



# Influences of singing during antenatal health education classes on comfort in second and third trimesters of pregnant women

メタデータ	言語: eng 出版者: 公開日: 2015-05-28 キーワード (Ja): キーワード (En): 作成者: 宮本, 雅子 メールアドレス: 所属:
URL	<a href="https://doi.org/10.24729/00005483">https://doi.org/10.24729/00005483</a>

### Abstract

**【Purpose】** This study investigated the influences of singing during antenatal education classes and of daily singing on comfort enhancement, for instance, on factors such as “pleasure, refreshment, enjoyment, relief, relaxation, reducing anxiety and stress, vigour, motivation, reducing fatigue and maternal infant attachment”.

**【Methods】** 1. Research framework: Kolcaba’s Comfort Theory (Kolcaba, 2003) was the chosen framework. The assumption made was that singing experiences would raise the antenatal education group’s comfort to a level higher than the no-intervention group’s.

2. Research design: A comparison design between singing and no-intervention groups and a longitudinal study of the intervention group with a pre-test/post-test design, including singing at antenatal education were employed.

3. Participants: The participants were normal null parity pregnant women with gestational ages of between 24 and 36 weeks. Twenty-three women were eligible for the antenatal education group and 115 were in the no-intervention group.

4. Antenatal education with singing: This education program offered making physical or psychological conditions and environment more comfortable for singing first, and singing nursery songs, lullabies and Japanese pop music, with lectures on the progress of pregnancy and fetal growth and the importance of breathing and relaxation techniques during labour. Each 90 min antenatal education session was conducted once a week between the 24 and 32 weeks’ gestation. After the second class, the women began describing their feelings during daily singing over 4–5 weeks. 5. Data collection: The data collected was from January 2013 to May 2014. All participants were asked for demographic data at the baseline. The Prenatal Comfort Scale (PCS) (Takeisi et al., 2011) and the Profile of Mood States (POMS) (McNair et al., 1964) were used at the baseline and after the five weeks. In the education group, the Mood Check List-Short Form 2 (MCL-S.2) (Hashimoto & Murakami, 2011), Salivary Cortisol (SC) and Salivary Alpha-Amylase (SAA) were used before and after three antenatal education classes. 6. Data analysis: Nonparametric statistical techniques, such as the Wilcoxon rank sum test and the Wilcoxon signed-rank test, were used to analyse changes in the scores and values. The IBM SPSS statistical program Version 20.0 J for Windows, with a significance level of 5%, was used for data analysis. Daily singing was content analysed. 7. Ethical consideration: This study was approved by the Research Committee of the School of Nursing, Osaka Prefecture University (application number: 24-49).

# Influences of singing during antenatal health education classes on comfort in second and third trimesters of pregnant women

生活支援看護学領域 母子健康看護学分野  
学籍番号 3110601006  
氏名 宮本雅子

**【Results】** The mean age and gestational week of the antenatal education group were  $32.5 \pm 4.6$  years and  $27.0 \pm 2.1$  weeks at the baseline. For the no-intervention group, the mean age was  $32.2 \pm 4.6$  years and mean gestation was  $27.1 \pm 2.3$  weeks. There were no significant differences between the two groups on demographic data, PCS and POMS.

A significantly increased T score of “vigour” on the POMS was found in the antenatal educational group compared to the no-intervention group ( $p = .001$ ). The differences between the two groups in the factors of Tension-Anxious (T-A) on the POMS and “changing of me during the pregnancy”, “interactions by moving of fetus” and “realizing to become a mother and attachment to my baby” on the PCS were not statistically significant.

Significantly increased variation in scores of “pleasantness” ( $p = .000$ ) and “relaxation” ( $p = .001$ ) factors on the MCL-S.2 were found before and after antenatal education classes. Significantly decreased scores of “anxiety” on the MCL-S.2 ( $p = .001$ ) and SAA levels ( $p = .042$ ) were found, however, no significant difference was found in the SC levels.

In their daily singing, 222 (35.4%) descriptions on the theme of “pleasure”, “refreshment” and “enjoyment” was the greatest number and 68.1% of women who sang lullabies described a theme of “relief and relaxation”.

**【Discussion】** Singing during antenatal education classes based Kolcaba’s Comfort Theory suggested that the influence of singing improves comfort in “vigour” among pregnant women. Enhancing the vigour presupposed to highly motivate expectant mothers towards preparation for birth and parenting. Thus, the antenatal education adopted singing as it is considered application of nursing care. “Pleasure” seemed to be improved by singing as it showed a significant increase after the classes. Enhanced “maternal infant attachment” was similar in both the singing and no-intervention groups, resulting from “interactions by moving of fetus” (PCS) naturally increasing in ordinary pregnant women (Atogami et al., 2014). This study’s result makes it difficult to suggest that singing lullabies enhanced maternal infant attachment (Carolan et al., 2012) because a variety of music genres were sung during antenatal education. Singing lullabies with breathing techniques in antenatal education, however, would be effectively improve relaxation and decrease anxiety.

Additional research is required to evaluate the singing at antenatal education classes at delivery institutions. For further study, increasing the number of research participants and to assess the effects of education using certain music genres, like lullabies on relaxation or maternal infant attachment is required.

**Keywords:** Pregnant women in second and third trimesters, comfort, singing, antenatal education