Measuring Effectiveness of Alertness Management Education

May, 2010

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Outline

• Fatigue Management Education Review
  • Staging Model
  • Educational Diagrams
• Fatigue Review Criteria
• Conclusions
Objectives of education module:
- Understand the determinants of fatigue
- Know how fatigue affects participants
- Identify the risks associated with fatigue
- Provide KSA’s for participants to manage their fatigue
Fatigue Management Education Review

• Education does not change behavior
  • Foundation – without knowledge and skills unlikely to make behavior change
• Two useful concepts for fatigue education:
  1. Staging model
  2. Educational diagrams
    • Effective materials to assist with positive behavior change
Staging Model

- Driver for behavior change programs
- Stage-of-change model
- Five stages important in the process of change:
  - Precontemplation
  - Contemplation
  - Preparation
  - Action
  - Maintenance
Staging Model

- Beneficial to individuals in any of the 5 stages
  - Each stage does not lead to the next
  - It is possible to get stuck in a stage
  - Understand pros and cons useful within each stage
Staging Model

• For optimal effectiveness
  • Individual to be open and honest regarding:
    • What stage they are in
    • What they need to do to make a behavior change

• Model has been used to change many behaviors
  • Sedentary lifestyle
  • Smoking
  • Depression
  • Poor diet
Educational Diagrams

• Selected articles
  • ‘Models for Understanding’
    • Results consistently indicated that models can help lower aptitude learners to think systematically about the material they study
Educational Diagrams

• Selected articles
  • ‘The effects of self-explaining when learning with text or diagrams’
    • Students given diagrams performed significantly better on post-test than students given test
    • Diagrams students generated significantly more self-explanation than text students
    • The benefits of self-explaining were much greater with diagrams

Educational Diagrams

• Allow individuals to observe relations across topics
  • Create an outline in easy-to-read format

• Creates a way to quickly glance at information and better retain subject matter
  • Due to organization, topic points, and descriptions

• Useful in recalling/retaining new information
Educational Diagrams

• Studies have shown:
  • Individuals able to produce higher-order text summaries
  • Lead to better delayed recall
  • Those with little knowledge of a specific topic greatly benefit
  • Improve comprehension and performance
    • When applied to reference, instructional, or complex materials
Sleep Disorders

**Category**
- Obstructive Sleep Apnea
  - Definition: Muscles at the base of the tongue relax and block the airway
  - Signs: Heavy snoring, Overweight, Smoking, Shift work
  - Treatment: Weight loss, Continuous Positive Airway Pressure (CPAP), Surgery
- Restless Leg Syndrome (RLS)
  - Definition: Unusual sensations in the legs and arms that disturbs sleep
  - Signs: A jerking of the legs during sleep or after being idle for a period of time
  - Treatment: Movement of the arms and/or legs, Limit caffeine intake, Regular exercise, Regular sleep patterns, Massaging of arms and/or legs, Medication
- Disruption of Circadian Rhythm
  - Definition: Disruption of a person’s biological clock that affects quantity and quality of sleep
  - Signs: Forgetfulness, Poor concentration, Lack of motivation, Excessive daytime sleepiness, Habitual snoring
  - Treatment: Proper sleep hygiene techniques, Bright light therapy
Sleep Hygiene

Definition

“Daily activities and environmental factors that are consistent with maintenance of good quality sleep and daytime alertness.”

Recognize behavioral practices that promote good sleep.

Various practices or strategies essential for normal and good quality sleep during downtime, and alertness during waking hours.

Importance

Helps prevent development of sleep disorders

“Core” strategies of several multi-component treatments of insomnia

Leaves you feeling awake and alert

Helps alleviate difficulty sleeping
Fatigue Review Criteria

• To evaluate current fatigue management education materials
  • Sleep hygiene principles
  • Alertness strategies

• Critique to focus on current education
  • How it assists with creating/sustaining behavior change
## Fatigue Review Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Possible Score</th>
<th>Score</th>
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<tbody>
<tr>
<td>1. Reading level</td>
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<td>2. Retention Competency</td>
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<td>3. Scientific foundation</td>
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<td>4. Demonstrated knowledge of fatigue</td>
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<td>- Magnitude of problem</td>
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<td>5. Identified treatments, therapy, and/or management</td>
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<td>6. Prevention strategies</td>
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<td>7. Effectively communicated/well written</td>
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<td>8. Clear and concise information</td>
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<td>9. Appropriateness of material to topic</td>
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<td>10. Practical application for employee</td>
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<td>11. Transferability outside the workplace (where applicable)</td>
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<td>12. Evidence of effectiveness</td>
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<td>13. Field application feasibility</td>
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<td>14. Use of resources/references</td>
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<td>15. Overall impact on employee population</td>
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Conclusions

• Education is the foundation of behavior change
• Practice and preventative strategies help overcome/assist with effectively managing condition
• Fatigue Management Education Review
  • Assist with identifying and using educational materials
  • Assist employees with managing their fatigue/alertness levels
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