

#### CHI Learning & Development System (CHILD)

#### **Project Title**

The Role of Music Therapy for Children Undergoing Cancer Treatment in Singapore

#### **Project Lead and Members**

- Kayla Wong, Music Therapist, Child Life, Art and Music Therapy Programmes (CHAMPs)
- Beron Tan, Psychologist, Psychology Service
- Jasper Tong, Director, Allied Health Office
- Chan Mei Yoke, Senior Consultant, Haematology/Oncology Service

#### **Organisation(s) Involved**

KK Women's and Children's Hospital

#### **Healthcare Family Group Involved in this Project**

Medical, Allied Health

#### **Applicable Specialty or Discipline**

Paediatrics, Music Therapy

#### **Project Period**

Start date: March 2017

Completed date: January 2020

#### **Aims**

- Examine the profile of patients who were referred for MT
- Describe the goals & objectives of MT services for children undergoing cancer treatment
- Explore the frequency of MT services over a child's cancer treatment
- Evaluate the efficacy of MT based on goals achieved



#### CHI Learning & Development System (CHILD)

#### **Background**

See poster appended / below

#### Methods

See poster appended / below

#### **Results**

See poster appended / below

#### Conclusion

See poster appended / below

#### **Additional Information**

Singapore Healthcare Management (SHM) Conference 2021 – Merit Award (Patient Experience Category)

#### **Project Category**

Care Continuum, Chronic Care, Applied Research, Quantitative Research

#### **Keywords**

Paediatric Cancer Care, Low-risk Intervention, Psychosocial and Supportive Care Programme, Prospective Cohort Study, International Classification of Functioning, WHO-ICF Goal, Goal Attainment Scale, Spearman's Rank-order Correlation, Cross Tabulation

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# The Role of Music Therapy for Children undergoing Cancer Treatment in Singapore

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1 Introduction

- Music Therapy (MT) has been involved in cancer care since 1973 (O'Callaghan et. al., 2016).
- MT is a low-risk intervention that addresses psychophysiological issues such as anxiety, low mood, and pain (Tuinmann et al., 2017).
- This study was part of the Psychosocial and Supportive Care Programme (PSCP) which involved Rehabilitation (Physiotherapy, Occupational Therapy, Speech & Language Therapy, Music Therapy), Dietetics and Psychology Services working in a multidisciplinary team to support children undergoing cancer. treatment.

Examine the profile of patients who were referred for MT

Aim

Describe the goals & objectives of MT services for children undergoing cancer treatment

Explore the frequency of MT services over a child's cancer treatment

Evaluate the efficacy of MT based on goals achieved

# 3 Methodology

## STUDY DESIGN

Prospective cohort study from March 2017 to January 2020.

## **PARTICIPANTS**

 Children aged 2-17 years diagnosed with cancer and assessed to be suited for MT services were recruited.

### **DATA COLLECTION**

- Age, cancer diagnosis, gender, and therapeutic objectives & outcomes of MT were collected quarterly.
- The Goal Attainment Scale (GAS) is an approach to measuring the process of achieving established unique individualized goals following therapeutic intervention as demonstrated in table 1 (Carpente, 2018).
- Based on the participants needs, individualized SMART
   (specific, measurable, attainable, relevant, and time-bound) goals were written by the music therapist within the GAS framework.

## **DATA ANALYSIS**

 Frequency analysis including cross tabulation, and Spearman's rank-order correlation were used to test correlations between age, goals, and number of MT sessions.

# **WHO-ICF Goal Domains**

Body functions/ impairments Activity and participation/ activity limitations and participation restrictions

Environmental factors

Frequency

%

28

36

36

28

44

32

Figure 1. International Classification of Functioning by the World Health Organization incorporated into GAS goals (WHO-ICF) (2002)

Score	Description
+2	Goal achieved most favorably
+1	Goal achieved more than expected
0	Goal achieved
-1	Baseline
-2	Regression of baseline

Table 1. GAS scoring system (Carpente, 2018)

Subcategory

Solid Tumor

**Blood Cancer** 

**Brain Tumor** 

Male

Female

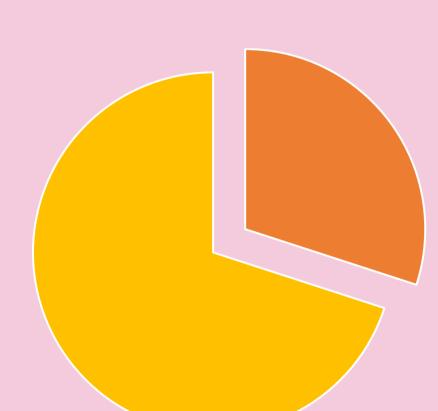
Demographic

Diagnosis

Gender

Age

# Results



# 30% of participants required MT Intervention (N=25)

- Participants received a total number of **180 sessions**.
- 37 GAS goals were written.

Cancer Type	No. of Participants	Mean (SD)
Overall	25	7.20 (6.45)
Solid Tumor	7	3.28 (2.60)
Blood Cancer	9	8.33 (5.73)
Brain Tumor	9	9.11 (7.79)



Tuble 2. Done a manhine of a	13-17 years old (secondary school age)	О	24
5	articipants seen for music therapy from March 2017 to January 2020  Conclusions		

2-6 years old (preschool age)

7-12 years old (primary school age)

- MT has demonstrated therapeutic versatility and effectiveness in addressing psychophysiological goals for children across the ages.
- Most goals were achieved within the set time frame with the most common need addressed by MT found to be the regulation of patients' mood and morale through music.
- Extra attention for patients with a diagnosis of brain tumor was found to be required of MT services.
- Age was not a factor regarding the need and suitability of MT.
- MT has promising results in addressing functional and psychosocial challenges for a large portion of children undergoing cancer treatment.
- MT should be included as a key intervention in paediatric cancer care.
- Observed that 15 participants had a single goal, followed by 9 participants who had 2 goals, and 1 participant who received 4 goals.
- Positive correlation found between goals and MT sessions,  $r_s$  = .56, p = .004.
- No correlation between the age of participants and the number of sessions received by the participants,  $r_s = -.19$ , p = .365.
- No correlation between participant's age and the number of goals,  $r_s = -.19$ , p = .354.
- No environmental goals were set in this study.

Table 3. Frequency of music therapy sessions

- <u>References</u>
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