

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

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.

Body functions/ impairments

Methodology

Activity and participation/ activity limitations and participation restrictions

WHO-ICF Goal Domains

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

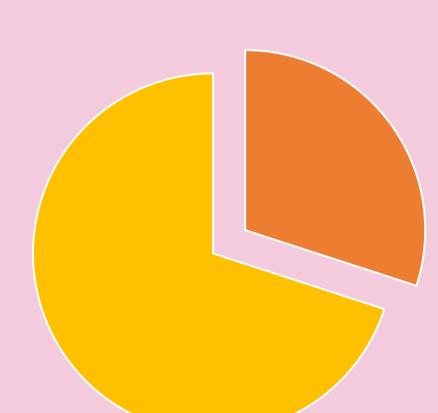
Demographic

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)



	13-17 years old (secondary school age)	6	24
Table 2. Demographics of po	articipants seen for music therapy from March 2017 to January 2020		
5	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>
- 1. Carpente, J. A. (2018). Goal Attainment Scaling: A Method for Evaluating Progress toward Developmentally Based Music-Centered Treatment Goals for Children with Autism Spectrum Disorder, Music Therapy Perspectives, Volume 36, Issue 2, Fall 2018, Pages 215—223, https://doi.org/10.1093/mtp/mix021
- 2. O'Callaghan, C. C., McDermott, F., Reid, P., Michael, N., Hudson, P., Zalcberg, J. R., & Edwards, J. (2016). Music's Relevance for People Affected by Cancer: A Meta-Ethnography and Implications for Music Therapists. Journal of music therapy, 53(4), 398–429. https://doi.org/10.1093/jmt/thw013
 3. Tuinmann, G., Preissler, P., Böhmer, H., Suling, A., & Bokemeyer, C. (2017). The effects of music therapy in patients with high-dose chemotherapy and stem cell support: A randomized pilot study. Psycho-Oncology, 26(3), 377-384. doi:10.1002/pon.4142
- 4. World Health Organization (WHO) (2002) Towards a Common Language for Functioning, Disability and Health: ICF. WHO, Geneva. http://www.who.int/classifications/icf/training/icfbeginnersguide.pdf
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