The Effects of Karaoke on Pain, Anxiety, and Sleep in an Adult Acute Care Inpatient Psychiatric Unit

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Background

- Music has been used to decrease anxiety and stress in adults (Smith, 2008).
- Music has been found to have a physiologic effect on patients by decreasing blood pressure, and by helping to regulate breathing and improve muscle tone (Lee, Lieu, & Chen, 1999).
- Music therapy has been found to be an effective treatment for patients diagnosed with chronic mental illnesses including major depression, Alzheimer’s disease and bipolar disorder (Silverman, 2011).
- Although many studies demonstrate the benefits of music therapy on physical and emotional states, there is little research that examines the use of karaoke among persons with psychiatric illnesses, and none that examined its use and effect among psychiatric patients in an acute inpatient setting.

Purpose and Questions

The purpose of this study was to evaluate the effects of karaoke on pain, anxiety, and sleep for adults in an acute care inpatient psychiatric unit.

RQ1. Does participation in karaoke have any immediate effects on sleep quality?
RQ2. Does participation in karaoke decrease anxiety levels?
RQ3. Does participation in karaoke decrease patient’s reported pain levels?
RQ4. Do patients have improved self-disclosure in group therapy after attending karaoke group?

Method

Study participants completed a survey on sleep and the STAI – state anxiety instrument pre and post karaoke group attendance.

Review of the participant’s medication administration record 24 hours pre and post karaoke group was completed.

Medical record review of the counselor’s group therapy notes pre and post karaoke group was completed.

Participants completed post karaoke survey of relaxation, mood and stress using a 5-point scale.

Statistical methods included McNemar’s, KR-20, Wilcoxon signed-rank, and one-sample z tests.

Results

Demographics

Table 1. Demographics of the study sample (n = 61)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N (%) or Mean ± SD (Min, Max)</th>
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<tbody>
<tr>
<td>Age (years)</td>
<td>36.6 ± 12.9 (18, 61)</td>
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<tr>
<td>Gender</td>
<td>Female 37 (60.7) Male 24 (39.3)</td>
</tr>
<tr>
<td>Race</td>
<td>African-American 11 (18.0) American Indian 1 (1.6) Hispanic or Latino 1 (1.6) Caucasian 45 (73.8) n/a 3 (4.9)</td>
</tr>
<tr>
<td>Diagnosis*</td>
<td>Affective Disorder 1 (1.6) Alcohol Abuse 13 (21.3) Bipolar 17 (27.9) Addiction 1 (1.6) Borderline 3 (4.9) Tourette’s 1 (1.6) PTSD 5 (8.2) Depression 31 (50.8) Anxiety 3 (4.9) Substance Abuse 9 (14.8)</td>
</tr>
<tr>
<td>Days on Unit</td>
<td>3.8 ± 3 (1, 15)</td>
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</table>

Results for RQ1 analysis:

- Partition in karaoke was associated with a statistically significant decrease in state-anxiety levels.
- Almost one-third (30.4%) of patients with known PRN medications status had a decrease in usage of their PRN medications. 21.4% had a decrease in PRN pain medication usage.
- Almost one-fourth (24.2%) increased their levels of group participation after karaoke.
- Average post-karaoke ratings for relaxation, stress, mood, and talking in group were more positive.
- Participation in karaoke did not have any statistically significant immediate effects on sleep quality in the measures above.

Conclusions

- Participation in karaoke was associated with a statistically significant decrease in state-anxiety levels.
- Almost one-third (30.4%) of patients with known PRN medications status had a decrease in usage of their PRN medications. 21.4% had a decrease in PRN pain medication usage.
- Almost one-fourth (24.2%) increased their levels of group participation after karaoke.
- Average post-karaoke ratings for relaxation, stress, mood, and talking in group were more positive.
- Participation in karaoke did not have any statistically significant immediate effects on sleep quality in the measures above.

Discussion

- Based on the findings from this study, the impact on the unit and on patients who participate in karaoke has the potential to be a positive one.
- We found statistically significant improvements in participants’ state anxiety levels, their PRN and pain medication use and in their group therapy participation. Thus, patients may feel less anxious and more comfortable after attending karaoke and therefore may be better able to participate in treatment.
- Because patients in this study improved in their group participation after karaoke, they may benefit more from their therapies with karaoke participation.
- Since ‘as needed’ medication use significantly decreased after karaoke participation, this may further reflect that patients are less anxious and perhaps, therefore, more amenable to treatments.
- The unit milieu may be positively affected by patients’ participation in karaoke group. If patients are less anxious and more involved in their treatment, this could contribute to milieu stability.
- Since patients respond positively to karaoke on some important measures (anxiety, as needed medication use, and group therapy participation level), all of which may positively impact their treatment, karaoke might contribute to shortened length of inpatient stays. Further research is needed in order to test this hypothesis.

References