Music Therapy and its Application Within the Autistic Population
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PROBLEM STATEMENT
Ineffectively treated ASD can result in impaired relationships, social isolation, high risk behavior, aggression, neurocognitive defects, and depression. Traditional pharmacological treatments may not fully product desired behavioral outcomes and often carry the risk of undesirable side effects.

PURPOSE
The purpose of this evidence-based project was to explore music therapy as a complementary alternative to traditional medications in the treatment of the social behavioral manifestations of autism.

BACKGROUND
Autism spectrum disorder (ASD) affects 1 in 68 children in the U.S.
• Lack of ability to engage in social reciprocity
• Difficulty with social interactions and verbal/nonverbal communication and constant repetitive motions and behaviors.
• Lack of long-term friendships.
• Deprived of valuable educational, social, leisure, and life experiences.
• Inadequate childhood treatment can result in long-term social impairment.
Pharmacological treatments
• Antipsychotics, SSRI's, barbiturate's, and stimulants
• Side effects: over sedation, hyperactivity, mood swings, weight gain, anxiety, increased or decreased appetite, fatigue,

METHODS
Research Design
• Literature Review

<table>
<thead>
<tr>
<th>Authors</th>
<th>Design</th>
<th>Results</th>
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<tbody>
<tr>
<td>Bowers, 2014 &amp; Murray et al., 2013</td>
<td>Quantitative review of UK databases for comorbidities in children</td>
<td>Common pharmacological tx has numerous SE’s. Metabolic and cognitive adverse effects result in poor medication adherence and symptom relapse. Therefor common social deficiencies remained long term.</td>
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<tr>
<td>Gattino et al., 2011</td>
<td>Parallel randomized control trial (1:1)</td>
<td>Music Therapy showed to increase sharing, imitation, cooperation, and social –emotional reciprocity.</td>
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<td>Geretsberger, 2015</td>
<td>Qualitative and Quantitative review of the effects of music therapy on children with ASD</td>
<td>Music Therapy increased the number of words understood and spoken in children. Self-expression as well as emotional reciprocity increased. Destructive and disruptive behaviors decreased dramatically.</td>
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<td>LaGasse, 2014</td>
<td>Nonblinded randomized control trial</td>
<td>Music Therapy sessions improved the amount of time children with ASD held eye contact and communicated verbally with others.</td>
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<td>Qasi, Raglio, Traficanti, 2011</td>
<td>Longitudinal evaluation of music therapy as a therapeutic tx</td>
<td>Music Therapy showed distinct improvement in social engagement and non-verbal communication. Physical/eye contact, motor coordination, and attention span all increased.</td>
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<tr>
<td>Thompson, McGferran, Gold, 2013</td>
<td>Parallel randomized control trial (1:1)</td>
<td>Music Therapy demonstrated improvement through interpersonal engagement with family and peers, speech and language skills, and social-emotional reciprocity with parents.</td>
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<tr>
<td>Thompson &amp; McFerran, 2015</td>
<td>Qualitative analysis of mothers involved in music therapy tx of ASD child</td>
<td>Music Therapy showed to improve the emotional bond between mother and child. Mothers began to see the child and not the disorder. Emotional reciprocity, communication, family interaction, and eye contact all increased.</td>
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REFERENCES:


CONCLUSIONS
While pharmacological methods treat the behavioral deficits in persons with ASD, social and emotional deficits remain a challenge to address. Current research of music therapy interventions show that persons with ASD have improved social interactions. These include a calmer demeanor, increased eye contact, and relatability to others. Thus, this evidence encourages nurses to implement the use of music therapy to enhance the social well-being of those suffering with ASD. Unlike pharmacological treatments, music therapy does not come with any unwanted adverse effects. The only risk for treatment is no social and behavioral improvement.

NURSING IMPLICATIONS
Assessment
• Assess child’s developmental level and readiness for music therapy as well as the severity of developmental disorder.
• Knowledge about music therapy should be assessed, along with the current treatment regimen, its effectiveness and side effects.

Diagnosis
• Link types of music therapy to severity of the condition.

Planning
• Advocate for music therapy as an effective treatment for autism.
• Coordinate with physicians and case/social workers to incorporate music therapy as a primary form of treatment.

Implementation
• Education should be provided to inform family and patients about the benefits of music therapy as well as how to implement it at home.
• Coordinate music therapy in the acute care setting.

Evaluation
• Observe for increase in verbal/nonverbal communication, eye contact, social reciprocity, and mood stability.

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