

Effect of white noise record on alleviating the pain of new-born during invasive procedures

Senay Cetinkaya¹, MelikeYavas Celik¹ and Serap Ozdemir²

¹Çukurova University, Adana, Turkey

²Aralık University, School of Health, Academic

Objectives: In painful operations like invasive procedures, it is aimed to analyse the effect of making the babies listen to white noise CD by using NIPS pain scale.

Methods: This is an experimental type of research made on 60 new-borns, ranging from 0-28 days-old, 28 weeks-old and over, and coming to intensive care unit in Gaziantep CengizGökcek Maternity and Children Hospital in Turkey.

Application of the study has commenced on the date of 1 November 2015 and has been completed on the date of 31 May 2016. Two groups, one is experimental and the other is control group, selected by simple random sampling have. A thirties group selected with simple random sampling which are on condition that an experimental group (being exposed to white noise) and an control group (not being exposed to any action) has composed sample of population.

Babies in experimental group on invasive procedure were exposed to white noise CD. Babies were recorded while they were listening to white noise during invasive procedure. Then, NIPS pain scale on the questionnaire form and efficiency of white noise have been evaluated by comparing the babies' duration of crying.

Results and Conclusion: Comparison of Chi-square has been made in terms of defining characteristics of the babies in control and experimental group such as gender (p:0.10), kilo (p:0.19), circumstance of being premature and born mature (p:0.59), races (p:0.60), and type of invasive procedure (p:0.12), and a statistically significant result has not been acquired. As it is also understood from this result, both of the groups are homogeneous and between them there is not a meaningful difference which will influence reliability of study.

Whether gender of babies have an impact on duration of crying has been compared, a statistically significant result has not been acquired (p>0.05). Apgar score believed to influence baby's duration of crying has also been compared with variables such as head, length, kilo, birth week, delivery method of baby but statistically significant result has not been acquired (p<0.05). New-borns' duration of crying has been found statistically significant in Independent Samples T test (p<0.05) which was performed between two independent groups with a 95% confidence interval. Duration of crying in the group being exposed to white noise (18.20 sec) has been determined lower than that of control group (44.96 sec). In the end, usage of white noise CD on new-born during invasive procedure has been determined to be applicable.

Key Words: Crying baby, Infant, Pediatric Nursing, NIPS Pain Scale. White Noise.

Biography:

Senay (OK) Cetinkaya, born in 1967, has completed her bachelor of nursing, master's degree, and PhD in Ege University.

In 1988 she was employed as nurse in ICU at the cardiovascular surgery clinic in Ege University, at the medical faculty hospital. In the mean time she has completed her postgraduate (1991) and PhD (1999) on pediatric nursing.

Following her move to Malatya due to a spouse-related transfer (1996), she was employed at the Health Colleges of İnönü (1996-2000), Selçuk (2000-2004), and Ege (2004-2007) Universities. Currently she is working at the Faculty of Health Sciences of Çukurova University, Head of the Department of Pediatric Nursing.

Besides being instructor and vice-principal at the college, she has coordinated and performed in-service training programs to healthcare personnels, carried out symposium vice-presidency, assistant journal editorship and reviewing, and chair in nursing department. She has international articles (8), international books chapters (6), translation on a vocational book (thesaurus of skills), national chapters of book (2), has led postgraduate thesis (10), research projects (3), and posted many scientific papers (30) in periodicals.