

## Therapeutic Function of Music Plan Worksheet

**Problem Statement:** Cerebral palsy can cause challenges with motor functions and can also cause speech problems. There are often significant motor challenges associated with a diagnosis of cerebral palsy. There is also a sense of startle reflex in some children with cerebral palsy causing them to have a greater reaction to sudden loud noises.

**Primary Goal:** To improve social skills.

<p><b>Musical Element:</b> Operational definition of the musical element</p>	<p><b>Theoretical Framework:</b> (<u>WHY</u> it is necessary). Describes why the music element will be able to address the problem; informed by the researcher/clinician expertise, client population and/or diagnosis, and the music &amp; non-music basic science.</p>	<p><b>Purpose of musical element:</b> (<u>WHAT</u> it will do) Rationale for the value or usefulness of the musical element to support the goal based on the theoretical framework.</p>	<p><b>Explicit description of the musical element:</b> (<u>HOW</u> it will be arranged) Describes the structure of the musical element (e.g. form, shape, amount, quantity, to what extent/ degree)</p>
<p><b>Timbre</b></p>	<p><b>If the client sings songs in a key that causes them to sing in head voice, it is more likely that they wont develop bad habits with singing. (Hedden 2012) With girls, it's important to raise the pitch a little bit because their voices are higher. It might be necessary to match the pitch of the client's voice to get an accurate place to revolve around in the songs.</b></p>	<p><b>The timbre of the voice will be in a range that is not harmful to the client's voice and that will be easy and comfortable for the client to sing in.</b></p> <p><b>Also, the timbre of instruments will not be so harsh that they activate the client's startle reflex unless chosen specifically for that.</b></p>	<p><b>It will be arranged to be comfortable for the client and instruments will be chosen to avoid startle response from client unless specifically required to facilitate certain behaviors within the intervention.</b></p>
<p><b>Rhythm</b></p>	<p>Rhythm is necessary to determine the complexity of the intervention. It provides a way to easily increase and decrease the complexity. <b>Steady rhythm has been shown to increase attention in a client. (Geist 2012)</b></p>	<p>Rhythm will help the therapist to have control over the intervention. Having the ability to control the rhythm in certain interventions can create a lot of opportunities for change within the intervention.</p>	<p><b>The rhythm will be steady and consistent so that it can help to increase engagement of the client.</b></p>
<p><b>Tempo</b></p>	<p>Using a frequent tempo between 121 and 180 beats creates a better outcome for children learning from the songs. (Wolfe &amp; Stambaugh) If the music were too fast, it would hard to follow for a 5 year old. If it</p>	<p>The tempo will create a steady pace so that the client can follow certain interventions. It can also be used as something to challenge</p>	<p>It will be arranged to start out at a tempo in between what is recommended and then depending on the way the client is</p>

	were too slow, it may become boring or the client might lose focus more quickly.	the client if we decide to go more or less than what is comfortable for the age group.	responding to the intervention, it will be altered to create a challenge for the client so that the client stays engaged in the intervention.
Pitch	<b>The brain processes musical pitch and pitch in language very similarly. (Perrachione et al 2013) That means that if you are teaching something through singing or music, it is processed very similarly as if you were teaching it through simply speaking.</b>	The pitch is important because if it is not where it should be, appropriate to the client, it could cause voice damage to the client and be uncomfortable for them to sing.	The pitch will be chosen to be most comfortable for the client. If need be, her voice will be tested to see what pitches she speaks around to determine a comfortable singing range for her.
Melody	A study was done that showed that the frequent use of specific intervals in a melody is beneficial to children. The specific intervals are a 4 <sup>th</sup> , 6 <sup>th</sup> , 8 <sup>th</sup> , and 9 <sup>th</sup> . This study was done with preschoolers (ages 3-4). (Wolfe & Stambaugh) <b>If these are the best intervals to use for preschool aged children, then it would be beneficial to keep that in mind when writing melodic lines for interventions.</b>	The melody will create a framework for the music. It can be the framework for the lyrics or it can structure what we are playing on instruments.	The melody will be written so that it incorporates easily sung and remembered intervals so that it is something that is memorable and easy to repeat for the client.
Dynamics	The dynamics are necessary to encourage the engagement of the client. If the dynamics are often changed, the client is more likely to pay attention. Also, this particular client has a sensitivity to sudden loud noises, so it will be important to grow into the louder dynamics rather than do it suddenly.	The dynamics will help the client stay engaged. They will also help the client use different motor functions such as when they are playing louder or softer on a drum, they are using different muscles.	It will be arranged so that there are no sudden loud noises. It will also be arranged to facilitate different movements to help with different levels of engagement.
Lyrics	The lyrics are necessary to facilitate what the song is directing the client to do. It's important that the lyrics are there so that the questions of the intervention can be asked or the directions of the intervention can be given.	The lyrics will frame the intervention. They will provide directions and instruct the client.	The lyrics will be easy to understand, using words that the client is familiar with. They will be written to very clearly describe what the therapist is looking for.
Form	Improvisation activities have proven to be significant in improving social	Using a free form in an intervention leaves a lot	The intervention will be arranged to leave a

	skills. (Gooding 2011) The form provides a structure for the intervention whether it is a free form or an ABA form. It helps to structure the intervention but can also allow the client to be creative.	of room for the client to be creative and express himself or herself in a way that they feel comfortable. It will allow the client to feel like she has a sense of control over the intervention, which will increase the probability for eye contact.	lot of room for client expression. The form will provide ways for the client to feel open to starting conversations, asking questions and ultimately engaging in conversation with the therapist that facilitates eye contact.
Harmony			
Style	Style is necessary to keep the engagement of the client. It is based on the musical preferences of the client. If the only music that is used is a kind that the client isn't interested in, the engagement of the client will greatly lower. If it is something that the client is already interested in, the engagement is more likely to be there.	The style will serve to help with the interest of the client. If we're using a style of song that she is already interested in, she will be more likely to be engaged in the intervention.	It will be chosen to be something she already likes. For example, songs that are more upbeat and using instruments like the piano and guitar. Nothing too heavy will be chosen because she prefers songs such as ones from Disney and princess movies.

**Theory-based Synthesis of the Music:** All of the different elements of the music are going to be put together to specifically address a goal in the social domain. The form will allow for client creativity to increase engagement. The lyrics will be written or chosen to address certain direction following skills. The melody and pitches will be chosen to accommodate the needs of the clients age group and the specific client. The tempo, rhythm and dynamics will depend on what the intervention is but they will be things that are easily changed so that the complexity of the intervention can be changed. The rhythm will be kept at a steady beat to increase attention in the client.

Hedden, D. (2012). An Overview of Existing Research About Children's Singing and the Implications for Teaching Children to Sing. *Applications of Research in Music Education, 30*(2).

Wolfe, D., & Stambaugh, S. (1993). Musical Analysis of Sesame Street: Implications for Music Therapy Practice and Research. *Journal of Music Therapy, 224-235*. Retrieved September 30, 2014.

Gooding, L. (2011). The Effect of a Music Therapy Social Skills Training Program on Improving Social Competence in Children and Adolescents with Social Skills Deficits. *Journal of Music Therapy, 440-462*.

Geist, K. & Geist, E. A., (2012). Bridging music neuroscience evidence to music therapy best practice in the early childhood classroom: Implications for using rhythm to increase attention and learning. *Music Therapy Perspectives, 30*(2), 141-144.

Perrachione, T., Fedorenko, E., Vinke, L., Gibson, E., Dilley, L., & Martinez, L. (2013). Evidence for Shared Cognitive Processing of Pitch in Music and Language. *PLoS ONE, E73372-E73372*.