Soothing music significantly reduces stress, anxiety and depression during pregnancy

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Music therapy can reduce psychological stress among pregnant women, according to research just published in a special complementary and alternative therapy medicine issue of the *Journal of Clinical Nursing*.

Researchers from the College of Nursing at Kaohsiung Medical University, Taiwan, randomly assigned 116 pregnant women to a music group and 120 to a control group.

"The music group showed significant reductions in stress, anxiety and depression after just two weeks, using three established measurement scales" says Professor Chung-Hey Chen, who is now based at the National Cheng Kung University.

"In comparison, the control group showed a much smaller reduction in stress, while their anxiety and depression scores showed little or no improvement.

"Women in the music group also expressed preferences for the type of music they listened to, with lullabies, nature and crystal sounds proving more popular than classical music."

The women who took part in the study had an average age of 30 years, were between 18 to 34 weeks' pregnant and expected to have uncomplicated vaginal deliveries. All but five of the 241 women, who were recruited from the antenatal clinic at a medical centre in southern Taiwan, completed the pre and post-test assessments.

The demographic profiles of the two groups were very similar when it came to factors like education, occupation, social class and happiness with their marriage.

Half of the women were pregnant for the first time and just over half of the pregnancies were planned. The number of women in their second and third trimesters were more or less equal.

Four pre-recorded 30-minute music CDs were created for the study and each featured music that mimicked the human heart rate, with between 60 and 80 beats per minute.

The lullaby CD included songs like Brahms' Lullaby and Twinkle Twinkle Little Star and composers like Beethoven and Debussy were included on the classic CD. The nature sounds included Tropical Mystery and Friendly Natives and the crystals' CD comprised Chinese children's rhymes and songs, like Little Honey-Bee and Jasmine.

Women taking part in the music group were given copies of the CDs and asked to listen to them for 30 minutes a day for two weeks. They then completed a diary saying which CD they had listened to and what they were doing at the time.
Most of them listened to the music while they were resting, at bedtime or performing chores.

The control group did not listen to the CDs.

Participants in both groups were asked to complete three well-established scales, which are used to measure stress, anxiety and depression, before and after the music intervention.

The results showed that:

Before they took part in the study, women in the music group scored 17.44 on the Perceived Stress Scale, which ranges from zero to 30. After the intervention their stress levels had dropped by an average of 2.15, which is statistically significant. Women in the control group reported a much smaller fall of 0.92.

- Anxiety was measured by the State Scale of the State-Trait Anxiety Inventory, which ranges from 20 to 80. It fell by 2.13 from 37.92 in the music group and rose by 0.71 in the control group.
- Depression was measured by the Edinburgh Postnatal Depression scale, which ranges from zero to 30. The music group reported an average level of 12.11 before the intervention and a reduction of 1.84 at the end of the two-week period. The score was almost constant in the control group, falling by an insignificant 0.03.

"Pregnancy is a unique and stressful period for many expectant mothers and they suffer anxiety and depression because of the long time period involved" says Professor Chen. "In fact, anxiety and depression during pregnancy is a similar health problem to postnatal depression.

"Any intervention that reduces these problems is to be welcomed. Our study shows that listening to suitable music provides a simple, cost-effective and non-invasive way of reducing stress, anxiety and depression during pregnancy.

"The value of music therapy is slowly being realised by nurses in a number of clinical settings and we hope that our findings will encourage healthcare professionals to consider it when treating pregnant women."

Complementary and alternative therapies (CAM) are increasingly

being used, according to Dr Graeme D Smith, Senior Lecturer at the University of Edinburgh and editor of the special October issue.

"There are many potential health benefits that can be gained from close integration of CAM therapies into nursing practice and conventional health care" he says. "In the UK, for example, approximately one in five people have tried at least one form of CAM and one in five family doctors are actively involved in providing them. It is also good to see that the National Health Service is incorporating more types of CAM as part of its delivery of integrated services.

"The beauty of the CAM technique described by Professor Chen is that patients saw immediate and significant benefits simply by including half an hours' relaxing music into their daily routine. In a world of sophisticated medical advances, it is good to see that something so easy and inexpensive can be so effective."

Source: Wiley-Blackwell