

MUSIC THERAPY INTERVENTIONS AND
OUTCOMES IN THE PEDIATRIC
HEMATOLOGY/ONCOLOGY &
OUTPATIENT SETTING

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PEDIATRIC MEDICINE

Medical care of infants, children, and adolescents from birth up to age 18

Characteristics that define difference from adult medicine

- *Smaller body of an infant/neonate is drastically different*
- *Congenital defects, genetic variance, & developmental issues are of greater concern*
- *Children are minors and can't make decisions for themselves*

Child/adolescent is still developing

- *Normalizing the environment*

PEDIATRIC HEMATOLOGY/ONCOLOGY

Oncology

- *Study of cancer*

Hematology

- *Study of blood's physiology*

Treated through surgery,
chemotherapy, or
radiation

- *Facilitated in hospital, clinic, doctor's office, at home, or hospital's outpatient infusion center*

PEDIATRIC OUTPATIENT

Services that do not
require hospitalization

Service delivery:

- Patient's home
- Physician's office
- Primary/urgent care clinics
- Community health centers
- Ambulatory surgery centers

Can include:

- Blood work
- Lab tests
- X-rays
- Consultations w/ specialist physician
- Rehabilitation services
- Mental health services

MUSIC THERAPY

“The clinical and evidenced-based use of interventions to accomplish individualized goals within a therapeutic relationship” (AMTA, 2005).



Bachelor's Degree + MT-BC



4 types of music-based methods

Receptive

Recreative

Compositional

Improvisational

MUSIC THERAPY IN PEDIATRIC MEDICAL

Music therapy becoming more prevalent in the pediatric medical setting

Used to promote healthy coping & safeguard psychosocial well-being during treatment

Common goals

- Developmental support
- Decreased pain perception/anxiety
- Increased emotional expression
- Emotional processing
- Opportunities for social interaction, sensory stimulation
- Development of positive coping skills
- Procedural/bereavement support
- Normalization of the environment

PURPOSE

- What music therapy techniques and/or interventions are used with pediatric hematology/oncology patients, and pediatric outpatient groups?
- What outcomes result from music therapy provided with pediatric hematology/oncology patients, and pediatric outpatient groups?

METHOD

Inclusion Criteria

- Research focus on music therapy in the hematology/oncology & outpatient setting
- Research on patients under age 18
- Music therapy provided in research facilitated by credentialed music therapist
- Research published between 2012-2022
- Studies in English

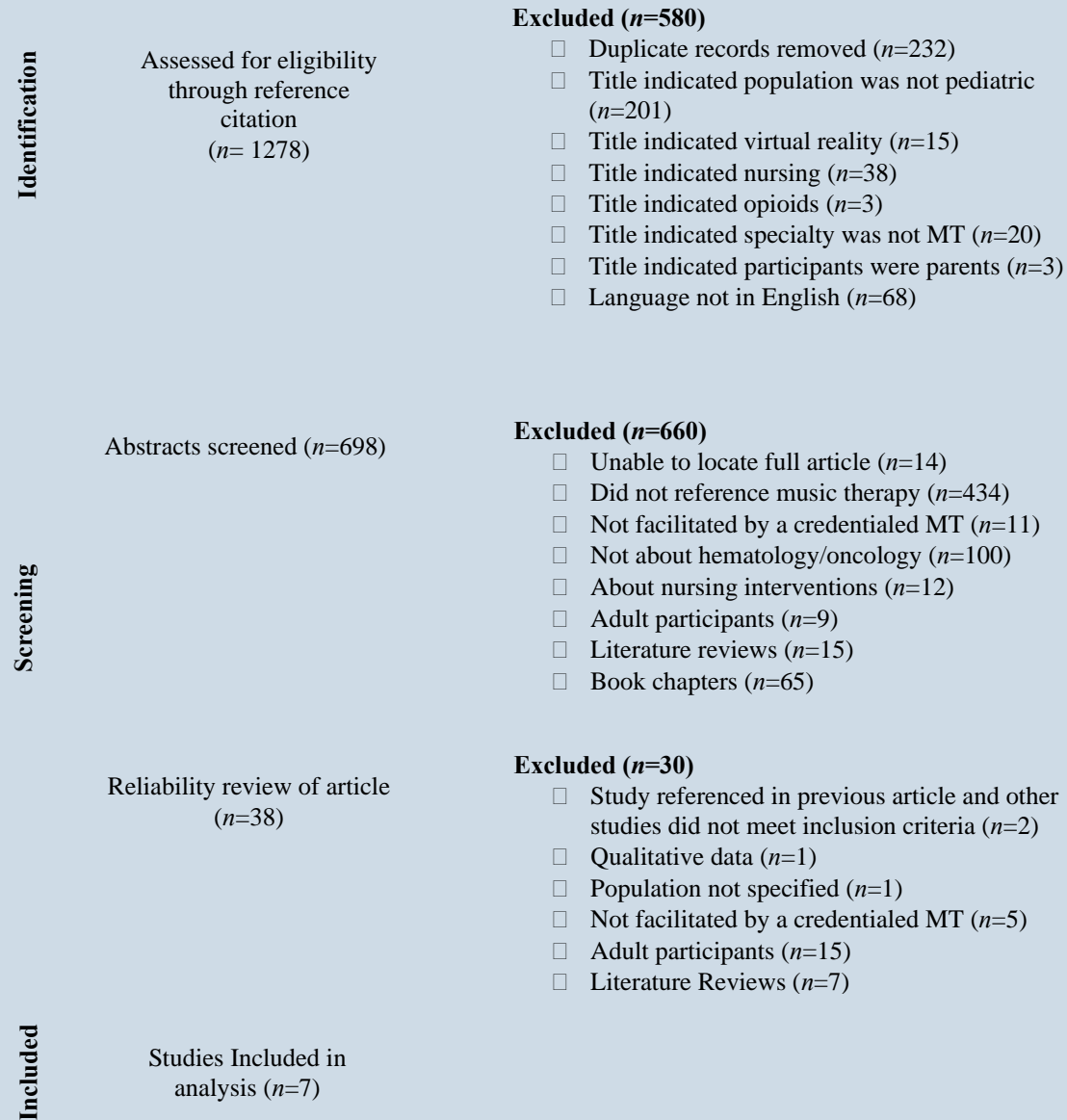
Exclusion Criteria

- Research focus on music therapy in adult medicine
- Studies not in English
- Research focus on settings outside of outpatient & hematology/oncology
- Reviews and book chapters
- Research published before 2012

RESULTS

Figure 1

Hematology/Oncology Prisma Flow Diagram



Note. MT=Music Therapy/Music Therapist.

PEDIATRIC HEMATOLOGY/ONCOLOGY INTERVENTIONS

- Receptive music therapy
 - *MT played patient-preferred music to match client energy levels & needs during catheterization procedure (Zhang et al., 2022)*
 - *Patient-preferred music listening (Chami, 2015; Kobus et al., 2022)*
- Improvisational music therapy
 - *Free Improvisation (Giordano et al., 2020; Mangas, 2019)*
 - *Nordoff-Robbins Creative Music Therapy & Juliette Alvin's Free Improvisational Therapy models (Uggla, 2019)*
 - *Improvise w/ own voice, instruments alone, or together w/ MT (Kobus et al., 2022)*

PEDIATRIC HEMATOLOGY/ONCOLOGY MUSIC THERAPY OUTCOMES

Receptive vs
improvisational
MT

Heart rate

Oxygen
saturation

Blood pressure

Anxiety

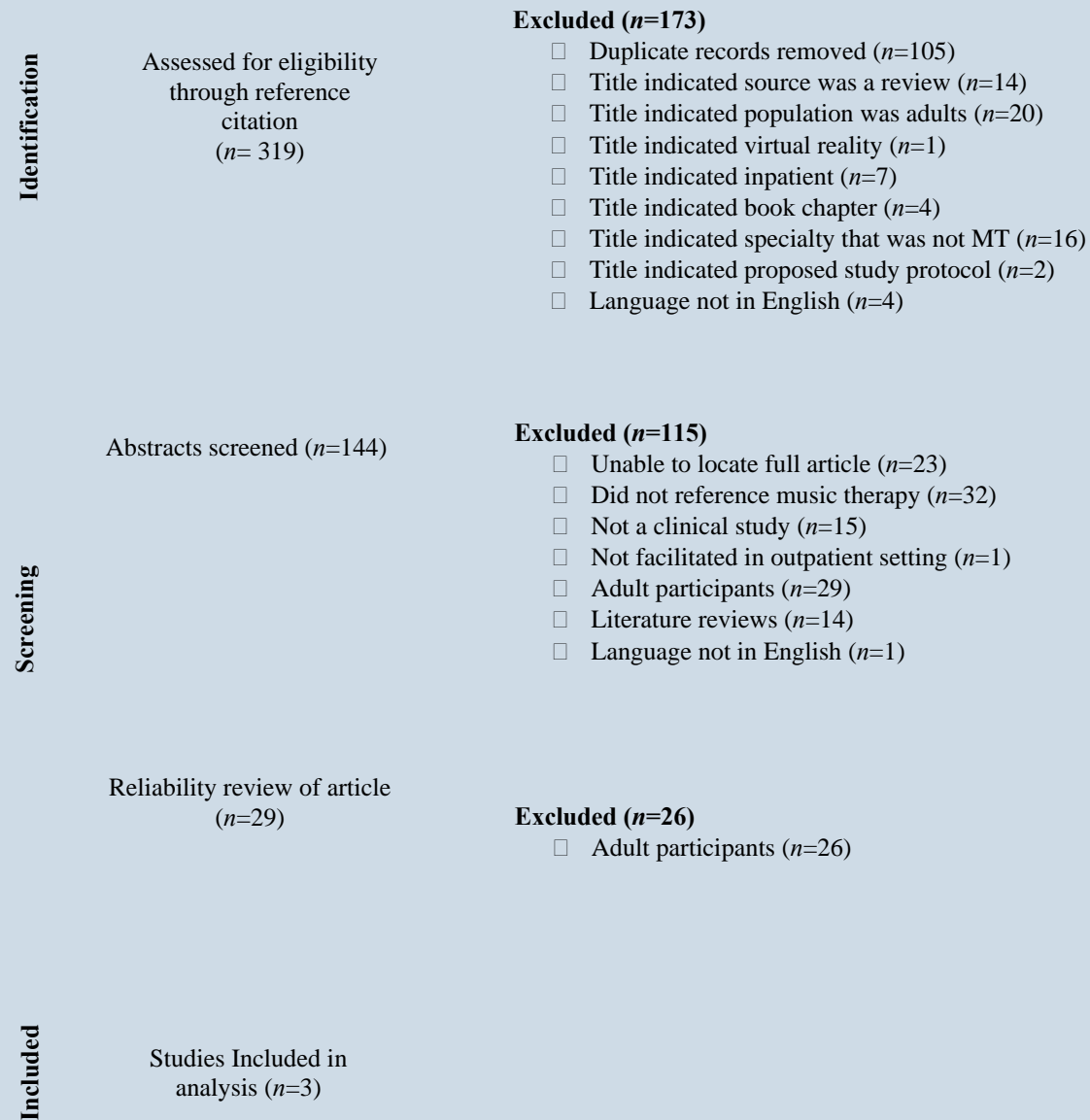
Pain

Mood

Goal
Achievement

Figure 2

Outpatient Prisma Flow Diagram



Note. MT=Music Therapy/Music Therapist.

OUTPATIENT MUSIC THERAPY INTERVENTIONS

Receptive music therapy

- Listening to sounds & other pre-recorded music (Geipel et al., 2022; Twyford & Watters, 2016)

Recreative music therapy

- Sing & play musical instruments while using visual aids (Sundar et al., 2016)
- Musical role play (Geipel et al., 2022)

Creative music therapy

- Original song (Twyford & Waters, 2016)

Improvisational music therapy

- Improvised songs (Twyford & Waters, 2016)
- Referential & non-referential improvisation (Geipel et al., 2022)

OUTPATIENT MUSIC THERAPY OUTCOMES

Depression symptoms

Emotion regulation

Pain & distress

Positive interactions

Task
behavior/completion

Overall self-
satisfaction

DISCUSSION

MUSIC THERAPY IN PEDIATRIC HEMATOLOGY/ONCOLOGY

Most frequently used interventions include receptive & improvisational

Use of patient-preferred music & choices

Receptive & improvisational interventions have equal benefits

Research suggests music therapy is mostly used to promote outcomes related to heart rate, oxygen saturation, anxiety, mood, & pain

Further research to determine efficacy of different interventions & their outcomes

MUSIC THERAPY IN PEDIATRIC OUTPATIENT

All interventions provided opportunity for client creativity and expressivity

3 studies, all discussed different outcomes

- Potential use of receptive, creative, & improvisational music therapy to promote positive outcomes within the mental health setting (Geipel et al., 2022)
- Potential use of music therapy on emotion regulation during outpatient procedures (Sundar et al., 2016)
- Use of compositional/improvisational music therapy to promote positive outcomes on self-esteem & goal management (Twyford & Watters, 2016)

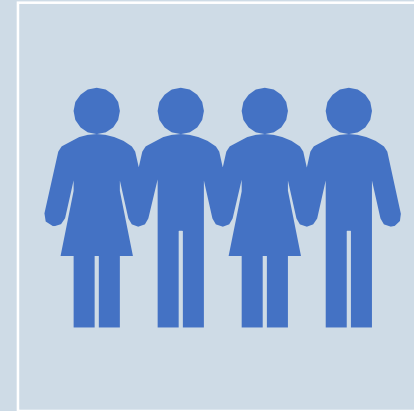
Not enough evidence to suggest efficacy of different interventions over other interventions

Further research needed to expand on outcomes

LIMITATIONS



Access to resources



Small number of resources made it impossible to generalize results to overall populations

AREAS OF FURTHER INVESTIGATION

More research on pediatric
medical setting

Further investigations on
use of receptive vs
improvisational music
therapy in pediatric
hematology/oncology
setting

Music therapy in different
pediatric outpatient
populations

CLINICAL IMPLICATIONS FOR PRACTICE

- Pediatric Hematology/Oncology
 - *Interventions should utilize different forms of improvisation to promote patient decision making*
 - *Variety of instrument options for patient to choose from*
 - *Sanitization of instruments to be considered*
 - *Timbre of instrument*
 - *Use of music elements to work towards desired outcome*
- Pediatric Outpatient
 - *Interventions should promote creativity and control*
 - *Provide clients opportunities to express themselves*
 - *Provide different opportunities to make choices*
 - *Group sessions*