Noise at Night in a Children's Hospital
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Introduction
During a hospital stay, pediatric patients and families experience many noises at night while trying to sleep. At times, the hospital staff is perceived as being noisy and patients/families are not satisfied. What these patients and families do not always understand is some of the noise heard during a night in the hospital is unavoidable. Due to this unavoidable noise at night, pediatric hospital patients and their families need nurses to set expectations about noise at night at the time of admission. Ultimately, does setting expectations of times to expect noise at night in the hospital increase patient and family satisfaction?

PICO Question
Population: Pediatric hospital patients and their families.
Intervention: Setting expectations about typical noise at night on the unit at time of admission.
Comparison: Current practice.
Question: Does setting expectations of times to expect noise at night in the hospital increase patient and family satisfaction?

Methods
A literature search was conducted using CINAHL, EbscoHost, and PubMed databases.

Keywords: noise at night, methods to reduce noise in a hospital, pediatric hospital, hospital noise

Inclusion Criteria: Articles within 10 years, inpatient hospitals, adult oncology patients. The initial search yielded 150 articles, 3 were included for this project.

Results

<table>
<thead>
<tr>
<th>Article</th>
<th>Methods</th>
<th>Results</th>
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<tbody>
<tr>
<td>Buxton, O., Ellenbogen, J., Wang, W., Carballeira, A., O’connor, S., Cooper, D., Solet, J. (2012)</td>
<td>12 healthy participants were exposed to 14 different noises commonly heard in a hospital at night in a sound attenuated sleep lab during different stages of participant sleep</td>
<td>Some of the noises in different stages of sleep caused an elevation of instantaneous heart rate depending on the stage of sleep and kind of noise heard. These noises disturbed sleep quality of healthy participants.</td>
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<td>Stremler, R., Adams, S. &amp; Dryden-Palmer, K. (2015)</td>
<td>30 female registered pediatric nurses participated in semi-structured focus groups in which qualitative data was gathered about factors that affect sleep for families with a hospitalized child.</td>
<td>The nurses identified the importance of balancing the patient’s preservation of sleep and necessary nursing tasks. The nurses suggested the need for policy change and increased staff awareness of identified modifiable sleep disturbances.</td>
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<td>Meltzer, L., Davis, K., &amp; Mindell, J. (2012)</td>
<td>This study utilized a self reported survey: it utilized a 75 item self-report measure of sleep and sleep disturbances during hospitalization in a tertiary care children’s hospital.</td>
<td>42% of children, 33% of adolescents, &amp; 66% of parents said beeping of medical equipment disturbed their sleep. Doors opening and closing was the next most bothersome noise at night. People talking outside pt’s rooms, vital signs, pain, &amp; roommates when applicable also were bothersome noises at night.</td>
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Discussion
Patients and families perceive nurses, doctors, and other health care providers as noisy at night. Evidence shows that this not only is frustrating for patients and families, but it also affects patients physiologically. One study found that depending on the stages of sleep the patient was in and experiencing disturbing noise, it caused an elevation in their heart rate. Some of the most bothersome noises found in the literature include vital signs, doors and equipment, staff talking, etc. To promote healing, it is important for nurses to try to reduce hospital noise as much as possible.

Conclusions
Sleep plays a very important role in the well being of our patients. It is important that nurses cluster care and are as quiet as they can be at night time in a children’s hospital. Setting expectations with patients and their families at time of admission is important to improve patient and family satisfaction. There is research that identifies health care providers as noisy and night and how this noisiness hinders the quality of patient’s sleep. Further research needs to be done to further examine the causes and consequences of disturbed sleep time in a children’s hospital.

References