

Music therapy in nursing practice

[Health & Medicine](#), [Nursing](#)



MUSIC THERAPY IN NURSING PRACTICE (A Critical Review of a Research Study Article) ID Number: _____ of Professor's Name: _____ Name of School (University) _____ Date of Submission: February 08, 2012 Music Therapy in Nursing Practice Student's Name: _____

_____ 1. The title of the article is appropriate as it clearly identifies the dependent and independent variables, population of interest, and intervention (if an intervention study). If the title is not appropriate, what would you suggest? SA 5 (4) 3 2 1 SD Answer: I find the title appropriate enough as it is descriptive of the intervention's intentions. 2. The abstract provides an effective overview of the research article as it includes the design, conceptual framework, methods, sample, results, and implications for practice. SA 5 (4) 3 2 1 SD Answer: There was no specific section of the article which was labeled as the Abstract but the authors gave a brief summary of the results, aims, research design, conclusion and its relevance to nursing practice. In this regard, I find the overview comprehensive enough for the article. 3. The introduction establishes the importance and problem of the study and includes a purpose statement. If not, what purpose statement would you suggest? SA (5) 4 3 2 1 SD Answer: The introduction gave enough background information on the need to study the use of music on intubated patients who rely on mechanical support for ventilation. The purpose of the study was already stated previously under its aims section at the very beginning of the article. 4. The literature review is current, supports/justifies the need for the study, logically links previous research findings, and identifies gaps in the knowledge. What gap in knowledge is this study trying to fill? Does it support or not support the

purpose statement? SA 5 (4) 3 2 1 SD Answer: The literature review is fairly current and also quite comprehensive in scope. Further, it logically linked previous studies to the current research subject of this article. Previous studies had only investigated how music can help patients during normal delivery, caesarean sections, in patients undergoing bronchoscopy, colonoscopy, dental surgery, acute myocardial infarction, etc. but not in patients undergoing mechanical ventilation support, so this study is quite pioneering. It saw a gap in this area of minimal medical research (Korhan, Khorshid & Uyar, 2011, p. 1027). 5. The study's conceptual

framework/theoretical underpinnings and conceptual definition of the study variables are clearly stated. If not, what conceptual framework/theoretical underpinnings or theory would you recommend and why? SA 5 (4) 3 2 1 SD

Answer: The conceptual framework is acceptable because it is based on the main physiological signs of anxiety commonly accepted among medical practitioners, which are systolic blood pressure, diastolic blood pressure, pulse rate, respiratory rate and oxygen saturation. Moreover, its theoretical underpinnings are quite accurate as the intent of the research study is to find effect of relaxing music using non-pharmacological or non-surgical interventions. In other words, this study is based on historical and cultural evidences that classical music had been used before by people for relaxation in many societies and is worth investigating further for its medical efficacy.

6. The research purpose, question/hypothesis (a study will not have both) is clearly stated and congruent with the research problem. What is the independent variable? Dependent variables? Are there operational definitions of the dependent variables? If no research questions/hypotheses

are stated, what questions would you suggest? SA (5) 4 3 2 1 SD Answer:

The research question is clearly aligned correctly with the research problem or aim. The independent variable is the use of relaxing music (calm and soothing such as classical music). Its dependent variables were the physiological signs mentioned earlier, which are systolic blood pressure, diastolic blood pressure, pulse rate, respiratory rate and oxygen saturation. Since this is a technical medical report, these common physiological signs do not need to be defined anymore. People reading this research article know exactly what these medical terms pertain to. The article had no research question posed but its purpose was stated in its aims at the article's beginning. A good research question might be: “ Is music effective as an anxiolytic among patients?” although this can be narrowed down further to patients who are on mechanical ventilation support only. 7. The research design is appropriate for the study. What type of design is it? How many times are the data collected? So, is the design congruent with the research question? SA 5 (4) 3 2 1 SD Answer: I think the research design of case-study control and experimental groups is appropriate. The data collection was a repeated process (multiple collections) at 30 minutes before the music was played on the intubated patients, and then at 30-minute intervals (30th, 60th and 90th minute). The design is largely congruent with the research question but maybe the music interventions can be extended some more beyond the 90th minute to make it perhaps a whole-day intervention. It is too short to make definitive conclusions by stopping at the 90th minute (extend it to 24 hours). 8. Relevant demographics are described. Do the demographics describe the sample adequately? If not, what demographics should have

been collected? If it is an intervention study, are there differences between the groups reported at baseline? Why is it important to report differences/similarities at baseline when testing an intervention? SA 5 4 (3) 2 1 SD Answer: The relevant demographics had been adequately described with regards to the sample. However, the sample selection is not very good as it is very varied, in terms of gender, age and educational attainment in addition to length of time spent on mechanical ventilation support. In other words, a lot of confounding factors were introduced into the research study such that it is difficult to find a definitive conclusion between cause and effect (causality). Part of the results could be attributed to these extraneous factors. The two sample (experimental and control group) should have been made homogeneous because there was a wide variation among the patients. But the researchers did correctly by taking down physiological data before and after the music intervention was implemented in order to make some comparisons on the effects of the music. It is necessary to acquire or collect baseline data when making an intervention research study. 9. The method of sampling is appropriate for the study design. If not, what sampling method would you recommend? Was power analysis reported to determine sample size? If not, what sample size would you recommend? Should the authors have protected against a Type 1 or Type 2 error? SA 5 4 (3) 2 1 SD Answer: The sample size is quite small, since the universal minimum sample size is one hundred but power analysis was used to validate the correlations between the independent and dependent variables. The authors should have installed controls to protect against either Type 1 or Type 2 because only three of the five variables were found to be statistically significant (both

systolic and diastolic blood pressures and respiratory rate) but not in the pulse rate or oxygen saturation. 10. What are the data collection methods (self-report; observation; physiological, etc.)? Are the training requirements of data collectors reported? Why are the training requirements important to report? Are the reliability and validity of each instrument reported for this study, not from previous studies? Why is it important to report the reliability and validity of the instruments for this study? SA (5) 4 3 2 1 SD Answer: The data collection method is by observation but using the medical instruments needed to get the readings for each of the five physiological signs of anxiety. There is no need for any comprehensive training for this study since the nurse is well-versed in how to take all those five measurements which are pretty standard procedure in nursing practice. However, the article has not made any mention regarding the reliability of the measurement instruments being used. It is therefore merely assumed these tools were in fairly good working condition when used. 11. Based on the research question/hypothesis, research design, and level of measurement of the dependent variables, the statistical test is appropriate. How do you know if it is the correct statistical test? If not, what statistical test would be needed to answer the research question/hypothesis? SA 5 (4) 3 2 1 SD Answer: The tests used were appropriate, since they were used to determine the correlations in the independent and dependent variables. The repeated measures of analysis of variance used in the study (R_Anova) is sufficient enough because there were no big deviations from the normal distribution of the data that was gathered. The tests used were for reliability and validity. 12. The statistical analyses results are reported in a table format that is easy

to read and understand. In the text, the statistical results are written correctly according to the handouts on Springboard. If not, how should they be written? SA 5 (4) 3 2 1 SD Answer: The data results were not presented in tabular form but rather in graphical formats for easy viewing and analysis by the reader, with time as the common factor (shown in the y-axis). It is definitely better to present the results in graphs because these are already summarized. 13. The results clearly support or do not support the research questions/hypotheses and are linked back to the purpose statement. If not, how would you link the results back to the purpose statement? SA 5 4 (3) 2 1 SD Answer: The results of the research study were not very conclusive because only three variables were found to be statistically significant in terms of correlation with the independent variable. In other words, it is hard to make any definitive conclusions because many extraneous factors were present in the sample groups (both the experimental and the control groups) with wide variability in terms of age, gender, educational attainment or level and finally, the number of days spent on mechanical ventilation support. But more importantly, the patient samples were not uniform in terms of the nature of their ailments (pulmonary cases, heart failure, liver failure, chronic kidney failure and pancreatitis). The ailment was not considered to be a dependent variable in the study although this could be quite a factor that could have altered or influenced the results. The very nature of the various ailments have different physiological symptoms and effects on patients. 14. The discussion/conclusion is clearly described. The author(s) cite research studies that support and those in contrast to the study results. Both significant and non-significant results are explained. The issues of clinical

significance are stated? The implications for Nursing are discussed. SA 5 (4)

3 2 1 SD Answer: The conclusion is clearly stated although it can be challenged because of the factors that may have influenced the results, such as the wide disparity in the sample group of patients used in the study.

There is no homogeneity in the subject-patients. However, the significant results were stated in the report and also how the results can impact on nursing practice. In particular, a further study in the use of music to reduce anxiety is warranted. Music therapy can be used in conjunction with modern medical technology for intensive-care treatments as music is simple and easy to apply in practice; further, it is non-invasive, non-surgical and non-pharmacological. What was not properly explained was why the heart rates and oxygen saturation went up in both groups which is against expectations from using music as mode of intervention (ibid. p. 1031). 15. Study

limitations are clearly described. If not, what are the limitations of the study?

What are the other limitations not mentioned by the authors? SA 5 (4) 3 2 1

SD Answer: The limitations were clearly stated, such as the time of day when music intervention was implemented, the choice of music, whether the patient was conscious or not, duration and number of music sessions, cultural background of the patient and even personal preferences. The other limitations which should have been mentioned was the type of ailment for which a patient was on mechanical ventilation support as this could have a bearing on the results. The small size of the sample groups (control and experimental) is a serious limitation to make valid conclusion. Although music relaxation has some basis as a form of therapy and complements a conventional treatment by providing the patients with a mind-body wholistic

approach to their own treatment, further studies should be structured to just a few dependent variables in order to really establish a solid connection between music and anxiety. Music, together with prayer, meditation and guided imagery (for conscious patients), can be a powerful tool to hasten self-healing (Lundy & Janes, 2009, p. 375). The mixed-consciousness levels of this research further obscured the results. The knowledge of some patients (the conscious or semi-awake patients) can alter the results for they know they are being observed, known as the Hawthorne Effect, which may introduce a bias.

16. Future research recommendations are clearly described. What other future recommendations do you suggest? What is the next logical step for the next study? SA 5 (4) 3 2 1 SD Answer: A good recommendation would be to increase the sample size, use a homogeneous group of patients for observation, limit the research to just a few variables and include the type of ailment in the study (as mentioned before, maybe all patients should be those with liver failure only, heart failure only, kidney failure or pulmonary cases only). The reason for this is that types of ailments may produce different responses as there are significant differences in symptoms. A further observation is to exclude educational attainment as a variable because patients who are intubated are usually unconscious, so the state of mental faculties are not a factor in this study. In other words, it is irrelevant whether a patient had reached elementary grades only or is a college graduate because their educational level is useless when they are intubated and unconscious.

17. The results of the study could be incorporated into daily nursing practice. If no suggests are address, how could the results be incorporated into daily nursing practice? The results of

the study add to the evidence-based guidelines or are in contrast to current evidence-based guidelines. SA (5) 4 3 2 1 SD Answer: The study results are easy to implement in daily nursing practice although this requires prior approval from hospital administrators to install music equipment or buy headphones for use by the patients identified for music therapy. It is in consonance with other benevolent techniques in nursing such as teaching patients to pray or meditate. However, it must be ascertained first if music is important to a patient's life and the patient's musical preferences be taken also into the consideration because the body responds to musical vibrations (Kozier et al., 1997, p. 388). 18. Despite any flaws, the manuscript is worthy of publication. If not, state why it is not worthy of publication and provide rationale to support your rejection of the manuscript. SA 5 (4) 3 2 1 SD

Answer: The manuscript can be acceptable for publication but it needs to be shortened a bit and summarized because it is too long and very wordy. A lot of explanations and some background information were repeated several times within the article. It needs some serious editing. A focus of the research study could have been on music intervention and the wholistic approach of today in which evidence-based medical or nursing interventions are now the norm. It can be conceded that the study results were largely in consonance with current evidence-based guidelines, like the use of music therapy in end-of-life situations to help alleviate anxiety and pain during the critical transition between life and death of dying patients (Dossey & Keegan, 2009, p. 332). Reference List Dossey, B. M. & Keegan, L. (2009). Holistic nursing: a handbook for practice. Sudbury, MA, USA: Jones & Bartlett Publishers. Korhan, E. A., Khorshid, L. & Uyar, M. (2011). The effect of music

therapy on physiological signs of anxiety in patients receiving mechanical ventilatory support. *Journal of Clinical Nursing*, 20, 1026-1034. Kozier, B., Erb, G. L. & Blais, K. (1997). *Professional nursing practice: concepts and perspectives*. Boston, MA, USA: Addison-Wesley Publishing Company. Lundy, K. S. & Janes, S. (2009). *Community health nursing: caring for the public health*. Sudbury, MA, USA: Jones & Bartlett Publishers.