Noise Reduction 2016 (for Non-RNs)

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Noise Reduction

Purpose: The learner will promote a quiet and restful patient care environment at night.

Objectives:

• List the effects of noise in the environment
• Identify the sources of noise in the hospital at night
• Identify strategies that help decrease the noise level at night
• Discuss benefits of promoting a quiet environment
Sleep and Noise

• Sleep is an essential function to the human body and is a basic physiological need for all human’s survival. Therefore, it is not surprising to find that sleep disturbance is detrimental to health and well being.

• Noise level in the environment contributes to sleep disturbance and deprivation.

• Research showed that noise in the hospital setting is one of the leading environmental causes of delay in the healing process.
Effects of Noise

Research studies have shown the following effects of noise on patients:

- Stress reactions: Increased anxiety, loss of focus, irritability
- Sleep disturbance/deprivation
- Increased blood pressure and heart rate
- Increased muscle tension and headache
- Acute drop in oxygen saturation
- Delayed wound healing
- Decreased weight gain
- Impaired muscular functions
- Delay in healing process
- **Impacts patient satisfaction scores**
Patient Satisfaction Survey (HCAHPS): The Hospital Environment

- “During this hospital stay, how often was the area around your room quiet at night?”

  The response scale:
  “Always,” “Usually,” “Sometimes” or “Never”

- HCAHPS Report Card score for “Quietness of Hospital Environment”
  RBMC: 50%
  Benchmark: 59.5%
  RBMC percentile rank: 18%
  (January 1, 2016 to March 31, 2016)

HCAHPS: Hospital Consumer Assessment of Healthcare Providers and Systems
## Patient Satisfaction Survey (HCAHPS)
### January 1, 2016 to March 31, 2016

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<th>Unit</th>
<th>Score</th>
<th>Benchmark</th>
<th>Percentile Rank</th>
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Scores below the benchmark
Effects of Noise on Team Members

- Exhaustion to burn out
- Depression
- Irritability to guests and to co-team members
- Decreased attentiveness and concentration which affects patient care
- Decreased accuracy of performance of task
- Decreased sensitivity to the needs of guests and co-team members
Noise-Related Activities that Interfere with the Healing Process

- Voices (team members and family members/guests)
- Conversations in the hallway & nurses station
- Patients moaning, yelling (disoriented, agitated, delirium, pain symptoms)
- Machines: Cardiac monitors, ventilators, IV pumps, feeding pumps, bed alarms
- Electronic devices: Telephone, beepers, TV, cell phones
- Carts (food cart, med cart, etc.)
- Foot traffic in the hallways
- Overhead paging, call bells
What can we do to help?

- Sleep enhancement protocol – Dim the lights, visitor free, team members need to keep their voices low
- Team member education/awareness: Level of noise in the environment, effects of noise, and the importance of noise reduction
- Behavioral modification/Sound-sensitive behaviors such as: Lower tone of voice, limit conversations during night time, quietly putting down clipboards on desks, closing doors and drawers quietly. Close patient’s door as appropriate for patient condition, ensuring patient safety
Reducing Noise in the Environment

• Assess the sound environment (may use programmable, handheld noise dosimeter)

• Environmental modification of physical surroundings:
  – Repairing squeaky doors, quiet-closing doors and drawers
  – Utilizing sound-masking system (audio system that plays instrumental music)
  – Lower volume setting for phone ringers
  – Fix noisy cart wheels and equipment
  – Limit overhead paging only to emergencies
  – Minimize use of beepers and telephones

• Prompt response to equipment alarms and patient’s call bells

• Limit number of visitors
Noise Reduction
Getting Everyone Involved

• Raise team member awareness of noise level in patient’s room, nurses’ station and hallways. (Recommend noise level measuring device and alerting devices)
• Quiet signs to doors, “quiet hours”, posters reminding patient’s family/guests and team members to keep voices low
• Do not congregate in hallways and limit conversations in the nurses’ station. Reduce unnecessary talk near patient rooms.
• Provide feedback to team members to lower voices and move conversations away from patient rooms.
• Make patients/guests aware about the alarms being used
Additional Noise Reduction Interventions

- Provide headphones, ear plugs, and eye masks as appropriate for patient condition
- HealthCast Channel: scheduled TV time of “soothing sounds and sceneries” to enhance relaxation and possibly sleep
- Rounding and patient/guest feedback on noise level
- Monitor patient satisfaction scores. Implement PDCA initiative.
- Discuss scores and noise reduction efforts at Unit Based Council and/or Night Based Council meetings, and Patient/Guest Experience Committee
Positive Outcome of Noise Reduction Efforts

- Encourages rest and sleep for patients
- Improvement of patient’s vital signs
- Fosters healing and better patient outcomes
- Decreases the length of stay in the hospital
- Increases patient satisfaction/good patient experience
- Creates a calm and favorable work environment for team member
References

- HealthStream. Best Practices, In Quietness of area around your room. www.healthstream.com
Thank you for your time and remember to be quiet!