edinburg Mental Well-Being Scale (WEMİOÖ) between 15 January 2019 and 15 June 2019. In the study, pre-test and post-test were applied to both groups. A pre-test was applied to the experimental group, and then they were listened to music accompanied by daydreaming for 20 minutes, 5 times on different days for five weeks. At the end of the application, a posttest was administered 5 weeks later. A pretest was applied to the control group, and a posttest was administered five weeks later. According to the results of the research, when the pre-test and post-test scores of the pregnant women in the experimental group were compared, it was seen that their concerns about pain, distress, prenatal uncertainty, and interventions to be performed decreased. It has been determined that after listening to music accompanied by daydreaming, there is an increase in optimism, feeling useful, self-confidence, and increased mental well-being and coping levels. In line with these results, it is recommended that pregnant women listen to music while preparing for birth in order to reduce birth anxiety and increase mental well-being.

Keywords: Birth Anxiety, Mental Well-Being, Midwifery, Music, Nursing, Pregnancy

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Introduction

Music is a necessary part of life that accompanies it at every stage of life, which is the art of expressing certain emotions and thoughts with harmonious sounds within certain rules (Koç et al., 2016). People prefer to listen to music to add better and more positive thoughts to their lives (Sezer et al., 2015; Segall, 2018). The World Federation of Music Therapy defines music therapy as: "A music therapist's ability to address the physical, emotional, spiritual, social and cognitive needs of a client (patient) or group." It is defined as the use of music and musical elements (sound, rhythm, melody and harmony) to perform and facilitate action in a planned process (Aydın et al., 2019). Music therapy is also referred to as a branch of medicine that examines sound-human integrity and music, and uses movement, sound and music to improve human relations, treat diseases and restore society (Küçükkelepçe, 2014). Music therapy also has positive effects on people's physiological and psychological mechanisms. These; It has a positive effect on blood circulation. It causes improvement of heart contractions, reduces heart rate and respiration rate, lowers blood pressure. Causes the oxygen saturation value to increase. It activates digestion. Stimulates alpha waves in the brain, which provide relaxation. Gross and fine motor movements develop. It reduces anxiety. It is good for sleep problems in individuals. It strengthens the immune system. It reduces stress hormones. It has a positive effect on depression. It strengthens memory and learning, increases concentration. It reduces regular doses of pharmacological sedation, relaxing effect on chronic pain. It improves the quality of life. It increases endorphin levels, relaxes the muscles, and reduces the risk of premature birth. Diagnosis of preeclampsia lowers blood pressure in pregnant women and accelerates the latent phase of labor. It reduces the mother's pulse and respiratory rate, allowing the fetus to live in a healthier environment (Phumdoung and Good, 2003; Yang et al., 2009; American Music Therapy Association, 2019 Music therapy has been integrated with healthy living in some approaches that focus on the term integration of physical, emotional, spiritual and social. In order for the pregnancy period to be healthier for pregnant women, health professionals should turn to music therapy and help pregnant women improve their mental health (Çak and Özcan, 2018). Since treatment options are few due to the presence of widespread stress during pregnancy,

diagnostic difficulties, and concerns about the impact of medication use on the developing fetus, it would be beneficial to add music therapy to general treatment and care as a safe and non-pharmacological method to reduce anxiety and anxiety that occurs during pregnancy. It has been seen that it is necessary to support the effectiveness of music therapy in relieving and coping with stress, and that music therapy is important in terms of applicability because it is low-cost and non-invasive. (Kılıç and Gürkan, 2021). It is recommended that health care professionals use music therapy practices to protect and improve health (Sürü and Bilici, 2021). Music listening might be more systematically used in therapeutic settings, thus enhancing its clinical relevance. The research was conducted to determine the effect of music listened to during the third trimester of pregnancy on birth anxiety and mental well-being during pregnancy. It is thought that the research conducted to determine the effect of music played to pregnant women on birth anxiety and mental well-being will contribute to the literature on improving health during pregnancy.

Material and Methods

Study design and sampling

The research was conducted as a randomized controlled experimental type. The research was conducted in the Gynecology Polyclinic of a State Hospital in the Central Anatolia Region of Turkey. Polyclinic service at the State Hospital is provided between 09:00-12:00 in the morning and 13:00-16:00 in the afternoon. Two midwives are employed to follow up the pregnant women who come to the Obstetrics and Gynecology Polyclinic and to perform NST scans. First of all, the blood pressure of each pregnant woman is measured for follow-up, and the gestational age and parity are recorded. There is a separate room in the polyclinic where pregnancy services are provided. The population of the research consisted of pregnant women who were examined at the Gynecology and Obstetrics Polyclinic of a State Hospital between January 15, 2019, and June 15, 2019 (Figure 1).

Inclusion criteria

Applying to the pregnancy clinic,
In the third trimester of pregnancy,
Volunteering to participate in the research,
Without mental illness,
Having no physical risk factors during pregnancy,
Those aged 19-49,
Nulliparous pregnant women were included in the study.

Data Collection Tools

In the study, data were collected with the Personal Information Form, Oxford Birth Anxiety Scale (OWLS) and Warwick Edindurgh Mental Well-Being Scale (WEMWBS).

Personal İnformation Form: The form consists of 22 questions covering the pregnant women's socio-demographic characteristics such as age, education, employment status, family type, income level, and features regarding pregnancy and birth.

Oxford Birth Anxiety Scale (OWLS): The 10-item Oxford Birth Anxiety Inventory was developed by Redshaw et al. in 2009. Its Turkish validity and reliability were conducted by Yasemin Erkal Aksoy in 2016. Women's concerns about the birth process were evaluated with a four-point Likert scale. The scale can be used by women at any time before, during and after birth. It was scored as (1) I was very worried, (2) I was quite worried, (3) I was not very worried, (4) I was not worried at all. The scale is evaluated based on the total score (min=10, max=40). As the scores increase, women's anxiety levels are interpreted as decreasing. The scale, which has three subscales: "Pain and Distress", "Prenatal Uncertainty" and "Interventions", does not contain reverse questions. Subscales of the Oxford Birth Anxiety Scale, whose Turkish validity and reliability were tested; Turkish validity Sub-dimensions of the OWLS, whose reliability has been made; From items 4, 5, 6 and 7 of the "pain and distress" dimension, "prenatal uncertainty" dimension from items 1, 2 and 8, The “interventions” sub-dimension comes from articles 3 and 10. has been formed. Explanatory factor of the scale as a result of the analysis (EFA), the factor load was not sufficient For item 9 (anxious about embarrassment) sub-dimensions did not participate. Results: The average score of the Oxford Birth Anxiety Scale based on expert opinion is 9.8±3.7 (min=87.5; max=100.00), and the obtained value is 0.208 (p=0.091). To evaluate the validity of the scale structure, the factor loadings obtained by confirmatory factor analysis of the subscales were determined as 0.5 -0.73. The internal consistency of the scale was determined by Cronbach's alpha reliability coefficient α = 0.83. The correlation coefficients between the item and the total score of the scale items were evaluated and the reliability coefficients of the correlation were found to be r=0.50-0.69 (p=0.000). The correlation coefficients of the Oxford Anxiety Scale subscale with the total scale were found to be 0.77-0.88 (p=0.000) (Erkal and Özentürk, 2016).

Warwick-Edinburgh Mental Well-Being Scale (WEMWBS): Warwick-Edinburgh Mental Well-Being Scale; Tennant et al.'s mental well-being scale. (2007) and its validity in Turkish was done by Keldal (2015). The scale is a 14-item self-rating scale. The scale consists of positive components, including hedonic and eudaimonic dimensions of mental well-being: optimism, sense of usefulness, relaxation, interest in other people, energetic and lively, problem solving, clear thinking, well-being, closeness to other people, feeling. Self-confidence such as determination, love, interest in new things and joy. WEMWBS deals with people's positive mental health, including psychological well-being and subjective well-being. The scale is a 5-point Likert type and gives a minimum of 1 and a maximum of 70 points. Scale score (1 = disagree, 2 = disagree, 3 = somewhat agree, = agree, 5 = strongly agree). All scale items are positive. High scores from the scale indicate high mental (psychological) well-being. The Cronbach Alpha coefficient of the scale is 0.89.

Implementation of the Research

Before starting the research, the pregnant women who were examined in the hospital were met and the purpose of the study was explained, and verbal and written consent was obtained from the pregnant women who met the research criteria. With the simple random sampling method, pregnant women were divided into two groups: the group that listened to music and the control group. One group was listened to music and the other group was given only the test. Birth anxiety and mental well-being were evaluated between the music listening group and the control group. A preliminary application was made to the group that listened to music. The research was carried out in two sessions: pre-test and post-test. Only pretest and posttest were applied to the control group.

Experimental Group

After the pregnant women who volunteered to participate in the study were admitted to the hospital, the Personal Information Form, OWLS and WEMWBS were filled in by the researcher through a face-to-face interview (Pre-test). The music played was decided to be the Ocean sounds in Turkish Instrumental Music (Therapy Music with Turkish Instruments, Relaxation Music with Turkish Instruments CD1). It has been observed that when the sound of water is accompanied by the kemençe, the imagination of the person deepens and it has a calming effect, thus reducing the stress, anxiety and anxiety experienced by the individual in the verbal expression of music.The control group was administered a pre-test and a post-test four weeks later. As for the group that was listened to music, after a pre-test, the pregnant women who came to Non-Stress Test (NST) once a week were listened to music 5 different times for 20 minutes, accompanied by a suggestion of dreaming, as soon as they felt comfortable in the NST room. Music was played on an MP3 player, computer or phone so as not to disturb other pregnant women. These music were sent to people's phones. While listening to the music, the person was asked to imagine himself in a place where he feels peaceful and to try to cope with these issues and relax himself by thinking about the things he worries about while walking around in this place. They were told to listen for 20-30 minutes daily. After the last music performance, OWLS and WEMWBS were repeated.

Control Group

Pregnant women in this group who had not undergone any practice (listening to music) or had routine procedures performed at the obstetrics clinic and who had not received any training were included.

Data Analysis

Analyzes of the data obtained from the research were made using IBM SPSS 22.0 statistical package program. Descriptive statistics of the research are shown as number of units (n), percentage (%), mean±standard deviation ($\bar{x}\pm ss$) values. Using the Kolmogorov Smirnow test, it was determined that the data showed normal distribution. Analysis of categorical variables was done with the Chi-square test. Total scores for OWLS and WEMWBS scales were evaluated with independent samples t test for two-category variables. In the study, the statistical significance level was accepted as $p<0.05$.

Ethical Approval

Before conducting the research, Sivas Cumhuriyet University Non-Interventional Clinical Research Ethics Committee approval (Decision No: 2019- 12/31 Date: 11.12.2019) and written permission were obtained from the institution where the research would be conducted. The study was conducted in accordance with the Principles of the Declaration of Helsinki. The participants were informed and informed about the subject and purpose of the research and were asked to read the consent form. After informing the participants that it was their decision whether to participate in the study or not, that their names would not be written on the surveys, that the information obtained would not be used outside the study, and that their personal information would be protected, written and verbal informed consents were obtained from those who agreed to participate in the study.

Results

Table 1 shows the distribution of some socio-demographic characteristics of the women in the music listening group and the control group included in the research.

The average age of women in the study group was 24.62±3.97 (min: 19; max: 34), and the average age of women in the control group was 23.62±3.33 (min: 19; max: 30).

Some socio-demographic characteristics of the women in the experiment and control groups (age, education, family type, income level, place of residence, previous surgery history) were similar to each other, and it was determined that there was no statistically significant difference between the groups ($p>0.05$).

Table 2 shows the distribution of some obstetric characteristics of the women in the experiment group and the control group included in the research. Some obstetric characteristics of the women in the experiment and control groups (whether or not it was a desired and planned pregnancy, gender of the baby, control status during pregnancy, etc.) were similar to each other, and no statistically.

Table 3 shows the distribution of the educational status of women in the music listening group and the control group included in the research. The education status of women in the experiment group and the control group regarding birth was similar to each other, and there was no statistically significant difference between the groups ($p>0.05$). 60% of the women in the experiment group and 70% of the women in the control group stated that they had not received education about birth.

Table 4 shows Cronbach Alpha coefficient between 0.60 and 0.80 indicates that the scale is medium reliable, and between 0.80 and 1.00 indicates that the scale is highly reliable.

Table 5 shows as a result of the independent sample t test, no statistically significant difference was found between the experiment and control groups (t=0.000 p>0.05). This supports that the pretest mean scores of the experiment and control groups are not statistically different from each other. The pretest-post-test difference averages of the experiment group and the control group were found to be 1.1820 and 0.000, respectively. As a result of the independent sample t test, a statistical difference was found between these two groups (t=7.420 p<0.05).

According to the results of the research, when the pre-test and post-test of the group that was listened to music were compared, it was seen that their concerns about pain during birth, distress, prenatal uncertainty, and interventions to be performed decreased in the post-test.

Table 6 shows as a result of the independent sample t test, there was no statistically significant difference between the group that experiment and the control group (t=0.000 p>0.05). This supports that the pretest mean scores of the experiment and control groups are not statistically different from each other. The pretest-post-test difference averages of the experiment group and the control group were found to be 0.600 and 0.000, respectively. As a result of the independent sample t test, a statistical difference was found between these two groups (t=3.453 p<0.05). In the groups that experiment, more optimism, feeling useful and an increase in self-confidence were observed after daydreaming. It has been observed that their mental well-being and coping abilities increase.

Table 1. Distribution of some sociodemographic characteristics of women in the experimental and control groups (n=100)

Descriptive characteristics	Experiment group (n=50)		Control group (n=50)		Total (n=100)		Test (X^2/ *p*)
Average age (min-max)	24,62±3,97 (19-34)		23,62±3,33 (19-30)		24,14±3,65 (19-34)		
	n	**%**	**n**	**%**	**n**	**%**	
Age							
19-27	40	80	42	84	82	82	10,925/0,692
28-35	10	20	8	16	18	18	
Education							
Literate	2	4	0	0	2	2	2,560/0,465
Primary school	7	14	10	20	17	17	
Secondary school	24	48	24	48	48	48	
High school and above	17	34	16	32	33	33	
Working status							
Working	20	40	21	42	41	41	0,041/0,839
Not working	30	60	29	58	59	59	
Educational status of the spouse							
Literate	2	4	0	0	2	2	35,994/0,000
Primary school	5	10	0	0	5	5	
Secondary school	22	44	1	2	23	23	
High school and above	21	42	49	98	70	70	
Spouse's employment status							
Working	48	96	50	100	98	98	2,041/0,153
Not working	2	4	0	0	2	2	
Family type							
Nuclear family	45	90	48	96	93	93	1,382/0,240
Extended family	5	10	2	4	7	7	
Income rate							
Income less than expenses	8	16	10	20	18	18	3,029/0,220
Income equal to expense	32	64	36	72	68	68	
Income exceeds expenses	10	20	4	8	14	14	
Living place							
Province	38	76	36	72	74	74	0,276/0,871
District	8	16	10	20	18	18	
Village/Town	4	8	4	8	8	8	

**X2 = chi-square test*

Table 2. Distribution of Some Obstetric Characteristics of Women in the experimental and control groups (n=100)

Obstetric Characteristics	Experiment Group (n=50)		Control Group (n=50)		Total (n=100)		Test (X^2/*p*)
	N	%	n	%	n	%	
Whether it is a desired baby or not							
Yes	48	96	46	92	94	94	0,709/0,400
No	2	4	4	8	6	6	
Whether it is a planned pregnancy or not							
Yes	35	70	40	80	75	75	1,333/0,248
No	15	30	10	20	25	25	
Baby's gender							
Girl	29	58	22	44	51	51	1,961/0,161
Boy	21	42	28	56	49	49	
Whether there is anyone to help with postnatal care							
Yes	49	98	45	90	94	94	2,837/0,092
No	1	2	5	10	6	6	
Whether or not to go for a check-up during pregnancy							
Yes	46	92	48	96	94	94	0,709/0,400
No	4	8	2	4	6	6	
Pregnancy pattern							
Spontaneous	47	98	50	100	97	97	3,093/0,079
Treatment	3	2	0	0	3	3	

**X2 = chi-square test*

Table 3. Distribution of Education and Coping Situations of Pregnant Women in the Experimental and Control Groups (n=100)

	Experiment Group (n=50)		Control Group (n=50)		Total (n=100)		Test (X^2/ *p*)
	n	%	n	%	n	%	
Receiving education about birth							
Yes	30	60	35	70	65	65	1,099/0,295
No	20	40	15	30	35	35	
State of anxiety							
I am not worried	0	0	2	4	2	2	2,167/0,338
I feel anxious sometimes	41	82	38	76	79	79	
I'm always worried	9	18	10	20	19	19	
Coping with anxiety							
Distraction	16	32	15	30	31	31	3,820/0,576
Talking to someone	30	60	25	50	55	55	
Eating	2	4	4	8	6	6	
Cigarettes etc.	0	0	2	4	2	2	
Listening to music	1	2	2	4	3	3	
Other	1	2	2	4	3	3	
The state of liking to listen to music							
Yes	50	100	48	96	98	98	2,041/0,153
No	0	0	2	4	2	2	

**X2 = chi-square test*

Table 4. Distribution of Pregnant Women's OWLS and WEMWBS Average Scores

Scales	Cronbach's alpha values		Available Points
	I. Follow-up	II. Follow-up	
Oxford Birth Anxiety Scale (OWLS)			
OWLS Total	0,931	0,975	10-40
Warwick Edindurgh Mental Well-Being Scale (WEMWBS)			
WEMİOÖ Total	0,982	0,993	14-70

Table 5. Oxford Birth Anxiety Scale Average Score of the Pregnant Women in the Experimental and Control groups

OWLS	Experiment Group (n=50)		Control Group (n=50)		Test (t/ *p*)
	Min-Max	X±SS	Min-Max	X±SS	
Pre test	1,00-3,80	1,96±0,61	1,00-3,80	1,94±0,47	t=7,420 p<0,05
Post test	2,00-4,00	3,14±0,42	1,90±3,70	2,54±0,39	

Table 6. Warwick-Edinburgh Mental Well-Being Scale Average Scores of Pregnant Women in the Experimental and Control Groups

WEMWBS	Experiment Group (n=50)		Control Group (n=50)		Test (t/ *p*)
	Min-Max	X±SS	Min-Max	X±SS	
Pre test	3,00-5,00	4,03±0,67	2,29-5,00	3,57±0,75	t=3,453 p<0,05
Post test	4,00-5,00	4,63±0,46	3,00-5,00	4,30±0,55	

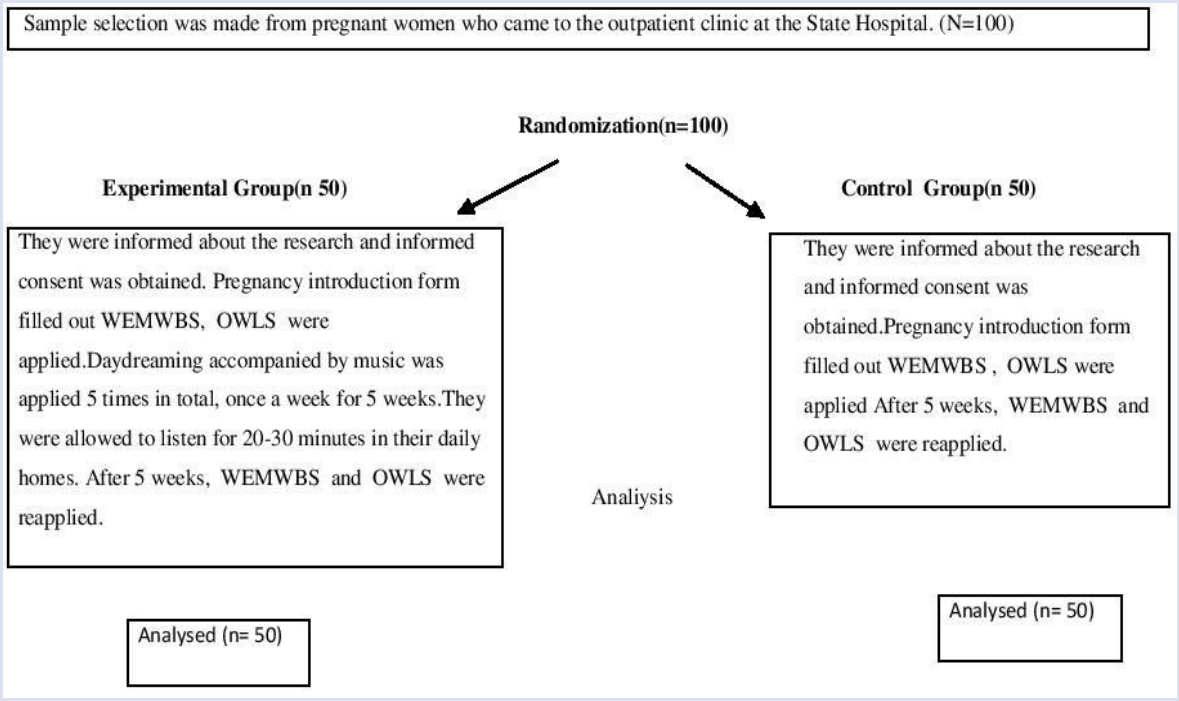

Figure 1. Flow chart of the study.

Discussion

Pregnancy and birth are not only a natural life event for women, but also a process in which physical, biological and psychosocial changes occur (Toohill et al., 2014). This process reveals some psychological changes in women such as introversion, anxiety, uncertainty, anxiety and contradiction (Tunçel and Süt, 2019). For this reason, the feeling of anxiety causes the woman to have a difficult birth and postpartum period. Anxiety is a type of fear that is felt without understanding what the problem is and is uncertain. Nulliparous pregnant women generally experience a fear of the unknown about what will happen in the future, while multiparous pregnant women generally experience a fear that some situations may go bad during the pregnancy. While fear is a situation that involves instant reactions, anxiety occurs when the risky situations that may occur in the future are felt. While the feeling of anxiety allows people to be better motivated when it is at a certain level, it negatively affects people's lives when it is higher than the average level. When we look at the anxiety levels of pregnant women, the anxiety experienced by pregnant women in the 3rd trimester is higher than in the 1st and 2nd trimester pregnancies, and their anxiety levels regarding the prenatal, birth process and postpartum period increase (Küçükkaya et al., 2018). In the third trimester, physical discomfort and the increasing burden and responsibility of pregnancy reveal the need for the pregnant woman to prepare psychologically for birth. Music, which has the power to miraculously affect people's emotions, thoughts and behaviors, has been used for treatment in different geographies and cultures from ancient times to the present day (Karslı, 2019). In recent years, the impact of music interventions and music therapy has received increasing attention in the literature. Music has been shown to have positive effects on cognitive and physical performance, such as concentration and endurance, and psychological parameters, such as anxiety and relaxation (Wulff et al., 2017). Studies, especially in the field of medicine, increasingly show that music can be used as an intervention for relief against anxiety, stress and pain (Küçükkelepçe,2014). Therefore, in real practice, music is seen as a supplement to traditional pharmacological and non-pharmacological forms of treatment, and the tendency towards music increases (Wulff et al., 2017). Studies involving music interventions in obstetrics have shown, among other things, that music improves the ability to relax and reduces anxiety during pregnancy (Küçükkelepçe,2014). It has also been found that musical interventions during labor reduce pain and stress. Music also has the effect of reducing stress, pain and anxiety in

mothers expecting cesarean delivery (Wulff et al., 2017). Music therapy has proven to be an effective method for reducing stress and anxiety in patients with various cardiovascular diseases (Sürü and Bilici, 2021). Music therapy and psychiatric care play a very important role among the principles of emotional regulation (Carolan et al., 2012; Moore, 2013). In the third trimester of pregnancy, it has been proven that music and relaxation have significant effects on reducing anxiety levels (Liebman and MacLaren, 1991; Sürü and Bilici, 2021). Music has the power to miraculously affect people's emotions, thoughts and behaviors (Karslı,2019). It has been observed that music motivates the mother in this process (Carolan et al., 2012). It has been shown in a study that listening to music can be used as an intervention for relaxation against fear, anxiety and stress, thanks to the suggestions people give to themselves (Wulff et al., 2017). Studies have determined that 93.4% of pregnant women have concerns about the birth process (Küçükkelepçe, 2014; Gautham and Devi, 2020). In our research, birth anxiety was calculated as 93.75%. Studies have shown that the majority of pregnant women like to listen to music (Baltacı and Başer., 2020; Sürü and Bilici, 2021). In our research, this rate was found to be 98%. According to the results of Ersanlı's research, music reduced birth anxiety and pain in pregnant women, increased the pain threshold in some pregnant women, and caused delays in the increase in the problems to be experienced. In our study, while there was no difference in the pre-tests of the group that listened to music and the control group, it was seen that the score of the group that was listened to music was higher in the post-test. Research has shown that individuals with high levels of mental well-being have better psychological and physical health and higher quality of life (Keyes, 2002; Keyes, Dhingra and Simoes, 2010). According to the results of the research conducted by Sürü and Bilici (2021), participants who were listened to music experienced stress relief. and a decrease in the level of negative mood; at the level of mental well-being and positive mood e has increased. It was found that the decrease in the participants' stress and negative mood levels was statistically significant (Sürü and Bilici, 2021). In our study, it was observed that the pregnant women who were listened to music had higher Warwick-Edinburgh Mental Well-Being Scale mean scores, their psychological state was better, and they felt better than the control group.

Conclusion

This research was conducted to determine the effect of music played to pregnant women on birth anxiety and mental well-being, and the following results were obtained:

Some sociodemographic characteristics (age, education, family type, income, place of residence, history of previous surgery) of the women in the experiment group and the control group were found to be similar (p>0.05). (Table1). There was no statistically significant difference between groups

Some birth characteristics of the women in the experimental group and the control group (whether the pregnancy was wanted or not, gender of the child, control status during pregnancy, etc.) were similar and no statistically significant difference was observed (p>0.05). (Table 2).

The education level of women in the experimental group and the control group was similar and there was no statistically significant difference between the groups (p>0.05). 60% of the women in the experimental group and 70% of the women in the control group stated that they had not received education about birth (Table 2).

The study supports that the pre-test mean values in the groups are not statistically different from each other. The average difference between the control groups and those who listened to music before and after the test was 1.1820 and 0.000.

Positive growth was observed in the group that listened to music. An independent samples t test showed a statistical difference between the two groups (t = 7.420 p<0.05). In this case, it was determined that the pre-test mean values of the experimental and control groups were not statistically different from each other (Table 5).

When the Warwick-Edinburgh mental well-being scale average indicators of the experimental group and the control group were compared, it was found that the pre-test and post-test difference between the study and control groups was 0.600 and 0.000, respectively. As a result of the independent sample t-test, a statistical difference was found between the two groups (t=3.453 p<0.05). It was determined that the study group was mentally better (Table 6).

In line with these results

Adding listening to music during pregnancy to midwifery training programs,

Listening to music during pregnancy is included in routine midwifery and nursing care practices and conducting in-service training programs on this subject,

In order to reduce birth anxiety and increase mental well-being during pregnancy, pregnant women are asked to listen to music. While listening to music, the person is asked to imagine herself in a place where she feels peaceful and to try to cope with these issues and relax herself by thinking about the things she worries about while walking around in this place.

It is recommended to conduct research on different samples by listening to different maqams.

Declaration of Conflicting Interests

The authors declare that there is no conflict of interest.

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