

Building and Sustaining Connections through Music Therapy
with Children with Autism Spectrum Disorder in a Special
Learning Centre of a Primary School in New Zealand

A thesis presented in partial fulfillment of requirement for a degree

of Master of Music Therapy

At New Zealand School of Music of Victoria University

Wellington, New Zealand

Jingyuan Kong (Cici)

2017

Abstract

This research project helped me, a student music therapist, to understand the process of building and sustaining connections through music therapy with children with Autism Spectrum Disorder. The clinical work took place in eight months and I employed secondary analysis of music therapy session data as my research strategy to look at how to build and sustain connections through music therapy with children with ASD in a special learning centre of a primary school in New Zealand. This study showed the results of my work with four students, by reusing my clinical notes, reflective journal and notes from discussions and meetings with staff members in March and May. I used thematic analysis as my analysis method to identify themes from my data, in order to answer my research question.

This research suggested that the building of connections and later sustaining them seemed to occur in stages, not identical for each child, but showing a certain type of pattern, characteristic of children with autism. I used some strategies to address the challenges in my music therapy practice, and these are the codes and themes that I identified in the findings.

The process of my research improved my music improvisation skills, verbal communication skills, ability to establish and hold boundaries, and self-confidence.

Key words: Music therapy, children with ASD, connections, music therapy strategies

Acknowledgement

I would like to thank you, my supervisor, Sarah Hoskyns, for your guidance, advice, support, inspiration and encouragement. Without your help, my research would not have been done.

Thank you to Daphne Rickson, my teacher, for helping to arrange my placements, sharing your extensive knowledge and supporting my study over the past two years.

Thank you to Fiona Hearn, my visiting music therapist, for your kind support, help and encouragement over the year of my placement.

Thank you to the staff and students of the special learning centre where I worked this year. I am grateful for your support, encouragement and trust.

Thank you to Moggie Grayson, my best host mum in the world, for proofreading my thesis, supporting me, encouraging me and offering me a warm and lovely home over the past four years in New Zealand.

Thank you to my parents in China, for all your support, love, patience and encouragement throughout my studies and my life.

Thank you to all my friends who offered me help and encouragement, and patiently listened to me over this year.

This research project was given ethical approval by the Victoria University of Wellington's Human Ethics Committee under the NZSM Master of Music therapy Programme ethical template for student research in NZSM 526 undertaken as observational studies, theoretical or case study research or action research.

Approval # 22131

Table of Contents

Abstract	II
Acknowledgement.....	III
1 Introduction.....	4
1.1 Background	4
1.1.1 Setting and School	4
1.1.2 Students.....	4
1.1.3 Staff members	5
1.1.4 My understanding of clinical work	6
1.1.5 My approach to music therapy	7
2 Literature review	8
2.1 Autism	8
2.2 Music with children with Autism	9
2.3 Music therapy with children with Autism.....	10
2.4 Music therapy with children with Autism within the school setting	12
2.5 Playfulness in music therapy with children with Autism	14
2.6 Summary of Literature	16
3 Research Question.....	16
4 Methodology	17
4.1 Secondary Analysis of Data	17
4.2 Research Method.....	18
4.2.1 Data Sources.....	18
4.2.2 Data Analysis.....	19
4.3 Process of thematic analysis	20
4.4 Ethical Issues	22
5 Findings.....	24
5.1 Who are you? (Cici and the children).....	25
5.1.1 Singing what they are doing	25
5.1.2 Mirroring.....	27

5.2	What are you doing here Cici/music therapy student?	28
5.2.1	Music calling	29
5.2.2	Being alongside (doing their own thing).....	30
5.2.3	Promoting with cards and voice	31
5.2.4	Preferred music	32
5.2.5	Stimulating to sing	33
5.3	I can play, I can sing.....	34
5.3.1	Accompanying	34
5.3.2	Grounding	35
5.3.3	Adapting songs for the child	36
5.3.4	Adapting timing	37
5.3.5	Following his/ her choice.....	38
5.4	Let's play together.....	39
5.4.1	Reminding with instruments	40
5.4.2	Sharing an instrument	41
5.4.3	Singing instructions.....	42
5.4.4	Modelling.....	43
5.4.5	Joint play with staff.....	43
5.5	Keep moving forward.....	44
5.5.1	Sharing talk	45
5.5.2	Introducing new activities	47
6	Discussion	49
	Five stages of findings	49
1)	The use of improvisation.....	49
2)	Change and transition with ASD	50
3)	Follow the child's lead.....	51
4)	Emphasizing playfulness and including staff in the process	51
5)	Newness and variety rather than sameness	52
	Limitations	53
	Learning from the research from my practice	53

1) Music improvisation.....	54
2) Being a verbal communicator	54
3) Establishing and holding boundaries	54
4) Self-confidence.....	55
7 Conclusion	56
8 References.....	58
Appendices	63
Appendix 1 Information & Consent Forms.....	63

1 Introduction

This exegesis is about my experience as a music therapy student who worked in a special learning centre of a primary school in New Zealand from February to September in 2017. This research project aimed to explore how to build and sustain connections through music therapy with children with ASD in a special learning centre of a primary school in New Zealand by employing secondary analysis of my clinical notes, reflective journal, and notes from discussions and meetings with staff members.

1.1 Background

1.1.1 Setting and School

The special learning centre where I worked this year is attached to a mainstream primary school in New Zealand. It strives to meet the individual educational needs of children who are unable to fully participate in mainstream curriculum due to their disabilities. It caters for primary aged children with both physical and intellectual disabilities. The special learning centre consists of three classrooms, a multi-sensory room and a garden as a play area. The largest classroom connects with the little kitchen and it is the room where the children spend time having morning tea, lunch and doing developmental activities. I ran group music sessions in this room. Another two classrooms are separated by the toilets. The room with tables, a piano, a trampoline and a swing is where my individual music sessions occurred.

1.1.2 Students

There are about 13 primary aged students in the special learning centre who come

from diverse cultural backgrounds including NZ Maori, NZ European, Samoan, Somali, Sri Lankan and Cambodian. Most of the students are diagnosed with Autism Spectrum Disorder and Intellectual developmental delay. They were required and encouraged to follow the daily routine including the morning sessions and afternoon sessions. The morning sessions consist of task boxes and sensory activities. The afternoon sessions include developmental activities such as storytelling, arts and shared play. I ran my group music sessions three times a week in the mornings before the students started their task boxes, in order to promote their social connections. Despite having staff members to support the children in the group session, it was still challenging to work with 13 students at a time because of their diverse needs. Thus, I divided the big group into two smaller groups of about six students, which worked better for the students, the staff and myself. The students looked more settled, concentrated and engaged with this arrangement. The educational assistant Jessica mentioned that she was able to offer help in focusing on individuals when the student numbers were decreased in the group session. I felt it was easier for me to build connections with the students in the smaller group as I could pay more attention to each individual and respond to them more thoughtfully. My individual sessions were tailored to fit during my working days, which basically depended on the condition and needs of the children.

1.1.3 Staff members

The staff members who work in the special learning centre are caring, supportive and experienced. The team consists of a head teacher and six educational assistants. The head teacher and several educational assistants have been working here for a long time. Their extensive experience, knowledge and caring attitude provided me with a good learning opportunity and a supportive environment through my clinical practice during the year. They helped the students to complete their daily routine and offered them learning activities. They also participated in my group music sessions as

facilitators to support the students' social interaction and communication. An occupational therapist and a speech therapist from the Ministry of Education were part of the team supporting the children and their families, helping with the Individual Education Plan (I.E.P) which has been developed for the students based on their current skills and specific needs. I worked here as a music therapy student on Mondays, Tuesdays and Wednesdays to support the staff team and assist the students to reach their therapeutic goals through music making in group sessions and individual sessions, particularly in the areas of promoting social communication and interactions, and supporting their emotional needs.

1.1.4 My understanding of clinical work

In the first two weeks of my work, I felt challenged working with the students, despite the fact that I spent time getting to know them and trying to offer help by approaching them. I found it was hard building connections with them. They seemed to be unsocial and easily distracted. They rarely made eye-contact with people or fully participated in activities. However, I observed the staff members' work at my unit, received suggestions, tips and encouragement from my visiting music therapist, all of which helped me to gain a better understanding of the students and build up my own confidence. I worked with the students in their classrooms for a couple of days before starting individual music sessions, which gave the students an opportunity to become familiar and relaxed with me. I read related articles and watched videos that gave me more knowledge about the nature of the students' disabilities. I also took opportunities to learn more from observing other music therapists' work and attending workshops. Gradually, I found that I was able to connect with the children through music making in a playful and relaxing way. I felt more confident about confronting multiple challenges in my practice, and to be more reflective and mindful. My personal qualities such as patience, kindness and friendliness influenced my interest in building and sustaining connections with

children with ASD. Experience and documentation were helpful in developing my approach and strategies and I was really interested in understanding this in a more detailed and strategic way. This resulted in forming my research question which is, “How do I build and sustain connections through music therapy with children with ASD in a special learning centre of a primary school in New Zealand.”

1.1.5 My approach to music therapy

My music therapy approach values the use of improvisation and emphasises the therapeutic relationship. My music therapy work at the special learning centre aimed to be playful and child-centred, to build and sustain connections with the children, to develop their social interaction and communication, and to support their emotional needs.

Nordoff and Robbins believed that an active music-making process could awaken the “music child” in the child with special needs. “The awakening of the “music child” increases the individual’s self-awareness and allows the person to discover meaning and joy in the therapeutic experience, which leads to developing communicative intention in his or her musical responses”. (Nordoff & Robbins, 1977, cited in Aigen, et al, 2008, pp, 65). Although I am not Nordoff-Robbins trained, I value their belief, which is “respect the inner-life of each child with whom they worked and had an open vision toward exploring the powers of music to reach the unknown developmental potentials latent in disabled children”. (Robbins, 1993, cited in Aigen, et al, 2008, pp, 64). I respected the desires of the children in the special learning centre, followed their interests and decisions. I aimed to support their needs through music making without judgment or force, and I believe this enabled me to build connections with the children.

2 Literature review

2.1 Autism

Matson and Sturmey (2011 cited in Bathgate, 2017), stated that “Autism is a development disorder and it is usually identified in early childhood. In 1908, the Swiss Psychiatrist, Eugen Bleuler, first used the term “Autism” when applied to people with schizophrenia who had significant social withdrawal”. (pp, 91) American child psychiatrist Leo Kanner and Viennese paediatrician Hans Asperger described patterns of difficulties in language and social interaction, fixations on routine and sensitivities, and other presenting issues, in the early 1940s (Bathgate , 2017).

Autism Spectrum Disorder is life-long developmental disability caused by a developmental disorder that is likely the result of genetic factors. In many cases, ASD may also be associated with various conditions affecting the brain such as maternal rubella, tuberous sclerosis and encephalitis. It normally becomes apparent in the first 3 years of life (Autism NZ, 2017). Autism Spectrum Disorder is a neurodevelopmental disorder characterised by persistent impairment in social communication and social interaction across contexts including deficits in social and emotional reciprocity, nonverbal communicative behavior used for social interaction and the ability to develop and maintain relationships. It also stresses the restricted and repetitive patterns of behavior, interest or activities, both present since early childhood, and persists throughout life (APA, 2013).

In New Zealand, ASD affects the lives of over 65,000 people and their families (Autism NZ, 2017). There have been a multitude of prevalence studies predominately in the UK and the USA. Most show that the male to female ratio is at least 4:1. The best estimate from current international literature is of the prevalence for Autistic disorders ranging from 2.2/1,000 to approximately 7/1,000 (Bathgate, 2017).

People with ASD may often experience failure in school, social life and work. Many people with autism are also very vulnerable to abuse and bullying because of their social deficits. For their families, caring for an autistic child or young adult can be a tremendous emotional, financial and physical strain with a dramatic impact on the family (Maresca & Magistris, 2015). Autism Spectrum Disorder is a life-long disability, but there are ways of helping, if the condition is diagnosed early in life and the child receives appropriate intervention (Autism NZ, 2017).

2.2 Music with children with Autism

The ability to enjoy music is a universal human feature. Music triggers memories, boosts emotions, and promotes our social experience. Music allows us to develop self-knowledge, self-identity, and group identity, enabling us to share thoughts, emotions, and feelings, and understand those subtle and unique human experiences that cannot easily be described (Szakacs & Heaton, 2012).

Raglio et al (2011) has shown that music can be an effective tool to tackle some of the difficulties encountered by children with autism, such as social interaction, communication, emotional responsiveness, imagination and rigidity of thought. Using music as an intervention for children with ASD could promote their motivation of interests and strengths. Wiseman (2015) mentioned that music has the potential to deal with communication barriers, develop social interaction skills, give children and young people a sense of belonging and tackle some rigid thoughts and behaviours related to ASD. Also bringing a sense of accomplishment and self-esteem to both the young person and their family, and enables both the child and their family to develop a better quality of life.

Children with ASD often have a unique attraction to music. They can be particularly responsive to music and may have special musical abilities especially in pitch

discrimination (Heaton 2004). Zhang (2005 cited in Shi, 2016), stated that children with autism have been found to own an even higher ability to imitate music than some normal children with musical talent. Stanutz et al (2014) showed that children with ASD who were musically untrained had high pitch discrimination ability and superior long-term memory for melody, compared to age- and IQ-matched typically developing children.

In Sindelar and Meini's research (2017), they believed that "for developmental and evolutionistic reasons, music is a preferential tool to favor communication and to promote group identity". (pp, 304) They carried on a musical experience with a group of children with autism aged 5 to 7 years. Each child participated at school with 10 typical peers and their teacher. The children with autism who participated in music at school, "loved music and enjoyed playing and singing. With music, they overcame some communication and social difficulties. Their bodily posture changed with music, facilitating joint attention and improvement of verbal language". (pp, 304)

2.3 Music therapy with children with Autism

Internationally, work with children with ASD is a major area for practice in music therapy (Rickson, et al, 2015). According to Kim, Wigram & Gold (2011), music therapy is an essentially non-verbal approach that is potentially effective in children with ASD. It is considered to be a promising intervention for meeting the social, emotional, and communicative needs of children who have ASD. It is particularly helpful for supporting their development in social interaction and communication skills (Rickson, et al, 2015; Rickson, et al, 2016; Raglio, et al, 2011; Gold & Wigram, 2010). Ghasemtabar et al (2015) and Shi et al (2016) suggest that music therapy is an effective therapeutic method for improving social skills of children with autism. Research has indicated that music therapy can increase social skills, including joint

attention behaviours (Kalas, 2012), communication skills (Lim & Draper 2011), and peer interactions (Kern & Aldridge, 2006).

The joint attention process, in which a child learns how to coordinate visual attention with another person in relation to objects in the environment, is an important precursor to the ability to learn from social interaction. Initiating and sustaining joint attention is a primary goal of music therapy and improvisational music making provides a useful medium (Wigram & Gold, 2006). In addition, acquisition of joint attention skills plays an important role in early development, because without joint attention skills, higher functions such as communication, social interaction and language cannot develop well (Kim, Wigram, & Gold, 2008).

Child-centred improvisational music therapy intervention has been implemented to investigate the effects of music therapy on joint attention in children with autism (Vaiousli et al., 2015; Kim, Wigram, & Gold, 2008). These studies have shown that MT intervention is a promising practice in promoting the social engagement of children with autism. LaGasse's research (2014) showed the effectiveness of music therapy intervention on joint attention, stressing the impact of group music therapy.

People with ASD have difficulties with social relationships and social communication. They rarely make spontaneous approaches and they find it hard to appreciate the social cues and pleasure of communication (Autism NZ, 2017). Gold et al (2006 cited in Wiseman, 2015), mentioned the potential for music therapy to develop skills of social interaction and communication in working with children with ASD. It stressed the importance of using improvisation within music therapy, which begins to break down the repetitive and rigid pattern of expression and starts to develop the potential for spontaneity and interaction.

Rickson et al (2016) found that "the music therapists work in holistic, person-centred and strength-based ways, drawing on the musicality of their participants to

communicate through music therapy which is often improvised. The flexibility afforded by improvisational approach is highly valued". (pp.120) Robarts (2009) stressed the importance of 'creative-constructive', which is a highly adaptable application of improvised music for people whose communicative musicality in relationships needed to be strengthened. In music therapy, improvisation is used in ways that adapt to or meet the child or adult's responses (Robarts, 2009). Rickson et al (2016) showed that the dominant approach in working with children with ASD through music therapy in New Zealand, is improvisational and humanistic, which allows the therapists to respond to the needs of their participants spontaneously.

Raglio et al (2011) focused on the improvisational music therapy approach from an intersubjective theoretical perspective. They explained the process of co-creation in music making, with an improvisational approach between the therapist and the autistic patient, which created relationships, the process of sharing and turn-taking, and increased the level of emotional involvement and meaningful body participation in the interaction.

2.4 Music therapy with children with Autism within the school setting

According to Rickson and McFerran (2014), all children have the right to access democratic and non-discriminatory education that develops their abilities. Children who have special education needs have the same rights to enroll and receive education at state schools as other learners. The concept of inclusive education is now widely accepted. Instead of anticipating the individual learners adapted to the school curriculum, schools are introducing the adapted curriculums and the additional resources in order to meet the needs of different individual learners (Rickson & McFerran 2014).

However, within the school setting, young children with ASD may face more challenges as the social environment become more complex. They may often be excluded from academic group activities because of their delayed social skills. As a result, children with ASD may miss learning from social engagement (Vaiousli & Ogle, 2015). Kasari et al (2011) Indicated that children with ASD had significantly poorer social network centrality, poorer friendship quality and fewer overall classroom connections, compared to typically developing children in their peer group.

Wiseman (2015) offers cautious optimism about the role of music to support learning within the classroom in addition to the development of social interaction and communication. Rickson and McFerran (2014) reported that music can be used to create conditions that promote participation and peer interaction. Music-making is particularly useful to support the building of relationships as an inclusive activity. Vaiousli and Ogle (2015) suggested that music in an inclusive environment stimulates the senses, engages the children at different levels according to their abilities, and contributes to a feeling of community.

Rickson et al (2015) exploratory study, aimed to gather information regarding the practice of music therapy with children with ASD in New Zealand, showed that the majority of music therapists who participated in the survey work in private practice and in schools

Music therapy is used as a process to develop inclusion. It enables children with ASD to participate in music in their classroom, to support participants to move from peripheral to full participation (Rickson, et al, 2015). Within the school setting, the use of instruments was quoted as a way to interact with others in meaningful activities, build relationships, and to promote inclusion. The used of songs has been found effective in assisting young children with ASD to participate in the school routines, developing relationships and friendships with peers (Rickson, et al, 2015), and enhancing their listening and oral language skills (Vaiousli & Ogle, 2015). Singing

is considered to be a highly inclusive medium that can be used as an expressive or creative communication to support vocalization and speech development (Rickson, et al, 2015). White, et al (2017) suggested that music therapy delivered in a classroom in 45 minute weekly sessions for 15 weeks can promote improvement in verbal responsiveness among individuals with autism and other developmental disabilities.

Moreover, incorporation of music therapy with other intervention strategies in the classroom has been found to positively impact on social skills among children with a range of developmental disabilities (Mendelson, et al, 2016).

2.5 Playfulness in music therapy with children with Autism

Children learn and process in unique ways. They learn about all aspects of the world around them through play. Play is important in early childhood development and learning (Humpal, 2014). Parker and Brien (2011) suggested that children communicate best through play and it allows the child to solve problems, express feelings, and use toys to transfer their feelings of fear, anxiety and fantasy.

However, some children who are limited by delays and disabilities do not play spontaneously (Humpal, 2014). Landa (2007) stressed that young children with autism often have difficulty in social play and with developing the appropriate word symbols into language.

Humpal (2014) suggested that music therapy could be a playful and highly effective treatment for young children. The structured and systematic play environment would allow the children to move through the developmental stages of play. According to Ludlam & Hoskyns (2012), free-play and play methods of

communication are considered crucial for learning and supporting children in making sense of experiences, reality and the world as part of themselves. It also gives confidence to children who have a fear of failure. "Being playful, having playful songs and activities, and interacting with children musically was constantly helpful and is likely to be an essential element in successful music therapy work towards the development of speech and language in young people."(pp, 46)

Humpal (2014) emphasized the benefit of merging music therapy with a play-based approach. Creativity, collaboration, having fun and spontaneity are considered as important and helpful techniques in music therapy particularly when working with young children (Ludlam & Hoskyns, 2012). Anita (2005) sought to examine the experience of co-treatment of a seven year old autistic boy with music therapy and play therapy. Anita (2005) mentioned the common elements of their therapeutic goals, which were creativity and playfulness. She emphasized that music provided structure, encouraged engagement, facilitated meaningful interaction and group cohesion. The result in Anita's (2005) research became evident that "music was of predominant importance in the co-treatment experience. It was the relationship created and nurtured through music that allowed the participants to engage with each other, and the child to grow". (pp, 39) Wigram (1999) suggested that Introducing structured activities in music sessions, such as pretend play and role play, where music dialogue can be created, will improve the children's attention span. As cited in Ludlam and Hoskyns (2012) "The 'social currency' of singing, finger play and little chants, setting up peek-a-boo games and playful use of animal and vehicle sounds and playful musical interactions are used within music therapy to address stress or anxiety, establish and develop communication, sharing, connectedness, coordination and cognitive skills with pre-school children."(pp, 47)

2.6 Summary of Literature

Research evidence in the field suggests that children with ASD are responsive to music and have been assisted greatly by the varied work of international practitioners, particularly in supporting social interaction, making connections and enhancing communication. A playful approach has been recommended by some researchers, and I used this as a guideline in my practical experience.

This leads to a restatement of the research question, which I identified through my own practical interests, using what I had read as a guide.

3 Research Question

How do I build and sustain connections through music therapy with children with Autism Spectrum Disorder in a Special Learning Centre of a primary school in New Zealand?

4 Methodology

This research project employed secondary analysis of qualitative data to look at how to build and sustain connections through music therapy with children with ASD in a special learning centre of a primary school in New Zealand. My project aimed to re-use my clinical data, reflective journal and notes from discussions and meetings with the staff team, produced originally for the use of my eight months' clinical work.

When I began my research on secondary analysis of qualitative data, I was concerned about the meaning of qualitative research. Lichtman (2010) defined it thus: Qualitative research is a general term. It is a way of knowing in which a researcher gathers, organizes, and interprets information obtained from humans using his or her eyes and ears as filters. It often involves in-depth interviews and/or observations of humans in natural and social settings. It can be contrasted with quantitative research, which relies heavily on hypothesis testing, cause and effect, and statistical analyses. (pp, 5)

Qualitative research deals with questions about how and why. It involves extended data collection (usually including observation and interviews). It requires the researcher to organize data using codes and themes. It enables the researcher to understand the meaning of the data (Litchman, 2010).

4.1 Secondary Analysis of Data

Secondary Analysis is a research strategy which analyses pre-existing qualitative research data for the purpose of investigating any new questions or verifying previous studies (Heaton, 2004).

It has been suggested that secondary analysis can be used for two main purposes.

First, it allows researchers to investigate new or additional research questions. Second, it can be used to verify the findings of primary studies through the re-analysis of data sets (Heaton, 2008).

There are three main modes of secondary analysis. In the first, formal data sharing:- independent researchers using data resources collected and deposited by one group of researchers, organization and another person. In the second, informal data sharing:- researchers work with a mix of independently and self - collected data sets. In the third, personal or inside secondary analysis:- researchers re-use their own self-collected data, referred to as 'auto-data', in order to verify their previous findings. Researchers can also explore existing data to answer a new question. Personal secondary analysis is unique because it is carried out by the same researcher and organizer who collected the data originally (Heaton, 2004; Heaton, 2008).

My research project employed in this study used the third mode.

4.2 Research Method

My research strategy was secondary analysis of data. I re-used my clinical notes collected as part of my clinical practice, to investigate, under my research question, "How do I build and sustain connections through music therapy with children with ASD in a special learning centre of a primary school in New Zealand". There were no participants in my research. My method of data analysis was thematic analysis.

4.2.1 Data Sources

There are three data sources that I collected:-

1. Clinical notes.

I wrote clinical notes briefly usually after each group session and individual session. I rewrote them after I went home on the day and added more details.

2. Notes from discussions and meetings with the staff team.

I had some good discussions with staff members, which happened in the mornings before the students arrived, during morning tea and lunch breaks, and after school meetings.

3. Reflective journal.

I wrote down my feelings and achievements of the day at work, questions and struggles raised from the music sessions. I also noted down the strategies and suggestions that I gained from my fortnightly supervision session, towards the specific difficulties I encountered at work.

4.2.2 Data Analysis

I employed thematic analysis in order to identify the patterns and themes within the data. The analysis in my research was inductive. Lichtman (2010) claimed that “Qualitative research deals with the specific and moves to the general. It moves from the concrete to the abstract. Researchers begin with data and use the data to gain an understanding of phenomena and interactions”. (pp, 14)

Thematic analysis is a method of identifying and analyzing patterns in qualitative data (Clarke & Braun, 2013). The purpose of Thematic Analysis is to identify patterns of meaning across a dataset that provides an answer to the research question being addressed. Patterns are identified through a process of data familiarization, data coding, theme development and revision, defining and naming themes and writing up my research (Braun & Clarke, 2006).

Thematic analysis has been increasingly used by music therapy researchers in recent years as a central analytic method for interpretive studies or as the interpretive arm

in mixed-method studies (Hoskyns, 2016). Master of Music therapy students in New Zealand are encouraged to take on secondary analyses of their practicum data (Heaton, 2004).

4.3 Process of thematic analysis



This diagram shows the process of data analysis.

After the data had been accumulated, I applied thematic analysis through a process of six steps which is referred to by Braun & Clarke (2006) and Lichtman (2010).

1. Data familiarization:

I immersed myself in, and became intimately familiar with my data. I kept reading and re-reading my clinical notes of both individual and group sessions drawn from four students, my reflective journal, and notes from discussions and meetings with the staff team, in March and May.

2. Data coding:

This step was divided into two parts, **initial coding** and **revisiting initial coding**.

I identified my initial coding by noting or highlighting anything of significance, which related to my research question: “How do I build and sustain connections through music therapy with children with ASD”. For example, this was a sentence in my data, “Scott came and sat in front of me when I brought my ukulele to the group”. I highlighted the sentence, as it was a connection between us, and I noted “Reminding with instrument” as my initial coding.

When I revisited my initial coding, I found some of it was redundant, and I needed to rename it. For example, there was a sentence in my data, “William rocked his body when I sang the song, “I am in the mood” while accompanying

myself on the ukulele. My initial coding for it was, "Doing things in own way". I renamed the code to "Being alongside". Another example of the data was, "I allowed Scott to play the ukulele for an extra few seconds after the hello song was finished. Then I said "Scott's turn is finished", while gently holding the ukulele". I changed the initial coding "Extending to suit the child" to "Adapting timing".

I spent a few weeks doing my coding. It needed concentration and patience.

3. Theme development:

This step included three parts, **Initial listing of categories, modifying the initial list, and from categories to themes.**

After I modified my codes, I started to organize them into categories. I first sorted all the codes in alphabetical order and I found that some codes can be combined or grouped under a main code. For example, I combined the codes "Singing preferred songs" and "Playing preferred activities" to "Preferred music". I grouped the codes "Preferred instrument to call back" and "Reminding the children that it was music time, with an instrument" under the code "Reminding with instruments".

After I modified the initial list to my final coding list, I started to discover themes that reflected the meaning of my codes.

4. Themes revision:

After I discovered my themes, I checked whether the themes told a convincing and compelling story about my data by reading them again and linking them to my research question, and to define the nature of each theme and the relationship between the themes.

5. Defining and naming themes:

I created a cloud diagram for each theme and identified the essential part of each theme and constructed a brief name for each theme. Finally, I identified five themes which were "Who are you? (Cici and the children) ", "What are you doing

here Cici/music therapy student?”, “I can play, I can sing”, “Let’s play together” and “Keep moving forward”. Lichtman (2013) believes very strongly that “fewer well-developed and supported concepts make for a much richer analysis than many loosely framed ideas. She suggests that five to seven concepts should be the maximum number”. (pp.254)

6. Writing up:

The final step in the process is writing up the research which involved some final sorting and integrating of the analysis. During this period, themes were finally refined and described in a narrative sequence.

4.4 Ethical Issues

The researcher, and the music therapist who provided the clinical data for this research project, is the same person. I am currently a student of music therapy who is completing my Master of Music Therapy degree through the New Zealand School of Music. I read and sought to abide by the code of Music Therapy in New Zealand (Music Therapy New Zealand, 2012) and Victoria University of Wellington’s Human Ethics Policy.

The music therapy programme leaders at the New Zealand School of Music have already gained ethical approval for this type of study from Victoria University of Wellington’s Human Ethics Committee, (Approval number: 22131), for Masters of Music Therapy students wishing to undertake research as a secondary analysis. This research project was covered by the ethical approval already gained.

Although this research project is focusing mainly on my practice as a student music therapist, the responses from the indirect participants were taken into consideration. Thus, informed consent was obtained in writing from the parent/guardian of the school students and consent sought wherever possible from the children themselves.

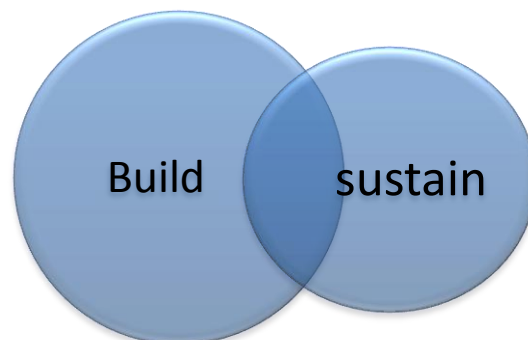
There was a case vignette included in my thesis, which described my practical work with a child. This required informed consent from the parent/guardian of the child participant. The information and consent forms were given out and received back by me.

Although my research is not specifically focused on working with Maori, it is essential to be culturally sensitive, to build careful attentive relationships and to understand mental health issues in keeping with the Treaty of Waitangi.

The real names of indirect participants, i.e. students who have participated in the music therapy sessions, were not used in the research study in order to maintain their anonymity. The names of staff and the school were not used in my exegesis in order to protect the participants from possible identification by readers. All information and clinical notes were kept safely with a password on my computer.

The two information and consent forms can be found in appendix 1.

5 Findings



In the process of finding how to build and sustain connections with children with ASD through music therapy, I have focused on five themes which act as developmental stages in the process of connecting with a child on the autism spectrum in my own experience. From my analysis, and of course my perspective as a music therapy student, I have explained these stages in the analysis using childlike concepts to try to capture the experience of building links with other people through music. In this way I am also trying to evoke and emphasise the feelings of the children. These include:-

1. "Who are you? (Cici and the Children)"
2. "What are you doing here Cici/the music therapy student?"
3. "I can play, I can sing"
4. "Let's play together"
5. "Keep moving forward"

In each stage of the analysis, I will present and describe the coded items from my practice data to illustrate the meaning of the themes. Occasionally there are overlaps in the codes, and they appear in more than one section. I have observed this in footnotes as the findings progress.

The first three stages describe the process of building connections with the children.

The fourth and fifth stages describe the process of sustaining these connections. I often combine some of the techniques of the first three stages and the last two stages, in order to sustain these connections.

In the findings, Clinical Notes are referred to as CN.

Vignette as V, in the illustrations.

5.1 Who are you? (Cici and the children)

In the initial stages, I tried to get to know the children by observing and attending the sessions and activities in which they participated during the day, to find out what their interests and preferences were and to get to know their personalities and behaviour. There were many examples of these encounters in the early stages of my work and there were 22 coded examples. I tried out a few songs and activities which were recommended by the staff, in order to draw the children's attention. Many of the children felt stressed because I was unfamiliar to them. Some of them moved away or started screaming when I came close to them to offer my help or play with them. Some children randomly looked at me when I sang or mirrored what they were doing.

The main codes in this stage included:

1. Singing what they are doing
2. Mirroring

5.1.1 Singing what they are doing

When I first started my individual session, I tried to establish contact with my students. They didn't tend to come to me or sit next to me straight away, instead, they stayed in a place where they felt comfortable and safe and started doing their

own thing. I used my voice and/or an instrument's accompaniment to sing what they were doing. It promoted the student's awareness of themselves and of me. I described in song, with repetition and variations what the children were doing physically. The music tended to be simple, diatonic, and in the style of a folk song or children's song. It related to a musical improvisation technique "Reflecting",¹ especially the lyric reflection (the music therapist uses lyrics that describe the client's actions or feelings as he expresses them through music, movement or words, as described by Carroll and Lefebvre in 2013).

An example of this is:

Cindy went to the corner of the room and looked out through the window. I moved to her slowly while singing (to the melody of "Drunken Sailor") "what can you see from the window today, X3, early in the afternoon; trees trees we can see, X3, early in the afternoon". She then looked around the classroom. I sang "what can you see in the classroom today, x3, early in the afternoon; books books we can see, desk desk we can see, chair chair we can see, early in the afternoon". She eventually looked at me and smiled, and then went to jump on the trampoline. I adapted the lyrics to "jump jump today, X3, early in the afternoon". CN 8/3/17

In this example, I stood in view of Cindy and sang what she might see from the classroom window and also what she saw in the classroom. This helped her to be aware of what was around her and helped her to focus on me. She gradually became aware of my presence and she smiled at me. My singing made her feel happy and when she is happy, she goes to jump on the trampoline. This is how she reacts when she is feeling happy and comfortable. This seemed to build a significant connection between us.

¹Reflecting: The music therapist reflects the feelings and emotions that she perceives are underlying the client's musical or non-musical responses

5.1.2 Mirroring

I often copied what the children were doing, as a mirror image of them. Actually, I gained a better understanding of the children from feeling and doing the same thing at the same time as them. When I put myself on a par with the children, I empathised with them. It provided me an opportunity to be with them, to try to imitate their behaviour by imitating their body language and emotions patiently, musically and expressively. This helped them to see what their own behavior looked like when acted out by me, and thus to be more aware of themselves. It also created opportunities for them to take the lead, and also to gradually strengthen our relationship.

One example of this is:-

In the individual session, Scott made some monkey sounds while flapping his hands. I copied him and this encouraged him to continue. CN 31/3/17

Scott loves monkeys and he often brought a toy monkey to school and made monkeys with his craft work. In this example, he acted as a monkey, complete with monkey sounds and flapping hands. He may have been in his own little world and completely unaware of me. I copied what he was doing at the same time, which seemed to draw him out of his zone. He gradually became aware of me because I was using the same language and doing exactly the same thing as he was doing. I had captured his interest so he created more sounds which were pleasant and fun. He then realised that he was in control of the sounds that he was making and this appeared to give him confidence.

Another example to show how mirroring helped me to build connections with the children:-

Annie was jumping excitedly in front of a mirror. I stood next to her and copied what she did. She focused on herself and didn't appear to notice me, but later on, she

became aware of me when she was strumming the ukulele and I copied her by strumming on my guitar. She wiped the strings on the ukulele a few times and I did the same on my guitar. She made an “ou” sound and I copied the same sound. She wiped the strings again while laughing and I did the same. This copying game lasted for about 1 minute in front of the mirror and Annie seemed to be really happy with this activity. CN 15/3/17

At first, Annie was curious to see herself in the mirror. She had fun watching her own performance. My participation didn't draw her attention until later when I strummed my guitar to copy what she was doing on the ukulele. She noticed me by seeing my guitar in the mirror while hearing the sound of it. She seemed to get enjoyment from seeing me copying what she did and this encouraged her by making her more enthusiastic. It was pleasant to see that we built a connection in this copying game.

5.2 What are you doing here Cici/music therapy student?

At this stage, the children were often reluctant or hesitant to be brought to the session. They were curious about participating and they looked at me directly but from a distance while they were doing their own thing. I captured their attention by singing about what they were doing. I sang the “Hello song/ Welcome song” to call them to me. I also used cards and my voice to promote their participation, as children with ASD typically have strengths in visual areas compared to other areas (Quill, 1995). They showed a fleeting involvement in some songs and musical activities that they preferred for a short while when I sang and played, but it was rarely sustained.

The main codes in this stage included:-

(Singing what they are doing)²

1. Music calling
2. Being alongside (doing their own thing)
3. Promoting with cards and voice
4. Preferred music
5. Stimulating to sing

5.2.1 Music calling

I adopted two “Greeting” songs which I used constantly with all my groups and individual sessions. This created a warm and friendly atmosphere where the children felt welcomed, loved and involved. It was a call that reminded the children that it was music time when everybody came to do music together. I included each child’s name in the “Greeting” songs and sang it with warmth and empathy in order to welcome them to the session and help them to recognize the start of music time. It strengthened the personal/musical relationship that I created with the children. Children in my session presented different reactions to having their names sung in the “Greeting” songs. Most of them liked it. They concentrated on the music and smiled at me. A few of them were ambivalent. They rarely had eye-contact with me and didn’t show much pleasure from the music. They needed more time to settle down and find security in the environment. It took time for the students to be familiar with the greeting songs which became secure and comforting after many repetitions.

For example:-

Scott came and sat in front of me from the other side of the group when I started to sing the "Greeting" song in the group session. CN 14/3/17

² Singing what they are doing was also a regular code for this thematic stage, and is referred to in detail in the first theme “Who are you? (Cici and the children)”. I have chosen not to repeat the section here in description as the process was similar to the first theme.

The “Greeting” song reminded Scott that it was music time and Cici was playing music with him.

Cindy had her back to me while she was playing with a building block. She faced me when I sang the "Greeting" song with her name. CN 28/3/17

Cindy wasn’t concentrating until I sang the “Greeting” song. It drew her attention and helped her to realise what was going on.

William wandered into the room at the beginning of the individual session. When I started to sing the “Greeting” song while playing the guitar, he came to me and plucked my guitar. CN 3/5/17

William may feel a bit confused on where he should be and what he can do. The “Greeting” song accompanied by the guitar reminded him that it was music time and that he could play music with Cici.

5.2.2 Being alongside (doing their own thing)

By this stage, the children were curious about participating and looking at me directly but from a distance while doing their own thing. Many activities that I applied in my group session were aimed at gathering the children together and providing opportunities for them to socialize with others, such as group percussion instruments, parachute, rainbow elastic ring, ball and bubbles. I tried to draw their attention and encourage them to participate. Some children were easily drawn into the activities, but tended to lose their attention quickly, while other children didn’t join in physically, but paid attention to what was going on, by observing while doing their own thing. I respected their different ways of participating and let them be in a comfortable and relaxed position.

An example of this is:-

In the parachute activity, when I was singing the song “Underneath the Parachute”

while holding the parachute with the staff members, most of the children went underneath the parachute. Initially, William sat on the bench quietly with his arms crossed. He kept his eyes on the game for a while and then started to smile while rocking back and forth. CN 1/3/17

William didn't go underneath the parachute like the other children did. Instead, he went to sit with his arms crossed on the bench and seemed to question the activity. He spent some time observing it carefully and later he started to enjoy watching it by active body language and facial expressions. I didn't push him to join in with the other children. I let him have his own space, which created a relaxing atmosphere for him to enjoy.

5.2.3 Promoting with cards and voice

I used visual cards, including picture cues, activity schedule and song/activity options, to promote the participation and understanding of the children in my music session. Children with ASD typically respond to visual input as their primary source of information (Banda, Grimmer & Hart, 2009). I used a visual card with a set of instruments on it as the symbol of "Music Time". I showed the card to the students while saying, "Music time!". It took a few sessions for the students to match the meaning of the card and my verbal prompt and to be able to follow me to the music room without assistance. I used an activity schedule in my group sessions and some individual sessions which allowed the students to anticipate changes in my session routine. The activity schedule always started with the "Greeting song" and ended with the "Goodbye song". The other activities were usually decided on the day before I started my session after considering the mood of my students, whether they were excited and needed some energetic activities, such as dance, movement, balloon or parachute, to release their energies, or to relax with gentle activities, such as bubbles, singing or playing instruments, according to their emotions. In my

individual sessions, I also encouraged the students to choose an activity card or song option by showing them two or three cards while saying the name of the activity, or slowly singing a short excerpt of each song. It didn't always work. A few of them were able to make a choice, but for those who were not able to do it, I made the choice for them while saying "Cici likes XX, Let's try it". This helped them to understand and participate.

5.2.4 Preferred music

Every autistic child is different and they have their own interests. So, it is important for me to acknowledge the individual child's interests, learning style and strengths. Using the students' interest allows an experience to be specific to the student and motivates the student to interact.

Here are some examples:-

Scott came and sat in front of me when I started to sing his favorite song "If You're Happy". He really focused on me when I sang the song with ukulele accompaniment. He pulled my right hand back to the ukulele while singing "If you...." in order to ask me to sing it again. CN 1/5/17

When I started to sing "There is a rhythm we can clap and this is how It goes" (The melody of "Bingo was His Name-O"), William laughed and held my hands to clap them together. CN 21/3/17

Annie showed reluctance to join in with the group session. She sat out of the group circle and didn't show any pleasure until I sang her preferred clapping song "Clap, clap, clap your hands, clap your hands together, Lalalalalalala". She joined me by doing the action while singing "Lalalalalalala" with me. CN 14/3/17

Singing Annie's preferred clapping song became a bridge which connected us. It made the session familiar, happy and comfortable for her, which also enabled her to interact with me.

5.2.5 Stimulating to sing

When I played music in my sessions, I often found that the children sang some lines from my songs and participated in some of the actions. They concentrated on the music when we sang songs. Many of the songs that I sang in the group were familiar to the children because I used the tunes of well-known nursery rhymes, but I adapted them by using my own lyrics. I also introduced new songs, which were used alternately with their familiar songs. It normally took the children more than a month to get familiar with the new songs.

Here is a comment from a staff member of our special learning centre:-

Presently, this child participates during music often verbalising Cici's familiar songs and completing the actions. He also sometimes sings songs from the music sessions during other sessions throughout the day without any prompting. The child's parents have also commented on his singing at home.

The child mentioned here rarely spoke. From the middle of March, he started to sing in my music sessions (group and individual), especially in his familiar "Greeting" songs and action songs. He often sang along with me in perfect pitch.

An example of Annie:-

I played Edelweiss (Annie's preferred music) on the piano, which captured her attention when she was on the swing. She stopped swinging, looked at me, and sang along. CN 29/3/17

Annie was able to verbalize simple words and she was very musical. I played Edelweiss which was from her favorite musical “The Sound of Music” on the piano. It drew her attention and triggered her to sing along with me.

5.3 I can play, I can sing

By this stage, the children had started to express their feelings and they responded to my music. They looked at me with excitement, pleasure or surprise when I played their preferred music or sang their preferred songs. They showed their interest and pleasure in music making and participating in musical activities. I supported them by accompanying them or grounding them with my voice or instrument. I also adapted the songs and the timing to include their words and actions. If they had different choices, I was flexible enough to follow their choices and satisfy their needs which resulted in making a good connection between us.

The main codes in this stage included:-

(Preferred music)³

1. Accompanying
2. Grounding
3. Adapting songs for the child
4. Adapting timing
5. Following his/her choice

5.3.1 Accompanying

I used piano, guitar, ukulele, drum or my voice to accompany my students, according to where they were making music. The accompaniments were simple,

³ Preferred music was also a regular code for this thematic stage, and is referred to in detail in the second theme “What are you doing here Cici/music therapy student”. I have chosen not to repeat the section here in description as the process was similar to the second theme.

repetitious and supportive, which allowed the students to take the lead and express themselves. Wigram (2004) defined the therapeutic method of accompanying as:-

Accompany: Providing a rhythmic harmonic or melodic accompaniment to the client's music that lies dynamically underneath the client's music, giving them a role as a soloist. (pp, 106)

An example of this is:

Annie immersed herself in singing a song that she created enthusiastically while strumming the open strings on the ukulele. I quickly found the key she was singing, which was the key of D, and played D, Bm and Am chords on the guitar to support her singing. I followed her, keeping up with her changes of dynamic and tempo. The song ended up with her singing a sustained note and her strumming on the ukulele became more intensive. I drummed on the guitar to support her singing. The rhythm got steadily faster and crescendoed. We clapped our hands and laughed after the dramatic ending. CN 14/3/17

I quickly picked up the key of her singing and played steadily using three simple chords on the guitar. It lay underneath her singing and gave her a role as a soloist. I followed her lead and changed my accompaniment which allowed her to express herself. It was a pleasant experience for her to be a soloist and we clapped hands to celebrate her success at the end of her music making.

5.3.2 Grounding

Many of the children that I worked with had a free-style method of playing music. I created a steady beat on the drum to provide a foundation for the child to build on. It provided a sense of calm, safety and belonging and made the child feel that they were connected with me. Wigram (2004) defined the process of grounding as:-

Grounding: Creating a stable, containing music that can act as an "anchor" to the

client music. (pp, 91)

An example of this is:

William played the xylophone randomly with the stick. I joined in on the drum and created a rhythmic grounding (Rhythm built on two beats, playing the low sound on beat one) to his music. William looked at me and played the xylophone expressively.
CN 9/3/17

At first, William didn't sound connected to his music, the music was unstable and indirect, so I created a rhythmic grounding on the drum with a steady duple meter rhythm to support him. It provided a safe space for William to express himself by playing the xylophone and recognizing the beat.

5.3.3 Adapting songs for the child

In my music sessions, I didn't always expect the children to do things the way that I wanted them to be done. If I introduced a song that didn't interest them, I would adapt the song to suit them. If they started singing or moving around, I would adapt a song which suited their mood, pace, pitch and action. I gave them opportunities to lead and I supported them with my music, so that they could feel a sense of belonging, understanding and confidence.

Examples:-

Annie was drawing when the group music session started. When I sang the "Hello" song to her, she asked me to draw a princess by saying "Princess" while giving me the pen. I quickly drew a princess for her and adapted the "Hello" song to "Hello Annie, hello Annie, it's the time to say hello, draw a princess, draw a princess, draw a princess to say hello". She looked at me when I sang the "Hello" song and laughed.
CN 1/5/17

In this example, Annie was in the mood for drawing when the group music session started. I didn't push her to sing the "Hello" song with me nor did I ignore her demand. Instead, I accepted her drawing requirement and adapted the "Hello" song to drawing a princess. We still sang "Hello" to each other, but in a way that made Annie feel connected.

William sat down and held my two hands while rocking. I used the song "Row your boat" to fit with the rhythm of his rocking. CN 24/5/17

William's rocking gave me the idea for using the song "Row your boat" while we held hands. I adapted the song to fit his tempo, in order to suit his level of energy, which made this simple movement a pleasant musical moment for both of us.

5.3.4 Adapting timing

I found that many autistic children I worked with took a longer time to respond to what other people said to them. It often happened during music session as well. Each child has their own "built-in metronome". I respected their own timing, so I adapted the timing to suit each individual child in my music sessions. However, it was not always easy, especially in a group session when I had more than 5 students. I needed to be adaptable and flexible in order to keep the balance for the whole group.

There was an example of Scott who was hardly letting the instrument go when his turn of playing the ukulele finished.

Scott kept playing my ukulele and holding it tightly when I finished the "Hello" song for him and I was ready to move to the next person. I allowed him to play it for a few

seconds more, and then I said "Scott's turn is finished", while attempting to take my ukulele back gently." He didn't let the instrument go and tried to keep on playing. I repeated, "Scott's turn is finished", and started to count musically and slowly "5,4,3,2,1" on a descending scale. This time, he let the instrument go and I took it back again. CN 6/3/17

Scott had similar behaviour for a few weeks. I always give him extra time and reminded him, "Scott's turn is finished". If he didn't let the instrument go, I would do the counting. He anticipated that this was his cue to stop. A few weeks later, he seemed to be familiar with the reminder, "Scott's turn is finished". I gradually shortened the extra playing time for him without counting and he adapted well to this.

5.3.5 Following his/ her choice

Compared to my music group session which was structured and mainly led by me, the individual session was less structured and more led by the child. It provided me with more time to focus on each individual child's need and meet their needs with patience and respect. I often spent some time following his/her choice during the individual session. It gave him/her a sense of control and satisfaction, which also enhanced our connection and relationship.

For example,

I sang the song "If You're Happy" accompanied by guitar, when Scott was swinging on the swing. He got off the swing and brought the ukulele to me from the table. I thought that he wanted me to play ukulele instead of the guitar, so I put down my guitar and accepted the ukulele. He went back to swing and sang along with me on two verses (clap hands and stamp feet). When I stopped playing, he jumped off the swing and came to me again, and strummed my ukulele while singing the same song,

in order to get me to sing it again. Once I started singing and playing, he went back to the swing and sang along with me. CN 1/5/17

In this example, Scott had his preferred instrument, the ukulele, for accompanying the song “If You’re Happy” (his favourite). So, he brought it to me when I was playing the guitar. He went back to the swing (he loves swinging). After I swapped the guitar for the ukulele, he started to sing along with me and wanted to keep singing, so he came to me again and strummed my ukulele, after I had stopped singing. I followed his choice entirely, which kept him engaged musically with me.

5.4 Let’s play together

At this stage, the children demonstrated their eagerness to come to the music session and they enjoyed working with me. I usually reminded them to come to the music session with an instrument. They might lose interest after a short period of time in the session due to their short attention span and I used their preferred instruments to call them back. We communicated through sharing an instrument. They attempted to follow the instructions through my singing and modelling with the help of staff members. It became meaningful and possible for them to learn and follow my music instructions. The staff members who helped in the group session played a significant role. They encouraged and assisted the children to follow my examples by copying my actions and providing physical support for the children. They knew the children well and it was a good opportunity for them to interact with the children in the group.

The main codes in this stage included:-

(Preferred music)⁴

⁴ Preferred music was also a regular code for this thematic stage, and is referred to in detail in the second theme “What are you doing here Cici/music therapy student”. I have chosen not to repeat the section here in description as the process was similar to the second theme.

1. Reminding with instruments
2. Sharing an instrument
3. Singing instructions
4. Modelling
5. Joint play with staff

5.4.1 Reminding with instruments

Apart from singing the greeting songs, which gathers the students together, and using visual cards and my voice to tell them that it was music time, reminding them with the use of instruments was also effective in getting my session started, especially using their preferred instruments. This told them that it was music time when we can make music together. It also helped to call them back to the session when they lost interest due to their short attention span.

For example,

It often happened when Annie saw me carrying my guitar in the corridor on my way to the music room. She would go to the storage room and find the ukulele. Then, she followed me to the music room. CN 29/3/17

Annie and I frequently used guitar and ukulele together in our individual sessions. Normally she would play the ukulele whilst I played the guitar. When she saw me carry a guitar, it reminded her that it was time for our shared music session.

Another example was Scott in his individual session:-

When I took my ukulele out of the instrument case, he came to me and started to sing the song "If You're Happy". Later in the session, he lost interest and went away. I offered him the hand-drum which immediately brought him back." CN 1/5/17

Scott likes the song “If You’re Happy” and I often sang the song accompanied by the ukulele for him. That’s why he started to sing the song when he saw me carrying the ukulele. It seemed to remind him of the pleasant moments that we shared together. When Scott lost interest during the session, I offered him the hand-drum which was another of his preferred instruments, which brought him back. Thus, reminding the children with their preferred instruments was helpful to sustain our connection.

5.4.2 Sharing an instrument

Sharing an instrument was based on the trust that I developed with the children. It was hard when I first started to share an instrument with them. Many of them were protective of their own space, so they either monopolized the instrument or moved backwards and ignored me. The process of sharing an instrument took a long time to put into practice. It helped the children to work through issues of personal boundary and control. It also enhanced our relationship and promoted interaction.

Example:-

William sat on a chair in front of me and rocked when I sang his favourite song "Three Little Birds" with guitar accompaniment. He smiled and flapped his hands in the upbeat rhythm that I strummed on the guitar. He joined in by playing on the guitar and we had good eye-contact. CN 9/5/17

I found it easy to interact with William through music. He would rock to the music that he liked and joined in when I played the guitar, ukulele, xylophone or drum. In this example, he danced to the song “Three Little Birds” when I sang and he joined in by playing on the guitar. He shared the guitar with me and we had a good musical connection.

5.4.3 Singing instructions

Transition from event to event is a challenging process for children with ASD (Schreibman, et al, 2000). In my group music sessions, specific songs were repeatedly used to help the children transition from one activity to another, such as getting the children together on the floor, preparing them for selecting the instruments for the session, or for the end of the parachute game. The songs I used were modified lyrics with familiar melodies. The modified lyrics were the instructions which tell the children what is happening and what they can do. Familiar melodies promoted the children's engagement and concentration. For example, I sang (to the melody of *The Wheels on the Bus*) "Everybody find a seat, find a seat, find a seat, everybody find a seat, on the floor" A catchy and cheerful melody, to gather the children on the floor before the group music session started. The children came from all over the room to the middle of the circle where we had placed colorful cushions for them to sit on. It provided an opportunity for the children to focus on following the instructions. Another example:- I sang (to the melody of *London Bridge is Falling Down*) "wave the parachute say goodbye, say goodbye, say goodbye, wave the parachute say goodbye, goodbye parachute, see you next time", at the end of the parachute game. It gave the children anticipation that the parachute game was finished.

Singing instructions also promoted the children's learning and social skills, such as turn-taking, following directions and listening. For example, there was one song in which I modified the lyrics from "In the Jungle" as one of our activities involving instruments. I sang "In the classroom, in the classroom, XX (the child's name) plays the YY (an instrument), in the classroom, in the classroom, XX plays the YY, everybody play, lalala, play the music, everybody play, lalala, play the music." This song provided opportunities for each child to do a solo and also to get everybody playing together.

5.4.4 Modelling

In my music sessions, modelling was often used by the staff and by myself. I demonstrated the actions in the songs and showed the ways of participating different activities for the children. It took a certain amount of time for the children to get the ideas and follow them, especially in the group sessions. Thus, cooperating with the staff members played a significant role in my group sessions. They have built strong relationships with the children and the children usually responded to them well. The staff members encouraged the children by modeling the same actions that I demonstrated. It helped to motivate the children into joining in, which helped me to sustain a happy relationship with them.

For example:-

Scott was reluctant to interact with me in the "Greeting" song today. When I started to sing the "Clapping" song while demonstrating the actions with the staff members, he held his head up and stared at me and Jessica (one of the staff members). After a short while, he joined in clapping hands, tapping knees and stamping feet. He even stood up to stamp his feet and sat down again afterwards". CN 9/5/17

In the example, Scott was unmotivated in the greeting song. He became attentive and focused when the staff members joined in and modelled the actions with me in the song.

5.4.5 Joint play with staff

It was great to have the staff members who were always supportive and kindly offering help in group music sessions. When I introduced songs or activities to the group, they provided valuable support for all of us by interacting socially with the children. The children reacted joyfully to their love and encouragement, which

strengthened our relationship.

Example of how joint play with staff sustained the connection between the children and me:-

When I suggested that the group should work in pairs in the activity of “Row Your Boat”, each staff member spontaneously faced a child and invited that child to hold their hands. I held hands with Scott and we rocked. Everyone followed our example. I observed Annie and Laura (Education Assistant) while they were rocking and they looked joyful! William smiled and had good eye-contact with Jessica (Education Assistant) during this activity. Cindy started to vocalize and laughed when Cara sang “If you see a crocodile, don’t forget to scream” for her, with an animated facial expression.” CN 3/5/2017

In this example, the staff encouraged the children by working alongside them during my modelling of the song “Row Your Boat”. It would have been impossible for me to carry out this particular group activity without their help, because I can only work with one child at a time. They provided an opportunity for me to work with a group of children in which we could promote a joyful, ongoing relationship between the children, the staff and me.

5.5 Keep moving forward

At this stage, the children interacted with me in a more expressive and comfortable way. They showed a purposeful interest in the activities and they responded to my music with more confidence. They communicated with me through music making and our conversations were held successfully with the help of shared music. They tended to repeat some of their favourite songs or activities many times during the session, and they looked frustrated if I distracted them by suggesting some other things for

them to do. I tried to introduce some new songs and musical activities for them based on their interests to keep the session fresh and attractive. It enabled the students to create new responses and helped them move into a different musical experience, which potentially helped to sustain our connections. Although they tended to come back to their favorite songs or activities, I still tried to bring some new things to the session once in a while within their acceptable range, to keep moving forward.

The main codes in this stage included:

(Preferred music)⁵

1. Sharing talk
2. Introducing new activities

5.5.1 Sharing talk

Although many of my students are non-verbal, they were stimulated to converse with me through our music making. It was amazing to see that we could hold a musical conversation, with natural eye-contact and social interaction.

Example of Cindy, who barely speaks, but can verbalise by singing her favourite songs:-

When Cindy got off the trampoline, I sang the “Hello” song to her. She touched the guitar while I was playing it. When we got to the place where the word “Hello” occurs in the song, I stopped playing and opened my mouth widely. She did the same and we both said “Hello” together. She only managed to pronounce “Ha”, but it made us both laugh. Then, as I held the guitar horizontally she plucked the strings and placed a ball

⁵ Preferred music was also a regular code for this thematic stage, and is referred to in detail in the second theme “What are you doing here Cici/music therapy student”. I have chosen not to repeat the section here in description as the process was similar to the second theme.

on the strings. I then held my guitar at an angle of 45degrees and rolled the ball down the strings, which made her laugh. She picked up the ball and gave it to me, pushing my hand to make me repeat the action. I sang the song "Row Your Ball" (to the melody of "Row Your Boat") while playing the game. She laughed and kept picking up the ball for me. After about 5 times, she went back to the trampoline while vocalizing the sounds (wa, ba, bo). I played the song "Baa Baa Black Sheep" to support her verbalization. She pronounced "Bua Bua" with me and laughed when I sang the word "wool" in the song. She covered her ears and went away when I sang the words "yes sir". She came back and sang "one" with me when I sang "One for the master, one for the dame, one for the little girl called Cindy". She verbalised "Bua Bua" three times after I finished the song in order to ask me to sing it again. Then, she started to verbalize "Tui" and I used the song "Twinke Twinkle" to stimulate her verbalization. She focused on me and tried to pronounce the word "Tui" (for twinkle), "s" (star), "how", "ar" (for up). She repeated the word "Tui" once again after I finished. After that, she asked for the song "Humpty" by holding my hands and pronouncing "Hum". When we sang, "Humpty Dumpty had a great fall", she sat down on the floor and when she wanted to get up again, she surprised me by saying "up". She would normally say "Hum" if she wanted to hear the song again, but this time she said "again". V 23/5/17

In this example, Cindy was able to vocalise sounds based on the song I sang. I used her favourite songs to support and stimulate her verbalization. This also met her musical needs. Although it was hard for her to pronounce single words in the song, she tried to pronounce part of the words and kept our music conversation going. She repeated "Bua" (for Baa) a few times after I finished the song, to ask me to sing "Baa Baa Black Sheep" again. We did the song "Twinkle Twinkle". She repeated "Tui" (for twinkle) to ask for this song. She used both her body language and word "Hum" to ask for the "Humpty Dumpty". She said "Up" when she wanted to get up and said "Again" to ask for the song again, which had never happened before. It was amazing to see that she expressed her needs clearly and we held our music conversation.

5.5.2 Introducing new activities

By this stage, I provided opportunities for the children to choose their favourite songs and activities. It always brought lots of excitement and smiles, which enhanced their concentration and participation in my session. They showed purposeful interest in what they enjoyed, and they would have been happy to keep repeating these activities until the end of the session. However, in order to keep the session fresh and attractive, I introduced new songs and activities once in a while in both group and individual sessions. It stimulated the students' new responses and helped them move into a different musical experience, which potentially helped to sustain our connections. The activities were based on their interests and this was acceptable to the children. The new activities inspired the staff members who worked with me in the group session. We all enjoyed having something new to do and it was also a great anti-stress activity for all of us!

An example of this is:

Most of the children enjoyed having a parachute in the group session. After the parachute activity "Wave the parachute up and down" (The melody of "Mary Had a Little Lamb"), I introduced a new parachute game to the group, called "My Ball Rolls Over the Ocean". I brought a football sized bouncing ball and put it onto the parachute, when we were all holding the parachute together. I started to sing "My ball rolls over the ocean, my ball rolls over the sea....."(The melody of "My Bonnie Lies Over the Ocean") while waving the parachute to keep the ball moving. William and Annie were both fascinated by the new parachute activity. They tried to fetch the ball when it was close to them. William got the ball successfully and he threw it back onto the parachute excitedly with big jumps after I sang "Roll back, roll back, roll back my ball to me, to me". The staff members enjoyed the activity and they gained pleasure from keeping the ball moving on the parachute. CN 1/5/2017

In this example, this new activity was based on the previous parachute activities (lots of waving), with a bouncing ball accompanied by a catchy modified song (The melody of *My Bonnie Lies Over the Ocean*). Bouncing the ball was one of the popular and acceptable games for our children. Using a bouncing ball as part of the parachute activity boosted their interest and made the session a joyful activity. The modified song was catchy and easy to sing, which made it exciting for everybody.

6 Discussion

The aim of this research project was to explore how to build and sustain connections through music therapy with children with ASD in a special learning centre of a primary school in New Zealand. Secondary analysis of my data and my perspective as a music therapy student identified five themes which acted as stages in the process of connecting with children on the autism spectrum.

My research suggested that the building of connections and later sustaining them seemed to occur in stages, not identical for each child, but showing a certain type of pattern, characteristic of children with ASD. I used some strategies to address the challenges in my music therapy practice, and these are the codes and themes that I identified in the findings. I will discuss the research in the five stages that I identified.

Five stages of findings

1) The use of improvisation

Improvisation was used very often in building connections with children with ASD in my music therapy practice. It enabled me to be flexible and improvise spontaneously. It referred to Rickson et al (2015). In New Zealand, improvisational approach is regarded as one of the most popular music therapy approaches, as it allows the music therapist to respond to the needs of their participants spontaneously. "Improvisation was quoted as being an important way of connecting people and increasing interaction." (pp, 23)

At this stage, I applied "singing what they are doing" and "mirroring", to help me to build connections with the children. They referred to the idea of "Empathic method of improvisation", described by Bruscia (1987) and Wigram (2004) where the therapist attempts to reflect the feelings of the client's physical and emotional state in the music and intends to show the client that they are meeting them at their level.

When I improvised with my students, I didn't require responses from them, which allowed them to explore and make their own decisions in a relaxed way. I was waiting there patiently with my flexible approach to music and ready to adapt to any responses they had in a playful and relaxed way. It also referred to Wigram & Gold (2006), who emphasized the importance of joint attention, which a child learns how to coordinate visual attention with another person in relation to object in the environment.

2) Change and transition with ASD

Schreibman et al (2002) mentioned that transition from event to event is a challenging process for children with ASD. I adapted welcome songs with the students' names and introduced them to my morning group sessions and individual sessions, which helped with their transition and improved our relationship. This linked to writing by Nordoff and Robbins (2007), who observed "a greeting song leads a child through the transition from whatever aspect of a daily program he has left, into the individualized, energized world of the session." (pp, 244) Singing a child's name with warmth and a certain quality of empathy can improve personal-musical relationships between the child and the therapist (Nordoff & Robbins, 2007).

I learned the idea of using visual cards from the special learning centre where I worked. The head teacher and staff members made use of visual cards to help the children to communicate and transition from one activity to another. This connects to the research of Banda et al (2009), who note that children with ASD typically respond to visual input as their primary source of information. Quill (1995) suggested that children with ASD typically have strengths in visual areas compared to other areas. I used visual cards to promote the children's participation and their understanding of different songs and activities in my music session. I also found that the students responded to me better when I prompted with cards and my voice.

Higashisa (2007) mentioned that “people with autism are sometimes unable to move on to their next action without verbal prompt”. (pp, 104)

3) Follow the child’s lead

At this stage, the main characteristic of the findings is “Follow the child’s lead”. It referred to the idea of the “child’s perspective” described by Sommer et al (2010 cited in Coyne et al, 2016), “The child’s perspective as an agent in a situation represents how the child experiences, perceives and understands the context and what has to be done. The child’s perspective involves the adults’ general knowledge of childhood and knowledge of what is going to be done in the specific situation combined with an ambition to understand how the child perceives, experiences and acts in the situation.” (pp, 496-497) The key element of child-centred care describe by Coyne et al (2016), “The rights to participation include the child’s self-determination, dignity, respect, integrity, non-interference, and the right to speak up and make informed personal decisions.” (pp.497). Rickson et al (2015) showed that a client-centred approach was emphasised as dominant in music therapy practice with people with ASD in New Zealand. The concept of “music child” described by Nordoff & Robbins (1977 cited in Aigen, et al, 2018), believed that an active music-making process could awaken the “music child” in the child with special needs. I value their belief, which is “respect the inner-life of each child with whom they worked and had an open vision toward exploring the powers of music to reach the unknown developmental potentials latent in disabled children”. (Robbins, 1993, cited in Aigen, et al, 2008, pp, 64). I respected the desires of the children, followed their interests and decisions, and supported their needs through music making without judgment or force, which enhanced the connections between us.

4) Emphasizing playfulness and including staff in the process

At this stage, I used some structured and playful songs and activities to interact with the children in my music sessions. This idea referred to Ludlam and Hoskyns (2012),

playful activities and playful musical interactions are used within music therapy to establish and develop communication, sharing and connectedness with pre-school children. We had some playful instrumental activities and instruments were commonly used in my music sessions. It was a tool to express feelings, build connections and share conversations. It also connected to commentary by Rickson et al (2015), within the school setting, where the use of instruments was quoted as a way to interact with others in meaningful activities, build relationships, and to promote inclusion.

Staff members played a very positive role in my group music sessions. They facilitated the children's participation and supported their interaction. Twyford (2012) cited Stevens (2010) and mentioned that "the role and efficacy of teacher aide support and ways, may be improved to enhance the learning and social environment and wellbeing of children with identified leaning needs." (pp, 44)

5) Newness and variety rather than sameness

At this stage, I found that the children were expressive and comfortable about interacting with me. We were able to hold a musical conversation and I felt confident about interacting with them. However, most of the students tended to have difficulty in adapting to change. They liked to repeat their favourite songs or activities. It referred to APA, (2013), people with autism have restricted and repetitive patterns of behavior, interest or activities. Thus, I tried to offer some new songs and musical activities based on their needs to stimulate their new responses and help them move into a different musical experience, which helped to keep the music sessions moving forward. Carroll and Lefebvre (2013) introduced the idea of new activities, they described a technique "Introducing Change" which is being "used to move the therapeutic process forward by guiding the client into different musical territories based on perceived musical and clinical needs." (pp, 25)

Limitations

This research provided me with an opportunity to explore the strategies and techniques of how to build and sustain connections with children with ASD in a special learning centre during my practice. The process of collecting, analyzing data, and identifying themes is a memorable research experience.

However, there were limitations in my research. The data I used (clinical notes, reflective journal and notes from discussions and meeting with staff members) were drawn from the months of March and May. My knowledge of autism and how to build and sustain connections with children with ASD was developing over my eight months of practice and study. Therefore I recognize the observations are of a new music therapy practitioner and not necessarily very sophisticated. On a future occasion, I would like to collect at least three months of data, to see if the results vary from what I have collected already. This would also allow more understanding of the “sustaining” of relationships, which is only emerging in understanding in this study.

As a student music therapist, I valued what I have done in my research and these findings gave insights into how I understand my work and I have observed how precious they are to my own learning. Although the information I delivered in this research was not new to Autism Spectrum Disorder and this field of music therapy, it will be a useful reference for adding to the already extensive literature.

Learning from the research from my practice

Spending time carefully reflecting on my musical interactions and therapeutic approach with children on the autism spectrum in research has highlighted some interesting features for me as a practitioner. I recorded many feelings and struggles in

my journal and by carefully sifting through this analysis it made me particularly aware of certain patterns, and definitely increased my practice wisdom in particular ways. Of course I would be building my knowledge, doing this week by week, but the focused research analysis has heightened my understanding. The following summarises the areas of learning:-

1) Music improvisation

I became more aware of what really interested the children about the music that we made, and how I supported them with their interests. This can be quite individual and complex for each child, but I realised I was working by the principle of being really focused and flexible, ready to adapt to any responses they had in a playful and relaxed way.

2) Being a verbal communicator

I had experiences of working with the staff members in my music group sessions and we often had discussions and meetings at work. It provided me with opportunities to share with the staff members, the important points that I observed and noted in the music sessions, from my reflective journal. The process of reflecting and exchanging ideas helped me to improve my ability in verbal communication.

3) Establishing and holding boundaries

At the beginning of the year, I felt it hard to say, "No", or to use strong boundaries with a child when she was too rough with my instrument. I noted my feelings and struggles in my reflective journal and asked for help from my visiting music therapist and supervisor. They shared some examples of establishing boundaries in music sessions and some useful tips. That enabled me to learn how to set boundaries in my own setting, from reflection and practice. In the process of my reflection and practice,

I learned some good strategies to enable me to deal with similar situations in a positive way. I also realized that boundaries potentially assisted my students in learning appropriate self-control and social skills reinforcement.

4) Self-confidence

I have grown in self-confidence during my research practice over the year. Instead of blaming myself if there was anything I could not figure out. I learned to reflect and search for possible solutions to the issue that arose and to see challenges as a learning opportunity. I am proud of the challenges that I have overcome this year working within a complex situation and I am pleased with the achievements I have made. I am aware of the intensity of my research practice and of my own needs as a music therapy student and proactively seek practices that renew my energy and inspire me.

7 Conclusion

This research study explored how to build and sustain connections through music therapy with children with ASD in a special learning centre of a primary school in New Zealand. The clinical work took place in eight months and I employed secondary analysis of music therapy session data as my research strategy. This study showed the results of my work with four students, by reusing my clinical notes, reflective journals and notes from discussions and meetings with staff members in March and May. I used thematic analysis as my analysis method to identify themes from my data, in order to answer my research question.

This research suggests that the building of connections and later sustaining them seems to occur in stages, not identical for each child, but showing a certain type of pattern, characteristic of children with autism. I used some strategies to address the challenges in my music therapy practice, and these are the codes and themes that I identified in the findings. Music improvisation was used very often in building connections with children with autism in my practice. It enabled me to be flexible and ready to respond to the children's needs spontaneously. Transition from event to event is a challenging process for children with autism. I adapted welcome songs with the students' names and used visual cards and my voice to help with their transition and build our relationships. I respected the desires of the children and followed their lead through music making, which enhanced the connections between us. The playfulness of music therapy was helpful in establishing and developing social connections, sharing and interactions. Including staff members in music group sessions played a very positive role in building and sustaining connections. Most of the children with autism tended to have difficulty in adapting to change. Offering new songs and musical activities based on their needs stimulated new responses and helped them to move into a different musical experience.

This research has the potential to help families, educators, and music therapy students to understand music process and the impact it can have on children who experienced ASD.

8 References

- Aigen, K., Miller, C., Kim, Y., Pasiali, V., Kwak, E., & Tague, D. (2008). Nordoff-Robbins Music Therapy. *Introduction to Approaches in Music therapy (Edited by Darrow A)*, Chapter 6, pp. 61-77.
- Anita, G., (2005). A Phenomenological Study of the Co-treatment of Music Therapy and Play Therapy with a Boy Diagnosed with Autism. *ProQuest Dissertations Publishing*, pp. 39-49.
- APA. (2013). Diagnostic and statistical manual of mental disorders (DSM-5). Arlington, VA: American Psychiatric Publishing.
- Autism NZ. (2017). What is Autism? What is Asperger Syndrome? What causes the condition? Retried from http://www.autismnz.org.nz/about_autism
- Ayres, L. (2012). Thematic Coding and Analysis. *The SAGE Encyclopedia of Qualitative Research Method*, 868 DOI: <http://dx.doi.org/10.4135/9781412963909>
- Banda, D. R., Grimmer, E., & Hart, S. (2009). Activity schedules: Helping students with autism spectrum disorders in general education classes manage transition issues. *Teaching Exceptional Children*, 41(4), pp. 16-21.
- Bathgate, D. (2017). ASD and offending: reflections of practice in from a New Zealand perspective. *Journal of intellectual Disabilities and offending Behaviour*, Vol.8 Issue: 2, pp. 90-98. <https://doi.org/10.1108/JIDOB-07-2016-0012>
- Braun, V. & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77, pp. 3-101.
- Carroll, D & Lefebvre, C. (2013). Musical Techniques. *Clinical Improvisation Techniques in Music Therapy: a guide for students, clinicians and educators*. Springfield, Illinois, USA: Charles C. Thomas, Publisher, Ltd, pp. 11-27.
- Clarke, V., & Braun, V. (2013) Teaching thematic analysis: Over-coming challenges and developing strategies for effective learning. *The Psychologist*, 26(2), pp. 120-123. SSN 0952-8229 Available from: <http://eprints.uwe.ac.uk/21155>
- Coyne, I., Hallstrom, I., Soderback, M. (2016). Reframing the focus from a

- family-centred to a child-centred care approach for children's healthcare. *Journal of Child Health Care*, Vol. 20(4), pp. 494-502.
- Ghasemtabar, S. N., Hosseini, M., Fayyaz, I., Arab, S., Naghashian, H., & Poudineh. (2015). Music therapy: An effective approach in improving social skills of children with autism. *Advanced biomedical research*, Vol.4, pp. 157.
- Gold, C., Wigram, T. & Elefant, C. (2006). Music therapy for autistic spectrum disorder, *Cochrane Database of Systematic Review*, 2, CD004381
- Gold, C., Wigram, T., Elefant, C. (2010). Music therapy for autism spectrum disorder. *Cochrane Database of Systematic Reviews*, no.2.
- Heaton, J. (2004). Reworking Qualitative Data, What is Secondary Analysis? *Sage Research Methods Online*, pp. 2-22.
- Heaton, J. (2008). Secondary Analysis of Qualitative Data: An Overview. *Historical Social Research*, Vol. 33, No. 3 (125), pp. 33-45.
- Heaton, P. (2004). Interval and contour processing in autism. *Journal of Autism and Developmental Disorder*, 35(6), pp. 787-793.
- Higashida, N. (2007). Q54 Why do you need cues and prompts? *The reason I jump*. Random House, Inc., New York, pp. 104-105.
- Hoskyns, S. (2016). Thematic Analysis. *Music Therapy Research (edited by Wheeler & Murphy, Chapter 52*, pp. 563-569
- <http://www.newsrx.com/newsletters/Health-and-Medicine-Week.html>
- Humpal, M. (2014). Music Therapy for Developmental Issues in Early Childhood. *Music Therapy Handbook*, 21, pp. 265-276.
- Kalas, A. (2012). Joint Attention Responses of Children with Autism Spectrum Disorder to Simple versus Complex Music. *Journal of Music Therapy*, 49(4), pp. 430-452.
- Kasari, C., Locke J., Gulsrud, A., Fuller, E. (2010). Social Networks and Friendships at School: Comparing Children with and without ASD. *Journal of Autism and Developmental Disorder*, Vol. 41(5), pp. 533-544.
- Kern, P., & Aldridge, D. (2006). Using embedded music therapy interventions to support outdoor play of young children with autism in an inclusive community-

- based child care program. *Journal of Music Therapy*, Vol. 43(4), pp. 270-294.
- Kim, J., Wigram, T., & Gold, C. (2008). The effects of Improvisational Music Therapy on Joint Attention Behaviors in Autistic Children: A Randomized Controlled Study. *Journal of Autism and Developmental Disorders*, Vol. 38(9), pp. 1758-1766.
- Kim, J., Wigram, T., & Gold, C. (2009). Emotional, motivational and interpersonal responsiveness of children with autism in improvisational music therapy. *Autism*, Vol. 13(4), pp. 389-409.
- Landa, R. (2007). Early Communication Development and Intervention for Children with Autism. *Mental Retardation and Developmental Disabilities Research Reviews*, Vol. 13(1), pp. 16-25.
- Lichtman, M. (2010). Introduction and Overview of the Field. *Qualitative Research in EDUCATION*, pp. 3-23.
- Lichtman, M. (2013). Making Meaning from Your Data. *Qualitative Research in EDUCATION*, pp. 241-268.
- Lim, H. A. & Draper, E. (2011). The effects of music therapy incorporated with Applied Behavior Analysis Verbal Behavior Approach for children with autism spectrum disorders. *Journal of Music Therapy*, 48(4), pp. 532-550.
- Ludlam, S., & Hoskyns, S. (2012). The Use of Music Therapy to Support Speech and Expressive Language Development for Pre-school Children with Special Needs. *Victoria University of Wellington Dissertations Publishing*, Chapter 6, pp. 39-46.
- Maresca, R., & Magistris, L. (2015). Autism: What is it? *Translational Approaches to Autism Spectrum Disorder*, Chapter 1, pp. 1-11.
- Mendelson, J., White, Y., Hans, L., Adebari, R., Schmid, L., Riggsbee, J., Goldsmith, A., Ozler, B., Buehne, K., Jones, S., Shapleton, J., Dawson, G. (2016). A Preliminary Investigation of a Specialized Music Therapy Model for Children with Disabilities Delivered in a Classroom Setting. *Autism Research and Treatment*.
- Nordoff, P., & Robbins, C. (2007). Singing and songs. *Creative Music Therapy: A Guide to Fostering Clinician Musicianship*. Barcelona Publishers, Chapter 11, pp. 244-245.
- Parker, N., & Brien, P. (2011). Play therapy-reaching the child with autism.

- Quill, K. A. (1995). Visually cued instruction for children with autism and pervasive developmental disorders. *Focus on Autistic Behavior*, 10, pp. 10-20.
- Raglio, A., Traficante, D., Oasi, O. (2011). Autism and music therapy. Intersubjective approach and music therapy assessment. *Nordic Journal of Music Therapy*, vol. 20(2), pp. 123-141.
- Rickson, D., & McFerran, K. S. (2014). The Bigger Picture Surrounding Musicking in Schools. *Creating music cultures in the schools: a perspective from community music therapy*, 2, pp. 17-33.
- Rickson, D., Castelino, A., Molyneux, C., Ridley, H., & Upjohn-Beatson, E. (2016). What evidence? Designing a mixed methods study to investigate music therapy with children who have autism spectrum disorder (ASD), in New Zealand contexts. *The Arts in Psychotherapy*, pp. 119-125.
- Rickson, D., Molyneux, C., Ridley, H., Castelino, A., Upjohn-Beatson, E. (2015). Music therapy with people who have Autism Spectrum Disorder-Current practice in New Zealand. *New Zealand journal of music therapy*, Issue 13, pp.8-32.
- Robarts, J. (2009). Supporting the development of mindfulness and meaning: Clinical pathways in music therapy with a sexually abused child. *Communicative Musicality: exploring the basis of human companionship/edited by Stephen Malloch and Colwyn Trevarthen*, Chapter 17, pp. 377-400.
- Schreibman, L., Whalen, C., & Stahmer, A. (2000). The Use of Video Priming to Reduce Disruptive Transition Behavior in Children with Autism. *Journal of Positive Behavior Interventions*, vol.2 (1), pp. 3-11.
- Shi, Z. M., Lin, G. H., & Xie, Q. (2016). Effects of music therapy on mood, language, behavior, and social skills in children with autism: A meta-analysis. *Chinese Nursing Research*, pp. 137-141.
- Sindelar, M. T., & Meini, C. (2017). Music as a helpful instrument in the treatment of children with ASD in their school inclusion program. *European Psychiatry*, vol.41, pp. S304. <https://doi.org/10.1016/j.eurpsy.2017.02.193>
- Stanutz, S., Wapnick, J., Burack, J. A. (2014). Pitch discrimination and melodic

- memory in children with autism spectrum disorders. *The International Journal of Research and Practice*, vol.18 (2), pp. 137-147.
- Szakacs, I, M., & Heaton, P. (2012). Music: a unique window into the world of autism. *Annals of the New York Academy of Science*, Vol.1251 (1), pp. 318-324.
- Twyford, K. (2012). Getting to know you: Peer and staff perceptions of involvement in inclusive music therapy groups with students with special educational needs in mainstream school settings. *New Zealand Journal of Music Therapy*, 10, pp. 39-73.
- Vaiouli, P. (2015). Music Strategies to Promote Engagement and Academic Growth of Young Children With ASD in the Inclusive Classroom. *Young Exceptional Children*, Vol.18, No.2.
- Vaiouli, P., Grimmet, K., & Ruich, L. (2015). "Bill Is Now Singing": Joint Engagement and the Emergence of Social Communication of Three Young Children with Autism. *The International Journal of Research and Practice*, Vol. 19(1), pp. 73-83.
- White, Y., Mendelson, J., et al. (2017). Studies from University of North Carolina Add New Findings in the Area of Rehabilitation (A Preliminary Investigation of a Specialized Music Therapy Model for Children with Disabilities Delivered in a Classroom Setting). *Health& Medicine Week*, pp. 371.
- Wigram, T. (1999). The Analysis of music behaviour in children with communication disorder and pervasive developmental disability for differential diagnosis. *Clinical Application of Music Therapy in Developmental Disability*, 4, pp. 78.
- Wigram, T. (2004). Basic Therapeutic Methods and Skills. *Improvisation*, Chapter 4, pp. 81-111.
- Wigram, T., & Gold, C. (2006). Music therapy in the assessment and treatment of autistic spectrum disorder: clinical application and research evidence. *Child: care, health, and development*, Vol.32, issue 5, pp. 535-542. DOI:10.1111/j.1365-2214.2006.00615.x
- Wiseman, S. (2015). The used of music as an educational intervention for children with autistic spectrum disorder (ASD). *RESEARCH IN TEACHER EDUCATION*, Vol.5, No.1, pp. 7-14.

Appendices

Appendix 1 Information & Consent Forms

Music Therapy Department, 88-90 Fairlie Terrace, PO Box 600, Wellington 6140.

INFORMATION SHEET ABOUT MUSIC THERAPY RESEARCH

(Parent/Guardian of child participant)

Research Title: Building and sustaining connections with children with autism spectrum disorder through music therapy in a special learning centre of a primary school in New Zealand.

Dear _____

My name is Jingyuan Kong (Cici), and I am the music therapy student at XXX school. I have been working in the special learning centre at XXX school since February 2017. As part of my Master of Music Therapy Degree I will be doing a research project looking back at my music therapy practice at the school. My research is being undertaken as part of the Master of Music Therapy degree under the supervision of Sarah Hoskyns, Director of Music Therapy at The New Zealand School of Music, Victoria University.

My research is looking at how I build and develop connections with children on the autism spectrum through music therapy. My project aims to re-use my clinical notes, reflective journal and notes from discussions and meetings with the staff team, to reflect about how I managed to help connect and develop communication with children I worked with at school this year through music therapy.

I would like to include practical stories from my work with two children I have worked with

during the past few months as part of my research. I am writing to ask if you would give consent for your child or grandchild to be involved in this way as she/he has shown particular benefits from doing music therapy. I have worked with around 10 children, so it is ok if you prefer that I don't present work with your young person at this time. I can certainly ask another family, and usual music therapy continues whatever decision you make, so please do not worry if you prefer for your child or grandchild not to be involved in this way.

If you do give permission, I will not use his/her real name in my research book and the name of the school will not be identified to protect you and your child's privacy. The consent forms and the research information will be stored in a locked cupboard at New Zealand School of Music with my supervisor, for a period of five years

It is anticipated that your child will benefit from getting involved in group and individual music therapy sessions as it is considered to be particular helpful to support the development of social interaction and communication skills in the ASD population (Rickson et al., 2015). I will be working towards the music therapy goals set in your child's IEP goals.

If you agree to me writing about my work with your child, please sign the consent form and return it to me or Penny. Please take as much time as you need to think about this before signing the form.

The research proposal has been approved by the postgraduate committee of the New Zealand School of Music. The ethical approval for my research was obtained by my lecturers from Victoria University Human Ethics Committee

If you have any questions, please let me or my supervisor Dr Sarah Hoskyns know (email addresses below).

Kind regards,

Jingyuan Kong (Cici)

Student Music Therapist

Jingyuan.kong @vuw.ac.nz

Supervisor

Sarah Hoskyns, Director of Music Therapy, the New Zealand School of Music, Victoria University

Sarah.hoskyns@vuw.ac.nz

Reference

Rickson, D., Molyneux, C., Ridley, H., Castelino, A., Upjohn-Beatson, E. (2015). Music therapy with people who have Autism Spectrum Disorder- Current practice in New Zealand. *New Zealand journal of music therapy*, 13, pp. 8-32.

INFORMATION SHEET

(Children at XXXX)

Cici is going to write a story about the music sessions we had together and give it to her teacher at the university. The story will be written into a book for other people to read. The story is about how Cici and you sing and play together in our music therapy sessions at school. Your real name will not be used.

Cici will read back your notes that she has been writing down over the last few months and write them into a story. The notes are about what happened between you and Cici during the music sessions.

If you don't want to be in the story, that is ok. We can still have music together.

The story Cici will write is for teachers and therapists. However, your mum, dad or caregiver can have a copy of the story too, if they would like to have it.

You can take some time to think about being in the story or not. You can talk to Cici, your mum and dad. You can ask questions about the music story before you sign the paper. If you would like to be in the story, please circle the smiling face.



Read and explained to: _____ (name of child)

By: _____ (name of staff member)

Date: _____