Enhanced Cognitive Behavioral Therapy for Patients with Anorexia Nervosa

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Background

- AN is a disorder characterized by weight loss, difficulty maintaining an appropriate body weight, and distorted body image (National Eating Disorders Association, 2018).
- CBT-E is individualized therapy designed to help the patient understand their eating disorder and teach long-term strategies to reduce relapse rates (Grave & Murphy, 2020).
- CBT-E can be implemented on an outpatient basis, is broken into 4 phases and carried out over the course of 20 weeks (Grave & Murphy, 2020).

Key Terms

- AN: anorexia nervosa
- CBT-E: enhanced cognitive behavioral therapy
- EDE-Q: Eating Disorder Exam Questionnaire
- BMI: body mass index

Significance

- AN is the leading cause of death among individuals with eating disorders (National Eating Disorders Association, 2018).
- Pharmacotherapy treatment for AN has proven to be ineffective as many patients are in denial of the eating disorder and refuse treatment (Flament et al., 2012).
- Traditional psychotherapy alone is unable to treat the complexity of AN (Natenshon, 2017).
- 80% of individuals with an eating disorder who seek out and complete treatment will recover or see significant improvements (Eating Recovery Center).

Methods

PICOT Question

P: adult patients with anorexia nervosa in the outpatient setting
I: CBT-E treatment
C: treatment as usual
O: improvement in EDE-Q and BMI scores

Search Strategy

The Embase database was used to conduct a search for articles. The search utilized the terms “eating disorder treatment” AND “CBT-E.” The search was further filtered to include only randomized controlled trials, case control studies, case studies, feasibility studies, major clinical studies, prospective studies, and multicenter studies. Articles were excluded if they occurred in inpatient settings, addressed other types of eating disorders or focused on children with eating disorders. The remaining five articles were used as evidence.

Evidence Synthesis

- All studies, except for Zipfel et al., found statistically significant differences in those individuals who received CBT-E.
- Two studies provided low quality evidence they were quasi-experimental design and lacked a control group, did not meet sufficient statistical power, and had high levels of attrition (Fairburn et al., 2013; Wade et al., 2017).
- Three studies were randomized control trials and provided good quality evidence by conducting the research at multicenter settings and reporting adequate power (Zipfel et al., 2013; de Jong et al., 2020; Carter et al., 2011).

Implications for Nursing and Role of the CNL

- A shortage of specialists to deliver CBT-E opens the door to the possibility of nurses receiving additional training to implement this therapy.
- Nurses and CNLs are in a position to involve patients in their care, by offering education about CBT-E and other treatment options.
- CNLs have the tools to lead future research on this topic to find the strongest evidence to make a practice change and disseminate the findings to colleagues.

Summary and Conclusion

- CBT-E to treat adults in with anorexia nervosa has proven to have positive effects such as increase in body mass index, as well as improvement in EDE-Q scores in outpatient settings.
- Additional high-quality studies should be carried out to support the implementation of CBT-E.
- Nurses and CNLs are equipped with the knowledge and skill set to educate and support patients as they choose which treatment to treat their eating disorder.
- Additional evidence should be carried out to determine the effectiveness in CBT-E improve recovery rates for adults with anorexia nervosa.

References

Effectiveness of Zero Suicide Model in reducing adolescent outpatient suicide rate

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Effectiveness of Zero Suicide Model in reducing adolescent outpatient suicide rate

Background

Among adolescents, suicide is one of the leading causes of deaths in this country, and rates have been increasing since 2007.

In 2013, 17,131 adolescents reported 1-year repeated occurrence of suicide attempts, while around 24% reported thoughts of suicide.

Suicide has worsened around the world since Covid-19 pandemic with 18 adolescents’ suicides in 9-month months of lockdown compared to 9 entire 2019 in one of the United States cities.

In 1993, suicide ranked as the 14th leading cause of death among African American adolescents, but currently it is the 10th leading cause of death with rates nearly twice that of their White Counterparts. Post discharge suicide rate is very high.

The Zero Suicide (ZS) Model framework and resources is an effective evidence-based intervention tool.

Also, incorporating an effective family focused discharge program can be a buffer against the harmful effects of negativity interaction on depressed patient’s suicidality, which helps in developing more accurate expectations of therapy role behaviors that the patients are likely to encounter as outpatients which is needed to reduce relapse.

Methods

Database: PsychInfo, PubMed

Keywords: Suicide, Prevention, Evidence-based, Psychiatric, African, Adolescent, Patients

Inclusion Criteria: African American adolescent participants, Published 2016-2021, adult focused, English language, highest quality research studies, Evidence-based Zero Suicidal treatments and care in psychiatric settings

Exclusion Criteria: Abstract and content irrelevant to PICOT, non-clinical study, no sample characteristics

Results: Total of 37 articles identified and screened. Final Five (5) articles including 3 randomized controlled trials (RCT) and 2 meta-analysis Review.

Result: The Zero Suicide (ZS) Model elements of clinical care that emphasize that systematic protocols should involve ongoing risk screening and assessment, collaborative safety planning, access to evidence-based suicide-specific care, focus on lethal means reduction, consistent engagement efforts, and support during high-risk periods.

This process will enable the Clinical Nurse Leader (CNL) to develop a good accurate expectations of therapy role behaviors that are likely to be encountered as outpatients.

By using basic tasks of core-competencies, the CNL will engage in a continuing conversations with patients regarding suicide assessment, monitoring tools, risks anticipation, as well as intervention strategies.

The Zero Suicide (ZS) Model elements of clinical care that emphasize that systematic protocols should involve ongoing risk screening and assessment, collaborative safety planning, access to evidence-based suicide-specific care, focus on lethal means reduction, consistent engagement efforts, and support during high-risk periods.

This work also enables the CNL to develop a model in reducing suicide rate among African American adolescents.

Role of the CNL

The Zero Suicide (ZS) Model framework and resources is an effective evidence-based intervention tool.

A discharge program that is effective can facilitate teaching and provision of needed information that a suicidal depressed African American adolescents needs for follow-up care.

By using basic tasks of core-competencies, the CNL will engage in a continuing conversations with patients regarding suicide assessment, monitoring tools, risks anticipation, as well as intervention strategies.

The Zero Suicide (ZS) Model framework and resources is an effective evidence-based intervention tool.

This work also enables the CNL to develop a model in reducing suicide rate among African American adolescents.

Conclusion

Evidences of this study suggests the benefits of Zero Suicide (ZS) interventions model in reducing suicide rate among African American adolescents.

ZS model uses a multilevel approach that coordinates patients teaching, continuous engagement and supports during high-risk period.

ZS interventions are non-pharmacological evidence-based inpatients discharge treatment plan that enhances outpatients’ recovery and minimizes patients’ relapse after discharge.

Acknowledgement

I would like to express my profound gratitude to Dr. Stephanie Streb - DNP for her guidance, mentorship and constructive feedbacks as well as her recommendation throughout this project. Also, I would like to thank Dr. Sherrie Lessans for her suggestions and input during the topic selection process. To my wife, children and family who have been encouraging and supportive throughout this program, thank you.

Bibliography


Mindfulness-Based Stress Reduction to Decrease Incidence of Generalized Anxiety Disorder Symptoms

Grace Parrish, University of Maryland, Baltimore School of Nursing Clinical Nurse Leader Program
Acknowledgements: Dr. Kristen Rawlett, Ph. D., FNP-BC, FAANP Spring 2021

Background

Patients diagnosed with generalized anxiety disorder (GAD) can experience debilitating symptoms that impact the ability of the individual to function daily, including excessive feelings of anxiety, worry, and depression. The substantial persistence of GAD symptoms after current mechanisms of therapy, coupled with the tendency for individuals to not seek psychiatric therapy due to the associated stigma rationalizes the need for a cost-effective solution with less stigma. Mindfulness-based stress reduction (MBSR) trains participants with meditation techniques that promote awareness of their current experiences by regulating thoughts and emotions through self-acceptance. Existing research on mindfulness-based stress reduction (MBSR) has demonstrated reduction in symptoms of anxiety and an improvement to patients’ quality of life (Asmaee Majid et al., 2012).

Methods

An evidence search was performed with the databases PubMed and EBSCOHost. Keywords searched included: mindfulness-based stress reduction and generalized anxiety disorder. Years included were 2011-2021. 32 articles were reviewed after elimination of others due to design flaws. Five primary research studies were reviewed which analyzed the impact of MBSR on symptoms of GAD.

PICO:
P: Adult patients diagnosed with Generalized Anxiety Disorder
I: mindfulness based therapeutic intervention
C: traditional care for GAD
O: reduced anxiety symptoms based on GAD-7
T: during therapeutic treatment period for GAD

Evidence Summary

Design
• Five randomized controlled trials
• Participants not blinded

Sample
• Convenience sampling
• From 29-92 participants
• One study only females

Data Collection
• Four studies used standardized questionnaires for:
  • Anxiety, worry, depression, and quality of life
  • Surveyed at baseline and after intervention period
  • One study measured MRI imaging to measure areas in the brain associated with emotional regulation
  • Two studies included state anxiety and stress reactivity measures
  • Enrolled a laboratory simulated stress encounter, Trier Social Stress Test (TSST), measured by:
    • One study measured stress hormone impact on the Hypothalamic-Pituitary Adrenal (HPA) Axis and inflammation markers in bloodstream pre- and post-TSST
    • The second, state anxiety questionnaire

Intervention
• MBSR standard protocol
• Eight weeks of MBSR group-based therapy
• Leader MBSR certified
• Sessions two hours long, once per week, and one retreat day
• Audio recordings assigned for home practice

Control
• Two of the studies treatments as usual: pharmacology and individual psychotherapy
• Three higher-rated studies included an attention control group: Stress Management Education (SME)
  • SME group lecture classes taught health and wellness
  • Congruent design, eight week period of two-hour, weekly classes with one retreat day
  • Active attention SME group to control for non-specific effects of treatment
  • For example: group support, attention from instructor, expectation of participants

Outcomes
• Significant reduction in GAD-associated symptoms, and improvement in quality of life ratings, from baseline to post-intervention in MBSR group but not in the control group
• One study did not show significant reduction in one of the five subjective questionnaires in the MBSR group compared to the SME
• Significant difference in the reduction in both inflammation markers and one of the HPA Axis hormone indicators in MBSR compared to change in SME
• fMRI scans showed significant improvement in functional connectivity between the amygdala and the prefrontal cortex in MBSR but not SME

Nursing Practice & CNL Implications

MBSR reduces judgement of present moment or patients with GAD
• Can promote psychological resilience
• Can reduce incidence of maladaptive habits

Implementation benefits
• Inexpensive intervention
• Less stigma compared to other psychiatric treatment
• Evidence Grade of C on USPSTF scale

Clinical Nurse Leader role
• Build and lead interdisciplinary teams to implement best practice
• Teams coordinate to analyze initiative longitudinally to make improvements
• Stimulate long-term enhanced quality of care

Conclusion

• Studies supported the efficacy of MBSR in the reduction of GAD symptoms of anxiety, depression, and worry, and increased quality of life from baseline to end of study
• Higher rated studies included an SME attention control group to draw more accurate conclusions
• MBSR skills may empower those with GAD with flexibility in emotional reaction
• Equipped with ability to reduce debilitating manifestation of anxious thought patterns

Additional research studies should include:
• Larger sample sizes
• Specify adequate power needed
• Attention-control comparison group such as SME
• Outcome measures with minimal reliance on self-reporting

References:

Acknowledgements: Dr. Kristen Rawlett, Ph. D., FNP-BC, FAANP Spring 2021
**Effects of Exercise with Medication and/or Therapy for Adults with Major Depression**

Mairead Paxton  
University of Maryland School of Nursing

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**Background**
- Major Depression (MDD) is one of the most common mental health problems in the US with more than 19 million US adults reported at least one depressive episode in 2020.
- Common treatments include antidepressants and/or behavioral intervention therapies but these are not accessible to all affected.
- Moderate-intensity exercise has been found to reduce risk of developing chronic physical conditions but also mental health conditions like depression

**Purpose**
Examine if exercise with medications and/or therapy helps decrease depressive symptoms and improve mental health for adults with Major Depressive Disorder.

**Methods**
- Extensive search was conducted using PubMed
- Studies were Randomized Control trials from 2015 to 2021
- Keywords: major depression, physical activity, aerobic exercise, exercise
- Participants were adults with diagnosis of Major Depressive Disorder

**Table of Evidence**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Purpose</th>
<th>Sample</th>
<th>Intervention</th>
<th>Results</th>
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<tbody>
<tr>
<td>Tripi et al. (2019)</td>
<td>Examine effects of physical activity on those with diagnosed depression</td>
<td>Admitted adult patients ages 18-65 diagnosed with Major Depressive disorder</td>
<td>Intervention: Brisk walking for at least 30 minutes a day, four days a week, for 12 weeks along with antidepressants. Control: Antidepressant medication only</td>
<td>At the 6-week mark, the intervention group were showing mild depressive symptoms (p=0.007) and by 12 weeks intervention showed no depression while the control showed mild depression (p=0.006). Remission rates for depression were significantly higher in the two intervention groups compared to control (p=0.22). Significant reduction in depressive symptoms in the exercise group after 8 weeks (compared to control (p=0.01). Significant improvement in affective symptoms over time for both the Beck Depression Inventory-II (p=0.001). Exercise group had at least a 50% reduction depressive symptoms compared to those in the control group (p=0.037). Exercise group showed significant improvement in mean depression scores for the BDI-II compared to control (34.89 vs. 49; p=0.031).</td>
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<td>Belvederi Murri et al. (2015)</td>
<td>Examine if antidepressant therapy plus physical exercise leads to better outcomes for major depression</td>
<td>Adults 65-85 years old with diagnosis of major depressive disorder</td>
<td>Intervention: Sertraline + 24 weeks of supervised group exercise sessions three times a week Control: Sertraline only</td>
<td>Significant reduction in depressive symptoms in the exercise group (compared to control (p=0.01).</td>
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<td>Olson et al. (2017)</td>
<td>Examine the effects of a moderate-intensity exercise for those with Major Depressive Disorder (MDD)</td>
<td>Adults ages 18-30 years with diagnosis of MDD using antidepressants</td>
<td>Intervention: Three sessions/week for 8 weeks of 45 minutes of continuous moderate exercise performed on a treadmill Control: Three sessions/week for 8 weeks of 45 mins of light-intensity activity</td>
<td>Significant reduction in depressive symptoms in the exercise group after 8 weeks (compared to control (p=0.01).</td>
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<tr>
<td>Buechert et al. (2019)</td>
<td>Examine the effects of an exercise program severity of depression in patients suffering from Major Depression (MDD)</td>
<td>Psych inpatients at German hospital with MDD diagnosis</td>
<td>Intervention: 30-minute endurance training for four weeks incorporating outdoor walking, Nordic walking, running Control: 4 weeks of 30-minute occupational or art therapies</td>
<td>Significant improvement in affective symptoms over time for both the Beck Depression Inventory-II (p=0.001). Exercise group had at least a 50% reduction depressive symptoms compared to those in the control group (p=0.037). Exercise group showed significant improvement in mean depression scores for the BDI-II compared to control (34.89 vs. 49; p=0.031).</td>
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<td>Kerling et al. (2015)</td>
<td>Assess if exercise intervention is feasible in severely depressed patients and if exercise has any effect on depressive symptoms</td>
<td>Adults over 18 years with MDD and who were being treated by the Hanover Medical School</td>
<td>Intervention: 45-minute moderate-intensity workout over six weeks &amp; normal MDD treatment Control: Normal MDD treatment and daily activity program</td>
<td>Exercise group had at least a 50% reduction depressive symptoms compared to those in the control group (p=0.037). Exercise group showed significant improvement in mean depression scores for the BDI-II compared to control (34.89 vs. 49; p=0.031).</td>
</tr>
<tr>
<td>Carneiro et al. (2015)</td>
<td>Measure effect of exercise program with antidepressants for women with depression</td>
<td>Women ages 18-16 with MDD diagnosis</td>
<td>Intervention: 16 weeks of moderate-intensity exercise sessions along with treatment as usual Control: Treatment as usual (meds or therapy)</td>
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</table>

**Summary & Conclusion**
- Moderate-intensity exercise, along with medications and/or therapy, helped patients reduce their depressive symptoms and allowed some patients to achieve remission from their depression.
- Adults taking Sertraline along with exercising were found to have significant reductions in symptoms.
- The more the patient can tailor the exercise routine to their liking, the more likely they will be compliant.
- More research is needed to see if exercise will benefit patients taking other kinds of antidepressants or using other types of therapies.
- Having free and enjoyable exercise interventions can give more people a chance to manage their depressive symptoms.
**Purpose:** To evaluate the body of evidence regarding the impact of music therapy on behavioral and psychological symptoms of dementia (BPSD) for patients with Alzheimer disease related dementia (ADRDs).

**Methods**

- Databases used: Medline & PubMed
- Keywords used: Dementia, music therapy, nursing home, Alzheimer’s disease
- Inclusion criteria: Articles published after 2016, dementia patients, long-term care facilities, RCTs and/or intervention studies as long as patient outcomes were measured.
- Exclusion Criteria: Older than 5 years, duplicates, at-home care
- A total of six articles were reviewed.

**Evidence Summary**

- **Article 1**
  - **Purpose:** Can personalized music reduce agitation and aggression?
  - **Agitation:** Decreased; ABMI score was 4.3 at baseline. With music, ABMI decreased to 1.6 (p<0.01). CMAI decreased with music from 61.2 to 51.2 post-intervention (p<0.01).
  - **Aggression:** MID-ABS decreased from 0.8 to 0.7.

- **Article 2**
  - **Purpose:** Can the use of combination music interventions promote well-being (depression & anxiety)?
  - **Depression:** Improved; Goldberg test scores were found to be statistically significant for depression (P < .01).
  - **Anxiety:** Not statistically significant (p=.82).

- **Article 3**
  - **Purpose:** Can music intervention led by a CNA improve depression and well-being?
  - **Depression:** Significantly decreased (p<0.001).
  - **Well-being:** Video analysis showed improved well-being (p=0.001).

- **Article 4**
  - **Purpose:** Can the implementation of music therapy improve depressive symptoms, agitation and wandering?
  - **Depression:** Reduced from baseline following music therapy (p<.001).
  - **Agitation:** Reduced from baseline (p<.05).
  - **Wandering:** No change.

- **Article 5**
  - **Purpose:** Can various music interventions increase rates of anti-psychotic and anxiolytic medication discontinuation, reductions in BPSD, and improvements in mood?
  - **Reduction in antipsychotic and anxiolytic medication and a reduction in behavioral problems (56.5%).**
  - **Aggression:** Decreased from an ABS score of 0.84 to 0.74.
  - **Mood:** No significant changes.

- **Article 6**
  - **Purpose:** Can interactive music therapy and recreational group singing improve depression?
  - **Depression:** Music therapy decreases depressive symptoms in the elderly in nursing homes compared to recreational singing (p<0.001).
  - **Aggression:** Slightly reduced.

**Implications for Nursing Practice & Role of CNL**

- The clinical nurse leader (CNL) can use the plan, do, study, act (PDSA) methodology to facilitate implementation.
- The CNL can ensure that interdisciplinary collaboration is occurring as it is essential element of any environmental intervention.
- There are many barriers to implementing music therapy such as:
  - Funding
  - Equipment
  - Time
  - Training
- It is important for the CNL to stay up-to-date on evidence-based practices of music therapy to ensure best practice and find solutions to barriers.

**Summary & Conclusion**

- All six articles coincide with one another: Music therapy improves behavioral and psychological symptoms of patients with ADRD.
- All studies revealed statistically significant results (p<0.05) that music therapy improved agitation, aggression and depression.
- Music therapy is safer, less expensive and improves quality of life.

**Improvements:**

- More research needs to be conducted related to implementing and sustaining music therapy in practice as there are many barriers.
- More randomized controlled trials (RCT)
- Larger sample sizes
- Longer studies
- Fixed music intervention times
- Behavioral and psychological symptoms need to be measured through the same measurement tool that is proven to have good reliability and validity to obtain comparable results.

**Reference List**


# Light Therapy Improves Sleep Disturbance in Patients with Dementia

**Abby Gillum, BS, CNL student | University of Maryland School of Nursing**

## Background and Significance

- Sleep disturbances are more prevalent in patients with dementia due to the brain changes and results of aging. (Rose & Fagin, 2011).
- 60 to 70% of people with this diagnosis have poorer disease outcomes due to sleep disturbances. (Wennburg, et al. 2017).
- Sleep disruptions may appear as insomnia, wandering, frequent nighttime awakenings, more daytime sleepiness, agitation (Porter, Buxton & Avidan, 2015).
- Light therapy is a nonpharmacological option that can be implemented easily and help induce better quality and quantity of sleep. Most commonly through a light box at higher lux levels than normal.
- Light exposure can help the body recognize a more natural sleep-wake cycle.
- **Purpose:** Evaluate the effectiveness of light therapy on patients with dementia that suffer from sleep disturbances.

## Methods

- A search was conducted through the PubMed and CINAHL databases.
- Search terms included: “dementia”, “sleep disturbance treatment”, “light therapy AND dementia”, “light therapy and sleep disturbance” and “dementia.”
- Articles were included from 2015 to 2021.
- After duplicates were removed, five articles were examined for review.

## Summary and Conclusion

- Light therapy improves quality and quantity of sleep and decreases agitation and daytime sleeping, but is inconclusive to what extent these symptoms decrease.
- Therapeutic effects are seen at lux levels > 1000 delivered via light box for a minimum of 1 hour daily, preferably in the morning.
- Higher lux levels (10,000+) used for sleep improvements have mixed findings. More research is indicated for individually tailored light prescriptions in dementia management.
- Evidence supports the use of light therapy for improving sleep symptoms for mild to moderate Alzheimer’s disease, but inconclusive for mixed and vascular dementia.
- Combination of light therapy and pharmacologic sleep management has not been well studied and further research is indicated.

## Table of Evidence

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<tbody>
<tr>
<td>Sekiguchi, H., Iritani, S., &amp; Fujita, K. (2017)</td>
<td>This case-series in Japan explores the effects of bright light therapy on sleep disturbance in clients dementia.</td>
<td>17 patients from Okehazama Hospital Fujita Mental Care Center with Alzheimer’s, Vascular dementia, and Lewey- Body dementia. Alzheimer’s being the majority diagnosis.</td>
<td>Patients sat in front of a light box for an hour a day in the morning (9am – 10am) for two weeks. The light box was placed at eye level at 5000 lux. The patients that had mild to moderate Alzheimer’s responded better to the treatment shown through improvement of sleep disturbance symptoms.</td>
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<tr>
<td>Dimitriou, T. &amp; Tolaki, M. (2017)</td>
<td>This systematic review evaluates nonpharmacological sensory stimulation interventions for ways to reduce sleep disturbances in patients with dementia.</td>
<td>760 participants were included who met a DSM-IV diagnosis for dementia. Majority had Alzheimer’s, but also included vascular and mixed dementia.</td>
<td>Studies included lasted from 10 days to 12 weeks. One study lasting 3.5 years. Most of the trials used light boxes from 5000 – 10000 lux with a minimum of an hour in front of the light. Time of day was not always specified.</td>
<td>Concluded light therapy works for patients with Alzheimer’s. Saw a decrease in nightmares and an increase in quality and duration of sleep.</td>
</tr>
<tr>
<td>Mitolo, M., Tonon, C., La Morgia, C., Testa, C., Carelli, V., &amp; Lodì, R. (2018)</td>
<td>This systematic review examines the effects of light treatment on patients with Alzheimer’s disease (AD) and how it effects their sleep, cognition, mood, and behavior.</td>
<td>32 articles were included, all AD patients.</td>
<td>Morning light was the majority intervention for an hour minimum through the use of light boxes. Lux levels were not stated.</td>
<td>Mild to moderate AD patients showed a greater response to the therapy through a decrease in sleep disturbance symptoms, like daytime sleeping. Severe AD did not respond.</td>
</tr>
<tr>
<td>Hjelldal, G., Pallesen, S., Thun, E., Kolberg, E., Nordhus, I., &amp; Flo, E. (2020)</td>
<td>This systematic review evaluates light therapy as a nonpharmacological treatment option for sleep disturbances in patients with dementia.</td>
<td>21 studies were included, all patients had a dementia diagnosis with a majority being AD.</td>
<td>Of the 21 studies, 8 used light therapy in the morning and 9 used it throughout the day. Therapy was done for an hour minimum, one time/day, at 1000 lux or higher at eye level. 14 of the studies used light boxes.</td>
<td>Inconsistent results were found. 9 of the studies found improvements in sleep patterns, but overall the low sample size within each study lead to unclear or insignificant results.</td>
</tr>
<tr>
<td>O’Caoinh, R., Mannion, H., Sezgin, D., O’Donovan, M., Liew, A., &amp; Molloy D. (2019)</td>
<td>This systematic review and meta-analysis investigates non-pharmacological treatments for sleep disturbance in dementia.</td>
<td>48 articles were examined. Patients had a diagnosis of dementia or mild cognitive impairment. Majority had moderate to severe dementia.</td>
<td>Studies lasted from 1 to 10 weeks with an hour minimum in front of light. Most of the articles used light boxes in the morning. Lux levels were not specified.</td>
<td>81.5% of the studies concluded that light therapy improved objective and/or subjective outcomes of sleep. Majority of the trials, that assessed BLT, show significant changes in the participants sleep-wake cycle and duration of nocturnal sleep.</td>
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## Implications for Nursing and CNL Role

- The CNL can advocate for light therapy to be used as part of a comprehensive approach to improve sleep outcomes for patients with dementia.
- Team development is required to utilize light therapy in dementia management.
- Evidence supports the use of light therapy for improving sleep symptoms for mild to moderate Alzheimer’s disease, but inconclusive for mixed and vascular dementia.
- Combination of light therapy and pharmacologic sleep management has not been well studied and further research is indicated.

## Acknowledgements

I would like to thank Dr. Sherrie Lessans, PhD, RN for being my reader and assisting me through this process.

## References


Implementing a Music Therapy Program for Alzheimer’s Care: A Comprehensive Team Approach

Jessica Brown, BA, CNL Student
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Background & Significance

• In Alzheimer’s Disease (AD), abnormal plaques and tangles in the hippocampus prevent neural connections, resulting in memory loss and behavioral symptoms [NIH.gov, 2019].
• Behavioral symptoms in AD may include agitation, anxiety, and aggression. In 2012, 80-90% of AD patients in residential care suffered from behavioral symptoms [Ray & Mittelman, 2017]. Nursing staff must be prepared to address these behaviors in a caring, compassionate and effective way.
• Members of the care team for AD patients have limited non-pharmacological resources to help reduce behavioral symptoms, causing them to turn to restraints and medications more frequently than may be necessary [Hoffman & Hahn, 2014].
• Music therapy is the use of music activities to treat the behavioral, cognitive, emotional or physical needs of a patient (AMTA, 2021). Music therapy is a common therapeutic modality in residential care.
• Music therapists typically provide 1-2 hours of treatment per week to residents. Current evidence shows music therapy to be effective for the reduction of behavioral symptoms in AD and that increasing its use could reduce these symptoms further, provide for better patient comfort and care, and decrease the need for chemical or physical restraint.

Methods

• As the nursing staff spends more time with patients than music therapists, the following PECO question was developed: When added to weekly music therapy sessions, can music interventions led by non-music therapists, reduce agitation and anxiety in AD, compared to weekly music therapy sessions alone?
• A search of PubMed and CINAHL using the keywords “music”, “Alzheimer’s” and “behavioral” was performed. Following the exclusion of titles more than 5 years old, and adding “agitation” as a search term, 18 titles remained. The remaining titles were assessed for quality and relevance to this review. Five articles were selected.

Implications for Nursing Practice

• A Clinical Nurse Leader (CNL), should advocate for the hiring of a staff music therapist if there is not one currently working in the facility.
• The CNL, as a lateral integrator and educator, should collaborate with a music therapist to develop and grow the music therapy team through training in music interventions.
• Board Certified Music Therapists are highly skilled in manipulating musical elements to elicit change in a client. Not all techniques and methods will be appropriate for non-music therapists to use. However, some can be adapted and effectively used by members of the care team. The following is an example:
  o Nursing staff should determine music preferences as part of admission and have recorded music available to residents.
  o Staff members can encourage a resident to listen to a preferred playlist and encourage reminiscence and conversation after listening.
• The CNL should be responsible for developing a measurement tool to evaluate the effectiveness of the implemented music therapy program.

Conclusion

• Music therapy is well established for reducing behavioral symptoms of Alzheimer’s Disease. In addition to significant decreases in anxiety, depression and agitation, frequent music therapy interventions are shown to decrease the need for anti-psychotic medications.
• Evidence supports that non-music therapists can participate in music interventions as part of a comprehensive team when sufficiently trained, and as a complement to routine music therapist-led sessions.
• The evidence supporting training for nurses is inconsistent in duration and method and should be studied further.
• The CNL should arrange training for members of the care team, to enable them to provide appropriate music interventions under the supervision of the staff music therapist. The goal of this team approach to care would be to amplify the effects of music therapy and provide greater resident safety and comfort.

Literature Review

Giragnoli, et al. (2018), compared the effects of music and medication and medication alone for Alzheimer’s symptoms. Music therapy two times per week for 24 weeks was added to intervention group participants who were on a regular pharmacological treatment of 20mg memantine daily for Alzheimer’s symptoms. The music therapy sessions consisted of guided improvisation on simple rhythmic and melodic instruments. Results of the study showed that the music therapy group demonstrated significantly fewer symptoms of agitation and anxiety.

Giragnoli & Giragnoli-Garcia (2017), 42 participants with mild to moderate AD were assessed for memory, orientation, depression and anxiety at baseline. Participants then took part in music therapy two times per week for six weeks. Results showed that participants’ scores in depression and anxiety were already improved from baseline at week 3 and continued to improve over the six weeks. Depression and anxiety were also assessed at week 6 in the mild AD group. The study suggests that music therapy is effective for behavioral symptoms, however, the greater the severity of AD, the greater amount of music therapy required to bring about a change. Further study would be required with individuals with severe AD and music therapy.

Ray & Gotell (2018) examined the effectiveness of music interventions provided by CNAs when trained by credentialed music therapists. This study used music therapy conducted by professional music therapists three times per week for two weeks. Following the initial music therapy sessions, CNAs in the facility were trained for three days by music therapists in simple music techniques, then led music-based interventions three times weekly for two weeks with participants. Depressive symptoms were measured using the Mean Cornell Depression Scale (MCDS) at baseline and post-intervention. After a 2-week absence from music therapy, the average score increased slightly to 6.34 and appeared to stabilize with the interventions by the CNAs at an average of 6.56.

Thomas, et al. (2017) examined the ability of music interventions to reduce the need for antipsychotic and anti-anxiety medications. Following a training in a technique called Music & Memory, the intervention group received CNL-led music interventions. The intervention group saw an increase in discontinuation of antipsychotic medications from 17.6% to 20.1 %. Additionally, behavioral symptoms decreased by about 6% in the intervention group.

Ray & Mittelman (2017) sought to determine if music therapy could minimize neuropsychiatric symptoms of AD. Measurements for wandering, agitation and depression were taken at baseline. Participants engaged in music therapy three times per week for two weeks. Measurements were taken again after the two weeks of intervention, and then two weeks post intervention. Agitation and depression scores decreased significantly from baseline to post-intervention and remained stable for the two weeks without intervention.

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References


Staff members can encourage a resident to listen to a preferred playlist and encourage reminiscence and conversation after listening.

The CNL should arrange training for members of the care team, to enable them to provide appropriate music interventions under the supervision of the staff music therapist. The goal of this team approach to care would be to amplify the effects of music therapy and provide greater resident safety and comfort.