MUSIC LISTENING TO PREVENT DELIRIUM AMONG OLDER ADULTS ADMITTED TO A TRAUMA INTENSIVE CARE UNIT

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Statement of the Problem
Delirium is an acute neuropsychiatric syndrome with a fluctuating course, with the highest rate among older hospitalized patients.14 Modifying stressors can prevent delirium in adults who are at risk.5 Alternative interventions are aimed at modifying stressors that contribute to delirium.5,9

Purpose
Evaluate the effect of passive music listening designed to prevent delirium among older patients admitted to a Trauma Intensive Care Unit (TICU).

Significance
Alteration of neurotransmitters resulting from drug toxicity, inflammation and stressors contribute to delirium.10 Modifying stressors can prevent delirium in adults who are at risk.5 Alternative interventions are aimed at modifying stressors that contribute to delirium.5,9

Theoretical Framework
Roy Adaptation Model (RAM) will focus on modifying stressors in an ICU setting. Individuals respond to changing internal and external stimuli through adaptation.10 Patients at risk for delirium are unable to adapt when confronted with stressors. Nursing interventions can modify stressors to prevent delirium.

Methods
Design
Randomized Controlled Trial.
Sample and Setting
Adults aged 55 and older admitted to an ICU.

Data Analysis
Confusion Assessment Method (CAM-ICU) to measure delirium. Physiologic signs of anxiety: heart rate (HR) and blood pressure (BP).

Descriptive statistics will analyze variables between groups. Frequencies and descriptive statistics on study variables at baseline. Group differences will be assessed using chi-square and t-tests. Descriptive statistics will analyze variables between groups. Data Analysis

Intervention
Patients who are CAM-ICU+ will be randomized to a treatment group or a control group. The treatment group will receive a passive music intervention using a portable walkman player with a music cassette disc (CD) of patient’s choice and a Sony head set, for one hour, four times a day throughout the day and at sleep. Control group will receive usual care. Patients will be assessed using the CAM-ICU on admission and every shift. Physiologic signs of anxiety will be measured; HR monitored continuously and BP taken prior to, hourly, and at completion of music intervention.

Focal: Acute stressor

Psycho physiological effects from music can cause relaxation, decrease pain, blood pressure, heart rate and respiratory rate.11

Contextual: Internal & external factors

Tools
Music acts as a distracter, and provides an escape from a negative stimuli such as anxiety by providing a pleasant stimuli.11

References

Conclusion
A music intervention can prevent delirium by targeting stressors, causing a state of relaxation with physiological changes, including lower BP and HR.11 Neuro-scientific studies report music listening as a therapeutic intervention to modify acute stressors.

Overall CAM-ICU: Positive for delirium when feature 1 + 2 and either 3 or 4 are present.

Tools
Coping Process

Adaptive Mode

Outcome

Maladaptive

STIMULI

Focal: Acute stressor

Regulator Subsystem

Behavioral Mode: Physiological. Patients response to stimuli

Contextual: Internal & external factors

Musical intervention can prevent delirium by targeting stressors, causing a state of relaxation with physiological changes, including lower BP and HR.11 Neuro-scientific studies report music listening as a therapeutic intervention to modify acute stressors.

Maladaptive

Adaptive

Contextual: Internal & external factors

Decrease in: Physiological parameters (BP/HR), Falls, Restraints.