Exploring the value of collaboration between music therapy and physiotherapy in South Africa in sessions with clients with Cerebral Palsy

by

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Contents page

Abstract

Literature has indicated that music therapy has many physical benefits for individuals with Cerebral Palsy (CP) and that these benefits hold much potential for music therapy application within physiotherapy sessions. Collaboration between music therapy and physiotherapy in work with these individuals, however, has not yet been explored in a South African context and no studies include physiotherapists' perspectives on the matter. This research study has begun to bridge this gap by exploring music therapy and physiotherapy collaboration in a South African context and by looking for new insights concerning physiotherapists' perspectives.

Data for this study was collected from a process in which I, as music therapy student, collaborated with a physiotherapist in sessions with clients with CP over a period of six sessions. Data included semi-structured interviews with physiotherapist participants; session notes written by the music therapy student as part of participant observation; and video-excerpts of meaningful moments from the collaborative sessions. The data indicated that collaboration has the potential to afford many physical, emotional/relational and psychological benefits for clients with CP, although there were some challenging features which also emerged throughout the process. The different therapists' perceptions also revealed some of the collaborative dynamics which can emerge during such a process, as well insights as into the requirements for effective collaboration.

Keywords

Cerebral Palsy
Collaboration
Collaborative dynamics
Collaborative requirements
Emotional/relational affordances
Motivation
Music Therapy
Physical benefits
Physiotherapists
Resistance

CHAPTER ONE

INTRODUCTION

1.1 Background and context of the study

Although music therapy in South Africa has been found to be valuable within multidisciplinary teams (Bladergroen, 2004), professionals in these teams generally work separately with clients and only come together at regular intervals to discuss issues and progress. There are no South African studies that examine the possibility of music therapists working collaboratively with other therapists within sessions. Also, the need remains for music therapists in South Africa to continue to establish the significance of their work in the eyes of other health professionals (Pavlicevic, 2002) who still have misperceptions and a lack of knowledge about the music therapy profession (Fourie, 2009). Growing job opportunities for music therapists in South Africa relies, in part, on addressing this issue.

My interest in this area developed particularly in relation to collaboration between music therapists and physiotherapists. From conversations with a few South African physiotherapists, I realised that many of them have misconceptions about the nature and value of music therapy, while a few who have had a chance to work with a music therapist in certain contexts, showed a positive attitude towards music therapy and the value it may have for them.

Although collaboration between music therapists and physiotherapists may benefit a wide range of clients, this study focused specifically on therapeutic work with clients with Cerebral Palsy (CP) in order to narrow and focus the research. CP is a complex disorder defined as “a persistent, but not unchanging, disorder of posture and movement, caused by damage to the developing nervous system, before or during birth or in the early months/years of infancy” (Carruthers, 2003:10). The disorder can be classified according to the different types of CP: spastic CP, which is characterized by abnormal stiffness in muscles; athetoid CP, characterized by having no fixed posture due to involuntary movements; ataxic CP, characterized by poor balance and coordination; hypotonic CP, characterized by low muscle tone; and mixed type CP, which include a mixture of these (Carruthers, 2003:13; Hinchcliff, 2003:4). Individuals with CP can also experience associated problems such as speech, hearing and vision impairments, as well as perceptual and intellectual disturbances (Carruthers, 2003:10).

Through studying the literature in this area, I came to realise that children with CP, for whom physiotherapy is crucial, often experience this form of intervention as uncomfortable and

distressing (Bean, 1995:194). The resultant anxiety can influence these individuals' ability to do the physical exercises that form part of physiotherapy (Bunt, 1994:166). In Creative Music Therapy, the therapist works with the healthy part of the child (Pavlicevic, 1999b:21), making the child aware of potential self-control over body movements, which can motivate clients to take part in challenging physiotherapeutic exercises (Bean, 1995:195).

In order to address the limited research available on collaboration between music therapy and physiotherapy with clients with CP, specifically in a South African context where music therapy is still an emergent profession (Pavlicevic, 2002:181-182) I explored collaborative sessions between physiotherapists and a music therapy student, with clients with CP. While previous studies focussed primarily on music therapists' perspectives, with this study I have attempted to begin bridging this gap by including physiotherapists' experiences of such collaboration. This study therefore provides an account of the potential value of collaboration between music therapy and physiotherapy that will be accessible, relevant and helpful to both physiotherapists and music therapists, thereby contributing towards a developing relationship between these two professions.

1.2 Aims

This study aimed to contribute to knowledge regarding the value of collaboration between music therapy and physiotherapy in sessions with clients with CP. My goal was not only to investigate what this collaboration may afford clients with CP, but also to explore both the music therapy student's and the physiotherapists' experiences of the collaborative process.

1.3 Research questions

The research questions guiding this proposed study are therefore as follows:

Main research question: What are the benefits of multidisciplinary collaboration between physiotherapy and music therapy for clients with Cerebral Palsy (CP)?

Sub-question 1: What are the music therapy student's and the physiotherapists' experiences of the collaborative process?

Sub-question 2: What are the music therapy student's and the physiotherapists' perceptions of how the clients with CP benefited from the collaborative process?

1.4 Chapter outline

In the following section I will explore the literature relevant to this area of research. Thereafter, I will discuss the methodology used in designing this study and analysing the data. The fourth chapter will include a detailed description of the analysis process, after

which the themes which emerged through this process will be discussed. I will then address the limitations of this study, as well as recommendations for future research, concluding this dissertation with an overview of the main features which emerged from the collaborative therapeutic process.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Due to the complexity Cerebral Palsy (Kwak, 2007:199) it can be a challenging client population for both physiotherapists and music therapists to work with, and therefore exploration of collaboration between these two professions in work with this client group can be beneficial to both professions. In this review, I will explore the available literature on multidisciplinary collaboration between physiotherapists and music therapists in clinical work broadly, as well as examining collaboration between music therapists and physiotherapists specifically with individuals with CP.

As foundation for this study, I will consider literature on the appropriateness of music therapy in encouraging, facilitating and supporting movement, firstly by discussing literature on the role music plays more generally in motivating movement, secondly by looking how the different musical elements can specifically facilitate movement, and lastly by discussing literature concerned with the value of music therapy in work with clients with physical disabilities including CP. I will conclude by arguing how a review of this literature reveals how these two professions may potentially support each other, particularly in the area of working with clients who have CP, as well as indicating the need for further research in this area.

2.2 Music therapy as part of a multidisciplinary team: working with a physiotherapist

As is the case in music therapy, physiotherapists working with clients with CP do not aim to 'heal' the child (since the condition is persistent), but rather aim to change the child's condition for the better (Hall & Rattue, 1994:142). There are different approaches used by physiotherapists when working with this population, each with different goals and perspectives on how physiotherapeutic exercises should be conducted. This needs to be considered when planning a collaborative music therapy and physiotherapy intervention. For instance, Conductive education (Peto approach) combines education and treatment by using exercises aimed towards developing balance and stability, even if abnormal movements must be used (Barber, 2008:11), while Neuro-developmental therapy (Bobath approach) uses positioning and handling in order to inhibit abnormal movement patterns and to facilitate the development of normal movement patterns and posture (Barber, 2008:11). An important aspect of this approach is the focus on correct handling in everyday activities and

since the child may possibly use abnormal movements in order to play certain instruments or when moving freely to music (Bean, 1995:197), one would need to carefully consider how to plan and facilitate collaborative sessions, especially when working with a physiotherapist who works within the Bobath approach.

Literature from both music therapy and physiotherapy argues for the importance of planning specific aims for therapy, and since these aims may differ greatly from the respective therapists' point of views, one would need to cautiously consider the setting of therapeutic goals for a collaborative process. Van den Broeck, De Cat, Molenaers, Franki, Himpens, Severijns, & Desloovere (2010) discuss the importance of setting and evaluating goals in physiotherapy with individuals with CP, writing that it is essential to establish not only general aims, such as muscle strengthening, stretching, mobilization, pelvic control and the improvement of balance and gait patterns, but also specific individual goals according to the assessment of the child. Nordoff & Robbins (1971a:247) similarly describe the importance of setting individualised goals within the context of music therapy, writing also that initial goals may change as other needs of the client emerge. However, whereas physiotherapists focus mainly on physical goals, during a music therapy process the primary focus often lies on the emotional life of the client (Nordoff & Robbins, 1971a:247). It is necessary, therefore, for the physiotherapist and music therapist involved to carefully negotiate which goals to set for the therapeutic process.

A few authors mention certain challenges that may arise during music therapy sessions with individuals with physical disabilities. Some of the possible difficulties one may encounter during instrumental play with a child with CP, has been considered by Bean (1995:196) who explains that the excitement of playing an instrument may increase muscle tension, causing a sudden stiffness of limbs, a loss of control over muscles, and loss of balance and functional posture. This may lead to feelings of insecurity or frustration for the client. Magee (1999:208), in a discussion about music therapy interventions with clients with chronic neurological illness, similarly explains how physically disabled individuals may become frustrated when they are not physically able to express themselves or play instruments in the intended manner. For instance, ataxic arm movements might cause shaking, spastic movements may prevent the client from performing certain movements and hypotonic children may simply not have the muscle strength to play any instruments. When planning for collaboration, these issues mentioned by Bunt (1995) and Magee (1999) need to be discussed in advance with the physiotherapist, since the clients' frustration may influence their participation in physiotherapeutic exercises.

2.2.1 The value of collaboration between music therapy and physiotherapy

There is a limited amount of research exploring music therapy work in conjunction with physiotherapy. The international research that has been conducted in this area describe certain benefits of collaboration between physiotherapists and music therapists in work with physically disabled individuals (Ansdell, 1995; Bunt, 1994; Freedland, Festa, Sealy, McBean, Elghazaly, & Capan 2002; Howe, Lovegreen, Cody, Ashton, & Oldham, 2003; Nordoff & Robbins, 1971b; Peters, 1987; Rahlin, Cech, Rheault, & Stoecker, 2007; Wigram & Weekes, 1985) and with those with CP specifically (Bean, 1995; Bunt, 1994; Kwak, 2007). Most of the literature, however, mention the possibilities for collaboration only briefly: a few authors simply discuss the importance of music therapists consulting physiotherapists (Peters, 1987:88; Kwak, 2007:213-214; Ansdell, 1995:87); others describe only certain aspects in which such collaboration is beneficial, relevant to specific cases (Bunt, 1994:59; Nordoff & Robbins, 1971b:27); and some merely call attention to the potential benefits of such a collaboration (Bean, 1995:194-196; Bunt, 1994:165-167). Some studies describe cases where physiotherapists employed music therapy techniques (Freedland *et al.*, 2002; Howe *et al.*, 2003; Rahlin *et al.*, 2007), thereby providing some insights into the value collaboration may have for physiotherapists.

Only two available studies explore collaboration between music therapy and physiotherapy in more detail, one of which describes music therapy in conjunction with physical rehabilitation in work with hemiparetic stroke patients (Thaut, Leins, Rice, Argstatter, Kenyon & McIntosh, 2007). The other research study, which has a closer application to the present research, focuses on a specific joint programme for music therapy and physiotherapy in work with physically disabled individuals (Wigram & Weekes, 1985:2-12). No such studies, however, have been done in South Africa, where factors such as multiculturalism play a role, potentially influencing perspectives and worldviews about the nature of music therapy and its relationship with music-healing (Pavlicevic, 2002:179,182). Although this dissertation does not address these aspects specifically, it is the first study of its kind in South Africa and the clinical music therapy approach used in sessions involved taking the cultural background of the client into consideration, specifically in terms of matching and meeting (Pavlicevic, 2003:67). Further research in this area, however, is necessary.

When discussing essential considerations for music therapists working with physically disabled clients, Peters (1987:88) writes that handling, correct posture and knowledge of the type of movements which should/should not be encouraged is vital and therefore recommends consulting with a trained physical or occupational therapist. Kwak (2007:212-213) and Ansdell (1995:87) also argue for the importance of consulting a physiotherapist in

order to position the client in the correct manner, to correct pathological movement patterns, and to identify the physical limitations and capabilities of a client so that appropriate musical exercises can be developed to challenge these limitations in a reasonable manner. Although these authors describe some of the benefits for music therapists in working with physiotherapists, the focus is on consultation, not on collaboration within sessions. Also, they do not explore how physiotherapists may benefit from such a working relationship.

Authors who do mention cases in which it was necessary for a physiotherapist to consult a music therapist, include Bunt (1994), Nordoff and Robbins (1971b) and Durham (2002). Nordoff and Robbins (1971b), whose pioneering work in clinical improvisation techniques have been used extensively, cite such a case, describing how a music therapist was consulted and the rhythmic aspect of music was used to organize movements and facilitate exercises prescribed by a physiotherapist. Bunt (1994:59) also illustrates the importance of rhythm by relating the case of a girl with CP, in which the physiotherapist consulted a music therapist to establish the correct rhythm and tempo to help the client to develop control over his/her movements. Bunt (1994:165-167) points out that, by working together, the focus for the client is not only on accomplishing physiotherapeutic exercises, but also on self-motivation to acquire physical skills. The pain and discomfort sometimes caused by physiotherapy may also be decreased by the more enjoyable prospect of moving in order to make music, therefore making the exercises seem less tedious.

Durham (2002:126), in a discussion about music and neurology, describes how it may be beneficial for a physiotherapist to consult a music therapist in order to synchronize patterns of breathing and walking by using music with appropriate phrasing. Consistent musical phrasing also helps the patient to regulate and slow down breathing, which may aid the physiotherapist in calming the patient, thereby assisting with the forthcoming physical activity. Durham describes clinical examples which illustrate the possible value of music in physical rehabilitation, relating cases where rhythmic structure helped a woman to coordinate her body movements (2002:117); where the singing of repetitive songs helped focus a woman's attention on a walking exercise (2002:117); where introductory music helped an individual to initiate movements (2002:117); and where rhythmically consistent music helped a man to regulate his breathing (2002:121).

Bean (1995:194-208) argues for the value of collaboration for both music therapists and physiotherapists in a discussion about directive and non-directive music therapy interventions specifically for clients with CP. Bean explains how a physiotherapist is often needed to make recommendations to the music therapist according to the individual's physical needs and abilities, and to help with seating, handling and correct posture

(1995:196). He also describes how music therapy, which can play an important role in establishing a positive attitude towards the child's own body, is very helpful to the child's physiotherapeutic development (1995:194-196), with music serving as a distraction during physiotherapy sessions.

Like Bunt, Bean (1995:194) writes that physiotherapeutic exercises are often experienced as uncomfortable and painful, inhibiting the child's incentive to participate. By including music therapy in sessions, these same uncomfortable movement patterns can be executed in a more enjoyable manner. Bean (1995:197) also emphasises the importance for children of developing a sense of control in order to sustain their motivation to continue with physical exercises. Musical activities in which the client has power over which sounds will be made when, can play an important role in developing this sense of control, thereby providing incentive to persevere with physiotherapeutic exercises.

Although the authors that have been mentioned describe some of the possible benefits of collaboration between music therapy and physiotherapy, these descriptions are grounded in clinical anecdotes as opposed to rigorous research. In addition, these authors only point out some general benefits of such collaboration with Bean (1995:197-201), alone, making some suggestions regarding how active music therapy can be used to facilitate specific physiotherapeutic exercises.

One of the more rigorous research studies about collaboration between music therapy and physiotherapy were conducted by Wigram & Weekes (1985:2-12) who explored the benefits of a collaborative music therapy and physiotherapy process, by devising a particular program that indicated how music therapy could facilitate specific physiotherapeutic exercise. However, not only was the focus of this program essentially on a receptive music therapy approach, it was also a very labour intensive program in which patients needed to receive treatment twice daily in order to prevent muscle contractions (Wigram, 2005:173). Therefore, it is not a practical treatment plan in a South African context, where there is often a shortage of staff in public hospitals and institutions and it is not feasible for clients to attend therapy on such a regular basis (Kober & Van Damme, 2004:103). Furthermore, the study was done with physically disabled individuals, not specifically with clients with CP.

The program, which was later termed 'Music and Movement Based Physiotherapy' (MMBP), consists of specific physiotherapeutic exercises, such as spinal rotation, hip extension and leg flexion and extension, facilitated by a qualified physiotherapist, and conducted with live music played on a piano by a music therapist. The music, which can be improvised or known, serves as a stimulus for movement and, therefore, the rhythm, tempo, structure and timbre are carefully considered for each movement exercise. MMBP has proven to show

positive results (Wigram & Weekes, 1985; Wigram, 1996; Wigram, 2005) thereby providing valuable insights for the current study.

Another study exploring music therapy and physiotherapy collaboration was done by Thaut (2007). However, this study focused specifically on the use of Rhythmic Auditory Stimulation (discussed in greater detail in a later section) during the physical rehabilitation of hemiparetic stroke patients and therefore has only some degree of significance for the current study. Auditory simulation was provided by the use of a metronome to entrain movement frequencies to motor responses, as well as by adjusting the speed of music in order to serve as anticipation or continuity during motor exercises. The tasks of the physiotherapist in this study was to provide physical support, as well as to conduct gait training and pre-gait exercises, while the task of the music therapist was to provide musical cues for these exercises, thus also implementing a receptive music therapy approach. The frequency of the musical cues was changed in order to match or increase the gait cadence of the patient. Results showed that participants who received RAS showed significant increases in the velocity, cadence, symmetry and stride length of their gait parameters when compared to those who received only Neuro-developmental treatment (Bobath method). Thus, although the study does not directly relate to collaboration between active music therapy and physiotherapy in sessions with individuals with CP, it illustrates some of the possibilities of using RAS in these sessions, as well as providing some insights into the potential roles and tasks of music therapists and physiotherapists in multidisciplinary collaboration.

Three other research studies, also not directly exploring the value of music therapy and physiotherapy collaboration, but showing some potential benefits for such collaboration, include studies by Freedland *et al.*, (2002), Howe *et al.*, (2003) and Rahlin *et al.*, (2007), who describe cases where physiotherapists employed music therapy techniques in their work with physically disabled clients. The studies by Freedland *et al.*, (2002) and Howe *et al.* (2003) explore how auditory cues can be used in the gait rehabilitation of adults with Parkinson's disease. In both studies, a physiotherapist employed interventions informed by music therapy techniques to address the participants' walking difficulties. While it was found that there were improvements in the cadence, velocity and stride length of gait performance (Howe *et al.* 2003), as well as a decrease in participants' need for physical support (Freedland *et al.* 2002), statistical significance was only reached at speeds above the participants' preferred walking pace (Howe *et al.*, 2003).

A similar study conducted by Rahlin *et al.* (2007) was the only research paper found in physiotherapy literature concerning the use of techniques drawn from music therapy in work with a physically disabled individual. The researchers explored the use of receptive music

listening in physical therapy with an infant with Erb's Palsy, a condition characterized by weakness or paralysis of the arm. In this case study, the physiotherapist used this technique to specifically address difficulties with fine and gross motor control. Physiotherapeutic exercises were performed to music, during which music was used specifically to assist motor organisation, mobility, stability and social-emotional ability. It was found that sessions in which music therapy techniques were used were significantly more beneficial compared to sessions where the participant received only conventional physiotherapy, even though the client's motor organisation scores decreased during the music intervention. Although this study does not specifically address multidisciplinary collaboration, it raises possibilities for the use of music in physiotherapy sessions and asks whether live music making by a music therapist, who is able to attune to the client's dynamic form, may lead to even more significant results.

Whereas international literature on music therapy has begun to explore the value of music therapy and physiotherapy collaboration, a South African perspective has not yet been explored and literature on physiotherapy contains no direct mention of the possibilities of such collaboration, with only the one study by Rahlin *et al*. (2007) exploring the use of techniques drawn from music therapy. This indicates that many physiotherapists still have limited knowledge and awareness of the nature of music therapy and the value it may have for their clients. This study addresses these issues by firstly exploring the potential of collaboration within a South African context and secondly, by including physiotherapists' experiences and perspectives.

2.3 Music and movement: The appropriateness of music therapy in motivating, facilitating and supporting movement of physically disabled individuals, including those with CP

There are certain key characteristics of music that indicate the potential for effective collaboration between music therapy and physiotherapy. In order to justify the appropriateness of using music in work with physically disabled individuals, and those with CP in particular, I will explore literature examining these characteristics, focusing firstly on the general value of music in motivating movement and then on specific musical elements and the role they play in facilitating movement. I will end the section by arguing for the value of particular musical activities in supporting and facilitating movement of individuals with CP.

2.3.1 The value of music in motivating movement

Ansdell (1995) has written in detail about music's power to motivate human beings physically, emotionally and spiritually (1995:16-18). He describes how music "quickens the

will" (1995:17), bringing into focus the abilities and creativity of a person. Ansdell emphasises the importance of using appropriate music – music which stimulates emotion – explaining how pre-recorded music which is played passively to a person cannot be adjusted to that person's emotional and physical needs, and therefore may not be as effective in motivating that person's will to act as improvised music can be (1995:25).

Other authors who similarly describe music's ability to stimulate emotion, which then motivates action, include Sacks (1991), Pavlicevic (1999a) and Pachetti *et al.* (2000). In a description of one of his clients, Sacks (1991) writes how music "serves to arouse her own quickness, her living-and-moving identity and will" (1991:61), explaining how music can lend its lively, motivational qualities to a person's body and spirit during illness or disability. According to Sacks, music can break through the passivity imposed by illness and inspire a person to want to act. Like Ansdell, he emphasises the importance of selecting appropriate music to motivate an individual, illustrating this with the case of a woman with Parkinson's disease (1991:61). He writes that "the only music which affected her in the right way was music she could *enjoy*; only music which moved her soul had this power to move her body" (1991:62).

In another study on individuals with Parkinson's disease, in which active music therapy was used as an integrative method for emotional and motor rehabilitation, Pachetti *et al.* (2000:391) explore how music arouses emotion by activating the emotional neural circuit of the brain which regulates a person's levels of motivation. The authors draw the conclusion that through the activation of emotion, music can motivate individuals to work harder during physical therapy in order to improve motor movement. The important link between a person's emotions and actions is also explored by Pavlicevic (1999a:133), who discusses the significance of addressing the emotional life of a client during music therapy, stressing that the "positive feelings" (1999a:133) generated during a musical improvisation can motivate a client to alter, extend or stabilise his/her movements.

Other authors, such as Nordoff and Robbins (1971a), Bean (1995), Patterson (2003) and Krakouer, Houghton, Douglas & West (2001) discuss how the prospect of playing instruments can be a strong motivator for individuals to participate in activities that require some motor control. Nordoff and Robbins (1971a:79) explore how the use of instruments in group musical activities can encourage physically disabled children to participate, stating (like Ansdell (1995:25)) that live music making is more effective than pre-recorded music in motivating participation, because it can be adapted to the children's limitations and abilities (1971a:79). They suggest the use of specific instruments, like the snare drum and cymbal,

writing that the stimulating sound produced by these instruments make them especially effective in motivating children to move.

Bean (1995:194-201) also considers the motivational value of instrumental play, explaining how children with physical disabilities can be motivated to exercise good motor control when realizing that they can create and control sounds when playing an instrument. He writes that the realisation of self-control over the creation of sounds can lead to change in the child's attitude towards his/her body, explaining how this can contribute positively towards emotional and physical development.

In writing about her own experience of working in an educational context with children with disabilities, Patterson (2003) describes how the playing of different musical instruments motivated individuals to move and to endure certain movements for longer periods. She illustrates this by citing a case in which a physically disabled child was able to grasp a mallet when playing a drum for twice the length of time as he was able to grasp eating utensils.

Krakouer *et al.* (2001:29-37) studied the use of musical instruments to motivate movement in a quantitative study about the efficacy of music therapy in effecting behaviour change in persons with CP. He used different musical instruments with different clients, in correlation with their personal preferences and the motor activity he wanted to motivate. He found that all participants showed significant changes in behaviour, with different instruments motivating different behaviours, such as hand-eye coordination, correct posture and movement control (2001:36).

These studies therefore provide valuable possibilities for the use of active music making in motivating participation in collaborative sessions. Also, it indicates some of the possible physical affordances that the collaborative process may hold for the client.

2.3.2 The value of different musical elements in facilitating movement

When writing about the effect of music on movement, many authors write specifically about the relationship between certain musical elements and movement. Ansdell (1995:84-85) discusses the elements of rhythm, melody and phrasing, relating how rhythm can be used to support walking patterns and coordinate movements; how melody gives direction and continuity to movement patterns; and how phrasing gives shape to movements and can help with speech patterns. In this discussion, Ansdell draws on Zuckerkandl (1959; 1973), who wrote extensively about the similarities between music and motion and how the element of melody embodies movement, moving us not only on an emotional level but also on a physical level. According to Zuckerkandl (1959:15), there are similarities between the

dynamic qualities of movement in melody and the organization of movements in the body. He theorises that there is a spatial element involved in the relation between pitches and that the ascending and descending movement of a melody is more than just a metaphorical movement. Ansdell (1995:87) uses these statements to argue that, due to these similarities, music can lend some of those qualities to the body when illness interferes with the body's movement processes.

In their description of the music and movement based physiotherapy program for individuals with physical disabilities, Wigram and Weekes (1985:2-12) give an overview of musical elements and how each functions when stimulating and supporting movement. They describe how rhythm and tempo are useful in stimulating an individual to move, explaining that the motivating effect of these elements helps the client to anticipate a movement and thereby increases his/her ability to participate. They also discuss how the flow and continuity of melody can help to increase flow of movements and how timbre can be used to support and encourage either relaxation or stimulation.

Bunt (1994:44-68) also wrote in detail about each of the musical elements, illustrating the role of each element with excerpts of case studies. He describes how the organizational aspect of rhythm can help to order movements (1994:63); how the use of different timbres can be used to evoke interest, curiosity and attention, motivating individuals to move towards the various sound sources (1994:48); how loudness can be used to create a sense of expectancy (1994:51); how pitch can produce tension and relaxation (1994:54); and how the contours in melody can help to give contour and form to motor movements (1994:65). He also discusses tempo, describing the importance of using the correct tempo in order not to over- or under-stimulate individuals who are hyper- or hypotonic (1994:57).

Some authors focus specifically on the element of rhythm and how it can be used to facilitate and support movement. Tamplin (2006) describes the fundamental role that rhythm plays in coordinating movements of individuals with neurological impairments such as Parkinson's disease during physical rehabilitation, while Herman (1968:157) discusses the importance of the rhythmic element of music in re-establishing a sense of rhythm in the body and in organizing motor movements. The latter author describes how illness can interfere with the synchrony of the body's complex rhythmic systems and how rhythm can be used to restore a sense of synchrony. This links to the concept of self-synchrony and music's ability to portray vitality affects enabling us to experience and perceive the world and ourselves as cohesive and coordinated wholes (Pavlicevic, 1999a:107).

Due to the significant impact that rhythm has on individuals' motor movements, Staum (1983) and Kwak (2007) have conducted studies on the use of Rhythmic Auditory

Stimulation (RAS) to improve gait patterns of individuals with walking impairments related to physical disabilities. RAS refers to the use of rhythmic music as an external cue to regulate body movements. It has mostly been used in gait therapy for individuals suffering from walking impairments due to stroke, Parkinson's disease and traumatic brain injury, but due to impaired gait of individuals with CP, studies have recently been done on RAS specifically with this population (Kwak, 2007:199).

In the study by Staum (1983) participants had to attempt matching their footsteps to rhythmic stimuli determined according to each participant's abilities. The external musical stimuli were gradually decreased to see whether the rhythmic cues could be internalised. It was found that gait performance improved for all participants and 88% of the participants maintained their improved gait patterns even after the stimuli were removed.

Kwak (2007) focused specifically on individuals with spastic CP, with the aim of improving the stabilization and coordination of their movements. The study compared three groups respectively receiving only physiotherapy; receiving self-guided RAS and physiotherapy; or receiving both physiotherapy and therapist-guided RAS. The tempo of the music chosen for each individual in the therapist-guided RAS group was carefully planned by a music therapist in collaboration with a physiotherapist. The results showed that individuals receiving therapist-guided RAS showed the most improvement in gait patterns, compared to the other groups. This study therefore illustrates not only the benefits of using music as rhythmic stimuli in physiotherapy sessions, but also the value of the presence of a music therapist in such sessions.

2.3.3 The value of music therapy in supporting and facilitating movement of clients with physical disabilities including CP

Little of the literature concerning the facilitation of movement through music therapy focuses specifically on individuals with CP. However, the authors I will be discussing all mention persons with CP as part of a larger group of physically disabled individuals and this literature, therefore, contributes towards providing valuable insights into how to facilitate movement exercises when working with individuals with CP specifically.

In a discussion of how music can be used in therapy to support the movements of individuals with physical disabilities like CP, Peters (1987:85-87) describes how the playing of different instruments can increase coordination, joint range, hand-control, and finger flexion and extension, as well as how music listening can be used to facilitate range-of-motion exercises, muscle-strengthening exercises, postural positioning and motor control tasks.

Moreno (1983:16) also discusses the role of music therapy in supporting movements of physically disabled individuals, explaining how various musical activities can be used in work with these clients. Grasping ability can be improved by playing instruments requiring beaters, while specific motor movements can be encouraged by modelling different ways of playing an instrument. Crossing of the midline and bilateral integration can be enhanced through instrumental play, while range of movement can be developed by playing the piano. Fine motor control can be developed by depressing the keys of various instruments with hands, feet or fingers, while gross motor control can be improved through whole body movements to music.

Other musical activities for physically disabled individuals are discussed by Rogers (1968:157), whose suggestions provided some insights into the planning of collaborative sessions for this study. He explains how piano playing can be structured to exercise finger flexion and extension, as well as foot dorsi-flexion. Marching or crutch walking to music is helpful in exercising gait patterns, while the playing of instruments like the violin, guitar or recorder may promote hand and finger coordination, as well as wrist flexion and extension. Hand control, breathing and swallowing can also be developed through singing or playing instruments like the harmonica.

In a description of their work with physically disabled individuals, Nordoff and Robbins (1971b) cite cases in which music therapy helped a hypertonic client to organize and intensify their movement exercises (1971b:27); in which specific musical activities promoted coordination and control of a physically disabled boy (1971b:28-29); and a case in which long term music therapy improved the coordination of a client with CP (1971b: Appendix I).

Bean (1995:197-201), the only author who describes how music therapy can be used to facilitate and support movements specifically of individuals with CP, provides the reader with a variety of suggested activities through which particular responses or movements can be exercised. These include listening to songs or pre-recorded music in order to establish relaxation (1995:197); “following the sound” in order to develop head control (1995:198); various movement songs and instrumental activities to develop posture and leg control (1995:198-199); and different instrumental activities to develop arm control, crossing midline, grasping, and arm extension (1995:199-201). Although he acknowledges that it is usually not advised by physiotherapists, he suggests that free movement to pre-recorded and improvised music can enhance gross motor movements and body awareness (1995:197).

2.4 Conclusion

This review of literature has indicated that although some of the benefits of working with physiotherapists have been explored, there is still a need to investigate the possibilities of such collaboration in more depth and specifically with individuals with CP. In addition, there is a gap in the literature concerning collaborative work between music therapists and physiotherapists within a South African context and, particularly, omission of physiotherapists' perspectives. It also seems that, although some physiotherapists are using musical techniques in their sessions, they have limited awareness of the specific skills that a music therapist may offer in order to enhance the value of those techniques.

The literature which I have explored indicates that music therapy has many physical benefits for individuals with CP and that these benefits hold much potential for music therapy application within physiotherapy sessions, thus justifying the possibilities of collaboration between music therapy and physiotherapy in South Africa. This study will therefore provide further insight into the possibilities of collaboration between music therapy and physiotherapy in work with individuals with CP within a South African context.

In the following chapter I will discuss the methods used for in designing, preparing and analysing this research study. This will include a discussion of the paradigm in which the study was written, as well as the ethical considerations of the project.

CHAPTER THREE

METHODOLOGY

In this chapter, I will firstly be discussing the interpretive research paradigm in which this study is conducted, exploring how this world-view influenced the manner in which research was carried out. In addition, I will describe the qualitative research process, firstly by describing the case study design of this research project and then describing data collection through interviews, session notes and video excerpts. I will then discuss the preparation of data, as well as the analysis process, in which I drew on methods of qualitative analysis as described by Gibbs (2007), Ansdell & Pavlicevic (2001) and Charmaz (2000). I will end the chapter by describing how trustworthiness was established throughout the research process, as well by exploring the ethical considerations that needed to be taken into consideration when conducting this study.

3.1 Research paradigm

As mentioned, the current study was conducted within an interpretive paradigm (Schwandt, 2000:191) in which human action is seen as inherently meaningful. From an ontological perspective, interpretive research considers the nature of reality as consisting of people's subjective experiences of the external world (Terre Blanche & Durrheim, 2006:7). This view of reality informs an epistemological perspective in which the researcher is seen as an empathetic observer (Terre Blanche & Durrheim, 2006:7) and knowledge is acquired not only by observing phenomena, but also by taking into consideration the subjective experiences, intentions, values, beliefs and meaning-making processes of both the researcher and the participants (Henning, 2004:20).The study, therefore, did not aim to reach objective conclusions, but rather explored the value of music therapy and physiotherapy collaboration and the experiences of the therapists involved by both collecting and interpreting data in terms of the subjective perceptions of the participants and by explicitly acknowledging the interpretive role of the researcher (Taylor & Tilley, 1998:41).

This epistemological view on the relationship between the inquirer and what he/she is able to know informed the selection of a qualitative research methodology, in which the researcher maintains that the world is not a concrete, observable structure, but that all inquiry is value-bound and that human beings actively contribute to the creation of the social world (Aigen, 1995:5; Morgan & Smircich, 1980:498). Qualitative researchers place emphasis on the importance of context; on the interactions between the researcher and the participant(s); and on the subjective values of the investigator (Wheeler, 1995:7).

The emphasis on context makes qualitative research part of naturalistic inquiry (Guba & Lincoln, 1983:311), in which processes are viewed as gaining meaning within their specific contexts and, therefore, phenomena are best understood holistically and should be studied within their natural settings (Aigen, 1995:9, 19). Therefore, I used inductive reasoning to interpret data (Bruscia, 1995:71), not aiming to prove findings, but providing a detailed interpretive account of the collaborative process between physiotherapy and music therapy. The results are thus context-bound and cannot be generalised to different contexts (Ansdell & Pavlicevic, 2001:135; Willig, 2001:2). However, one must take into account Willig's (2001:3) reminder that the fact that a given phenomenon is possible in one context also makes that phenomenon possible in other contexts.

Since qualitative researchers aim to explore the deeper meaning of a phenomenon, one or a few cases may be studied in depth rather than accumulating data across incidences. This small sample size and lack of representativeness also impacts upon the potential for findings to be generalised (Parker, 1994:12). However, since all phenomena are in a constant state of reciprocal influence, generalised conclusions cannot necessarily be determined and therefore the in-depth but narrow study of a phenomenon can be seen as more meaningful (Bruscia, 1995:66). Such idiographic research (Ansdell & Pavlicevic, 2001:140) was appropriate to this study, in which I explored particular experiences and perceptions of collaboration between music therapy and physiotherapy in order to stimulate thinking in this area and provide meaningful insights for collaborative practice.

In a naturalistic inquiry, the world is viewed as constituting an open-ended process, where multiple factors and conditions of reality are in a state of mutual, simultaneous shaping (Guba & Lincoln, 1983:321). Therefore, there can be no certain way to determine cause-and-effect, and actions are believed to have emerged through the constant interplay of multiple aspects. The research design is also considered to emerge as the inquiry proceeds and, thus, stages of research may overlap (Guba & Lincoln, 1983:325). Stages of data collection, organization and analysis are engaged in simultaneously and the researcher can use the early stages of analysis to guide the subsequent data collection (Aigen, 1995). Methods can thus be developed and adapted according to the questions that the researcher would like to explore (Aigen, 1995). This was very appropriate to my study, as the initial interviews and analysis of transcripts informed how sessions were conducted, while the sessions with the clients with CP, as well as the analysis of these sessions, informed the focus of the questions in the final interview. This contributed to richer and more relevant research, which is more useful for application within clinical practice (Aigen, 1995),

especially since the two settings in which the research was conducted brought forth distinct therapeutic processes, with different issues that were relevant to explore.

In order to richly describe and interpret meaning-making, qualitative researchers collect non-numerical data (Willig, 2001:11), which was relevant to this study, in which I wrote thick descriptions of video excerpts of significant moments in the collaborative therapy processes, while also analyzing session notes. I also conducted and analyzed in-depth interviews in order to explore the subjective experiences and perceptions of the therapist-participants (Parker, 1994:3). This will be discussed in more detail in the following sections of this chapter.

In this research study, I assumed the role of practitioner-researcher, acting as both clinician and as a 'data-gathering instrument' (Ansdell & Pavlicevic, 2001:136) by taking part in collaborative therapy sessions, conducting and analysing interviews, as well as analysing and interpreting video excerpts of the therapy sessions. In addition, I assumed the role of research participant, since I also explored my own perceptions and experiences of the collaborative process. Although in certain other research paradigms these dual roles may lead to methodological difficulties, such as inconcludability (Parker, 1994:4) and not being able to claim objectivity, it is acceptable in qualitative research, in which inquiry is value-bound and the subjectivity of the researcher is viewed as a resource (Parker, 1994:13). What is crucial in this case, however, is to assume a reflexive stance, exploring the ways that my subjectivity may structure the way the phenomenon is interpreted and acknowledging that research is always carried out from a specific standpoint or perspective (Parker, 1994:13-14). In this study it is particularly relevant to acknowledge that I am approaching the data from a music therapy perspective, which entails certain inherent values, goals and views about clients and the therapeutic process. It is therefore necessary to reflect on how this may influence my interpretation of sessions and of the physiotherapist participants' perspectives.

3.2 Research design

3.2.1 Research questions

The research questions guiding this study were:

Main research question: What are the benefits of multidisciplinary collaboration between physiotherapy and music therapy for clients with Cerebral Palsy (CP)?

Sub-question 1: What are the music therapy student's and the physiotherapists' experiences of the collaborative process?

Sub-question 2: What are the music therapy student's and the physiotherapists' perceptions of how the clients with CP benefited from the collaborative process?

3.2.2 Design

The type of design I used for my study was a qualitative case study design (Hilliard, 1993:377), in which data are not quantified, but rather are expressed in a narrative form (Hilliard, 1993:377). I investigated two cases of collaborative work between a physiotherapist and a music therapy student in work with clients with CP. A case study design made it possible to gain access to individual, naturally occurring events (Robson, 1993:167), since research took place in a 'real-world' context (Willig, 2001:73). Such a design, however, has certain limitations concerning epistemological difficulties (Willig, 2001:85), which include difficulties in terms of triangulation and generalisability (which will be discussed further in section 3.4), as well as ethical challenges (Willig, 2001:86), which include the possible effects the study may have had on participants' lives, whether positive or negative.

The case studies were exploratory (Durrheim, 2006:44; Robson, 1993:167), contributing to an introductory enquiry (Durrheim, 2006:44) concerning collaboration between music therapy and physiotherapy in a South African context and looking for new insights concerning physiotherapists' perspectives on music therapy collaboration. I conducted applied research (Durrheim, 2006:45) through these two case studies, since the research has practical implications: that of raising awareness among physiotherapists and music therapists concerning professional collaboration, as well as offering some guidelines and recommendations for such collaboration.

3.2.3 Sample

Sampling in qualitative research refers to the selection of cases to be studied, as well as what to study within each case (Punch, 1998:193). Thus, it includes the decisions which need to be made concerning the selection of participants, what the setting will be, at what times research will take place, and which events, activities, behaviours or processes will be observed (Robson, 1993:155). I used a small sample size of two physiotherapists and two clients for this project, in order to gain an in-depth understanding of the collaborative therapy process (Willig, 2001:3). As this study was based within an interpretive paradigm, I used purposive sampling (Punch, 1998:193) to select two physiotherapists who work with clients who have CP to participate in the study. Purposive sampling refers to the sampling of cases in a deliberate manner, with a specific focus guiding sampling decisions (Punch, 1998:193). I decided on the sample size of two in order to collect and explore rich, in-depth data from different physiotherapists in different settings, without collecting too much information due to

a too large sample size, which would limit my ability to gain an in-depth understanding of the phenomenon within the logistical constraints of the research project.

I selected the two different physiotherapist participants according to the following sampling criteria:

- Each had to be a qualified physiotherapist registered with the HPCSA
- Each had to be working with a client with CP
- Each had to be willing to take part in the proposed study for a period consisting of six sessions over three weeks
- Each participant needed to have one client with CP that was available to take part in the proposed study for six sessions, with his/her parent/guardian giving informed consent for the client to participate in the study
- Each participant had to feel comfortable participating in interviews that were facilitated in English.

The participant physiotherapists selected the clients with CP who participated in sessions according to who they believed would be most appropriate (as was the case in research setting A) or who was available for the study (as was the case in research setting B). The context of the study was a therapeutic setting, with a physiotherapist collaborating with a music therapy student in sessions with clients with CP over a three week period of time, during which sessions took place twice a week.

3.2.4 Data collection

Three data sources were used within this research, video excerpts, session notes and semi-structured, in-depth interviews. Since I participated actively in the collaborative sessions in my clinical capacity as music therapy student, video-recordings of every session were necessary to capture the data holistically (Bruscia, 1995:413). By observing and indexing (Ansdell, 1995:49) the events and actions that took place in sessions from the video-recordings, I was able to select meaningful moments from each collaborative process to analyze in depth. Data source A thus comprised four excerpts drawn from video recordings of the sessions. Two excerpts were selected from each collaborative process. A limitation of making video-recordings of the collaborative therapy process includes the possibility of participants being influenced by the experience of being filmed (Willig, 2001:20), a factor which will be explored in the discussion chapter of this dissertation. The process of indexing and transcribing the events from the video-recording also had limitations since my subjective experiences of sessions influenced my interpretations of the events. However, as mentioned, within an interpretive paradigm, subjectivity is seen not as a limitation, but as a

resource when acknowledged and explored reflexively. The information gathered from data source A related specifically to answering the main research question regarding the benefits of collaboration between physiotherapy and music therapy for clients with CP.

Data source B comprised session notes written as part of my participant observation as the music therapy student within sessions. The session notes that were written specifically included documentation of my own experiences, including personal thoughts and feelings about the collaborative process and the relationship with both the client and the physiotherapist in each case. Thus, as practitioner-researcher I engaged in participation, documentation and reflection within the natural, therapeutic setting of the study (Willig, 2001:22). The information gathered from data source B was relevant to answering both the main research question and the sub-questions, concerning the physiotherapists' and music therapy student's experiences and perceptions of the collaborative process.

Data source C consisted of semi-structured in-depth interviews (Punch, 1998:176) with the physiotherapist participants. Semi-structured interviews utilize a structure in which the interviewer develops an interview schedule (Kelly, 2007:298) with a set of open-ended questions (Willig, 2001:19) relating to key topics. This schedule, however, only guides the interview, it does not dictate it (Smith and Osborn, 2003:60), and it is therefore possible for a mutual discussion to emerge in which both researcher and participant are able to contribute to the themes and categories generated. However, data source C was used to specifically address the physiotherapists' perspectives and experiences of the collaborative process and the benefits it had for the clients with CP, and therefore very few of my own ideas and opinions were explored during the interviews.

When conducting the interviews, I drew on feminist perspectives on interviewing, in which a prominent aim is to develop a more equal relationship between interviewer and interviewee through the development of trust and reciprocity (Punch, 1998:179). Although the hierarchical relationship between researcher and participant cannot be completely levelled, one can address the power imbalances by minimizing status differences between interviewer and interviewee and seeking the active involvement of the respondents in the interview (Punch, 1998:179; DeVault, 1990:100). I did this by incorporating topics that were familiar to the physiotherapist interviewees, such as questions relating to physiotherapeutic techniques and exercises, as well as seeking their knowledge of the participants with CP and their goals for these clients. Their views on the collaborative process were also received with sensitivity and consideration, which further facilitated the development of an equal relationship between interviewer and interviewee (Punch, 1998:179).

I interviewed the physiotherapists at two points during the research process. The first set of interviews took place before the start of the combined music therapy and physiotherapy sessions, in order to explore the participants' perceptions about music therapy, to inquire about the particular clients' needs, and to develop a collaborative therapeutic plan for sessions. The second set of interviews took place after the final sessions, in order to explore perceptions and experiences of the collaborative therapeutic process. One of the features that this enabled was a comparison of the physiotherapists' perceptions from the first interviews with their perceptions and experiences after the therapy process had been completed.

As mentioned, as researcher I conducted the interviews myself, which made it possible to guide the participant through prompts and further questioning in order to explore information relevant to my research questions (Ansdell & Pavlicevic, 1995:190). This gave the advantage of gaining rich data but also held the danger of entailing the asking of leading questions which may have pressured or guided the participant towards answering in a particular manner (Kelly, 2006:301). All the interviews were video-recorded (Willig, 2001:20,66), making it possible to observe any facial expressions or gestures that may be relevant to consider when interpreting the verbal data. It is acknowledged that video-recording may diminish the intimacy between the interviewer and the respondent (Kelly, 2006:298), for instance if the participant is more focused on being video-taped than on the interview questions (Willig, 2001:20). I, as both interviewer and researcher took cognizance of these potential pitfalls and reflected upon this during the preparation and analysis of data.

Semi-structured interviews may involve mutual discussion between interviewer and interviewee, for instance when further exploring information relevant to the study, and as such, the researcher's subjective experience plays a role (Smith & Osborn, 2003:62). Since this study was conducted within an interpretive paradigm, where subjectivity is seen as a resource (Henning, 2004:20), this was appropriate and allowed me to further explore aspects of each collaborative process that I had found particularly relevant as the music therapist participant.

3.2.5 Data preparation

In terms of data preparation, for data source A (video excerpts) I wrote thick descriptions of the four video excerpts depicting significant moments from both collaborative process. Thick description refers to detailed descriptions of the phenomenon being studied, including a description of the context in which the event/behaviour occurs (Stige, 2002:266). To produce a thick description of the video-recordings, I described the participants' actions, facial

expressions, vocalisations and musical contributions in detail, aiming to remian as close to the data as possible (Charmaz, 2000:88-89).

For data source B (session notes), specific preparation was not required, although the relevant sections from the session notes relating to my personal experiences, perceptions, thoughts and emotions regarding to the collaborative process were identified. Determination of relevance was thus made according to the focus of the second research question

For data source C (semi-structured interviews) I used verbatim transcription (Willig, 2001:20), transcribing all spoken words, including the researcher's questions and any false starts (Smith & Osborn, 2003:62). It was also necessary to make 'analytical notes' (Kelly, 2006:302) of any ideas or interpretations, as well as of non-linguistic features such as gestures, facial expressions or pitch changes which influenced the content and meaning of the interview (Kelly, 2006:302). To be able to make these analytical notes, it was important to personally do the interview transcriptions. I also needed to consider that transcription invariably involves some form of interpretation (Smith & Osborn, 2003:62), with the interviewer's subjective experiences influencing how the recording is transcribed since it depended on my ability to use my knowledge about language and culture to make sense of what was being said or done (Hammersley, 2010:560). However, by strictly transcribing the words of the interview as well as describing the behaviours of the interviewees, I was also capturing features from the interviews that existed independently of the transcription process (Hammersley, 2010: 553)

3.3 Data analysis

In order to analyse data sources A, B and C, I integrated Gibbs' (2007) method of qualitative analysis informed by qualitative content analysis and grounded theory, with Charmaz's (2003) qualitative content analysis approach and Ansdell and Pavlicevic's (2001) technique of coding, categorizing and identifying the emergence of themes. Different forms of data analysis are suited to different types of research and writers on qualitative analysis use a variety of terms when describing this process (Gibbs, 2007:39). Broadly, the procedure which I followed involved coding (at multiple descriptive / analytic levels); grouping the codes into categories; and allowing themes to emerge from these categories.

Coding refers to the process of identifying meanings within the data (Charmaz, 2003:93) and enabling the methodical retrieval of sections of data that are thematically related (Gibbs, 2007:39), thereby helping the researcher to examine the data in a structured way, as well as to examine the relationships between codes. In other words, through coding, data can be

broken up into meaningful units so that comparisons and further analytic procedures are possible (Ansdell and Pavlicevic, 2001:150; Charmaz, 2003:93).

The initial coding of data involved description (Gibbs, 2007:42), whereby each line of the data, relevant to the research questions, was given a descriptive code. I conducted data-driven coding, or open coding (Gibbs, 2007:45; Punch, 1998:211), in which I did not start with a given list of codes but let the codes emerge from the data. I aimed to bracket my own assumptions and preconceptions as far as possible (Kelly, 2006:309), labelling each line at a descriptive level by encapsulating the actions or events represented by that line (Charmaz, 2003:94). However, my own theoretical ideas and expectations (as the researcher and in relation to my dual role as therpist-researcher) played a role in my interpretations and this has been reflexively explored (Kelly, 2006:309) within the discussion chapter of this mini-dissertation.

While coding, I constantly compared these descriptive codes with one another to find similarities and differences between sections of data, and to examine relationships between different features of the data (Charmaz, 2003:93). This enabled me to move towards more focused coding (Charmaz, 2003:97), developing descriptive codes into categorical codes by organising codes into more general terms, thereby synthesizing larger segments of data according to their similarities and differences (Charmaz, 2003:97; Gibbs, 2007:42).This also links with Ansdell & Pavlicevic's (2001:151) description of categorising, which entails a higher level organisation of descriptive codes into mutually exclusive categories, allowing logical comparison between and within cases.

However, as Charmaz (2003:97) states, higher level coding is not an entirely linear process, and through continuous engagement with the descriptive and categorical codes, different properties and dimensions within some of the categorical codes were identified (Gibbs, 2007:74). In order to preserve these finer nuances of meaning within the data, lower-order categorical codes were developed as sub-hierarchies (Gibbs, 2007:74).

The next step in the process of data analysis was analytic coding (Gibbs, 2007:43), during which I could start to make more theoretical interpretations about the data. Through the progressive levels of describing and categorising phenomena, higher-level meanings started to emerge from the data (Ansdell & Pavlicevic, 2001:153) and coding became more analytic and conceptual, not merely describing direct behaviours, but also suggesting what the implied meanings or intentions may have been (Gibbs, 2007:43). While coding at this analytic level, I also looked for thematic relationships between analytic codes, as well as looking at which of these codes were relevant to more than one case. This helped me to identify relevant themes of the collaborative process, and this links to Ansdell & Pavlicevic's

(2007:153) level of *Interpreting (theory-building),* during which analytic inductions are made and grounded theory is cautiously built on the repeated occurrence of particular phenomena.

By adhering to the principle of 'progressive focusing' (Ansdell and Pavlicevic, 2001:156) during the analytic process, and through continuous engagement with the different levels of codes, I allowed for themes to emerge that were grounded in the data itself (Gibbs, 2007:46).

After having identified the main themes and their sub-categories, I proceeded to look for patterns and relationships between different categories through comparative analysis (Gibbs, 2007:77). By using tables in which I displayed text from across the dataset, I was able to systematically compare themes and sub-categories through case-by-case comparisons (Gibbs, 2007:80), looking for differences and similarities between the two therapeutic processes, as well as through chronological comparisons (Gibbs, 2007:85), comparing text related to certain themes from the first and second interviews with the physiotherapist participants. These comparisons helped me to identify consequences, strategies and future recommendations for collaboration between music therapy and physiotherapy (Gibbs, 2007:89).

3.4 Research quality

As part of ensuring research quality, I made use of triangulation, which refers to the gathering of different types of data, or to the gathering of data from different participants, in order to gain a holistic view of the phenomenon being studied (Bruscia, 1995). Through triangulation, one source of information can be compared with other sources, contributing towards the trustworthiness of data (Ansdell & Pavlicevic, 1995:189) and allowing for the exploration of the layers of meaning within each process. Cases may cross-validate each other or, alternatively, inconsistencies may help in explaining the phenomenon being studied (Ansdell & Pavlicevic, 1995:189). This is relevant in an interpretive study where the aim is to gain a holistic understanding of phenomena. I aimed to gain such understanding by gathering data through participant-observation (recorded as session notes); observation through video recording sessions and selecting excerpts (prepared as thick descriptions); and through interviews with the two different physiotherapists. I was thereby able to consider the various participants' experiences and perceptions (including my own as participant-researcher) in relation to one another, as well as in relation to the thick descriptions of video excerpts, which contributed to the holistic investigation of the research questions. Also, by exploring data from two therapeutic processes, each yielding different collaborative dynamics and utilising different approaches, I was able to more richly and holistically describe the collaborative process.

Another way in which I aimed to ensure trustworthiness (Guba & Lincoln, 1983:325) was through reflexivity (Ruud, 1998:218): taking into account how my values, perceptions, assumptions, interests and theoretical bias may have influenced the research (Ruud, 1998:218-219). Since the subjectivity of the researcher and the participants is viewed as a resource which should be examined and explored (Parker, 1994:13), I consider the ways in which my subjectivity may have structured how I interpreted the physiotherapists' experiences of collaboration with a music therapy student. In addition, by accepting that studying a phenomenon will always have an effect on that phenomenon (Parker, 1994:14), I needed to consider how the interviews at the outset may have influenced the clinical process of subsequent sessions. It was therefore essential to reflect on how my role as researcher, in aiming to explore the various experiences and perceptions of the therapeutic process, could have influenced my role and the physiotherapists' roles as clinicians. I also needed to consider how being part of the clinical process influenced not only my role as researcher (in terms of the focus of the final interviews and analysis of video excerpts), but also the physiotherapists' experiences of the clinical process. This reflexive process is described in more detail in the following two chapters.

As this interpretive study explored individual physiotherapists' personal experiences and perceptions, which cannot be viewed as representative of a larger population (Ansdell & Pavlicevic, 2001:138-139), I accept that the results of this study are not generalisable (Guba & Lincoln, 1983:326). However, this research did identify specific aspects of collaboration between physiotherapy and music therapy in work clients with CP, as well as specific physiotherapists' experiences of this collaborative process, thereby establishing that these experiences are available within a South African context. I was also less concerned with 'reliability' – yielding the same answers on different occasions (Willig, 2001:2) – than with exploring particular physiotherapists' experiences and therapeutic processes in detail (Ansdell & Pavlicevic, 2001:140). My focus was therefore on establishing trustworthiness by aiming for credibility, transferability, dependability and confirmability, in order to generate confidence in the information generated through this study (Guba and Lincoln, 1983:328).

3.5 Ethical considerations

The philosophical principles which I applied to ensure that this research study was conducted in an ethical manner, were autonomy and respect for the dignity of persons, nonmaleficence, beneficence and justice (Wassenaar, 2006:67). In order to respect the dignity of participants, it was important that participants participated voluntarily in this study and I therefore obtained voluntary informed consent from the physiotherapists, from the parents of the children with CP and from the relevant institutions before data collection

began (Willig, 2001:13). I protected individual confidentiality by not using the names of the physiotherapist participants or of the clients, as well as institutional confidentiality, by not using the names of the institutions at which therapy sessions took place (Wassenaar, 2006:67). The research participants also had the right to withdraw from the study at any point without any fear of being penalised in any way (Aldridge, 2005:247; Willig, 2001:13).

In order to uphold the principle of nonmaleficence, I ensured that the participants of this study were not harmed or wronged in any way due to this research study, and that the participants were informed of any possible risks that the study may have held for them (Wassenaar, 2006:67). I did not use any form of deception (Willig, 2001:13) and clearly informed the physiotherapist participants, as well as the parents of the clients involved, regarding the research process, briefing them about the aims of the research and the collaborative process. I also ensured nonmaleficence by protecting participants' confidentiality (Wassenaar, 2006:67; Willig, 2001:13).

In order to ensure beneficence, I attempted to maximise the benefits that this study had for participants (Wassenaar, 2006:67). As therapist-researcher, this was an important aspect of my research study. In terms of the clients with CP, I aimed to support and motivate their movements within collaborative sessions with physiotherapists and thus endeavoured that they would benefit from this study. In terms of the physiotherapist participants, the aim of this study was to provide support to their practice and I thus intended that the physiotherapy profession would be benefited through the findings of this study. The principle of justice refers to the requisite that participants receive that which they are due. To uphold this principle, I treated participants equally and with fairness (Wassenaar, 2006:68).

In addition to this mini-dissertation, the findings of this study have also been written up in the form of a draft academic journal article. Data will be stored for archiving purposes at the University of Pretoria for 15 years.

This chapter has explored the various methods used in designing this study, as well as collecting, preparing and analysing the data for this paper within a naturalistic paradigm, exploring the various considerations that needed to be taken within this paradigm and the different ways in which research quality could be established. In the following chapter, I will present the process of analysis of data, describing in detail the methods used in exploring and analysing the different sources of data.

CHAPTER FOUR

ANALYSIS

In this chapter, I will describe in detail the process I followed in analysing the data collected through interviews, participant-observation, and video-excerpts of significant moments in the therapeutic process. I will first provide the reader with a brief description of the different contexts in which each therapeutic process took place. This will include an account of aspects related to the different client participants, as described by the physiotherapist participants. I will then discuss the preparation of data after which I will explore the process of coding data, initially on a purely descriptive level followed by a more analytic level of coding. This ultimately involves the organisation of data into higher order categories and themes, which emerge from the data. Subsequently, I will describe how these different levels of codes were ordered into hierarchies. The section will end with a description of how I engaged with these hierarchies of codes, comparing different aspects of data in order to determine relationships, look for patterns and to find differences and similarities between the two different cases.

As indicated in the methodology section of this dissertation, the clients with CP who participated in the study were chosen by the physiotherapist participants. From Case A, the client chosen for participation was a four year old boy who had been diagnosed with athetoid CP. This type of CP is characterized by lack of fixed posture due to involuntary movements and lack of coordinated contractions (Carruthers, 2003:13). From Case B, the client chosen for participation in this study was a two-and-a-half year old boy with spastic CP. This type of CP is characterized by abnormal stiffness in the muscles which may cause stereotypical movement patterns or may prevent movement completely (Carruthers, 2003:13).

4.1 Data preparation and descriptive coding

4.1.1 Data source A: Semi-structured interviews

In order to analyse data from the semi-structured interviews, which were conducted at two points before and after the collaborative process with each of the physiotherapists, I used verbatim transcription (Willig, 2001:20) to develop the data into textual format. While transcribing the data, I also made a few analytic notes (Kelly, 2006:203) about certain features of the interviews, in order to keep hold of certain ideas that were significant to the current study. For instance, while transcribing the initial interview from Case A, I became aware that the manner in which the physiotherapist spoke about the element of ‘rhythm’, suggested that she possibly related the concept of rhythm more to movement, while I related

it more to music. I therefore made a note of this idea in my research journal (Ansdell & Pavlicevic, 2001:140) in order to keep track of whether these different perspectives on rhythm would become significant during the research process.

After transcribing the interviews, I numbered each line of the transcript and proceeded to select text for coding, omitting any parts of the interviews that were clearly unrelated to the research study. I also did not code the interview questions, although these were taken into consideration in order to understand the perspective from which the participant was talking. An example of the highlighted transcription from the second interview with the physiotherapist participant from Placement A has been included (Table 4.1.1a).

PLACEMENT A: INTERVIEW 2 DATE: 18 JUNE

1 Researcher: Sarah[1], um... how did you experience the influence of the participation of
2 a music therapy student on your work in sessions with a client with cerebral palsy?
3 Physiotherapist: look, I think... it worked very well for static exercises, so that means it was
4 for the strengthening of the core muscles. It worked very well. And ja, um...I think in that
5 way... Also it, it, it helped with rhythm, to do an exercise, like with the crawling, it helped
6 him to rhy – to crawl and it encouraged him. The music encouraged him.
7 Researcher: alright...
8 Physiotherapist: ja
9 Researcher: um...so, so how specifically do you think the music therapy contributed to the
work?
10 Physiotherapist: well, it, it helped to strengthen his core muscles in that he was not, uhh...
11 concentrating on the exercise: he was concentrating on the music. So it stimulated him to
12 sit up better, or to move...you know? He was more – he moved easier, he was more...um –
13 he didn't think of the challenge, he was thinking of the music, so he would rotate, like on
14 the piano [making gestures showing how the client played instruments to the left and then
15 to the right with a beater, rotating her body], he was moving better.

Table 4.1.1a: Interview transcript with highlights

After having omitted the sections irrelevant to my research study, I proceeded with the initial line-by-line coding of these sections, writing preliminary descriptive codes in pencil next to each line of the highlighted interview transcription. At this level of coding, I aimed to remain as close as possible to the data, keeping an awareness of any in vivo codes (Gibbs, 2007:54) – concepts used by the participants themselves. At this initial stage of coding, I did not yet make any analytic interpretations of the text, but rather developed labels for each line at a purely descriptive level. An example of this has been included in Table 4.1.1b.

[1] The physiotherapist's real name was not used

PLACEMENT A: INTEVIEW 2 DATE: 18 JUNE

1	Researcher: Sarah, um... how did you experience the influence of the participation of a	
2	music therapy student on your work in sessions with a client with cerebral palsy?	*(PT's perceptions of MT)*
3	Physiotherapist: look, I think... it worked very well for static exercises, so that means it	*MT 'works' – static exercise*
4	was for the strengthening of the core muscles. It worked very well. And ja, um...I think	*MT 'works' - strengthen*
5	in that way... Also it, it, it helped with rhythm, to do an exercise, like with the crawling, it	*MT helps give rhythm*
6	helped him to rhy – to crawl and it encouraged him. The music encouraged him.	*MT helps crawling*
		MT encourages

Table 4.1.1b: Preliminary descriptive coding of interview

I then proceeded to give each line of the highlighted interview a specific labelled line number (Gibbs, 2007:49). These line numbers showed from which case the data was (A or B); whether it was Interview data (I), Session Note data (SN) or Thick Description data (T); whether it was the initial interview (1) or the final interview (2); which page of the interview the line came from; and lastly, the specific line from that page (e.g. [A:I2:3:25] refers to Case A: Interview 2: page 3: line 25). I then compared the preliminary codes from within and between interview transcripts, in order to identify codes that were similar in meaning. These codes could then be collapsed or refined, helping me to develop clear, comprehensive units of meaning. I then constructed tables in which I included the highlighted sections of each interview, with their respective line numbers and the refined descriptive codes. An example of this has been included in Table 4.1.1c. [Note that MT refers to music therapy, pt refers to physiotherapy, and PT refers to physiotherapist]

LINE NR	PLACEMENT A: INTERVIEW 2	DESCRIPTIVE CODES
A:I2:1:3	it worked very well for static exercises, so that means it was for the strengthening of the core muscles.	MT afforded strengthening
A:I2:1:5	it helped with rhythm, to do an exercise, like with the crawling, it	MT helps: gives rhythm
A:I2:1:6	helped him to crawl and it encouraged him. The music encouraged him.	music afforded encouragement
A:I2:1:11	it helped to strengthen his core muscles in that he was not, uhh...	MT afforded strengthening
A:I2:1:12	concentrating on the exercise: he was concentrating on the music.	Music distracts from pt exercise
A:I2:1:13	So it stimulated him to sit up better, or to move... he moved easier, he	MT stimulated movement
A:I2:1:14	didn't think of the challenge, he was thinking of the music, so he	Music distracted from challenge

A:I2:1:16	would rotate, like on the piano .... he was moving better.	MT enabled 'better' movement

Table 4.1.1c: Coded interview

4.1.2 Data source B: session notes

Data source B comprised session notes from each of the 12 sessions (six from each case) which I wrote as part of participant-observation. As such, specific preparation for analysis was not necessary, since the data were already in textual format. As with the interview data, I numbered each line of the session notes and then proceeded to highlight sections that were relevant to answering the research questions, specifically with regards to my own experiences and perceptions of the collaborative process, since that was the focus of this data source. Table 4.1.2a illustrates this aspect of data preparation.

PLACEMENT B: SESSION NOTES 3 DATE: 13 JUNE 2011

1	Building on the previous session, Jenny and I discussed beforehand that we would
2	try more receptive musicking today to see if Steven would engage more positively
3	through that. Discussing this with her before the session already gave me a greater
4	sense of collaboration with Jenny, since we were now starting to negotiate the session
5	together. The session therefore started with me at the piano and Jenny with Steven on
6	the carpet, with Jenny dancing with Steven, loosening up his arms and bouncing him
7	around to the beat of the music, while I played up-beat music, in a marching style.
8	Although I was not matching *Steven*, I was supporting physiotherapeutic exercises
9	with the music, and therefore felt like I was contributing towards the session. All three
10	of us seemed much more relaxed with this manner of playing, and I also felt less
11	tension between Jenny and me. Steven enjoyed this for a while but then his attention
12	was diverted towards the drum, so Jenny used this cue to engage Steven in some
13	drumming. At first, Jenny played for Steven, using his arms to play the drum while I
14	played the same marching theme on the piano to the rhythm of Jenny and Steven's
15	beating.

Table 4.1.2a: Session notes with highlights

After having highlighted those sections that were relevant for the study, I started to write preliminary descriptive codes in pencil next to each of these highlighted lines, an example of which can be found in Table 4.1.2b.

PLACEMENT B: SESSION NOTES 3 DATE: 13 JUNE 2011

1	Building on the previous session, Jenny and I discussed beforehand that we would	*Planning: discuss*
2	try more receptive musicking today to see if Steven would engage more positively	*receptive musicking*
3	through that. Discussing this with her before the session already gave me a greater	*planning collaboration*
4	sense of collaboration with Jenny, since we were now starting to negotiate the session	*negotiate collaboration*
5	together.	

Table 4.1.2b: Preliminary descriptive codes of session notes

While coding, I continuously looked for differences and similarities between codes from the session note data, as well as looking for similar meanings from interview data. This helped me to refine these codes and develop meaning units that were relevant to more than one line of text and also to more than one source of data. As with the interviews, I could then construct tables with only the highlighted sections from session notes, each with their specific coded line number (e.g. B:SN3:1:1 referring to Case B; Session notes 3; page 1; line 1) and the descriptive code next to that line. While I was engaging in this coding process, moving back and forth between different texts, I realised that fine nuances of meaning would be lost by collapsing or generalising some of the descriptive codes, even when they were closely related. I therefore kept some of the codes at a very specific level, since it was the particularity of these codes that captured the deeper levels of meaning within the text. This had the disadvantage of developing a very large amount of codes, but the advantage of retaining the richness of the data. Table 4.1.2c illustrates the process of descriptive coding of session note data.

LINE NR	SESSION 3 NOTES HIGHLIGHTS	CODES
B:SN3:1:1	Building on the previous session, Jenny and I discussed beforehand that we would try	Negotiating structure
B:SN3:1:2	more receptive musicking today to see if Steven would engage more positively	MT & PT shared goal: engage C
B:SN3:1:3	through that. Discussing this with her before the session already gave me a greater	Clarifying expectations: facilitate working relationship
B:SN3:1:4	sense of collaboration with Jenny, since we were now starting to negotiate the session together.	Negotiating structure
B:SN3:1:8	Although I was not matching Steven, I was supporting physiotherapeutic exercises with the music, and therefore felt like I was contributing towards the session. All three	MT musically support pt exercise
B:SN3:1:10	of us seemed much more relaxed with this manner of playing, and with a calmer	Clarified expectations: relaxation
B:SN3:1:11	Steven, I also felt less tension between Jenny and me.	Less anxiety C- less tension between Ts

Table 4.1.2c: Descriptive codes of session notes

4.1.3 Data source C: Thick description

In order to analyse data source C, I wrote thick descriptions of four video-excerpts drawn from the video-recordings of sessions. Two excerpts were chosen from each of the therapeutic processes, and since the session notes had already been written and the interviews transcribed, these excerpts not only represented meaningful moments from both cases, in which specific relational, physical and emotional aspects were evident, but also illustrated characteristic interactional patterns from each of these processes, as indicated by data sources A and B.

For Case A, the first excerpt chosen was from session 5 and illustrated one of the activities in which instrumental play was combined with a specific rotation and strengthening physiotherapeutic exercise. This excerpt clearly showed some of the different roles and dynamics that had emerged from the process, with the physiotherapist stabilising the client and facilitating specific movements, while the music therapist and the client engaged in instrumental play. The second excerpt from Case A illustrated a crawling activity which transitioned into a drumming improvisation, something which had been included in almost every session, and represented the music therapist's use of music to support the client's movements; the negotiation of rhythm between the music therapist and physiotherapist; and also the client's use of music and playful interactions with the therapists.

For Case B, the first excerpt was chosen from session 3 and also portrayed some of the characteristic roles and musical exchanges from this therapeutic process, with the physiotherapist mostly playing a glockenspiel *for* the client, while the music therapist tries to musically match this, mostly over-attuning to the physiotherapist's vitality affects (Stern 1985). This develops into a section where the music therapist attempts to support the client's gait movements musically at the piano, which leads to the client becoming distressed and resistive towards physical participation. The second excerpt from Case B, chosen from session 5, illustrated some of the relational dynamics between the three participants, with the physiotherapist engaging the client in instrumental play, to which he shows some resistiveness and increasing distress. The music therapist remains more in the background at the piano during this excerpt, trying to incorporate some of the client's actions into music, while the physiotherapist calms the client and eventually engages him in rough play.

Through careful observation of the video recordings, actions and interactions were comprehensively described, including facial gestures, movements, responses, dialogue and musical aspects. The dynamic qualities of these actions and interactions were also portrayed through a description of their intensity, shape, tempo, pitch and dynamic levels, since these aspects are particularly relevant to music therapy, where matching, meeting and affect

attunement play a vital role (Pavlicevic, 1999a:109, 112). This will be explored in more detail in the discussion chapter of this mini dissertation. The writing of these thick descriptions is illustrated in Table 4.1.3a which presents a section from the second thick description from Case A.

THICK DESCRIPTION 2: PLACEMENT A SESSION 6 (07:30 – 10:30)
07:30 – 07:37 The music therapist is positioned on her knees at one end of a long soft mat, with bongo drums placed in front of her, while the physiotherapist and client are positioned at the other end of the 'pathway', facing the music therapist. The physiotherapist places the client in a crawling position, with both hands and knees on the floor, telling the client softly, but firmly, "Come! There's the drums, there's the drums...". While she positions him, the client lifts one hand and strongly puts it down again on the mat, with the music therapist playing a strong beat on the drum at the same moment to match this movement. The physiotherapist also gets into the crawling position, holding the client's calves with her hands to get ready for the crawling activity, then saying "Okay! Let's go Tshepo!". The music therapist then says "and..." with an ascending tone, while the physiotherapist starts lifting the client's left leg and bringing it one step forward. The moment the client's leg is placed on the floor the music therapist starts to sing, with a strong voice in the alto register, a marching melody to the tune of "ek is nie 'n stap-soldaatjie nie", at a moderately slow tempo, using the sounds 'papapa', while also playing a syncopated drum-rhythm. At the same time, the physiotherapist counts "one and two..." together with the accented beats of the drum, which falls together with the alternating placing of the client's legs on the mat.

Table 4.1.3a: Thick description

Since this data source comprised such detailed description of the interactions between the music therapist, physiotherapist and client in each case I realised, upon starting the descriptive coding process, that single lines from the thick description had limited relevance with regards to my research questions at times. However, I found that a single unit of meaning could often be applied to two or more lines, with these codes having more significance. Therefore, instead of highlighting only certain sections for coding, I decided to code the entire thick description, since I found that the meaning of each line could not be separated from its context. Consequently, I constructed tables for descriptive coding that included the whole thick description, adding coded line numbers for each of these lines. I then proceeded with the initial coding of these texts, with some of the descriptive codes

pertaining to only to one line, while other codes pertained to two or more lines. Table 4.1.3b illustrates this process.

Line nr	Placement A: Thick description 2	Descriptive codes
A:T2:1:5	The music therapist is positioned on her knees at one end of a long soft mat, with bongo drums	
A:T2:1:6	placed in front of her, while the physiotherapist and client are positioned at the other end of the	
A:T2:1:7	'pathway', facing the music therapist. The physiotherapist places the client in a crawling position,	PT positions C
A:T2:1:8	with both hands and knees on the floor, telling the client softly, but firmly, "Come! There's the	PT directs C
A:T2:1:9	drums, there's the drums...". While she positions him, the client lifts one hand and strongly beats it down again on the mat,	C's movement = musical intention
A:T2:1:10	with the music therapist playing a strong beat on the drum at the same moment to match this	MT matches C
A:T2:1:11	movement. The physiotherapist also gets into the crawling position, holding the client's calves	PT facilitate crawling
A:T2:1:12	with her hands to get ready for the crawling activity, then saying "Okay! Let's go Tshepo!". The	PT directs; MT invites
A:T2:1:13	music therapist then says "and..." with an ascending tone, while the physiotherapist starts lifting	PT facilitate movement;
A:T2:1:14	the client's left leg and bringing it one step forward. The moment the client's leg is placed on the	MT engage musically
A:T2:1:15	floor the music therapist starts to sing, with a strong voice in the alto register, a marching melody to the tune of "ek is nie 'n stap-	PT physically facilitate movement; MT musically
A:T2:1:16	soldaatjie nie", at a moderately slow tempo, using the sounds 'papapa', while also playing a	facilitate movement
A:T2:1:17	syncopated drum-rhythm. At the same time, the physiotherapist counts "one and two..." together	Synchrony between
A:T2:1:18	with the accented beats of the drum, which falls together with the alternating placing of the	MT&PT
A:T2:1:19	client's legs on the mat. The client also lifts his left hand up high and puts it down strongly on the	Negotiating rhythm: PT,
A:T2:1:20	floor, so that it falls together with the physiotherapist's "two" and the music therapist's accented beat.	MT &C

Table 4.1.3b: Coded thick description

As with the interview and session note data, I also continuously compared codes from within and between thick descriptions, looking for codes that were similar and could therefore be refined or collapsed, as well as looking for similarities between descriptive codes from the thick descriptions and those from the other two data sources. I was therefore constantly refining and collapsing certain codes, so that my codes could be applied consistently across the text and across different texts. However, while coding the thick descriptions, I came across certain descriptive codes which, even though they were closely related, had very subtle meaning differences between them. I therefore had to decide whether to collapse these into more generalised meaning units, at the expense of losing these subtle meanings, or to keep these codes as they were. Since the aim of this research study was to explore the collaborative therapeutic process in depth, not only in terms of the client benefits, but also with regards to personal experiences and perceptions, I decided to keep the subtle meaning differences between descriptive codes, while still bearing in mind how they were related in terms of the more general meaning unit they fit into.

At this stage of the analysis, I had a long list of descriptive codes from the interviews, session notes and thick descriptions (a complete list of which can be found in Appendix E (i)), with some of these codes emanating from all three sources of data, while other codes were specific to only one of these sources. I now had to move on to the next step on the analysis process: organising descriptive codes into higher order categorical-codes (Gibbs, 2007:42).

4.2 Higher order coding

4.2.1 Organisation of data into higher order categorical codes

During this stage of the coding process, I started to categorise the descriptive codes into more interpretive terms, by looking for similarities and differences between the descriptive codes from all three data sources. Since I had elected to retain nuanced meaning within codes and, therefore, had many descriptive codes that needed to be organised, I started to connect those codes which seemed to be related with different coloured pencils. These codes were then grouped together into clusters, and higher order headings/preliminary categorical codes were assigned to each group of codes. I then constructed tables with these preliminary categorical codes, listing all the codes relevant to that group under these headings, as well as indicating the different coded line numbers of those codes that were relevant to more than one line, in order to keep track of where these codes originated from. Table 4.2.1a illustrates this step within the analysis. The table illustrates two of the 37 preliminary categorical codes, namely *negotiating* and *knowing/not knowing*. For a more extensive example of the preliminary grouping of codes, please examine Appendix F (ii).

DESCRIPTIVE CODES	PRELIMINARY CATEGORICAL CODES
Negotiating structure [ASN1:1:3; ASN2:1:4; ASN1:1:6] Negotiating music: MT& C [ASN3:2:9; ASN5:1:24; ASN5:1:25] Negotiating decisions: less pressure on C [BSN4:1:2] Difficulty negotiating beat: MT & PT [ASN5:1:8] Different intentions: Difficult therapist negotiation [ASN5:1:11] Mutual negotiation of rhythm : PT, MT & C [ASN6:1:22] Adapting approach for C [BSN2:3:9; BSN4:1:1; BI2:2:7; BI2:2:11; BI2:4:18; BI2:5:2; BI2:5:4]	Negotiating
MT uncertainty [ASN1:1:1; ASN1:1:14; ASN1:1:2] PT uncertainty [AI2:4:24] Ts clarifying expectations ASN1:1:6 Clarifying expectations: relaxation	Knowing/not knowing

ASN1:1:7 Clarifying expectations: confidence ASN1:1:22; ASN2:1:1 ASN2:1:3 Clarifying expectations: facilitate working relationship BSN3:1:4	

Table 4.2.1a: Preliminary categorical coding

Through continuous engagement with these preliminary categorical codes, I realised that they were not mutually exclusive, with some codes being relevant to more than one categorical code, while other categorical codes (such as *knowing/not knowing*) contained more than one meaning. I thus decided to study the data once again, looking for slightly more specific similarities and differences between the meanings of the descriptive codes, in order to group the codes together in a clearer manner. Since I had now already grouped the data in a way that assisted me in keeping track of the origin of descriptive codes, I decided not to include the coded line numbers in these tables. The refined, mutually exclusive categorical codes with the descriptive codes are illustrated in Table 4.2.1b, and can be compared to the categorical codes presented in Table 4.1.2a.

DESCRIPTIVE CODES	REFINED CATEGORICAL CODES
Clarifying expectations: relaxation Clarifying expectations: confidence Clarifying expectations: facilitate working relationship Clarifying expectations: facilitate reaching goals Ts clarify expectations	Clarifying expectations
Negotiating structure Negotiate mutual goals Ts negotiate: less pressure on C Ts decide: adapt approach Structure session around mt activities to incorporate pt exercises Adapting approach for C Collaboration requires Ts adapting to one another No planned structure: difficult MT role Developing process	Negotiating structure
Difficulty negotiating beat: MT&PT Negotiating rhythm: PT, MT & C Negotiating music: MT&C PT&MT adapting rhythm to C	Negotiating music

Table 4.2.1b: Categorical codes

Even though these refined categorical codes helped me to organise the data in a more directed, selective and conceptual manner (Charmaz, 2003:97), a few of them still contained very subtle meaning differences which were relevant with regards to the research questions. I therefore continued to refine them, as well as developing sub-branches for certain categorical codes, in order to retain the subtle layers of meaning within the data. I termed these sub-branches 'lower-order categorical codes'. An example of this has been included in Table 4.2.1c.

DESCRIPTIVE CODES	LOWER-ORDER CATEGORICAL CODES	CATEGORICAL CODES
PT interrupting musicking PT: what should C do vs. MT: what would C do? Working from different perspectives Ts approach process differently Difficulty combining pt & mt PT forcing C participation cause MT anxiety	Therapeutic values	Dissonance
PT: resistivenss less physical value vs. MT: resistiveness emotional value PT: resistiveness inappropriate vs. MT resistiveness valuable	Physical vs relational/emotional focus	Dissonance
Different roles but equal involvement C Piano playing while on physio ball MT play music; PT engage C in dancing Instrumental play incorporate pt exercises PT set up pt activity; MT engage musically PT enables reaching pt goals through musical engagement	Complimentary activities	Harmony
Collaborative activity: relational, emotional & physical value Instrumental play equal significance: MT&PT	Complementary values	Harmony

Table 4.2.1c: Categorical codes and lower-order categorical codes

The following table (Table 4.2.1d) includes a complete list of categorical codes, of which there were 46, as they emerged from the data.

CATEGORICAL CODES
Negotiating Expectations
Negotiating Structure
Negotiating Goals
Negotiating Activities
Negotiating Process
Negotiating Approach
Negotiating Music
Mutuality: Communication
Mutuality: Cooperation
Mutual goals
Mutuality: Trust
PT Levels of familiarity and openness

PT perception: MT Techniques
PT perceptions of MT: Alternative emotional/relational possibilities
PT perceptions of MT: Links to physiotherapeutic goals
Physiotherapist giving insight
Necessity of physiotherapist's knowledge
Music therapist's need to gain knowledge
Dissonance
Harmony
Unison
Monophony
Accompaniment
Physiotherapist's role compensation
Relational exclusivity
Relationship between MT&C
Relationship between PT & C
Relationship between MT&PT
Motivation
Resistance
Distraction
Emotional/relational challenges
Emotional/relational affordances
Control & coordination
Strengthening
Weight bearing
Balance & posture
Rotation
Movement organisation
Range of movement
Mobilisation
Relaxation
Left-right integration
Limiting individual professional processes
Affirming personal/professional experiences
Challenging personal/professional experiences

Table 4.2.1d: Complete list of categorical codes

4.2.2 Organisation of data into higher order analytic codes and themes

After developing mutually exclusive categorical codes, I could move onto the development of the next level of higher order codes, which were even more analytic and conceptual (Gibbs, 2007:43). These codes could contain information that was implied rather than stated directly and I therefore needed to use more theoretical understanding in the development of these codes. Through the progressive focussing of the coding process, which I described in the previous section, some of these higher order analytic codes had already started to emerge from the data and since some of these analytic labels were initially included within the categorical codes (see Table 4.2.1d), I needed to continue clarifying and refining some of these codes while grouping them at a higher level. An example of this process can be found in Table 4.2.2a., which can be compared with Table 4.2.1b and Table 4.2.1d.

Descriptive codes	Lower-order categorical codes	Categorical codes	Analytic codes
Clarifying expectations: relaxation Clarifying expectations: confidence Clarifying expectations: facilitate working relationship Clarifying expectations: facilitate reaching goals	Benefits of clarifying expectations	Expectations	Negotiation
Ts clarify expectations		Expectations	Negotiation
Negotiating structure No planned structure: difficult MT role		Structure	Negotiation
Negotiate mutual goals		Goals	Negotiation
Structure session around mt activities to incorporate pt exercises		Activities	Negotiation
Developing process Ts must understand CP to understand CP PT gain understanding of mt		Process	Negotiation
Ts negotiate: less pressure on C Ts decide: adapt approach Adapting approach for C Ts must understand C holistically PT realise mt involves various techniques		Approach	Negotiation
Difficulty negotiating beat: MT&PT Negotiating rhythm: PT, MT & C Negotiating music: MT&C PT&MT adapting rhythm to C Ts must understand C's need for time		Music	Negotiation

Table 4.2.2a: Grouping of data into analytic codes

However, not all the analytic codes were this apparent, and for the most part, I had to develop analytic codes by grouping categorical codes together at higher level of meaning, looking for possible relationships, as well as implied meaning differences and similarities between them. As was the case with the development of categorical codes, this process was not completely linear and I had to continuously revisit and re-work the different levels of codes. I eventually developed 13 analytic codes (a list of which can be found in Table 4.2.2b), some with more layers of meaning within them than others. The development of these analytic codes relates closely to Ansdell & Pavlicevic's (2001) conception of categorisation, in which the researcher, through progressive establishment of categories, develops categories which emerge from the data (2001:153). The authors also state the importance of continuously experimenting, revising and at times re-categorising on the basis of new ideas (2001:152), which correlates with the non-linear process in which I engaged in order to develop the analytic codes.

ANALYTIC CODES
Levels of familiarity and openness
Techniques
Alternative emotional/relational possibilities
Links to physiotherapeutic goals
Negotiation
Mutuality
Primacy of physiotherapist's knowledge
Practice
Relationships
Client-related emotional/relational features of the therapeutic process
Physical affordances of the therapeutic process for the client
Client-related psychological features of the therapeutic process
Professional/ collaborative features of the therapeutic process

Table 4.2.2b: Complete list of analytic codes

As relationships between some of these analytic codes were identified, they could be grouped further into four higher order themes, namely i) Physiotherapist's pre-collaborative understandings of music therapy; ii) Collaborative requirements; iii) Collaborative Dynamics; and iv) Collaborative Outcomes. Table 4.2.2c illustrates how the analytic codes were grouped together into these four themes. This process will be explained in more detail and illustrated through Figures 4.2.2a to 4.2.2k (p.45 – p.52).

THEME 1: Physiotherapist's pre-collaborative understandings of music therapy	**THEME 2: Collaborative requirements**	**THEME 3: Collaborative Dynamics**	**THEME 4: Collaborative outcomes**
Levels of familiarity and openness Techniques Alternative emotional/relational possibilities Links to physiotherapeutic goals	Negotiation Mutuality	Primacy of physiotherapist's knowledge Practice Relationships	Client-related emotional/relational features of the therapeutic process Physical affordances of the therapeutic process Client-related psychological features of the therapeutic process Professional/ collaborative features of the therapeutic process

Table 4.2.2c: Grouping of analytic codes into four themes

With these four themes in place, I could start to construct tables according to each theme, which included all the different levels of codes, thereby giving me a clear representation of all the data. An example of this has been included in Table 4.2.2d, which includes all the different levels of codes from Theme 2: Collaborative requirements. The complete set of tables from each theme can be examined in Appendix D.

DESCRIPTIVE CODES	LOWER-ORDER CATEGORICAL CODES	CATEGORICAL CODES	ANALYTIC CODES	THEMES
Clarifying expectations: relaxation Clarifying expectations: confidence Clarifying expectations: facilitate working relationship	Benefits of clarifying expectations	Expectations	Negotiation	Collaborative requirements

Clarifying expectations: facilitate reaching goals				
Ts clarify expectations		Expectations	Negotiation	
Negotiating structure No planned structure: difficult MT role		Structure	Negotiation	
Negotiate mutual goals		Goals	Negotiation	
Structure session around mt activities to incorporate pt exercises		Activities	Negotiation	
Developing process Ts must understand CP to understand CP PT gain understanding of mt		Process	Negotiation	
Ts negotiate: less pressure on C Ts decide: adapt approach Adapting approach for C Ts must understand C holistically PT realise mt involves various techniques		Approach	Negotiation	
Difficulty negotiating beat: MT&PT Negotiating rhythm: PT, MT & C Negotiating music: MT&C PT&MT adapting rhythm to C Ts must understand C's need for time		Music	Negotiation	
NB communication between MT&PT NB understanding between MT&PT Communication nb for working together on goals Mutual understanding – better collaboration		Communication	Mutuality	
Teamwork nb Cooperation nb Mutual understanding – better collaboration Collaboration requires Ts adapting to one another		Cooperation		
NB understanding of other's goals Merging goals develop T mutuality		Mutual goals		
Trust builds mutuality		Trust		

Table 4.2.2d: Grouping of codes into themes

After organising the data into these tables, I decided to develop clear visual representations of each theme with its different levels of codes in order to clearly demonstrate the relationships between codes and the layers of meaning within each theme. Whereas the tables showed the process of progressive coding from descriptive coding to the development of themes from left to right, these figures display each theme on the left, with each level to the right becoming progressively descriptive. In order to provide a comprehensive, but

concise representation of the data, descriptive codes were not included in these figures, which are presented from Figure 4.2.2a to Figure 4.2.2f.

For Theme 1 (Physiotherapist's pre-collaborative understandings of music therapy), all the analytic codes that related to the physiotherapists' perceptions and knowledge about the music therapy profession, its general value for clients, and how it may link to the physiotherapists' own goals, were grouped together. The data organised within these analytic codes mostly originated from the initial interviews with physiotherapists and included general perceptions about music and music therapy, as well as more specific understandings about music therapy techniques. Figure 4.2.2a gives an overview of this theme, with the relevant analytic codes and the grouped categorical codes.

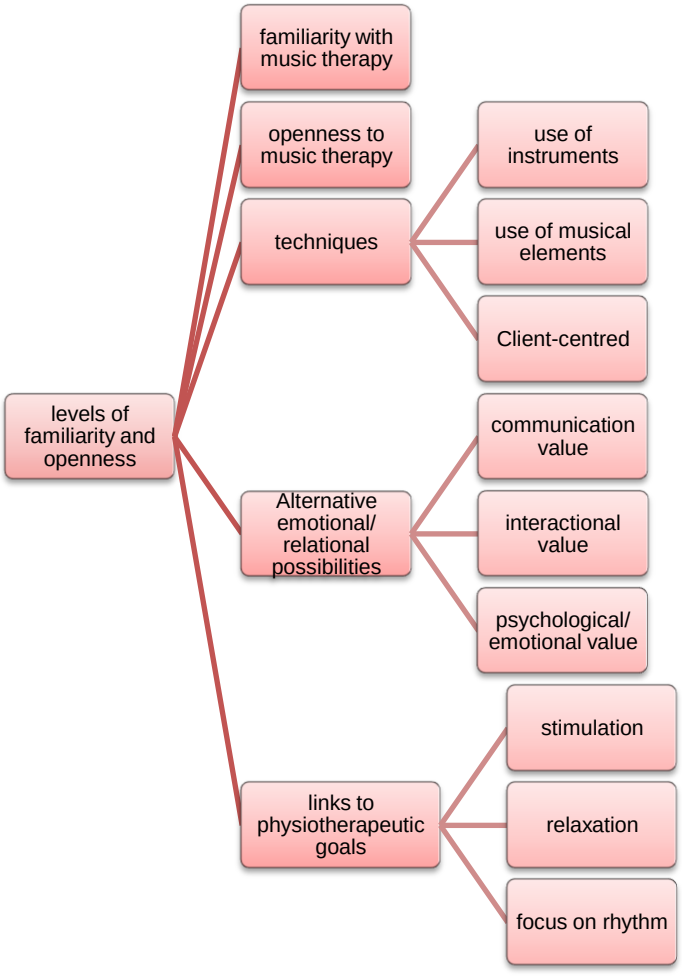

Figure 4.2.2a: THEME 1

For theme 2 (Collaborative requirements) the analytic codes that related to the physiotherapists' and music therapist's perceptions and ideas about important/ required features for effective collaboration, as well as their perceptions of factors which facilitated the collaborative process, were grouped together. The data organised within these codes originated predominantly from both sets of interviews and from session note data. This theme, with its analytic codes, categorical codes and one lower-order categorical code, is illustrated in Figure 4.2.2b.

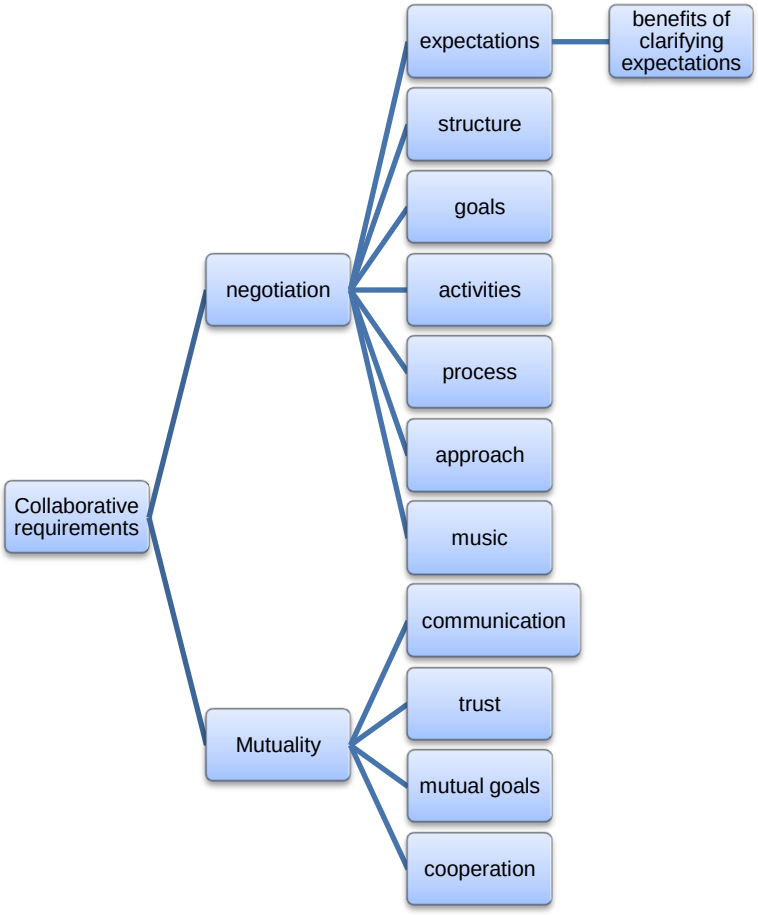

Figure 4.2.2b: THEME 2

Theme 3 (Collaborative dynamics) incorporated those analytic codes that related to the practical and relational dynamics that featured in the collaborative process. This included aspects related to how primacy of knowledge were assigned to physiotherapist participants; specific relational patterns between the three parties in each process; and different aspects of collaborative practice, such as working from contrasting perspectives or providing support for the co-collaborator's profession.

This theme emerged from data from all three data sources and incorporated a wide range of information, with different layers of meaning. Therefore, I decided to first provide a broad overview of this theme in Figure 4.2.2c, which represents the theme and its three related analytic codes, and then to provide separate illustrations of each of the analytic codes (Primacy of physiotherapist's knowledge – Figure 4.2.2d; Practice – Figure 4.2.2e; and Relationships – Figure 4.2.2f) with their relative categorical codes and lower-order categorical codes.

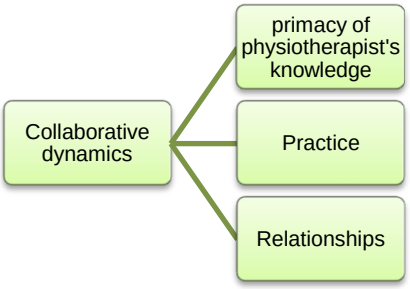

Figure 4.2.2c: THEME 3

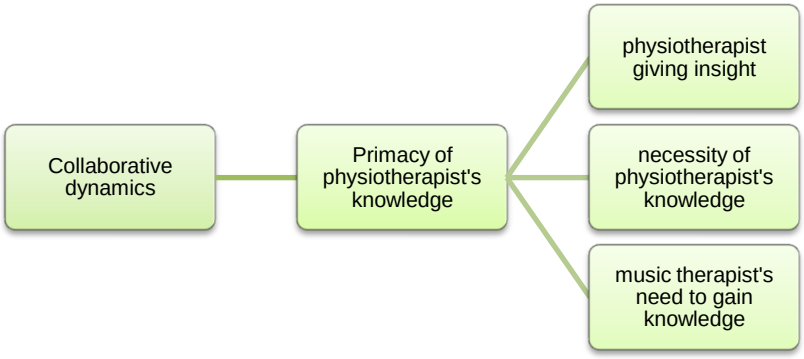

Figure 4.2.2d: THEME 3a - Primacy of physiotherapist's knowledge

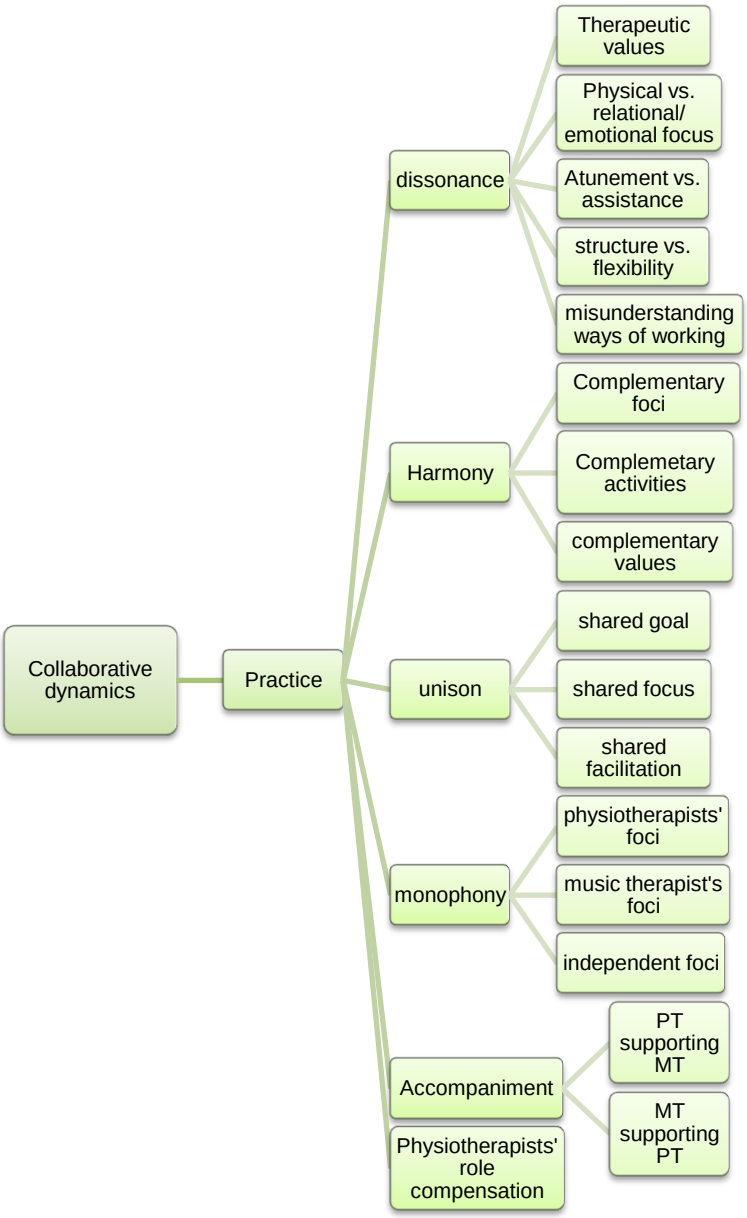

Figure 4.2.2e: THEME 3b – Practice

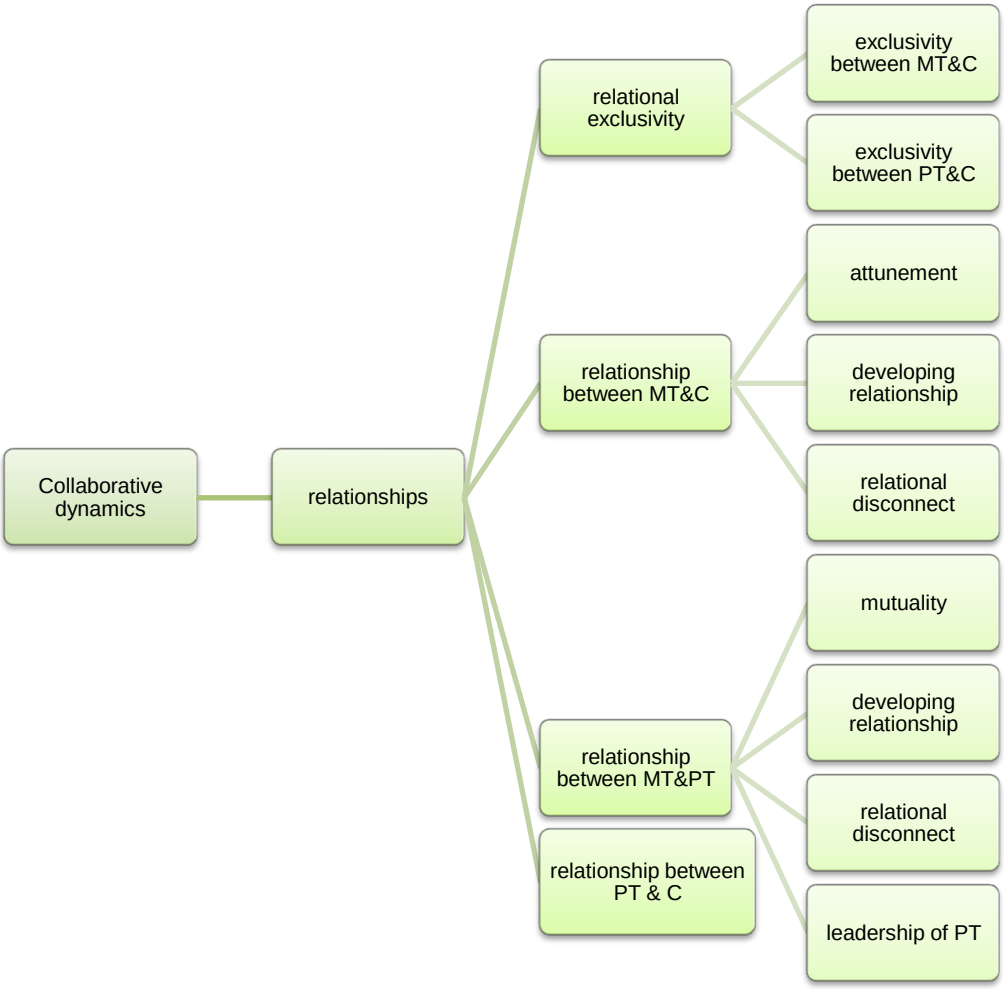

Figure 4.2.2f: THEME 3c – Relationships

For theme four, all analytic codes that related to specific outcomes of the collaborative process were grouped together. With regards to the clients in each process, this included emotional/relational features, specific physical affordances, and certain psychological features that were prevalent throughout the collaboration. The therapists' personal experiences of the process were also included and data from all three data sources were used in order to provide a comprehensive representation of collaborative outcomes. The data organised under each of these analytic codes were rather extensive and therefore each analytic code was represented individually, with its relative categorical codes and lower-order categorical codes (when applicable). Figure 4.2.2g illustrated a broad overview of theme 4 with the organised analytic codes, where-after Figure 4.2.2h – k represents each analytic code, with its lower order codes, separately.

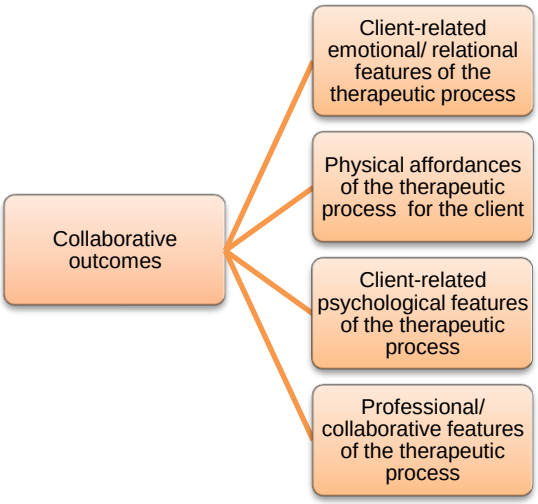

Figure 4.2.2g: THEME 4

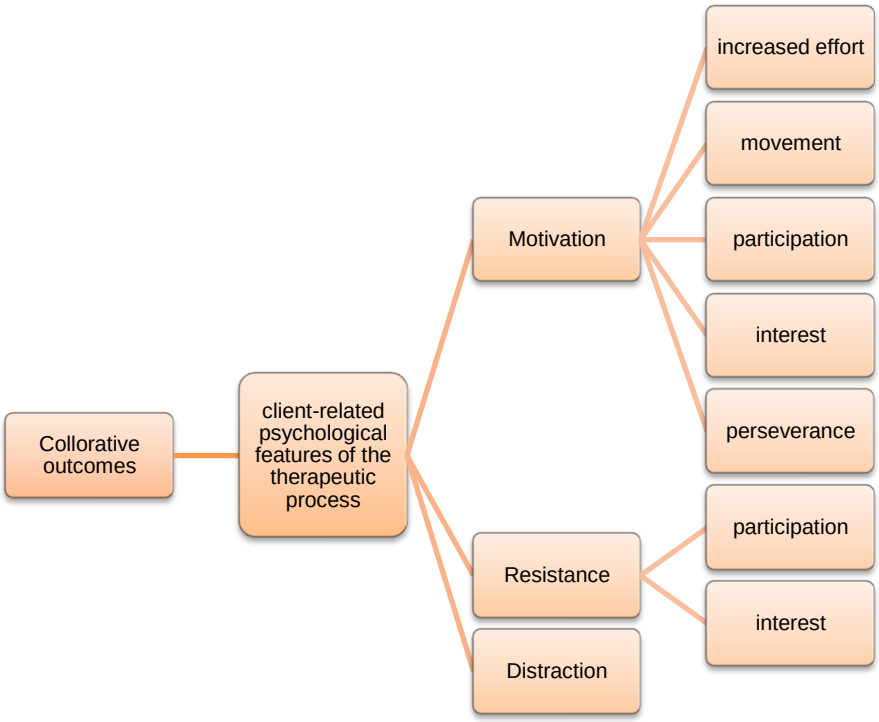

Figure 4.2.2h: THEME 4 – Client-related psychological features of the collaborative process

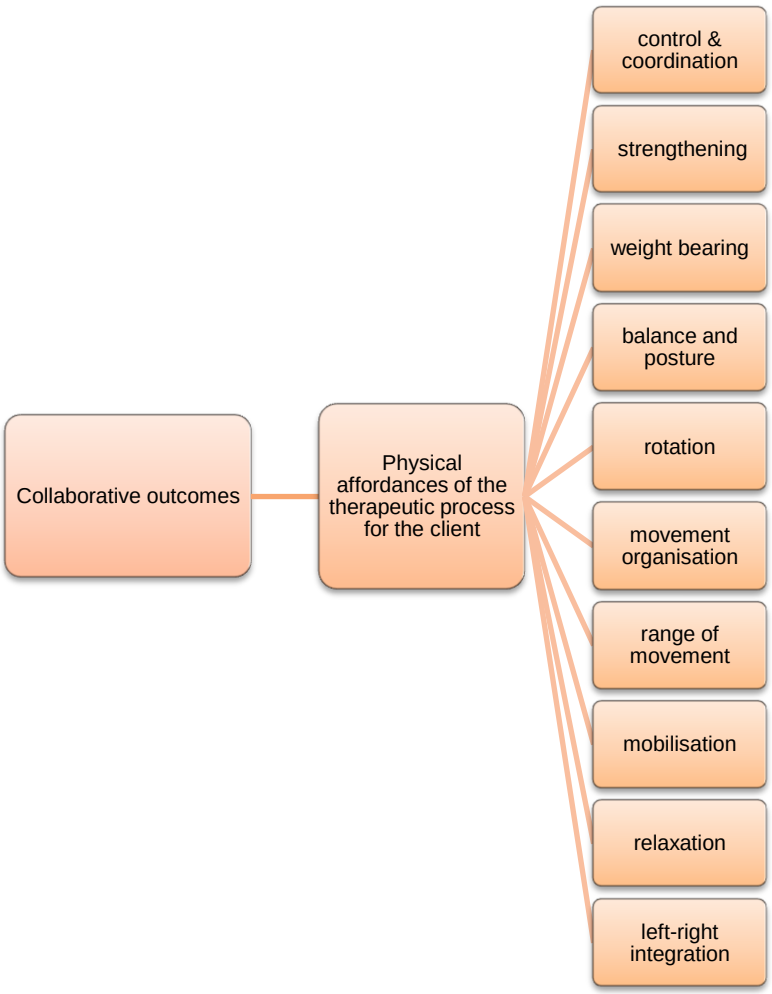

Figure 4.2.2i: Physical affordances of the therapeutic process for the client

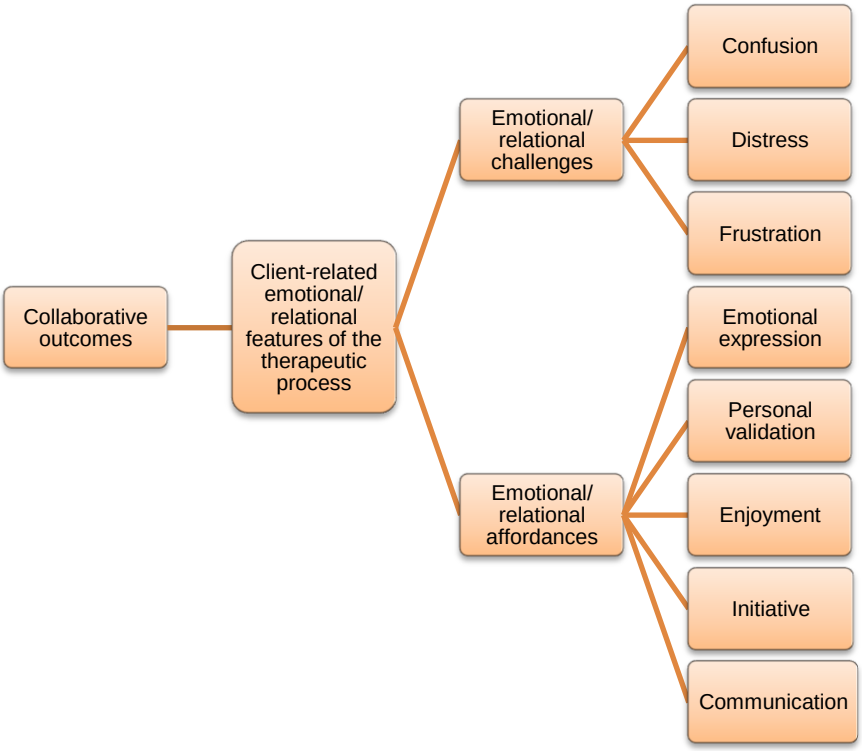

Figure 4.2.2j: THEME 4 – Client-related emotional/relational features of the therapeutic process

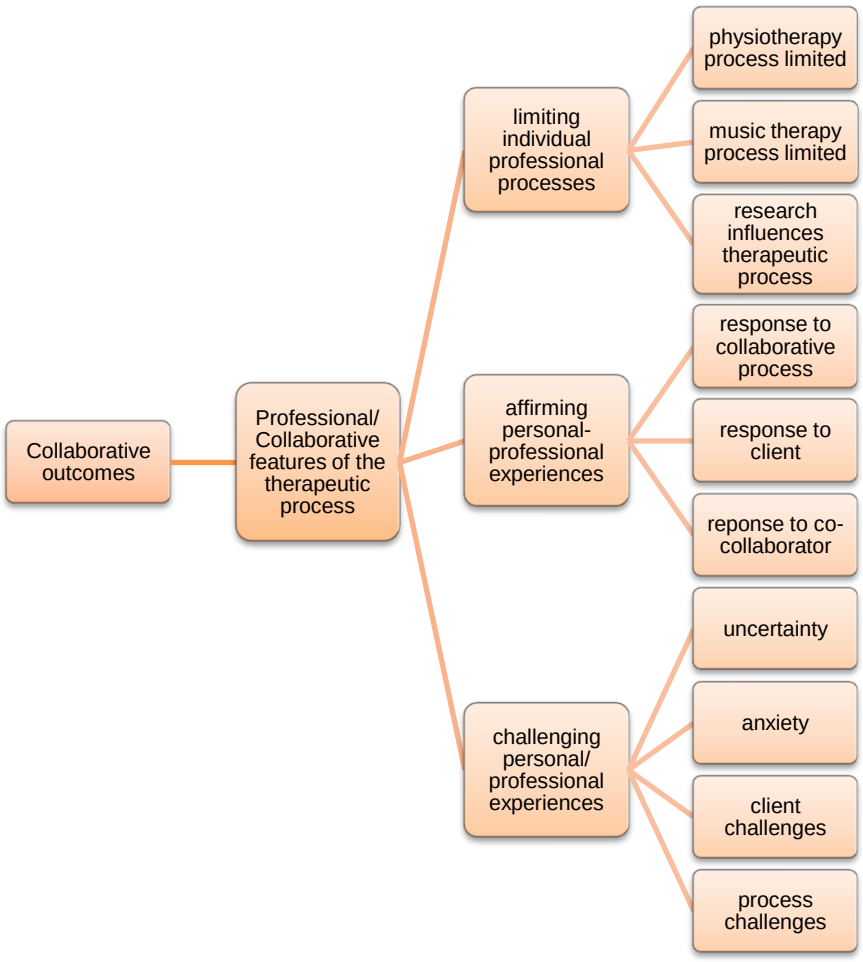

Figure 4.2.2k: THEME 4 – Professional/Collaborative features of the therapeutic process

4.3 Comparative analysis

This clear organization of the data enabled me to notice possible relationships within and between themes (Gibbs, 2007:75), prompting me to ask certain analytic questions about different patterns or ideas within and between themes (Gibbs, 2007:76). In order to explore these relationships and patterns in more depth, I started doing a comparative analysis, comparing data within and between cases and data sources, as well as doing chronological comparisons between interview data.

4.3.1 Case-by-case comparisons

In order to do case-by-case comparisons (Gibbs, 2007:80), I needed to track down the origin of data by using the coded line numbers of descriptive codes. I could then start to compare data related to specific higher order analytic or categorical codes, looking for both differences and similarities between Case A and Case B. The first aspect which I explored through case-by-case comparison was the differences and similarities between the

therapists' personal/professional experiences of the collaborative process in each case, in order to explore the different experiences generated in each process. In order to compare not only the two cases, but also the experiences between the music therapist and physiotherapist in each case, I kept data from session notes and from interviews separate, with the session note data representing the music therapist's experiences, while the interview data represents the physiotherapists' experiences. All data were tracked through the use of coded line numbers of descriptive codes.

	Case A	Case B
Affirming personal/ professional experiences (Interview data)	PT feel MT not interfering PT perception: collaboration enjoyable PT perception: MT not looking like therapy but *being* therapy PT perception: music helped C PT perception: collaboration worked	Learning experience
Affirming personal/ professional experiences (session note data)	Familiar activity: MT confidence Pride in MT 'working' in relation to PT goals PT verbally comment: C good muscle control PT encouragement give MT confidence PT pleased: C's physical performance PT impressed: C's physical progress PT gestures surprise at C's abilities MT encouraged by C's response C's responsiveness motivates MT MT encouraged by PT's surprise C's responsiveness fosters MT confidence	PT encouragement give MT confidence MT encouraged by C's response Ts encouraged by C's response MT less anxious – contribute to pt C's responsiveness fosters MT confidence
Challenging personal/ professional experiences (interview data)	PT uncertainty	Collaborative process not working for C Challenging experience Interaction was challenging C made experience difficult PT view: collaboration = challenge with severe CP MT easier: C no movement impairment PT view: collaboration = challenge when C have movement difficulties MT challenge = attuning
Challenging personal/ professional experiences (session note data)	MT Uncertainty MT unaware of PT's strain MT feel incompetent MT anxiety influence musicking MT anxiety about own music MT anxiety: shift from music supporting to interfering with PT MT anxiety: music 'not working' i.t.o. pt goals Instrumental play cause PT strain MT feel musically stuck PT gestures not pleased: posture MT feel – interfering	MT Uncertainty C's response cause MT & PT anxiety MT feel pressure to perform MT feel incompetent MT anxiety influence musicking MT anxiety: difficult session MT anxiety about own music MT anxiety: music 'not working' i.t.o. pt goals MT feel musically stuck PT influence MT: MT causing distress MT experience: difficult working with C MT feel irrelevant MT dissatisfaction with ending MT feel own presence cause C distress MT feel – interfering

Table 4.3.1a: Comparing Case A and Case B with regards to *personal/professional experiences*

This table illustrates some of the different experiences of the therapists in each case, indicating that while the physiotherapist in Case A mentioned more affirming experiences, the physiotherapist in Case B mentioned more challenging experiences. In correlation with this, the music therapist also mentioned more affirming experiences related to Case A, and more challenging experiences related to Case B. Since I wanted to explore how the different dynamics of the therapists' working relationship influenced their experiences of the process, I decided to compare certain aspects related to *Practice* (namely harmony, unison, monophony and dissonance) in *Collaborative Dynamics* (refer to Figure 4.2.2e), in order to explore the relationship between dynamics in collaborative practice and the therapists' experience of collaboration. This comparison is illustrated in Table 4.3.1b.

	Case A (more affirming experiences)	Case B (more challenging experiences)
Harmony (session note data)	PT facilitate movement; MT engage musically ASN1:1:9 ASN2:1:7 ASN3:1:6 Piano playing while on physio ball ASN1:1:24 PT enhance physical value of musical engagements ASN3:1:9 Collaborative activity: relational, emotional & physical value ASN5:2:20 C&MT improvise; PT increase C muscle tone ASN6:2:21 C&MT musically engaged; PT exercise core muscles ASN6:2:22 Instrumnetal play equal significance – MT&PT ASN6:2:3 ASN6:2:8	PT facilitate movements; MT engage musically BSN2:2:22 MT play music; PT facilitate movement BSN3:2:7 Different roles but equal involvement BSN3:2:8 Instrumental play incorporate pt exercise BSN4:2:9 MT play music; PT engage in dancing BSN6:1:27 MT control music; PT control movements
Harmony (interview data)	MT provide rhythm; PT facilitate correct movements AI2:6:24 *"with the rhythm...we were doing crawling... do it the right way"*	
Unison (session note data)	Piano play: space for merging PT and MT goals ASN2:1:31 PT physically facilitate movement; MT musically facilitate movement ASN4:1:36 ASN5:1:1 ASN6:1:15 Musical & physical facilitation: same goal ASN4:1:37 MT&PT focus on C's ability ASN3:2:34 MT&PT mutual impressions: C's ability ASN3:2:32	MT & PT shared goal: engagement BSN1:2:13 BSN3:1:2 BSN5:1:12 BSN6:1:14 MT & PT shared goal: enjoyment BSN2:2:25 MT & PT reading cues BSN2:3:2
Unison (interview data)	T's together work on C's balance AI2:3:16 *"we were working on his balance as well*	
Monophony (session note data)	PT position & stabilise C ASN3:1:8 ASN4:1:3 ASN4:2:6	Instrumental play: physio value BSN3:2:16 PT playing for C: physical value BSN4:1:24

	MT focus = therapeutic relationship ASN6:1:7 MT focus on C ASN6:2:24	MT focus = relational BSN4:2:12 PT facilitate muscle relaxation BSN5:1:35 PT facilitate walking BSN5:1:35 PT facilitate swaying BSN5:1:35
Monophony (interview data)	PT focus on pt goals AI2:3:25 *"we want stability, we want balance, we want rotation"* Each T focus on own exercise AI2:4:21 *"I think of just my exercises and you think of your exercises"* AI2:5:1 *"I was doing therapy my way"* AI2:5:2 *"you always think of yourself first"* PT focus on pt & movement AI2:5:9 *"I was thinking about physio and movement"* Individual perspectives AI2:6:19 *"everybody looks at their specific patient in a specific way"* PT focus: how MT can aid pt: AI2:6:20 *"let's do it on his knees, because I'm battling to break up the pattern"* PT facilitate physical exercises AI2:7:8 *"the rotation; and the exercises I chose"*	PT focus on pt goals BI2:3:4 *"in physio you try to get them to activate them self"* C did well from pt point of view] BI2:1:14 *"I'd like to think he did fairly well from a physio point of view"*
Dissonance (session note data)	Matching who? PT playing for C ASN1:1:16 Matching who? PT moving C ASN2:1:11 Meaning of matching in collaborative context ASN2:1:11 Structure of pt not allowing matching ASN2:1:17 PT interrupting musicking ASN3:2:12 PT resistiveness less physical value vs MT resistiveness emotional value ASN4:1:6 Different intentions: PT steady beat vs MT adaptable beat ASN5:1:9 ASN5:1:13 Working from different perspectives ASN6:1:4 ASN6:2:4 PT resistiveness inappropriate vs MT resistiveness valuable ASN6:1:6 ASN6:1:9 ; ASN6:1:14	PT playing for C: pt value vs MT value BSN3:2:2 Matching who? PT playing for C BSN3:2:4 BSN3:2:20 BSN4:1:25 PT playing for C: not allowing creative assertiveness BSN4:1:27 Working from different perspectives BSN4:1:30 PT: what should C do? vs MT: what would C do? BSN4:1:31 MT process focussed vs PT product-focussed BSN4:2:1
Dissonance (interview data)	Ts approach process differently AI2:4:21 *"because you think in a way and I think in a way"*	Difficulty combining mt & pt BI2:1:9 *"very difficult to combine the two"*

Table 4.3.1b: Comparing aspects of Practice in *Collaborative dynamics* in regards to *affirming/challenging personal/professional experiences*

Although this table did not reveal such obvious differences between the two cases, it does illustrate that whereas Physiotherapist A had commented on each of the aspects of practice, Physiotherapist B's comments related only to dissonance in practice and monophony in practice. There also seemed generally be more harmony and unison in Case A than Case B. Another aspect which I decided to explore in more depth was the relational dynamics between client and music therapist, and the possible relationship of these dynamics with client-focused outcomes of the collaborative process. In order to do so, I first compared aspects of the relationship between client and music therapist in Case A, with Case B, thereby illustrating some differences in these respective client-therapist relationships (see Table 4.3.1c).

	Case A	Case B
Attunement	C & T engage in turn-taking MT matching C's movements (2) MT imitates C movements MT syncopation incorporates C movements (2) MT incorporates all C's movements (7) MT matching C intensity (6) MT matching C's tempo MT matching C dynamics (2) MT matching C quality MT extending C's music MT matching C unstructured beat Mt & C attuned MT & C flowing together (2) MT vocally imitates C instrumental play C's movement = musical intention (2) MT matches C (10) MT listen to C MT & C interactional synchrony C follows MT cues (3) MT follows C's cues (4) MT musically inviting C (4) C musically responds to MT invitation (4) MT provides musical structure C increased musical interaction C rhythmically matching MT	MT matching C
Developing relationship	MT & C playful interaction (12) C carefully watching MT (2) C responds to MT over-attuning: stops playing C making eye-contact with MT (5) C & MT musically relating	MT try playfully engaging C (5) C making eye-contact with MT
Relational Disconnect	MT over-attuning	MT over-attuning (9) C response suggest MT = cause of distress MT fail matching C (3)

Table 4.3.1c Comparing Case A and Case B with regards to MT & C Relationship

This table indicates that Case A had more instances of attunement and developing relationship than Case B, while Case B included more instances of relational disconnect. IN order to explore how these relational features related to the outcomes of the therapeutic process, I then proceeded to compare the various aspects of client-related *collaborative outcomes* between these cases with regards to the differences in *relationship between client and music* therapist in each respective case (see Table 4.3.1d). Since the video excerpts for

thick description were specifically chosen in order to represent the various characteristic relational, emotional and physical aspects of each process, I decided to use data from Thick descriptions for these comparisons.

	Case A (greater levels of attunement between MT&C)	**Case B (greater levels of relational disconnect between MT & C**
Physical affordances	Musicking fosters weight bearing C throwing tambourine: use upper body C movements becoming steady Stretching through instrumental play C musical engagement fosters strengthening (2) Instrumental play foster rotation (3) Instrumental play fosters strengthening (2) C Playing with alternating hands (2) Musicking affords left-right integration (2) Drumming affords self-stabilisation (2)	PT playing for C: left-right integration (3) PT playing for C: range of movement (2) PT playing for C: mobilisation(2) C allowing hand-over-hand
Emotional/relational affordances	C showing musical initiative (8) C's playing suggest expression of aggression/frustration (2) C enjoying control C's gestures communicate C enjoys MT reading his gestures C enjoying playful interaction (2) Process affords enjoyment	
Motivation	Musical investment fosters physical effort (5) Emotional investment fosters physical effort Shared musicking motivates physical effort C using physical effort Instruments motivate C to try hard Instruments motivate physical participation (2) MT syncopation stimulates movement Instruments motivate movement C sustained musical participation	C indicate interest
Resistance	C showing playful resistiveness (2) Less musical investment – less physical effort (5) C showing resistiveness	C uninterested (4) C not invested C avoiding instruments (3) C avoiding MT C's unwillingness (4) C's shifts in interest (2) C showing resistiveness (2)
Client Challenges		Pressure to play cause distress (4) Sudden musical stop startle C Music too forceful: C distress Inappropriate music cause distress

Table 4.3.1d Comparing aspects of Client Outcomes with aspects of MT&C Relationship

Through this table we can see that there seems to be a relationship between client-related collaborative outcomes and the relational dynamics between client and music therapist, with greater levels of attunement relating with more instances of motivation, physical affordances

and emotional/relational affordances, while greater levels of disconnect correlate with more instances of resistance and client challenges.

The next aspect which was explored through case-by-case comparison was the relation between professional relationship (between music therapist and physiotherapist) and client-therapist relationship (between music therapist and client/physiotherapist and client). In this table aspects such as primacy of the physiotherapist's knowledge; leadership of the physiotherapist; and role compensation, were compared with relational exclusivity between physiotherapist and client; relational exclusivity between music therapist and client; and relational disconnect between music therapist and client.

	Case A	Case B
Primacy of PT knowledge	Mt works for pt but only with PT cooperation AI2:6:17 PT guidance necessary AI2:6:30 PT necessary: knows C AI2:7:6 MT trusting PT knowledge ASN3:2:11 PT knowledge of C physical needs ASN3:2:11	Necessity of MT's CP knowledge BI1:2:18 BI1:2:24 BI2:5:24 MT must understand CP to read C BI1:2:19 PT can explain CP to MT BI2:5:27 PT give MT insight BI2:5:28 PT stops musicking: not 'appropriate' BSN4:1:35 BSN6:1:32 PT knowing C better BSN3:1:19
Leadership of PT	PT taking leadership AT1:3:20 AT1:9:16 MT follow PT leadership AT1:3:21 MT relying on PT leadership AT1:6:11	MT follow PT leadership BT2:3:12 BT1:6:15 BT1:7:8 PT taking leadership BT2:5:18 MT relying on PT leadership BSN3:1:18 BT2:5:22 MT as PT assistant BSN2:1:24 BSN3:1:29 Leader-follower therapist relationship BSN3:1:20
Role compensation		PT engage C in music BSN5:1:9 BSN5:1:23 BSN6:1:10 BT1:2:5 BT2:2:6 BT2:2:16 BT1:4:23 BT1:5:4 BT2:4:9 BT1:6:1 BT1:7:1 PT engage C in instrumental play BT2:3:17 BT2:4:2 BT2:5:8

		BSN6:1:18 PT stimulate C through instrumental play BSN6:1:20 PT musically extend C's movements BSN5:1:24
Relational exclusivity: PT & C		PT facilitate while MT in background BSN1:1:16 PT & C play while MT feel irrelevant BSN6:1:15 BSN6:1:25 PT positions C: face her, away from MT BSN6:37 BT1:8:5 C&PT engaging while MT = onlooker BT2:4:6 BT2:7:9
Relational exclusivity MT & C	PT unaware of significance of MT&C ending musicking ASN3:2:15 C&MT relating while PT in background ASN6:1:35 ASN6:3:11 Focused exclusivity between MT&C AT2:4:16 AT2:6:2 Musical exclusivity between MT&C ASN3:1:10 ASN3:1:31 PT not attuned to C&MT ASN3:2:14	
Relational disconnect: MT & C	Not knowing C: superficial musicking ASN1:1:15 C avoiding MT ASN4:1:5 ASN4:1:24 MT fail matching C ASN4:1:26 MT over-attuning AT1:6:2	No authentic interaction: MT&C BSN4:2:5; BSN4:2:13; BSN6:2:2 Pressure cause lack of trust BI2:4:7 C not trusting MT BI2:4:5 C no interest in MT BSN5:1:8 C avoiding MT BT1:6:12 BT2:3:6 MT fail matching C (5) BSN1:2:3; BSN5:1:6; BT1:5:2; BT1:6:6 etc. MT over-attuning (11) BT1:2:12; BT2:2:14; BT1:3:1; BT1:3:17; BT1:5:19 etc. MT under-attuning BT2:4:4 C's playing: difficulty matching BSN2:1:27 MT trigger C anxiety BSN1:1:6; BSN5:1:29 MT&C: struggle to build relationship BSN1:2:6 MT musicking = fragmented BSN2:2:10 C response suggest MT = cause of distress BT2:2:12

Table 4.3.1e Comparing aspects of professional relationship with aspects of client-therapist relationship

This table illustrated some of the relational and practical differences in Case A and Case B, with Case B having more instances where primacy of knowledge was assigned to the

physiotherapist which relates with more instances in which the physiotherapist took leadership in sessions. Also, where there was more instances of relational disconnect in Case B, this correlated with more relational exclusivity between the physiotherapist and the client, as well as more instances of role compensation by the physiotherapist participant. IN Case A, however, there were fewer instances of relational disconnect between client and music therapist and more instances of relational exclusivity between the *music therapist* and the client. The table therefore indicates some of the possible relationships between relational dynamics and aspects of practice in collaboration.

The last aspect explored through case-by-case comparison was the relationship between each physiotherapist's familiarity with music therapy, and their perceptions of music therapy. This table includes data from the initial interviews with physiotherapists and compared their perceptions in terms of music therapy techniques, emotional/relational possibilities of music therapy, and music therapy's link to physiotherapeutic goals. The table indicates that lower levels of familiarity correlate with more general statements regarding the value of music, as well as more statements relating to how music therapy can link to physiotherapeutic goals. Higher levels of familiarity, on the other hand, correlate with more specific statements regarding the techniques used by music therapists, as well as more statements regarding the emotional and relational possibilities of music therapy.

	Case A: Initial interview (Purposive sampling: less familiar with MT)	Case B: initial interview (Purposive sampling: more familiar with MT)
Techniques	MT must use music discriminately Consider individual responses	MT must use music discriminately Guard use of tempo use of tempo: feeling what works use of tempo: individual responses use of tempo: consider C's need of time importance of using tempo use of dynamics: Quiet music for slow movement use of tempo: High muscle tone – slow tempo use of tempo: Low muscle tone – high tempo use of instruments: Easy access use of instruments: Ease of piano use use of instruments: make big noise use of instruments: consider size and response use of instruments: consider C's preferences Consider individual responses Must build relationship first MT entails: following C's cues MT entails: being informed by C's level

Emotional/Relational possibilities	Music enlivens Music enables Music influences psychologically Music evokes emotions	MT entails using music to elicit more MT facilitates emotional expression MT is fun Enjoyment as key to unlock C Music stimulates interest Music motivates Misreading cues can frustrate C Inappropriate use of instruments can frustrate MT as different channel of communication MT entails: communication skills M entails relating before doing Refer to MT C's with whom other therapists can't interact MT focuses on interaction MT goals: group interaction MT facilitates communication
Links to physiotherapeutic goals	Music adds rhythm to C Music helps: relaxation Music helps: stimulation MT can increase muscle tone MT can relax muscle tone MT can stimulate movement Music facilitates movement Rhythm facilitates movement Musical activities' benefits are focused on rhythm Rhythm increases muscle tone Slow music relaxes Music can make C lose control Music can over-stimulate/frighten	MT goals: more movement MT as motivation for movement MT can elicit movement MT affords stability MT affords freedom Music can afford left-right integration

Table 10: Comparing levels of familiarity with MT with perceptions of music therapy techniques, emotional/relational affordances and links to physiotherapeutic goals

4.3.2 Chronological Comparisons

In order to compare the physiotherapists' initial perceptions of the value of collaboration for clients with CP with their final perceptions of the outcomes of the collaborative process, I decided to do a chronological comparison between the initial and final interview data. To do so, I first looked for broad similarities between the categorical codes and analytic codes of Theme 1(pre-collaborative understandings of music therapy) and Theme 4 (Collaborative outcomes). I realised that in both these themes, the emotional, psychological, physical and relational aspects were addressed and thus decided to compare data related to these aspects between the two sets of interviews. By using the tables from Theme 1 and 4 with their respective descriptive codes, as well as the tables with the preliminary categorical codes and the coded line numbers of descriptive codes in each categorical grouping (see Table 4.2.1a), I could track down data from each set of interviews for this comparison. Table 4.3.2a illustrates the chronological comparison of interview data for Case A. Note that the

relational aspects were not addressed in these interviews and thus no codes from Case A surfaced with regards to this category.

	Case A: Initial interview	Case A: Final interview
Emotional/psychological features	Music enlivens Music enables Music influences psychologically Music evokes emotions	MT afforded encouragement Music distracts from pt exercises Instrumental play distracts from pt Music distracts from challenge Process afforded enjoyment Musicking affords expression of frustrations MT affords emotional expression music stimulating C Music elicits more Music motivates interest MT afforded perseverance Music tapped into emotion C enjoying music Music stimulates emotion
Relational features	--------	--------
Physical features	Music adds rhythm to C Music helps: relaxation Music helps: stimulation MT can increase muscle tone MT can relax muscle tone MT can stimulate movement Music facilitates movement Rhythm facilitates movement Musical activities' benefits are focused on rhythm Rhythm increases muscle tone Slow music relaxes Music can make C lose control Music can over-stimulate/frighten	MT afforded strengthening MT helps: give rhythm MT stimulated movement MT enabled better movement Rhythm stimulates movement PT focus on importance of rhythm MT afforded mobilisation Balance through instrumental play Stretching through instrumental play Instrumental play fosters rotation MT afforded weight bearing Process developed posture Music stimulates movement MT allowed less movement

Table 4.3.2a: Comparing physiotherapist's perceptions of emotional/psychological, relational and physical features of therapeutic process, pre- and post-collaboration: Case A

This table indicated that while the physiotherapist from Case A's statements in the initial interview were much more generalised regarding the effects of music, in the final interview she spoke with more specificity regarding the emotional and psychological values of the process, as well as the physical affordances, which included a wider range of possibilities. The following table illustrates the comparison of interview data for Case B.

	Case B: initial interview	Case B: final interview
Emotional/psychological features	MT entails using music to elicit more MT facilitates emotional expression MT is fun Enjoyment as key to unlock C Music stimulates interest Music motivates Misreading cues can frustrate C Inappropriate use of instruments can frustrate	C distracted from pt – allows more MT affords enjoyment C enjoys music MT goal = enjoyment MT goal = enable different ways of experiencing More willing, more perseverance Music note motivating C Unfamiliar setting cause C anxiety Collaborative situation cause C distress

		Using music to stimulate movement at expense of enjoyment C unwillingness – less perseverance C showing resistiveness C uninterested
Relational features	MT as different channel of communication MT entails: communication skills M entails relating before doing Refer to MT C's with whom other therapists can't interact MT focuses on interaction MT goals: group interaction MT facilitates communication	Interaction was challenging C not trusting MT Pressure cause lack of trust MT trigger C anxiety
Physical features	MT goals: more movement MT as motivation for movement MT can elicit movement MT affords stability MT affords freedom Music can afford left-right integration	Process enabled relaxation MT motivates action Rhythm stimulates movement Increased interest fosters physical effort C allowed hand-over-hand Process afforded fine muscle control Process afforded fine motor control Music affords freedom Increased interest – increased movement

Table 4.3.2b: Comparing physiotherapist's perceptions of emotional/psychological, relational and physical features of therapeutic process, pre- and post-collaboration: Case B

This table indicated that there were possible changes in perception regarding the emotional and relational features of the collaborative process, with the initial interview focusing on affordances in terms of these aspects, while the final interview includes more statements regarding the challenges of the therapeutic process.

Through comparative analysis, I was able to explore various relationships and patterns, and could therefore start to make more analytic interpretations about the data. This informed the assumptions which I developed about the data and stimulated my thoughts about the collaborative therapeutic process.

4.4 Conclusion

This chapter has shown in detail the process of analysing data, from the preliminary coding of interview, session note and thick description data, to the development of themes, analytic codes and categorical codes. In the following chapter I will discuss these various themes and codes, as well as describing the relationships and patterns which emerged through the analysis process.

CHAPTER FIVE

DISCUSSION

In this chapter, I will describe in detail the various themes which emerged from the data, namely the physiotherapists' pre-collaborative understandings of music therapy; collaborative requirements; collaborative dynamics and collaborative outcomes. I will also address some of the relationships and patterns which emerged within and between these themes through the analysis process. In order to give insight into the dynamics of the two therapeutic processes, I will first explore the physiotherapists' pre-collaborative understandings of music therapy, thereby creating an awareness of the manner in which different perceptions may influence collaboration between therapists.

In order to address the main research question of this study, regarding the benefits of collaboration between music therapy and physiotherapy for clients with CP, I will then explore the psychological, emotional/relational and physical outcomes for the client of the collaborative therapeutic process. Sub-question 1, involving the physiotherapists' and music therapist's perceptions of these benefits, will also be addressed in this section. I will then discuss the collaborative dynamics of the two therapeutic processes which emerged from the data, as well as the different therapists' personal and professional experiences of collaboration. This will address sub-research question 2, regarding the therapists' perceptions and experiences of collaboration. Lastly, I will explore some recommendations for future studies in this area, including some of the requirements for effective collaboration as suggested by the data.

5.1 Contextual information

The two collaborative therapeutic processes of this research study occurred not only in different contexts, with one physiotherapist having limited knowledge of music therapy (Case A), while the other physiotherapist was more familiar with this profession (Case B), but the client participants in each process also had different ages and different diagnoses of CP. These aspects all influenced the goals, outcomes and dynamics of the two collaborative processes. In order to give the reader a clearer understanding of these outcomes and dynamics, I will briefly discuss some of the specific goals which the physiotherapist participants addressed in the initial interview.

In Case A, the main goal which the physiotherapist had planned for the client (diagnosed with athetoid CP) involved reaching his highest level of functioning. Other, more specific goals included the development of his posture, as well as exercising and practicing his

seating and walking abilities. In Case B, the physiotherapist called specific attention to her holistic approach in her work with the client (diagnosed with spastic CP), her main goal also being for him to reach his highest level of functioning, as well as to be able to function in society. More specific goals included the development of transferrable communication skills, independence, free and fluid movements, shortening the client's response time, enjoyment and challenge, and providing the client with a sense of achievement. These goals influenced the facilitation of sessions in each process, with Case A involving more structured activities focused on the specific physiotherapeutic goals (ASN1:1:4), while Case B involved a more unstructured approach (BSN1:1:4), with the therapists following the client's interests (BSN1:1:3).

5.1.2 Physiotherapists' pre-collaborative understandings of Music Therapy

The initial interviews with physiotherapist participants provided valuable insights in terms of their perceptions about music therapy techniques, the emotional and relational possibilities that music therapy can offer, as well as ways in which music therapy can help or interfere with physiotherapy goals. These insights not only influenced the manner in which collaborative therapy was conducted, but also impacted the therapists' relationships in each process. The two physiotherapists who were interviewed were not equally familiar with music therapy, with the physiotherapist from Case A (hereafter referred to as Physiotherapist A) having had limited exposure to the profession, while the physiotherapist from Case B (hereafter referred to as Physiotherapist B) had been working in a multidisciplinary team with a music therapist for a number of years (although not collaborating within sessions). Both participants showed openness towards collaboration with music therapy, offering many intuitive ideas about music and its therapeutic value.

With regards to the physiotherapists' levels of familiarity with and openness to music therapy and the collaborative process, Physiotherapist A professed having a lack of knowledge of the music therapy profession (AI1:3:25), while Physiotherapist B, although being familiar with the profession, acknowledged having a lack of understanding regarding the manner in which music therapists develop a therapeutic relationship with their clients (BI2:4:31). When comparing their perceptions about various music therapy techniques, as well as the value it may have for clients, it became clear that Physiotherapist A spoke more about the general characteristics and value of *music*, while Physiotherapist B had a much clearer, more specific sense of what the *profession* entails. The general characteristics described by Physiotherapist A were centred mostly on the psychological influence of music, such as "it makes you happy, it makes you sad... makes you feel alive" (AI1:1:26), as well as on music's

potential contribution to physiotherapeutic goals, for instance its ability to “stimulate (clients) to move better” or to “help them relax” (AI1:2:6).

In comparison with these general descriptions about music, Physiotherapist B spoke with much more specificity about the music therapy profession and its value for clients. Prominent aspects addressed in this interview involved the use of music in therapy as an “alternative way to communicate” and as a “channel in which you can reach” clients, with specific focus on the interaction between client and therapist. Interestingly, in the final interview it was specifically the interaction between the client and music therapist which Physiotherapist B pointed out as being “difficult” in terms the collaborative process (BI2:1:7), suggesting that this perception of the use of music therapy may have changed throughout the collaborative process.

Other perceptions that emerged from the initial interview with Physiotherapist B included her views on the importance of using music discriminately when working therapeutically with clients, carefully considering what instruments you should use or how you should use the various musical elements. She emphasised the use of tempo, indicating her understanding that care needs to be taken in this regard, particularly concerning the importance of using slow music when working with clients who move slowly. In addition, Physiotherapist B called attention to the importance of using instruments that are “easy to access” and which “make a noise”, while also considering the client’s preferences and individual responses, stating that “the more difficult... the more frustrated he’s going to get”. These firmly held ideas not only influenced the two therapists’ negotiation of which musical activities and instruments to use during the collaborative process, but may also have impacted the music therapist psychologically, producing some anxiety related to making the correct choices regarding her use of music (BSN1:2:15). This may also have prompted the music therapist to take on a more background role in this case, allowing the physiotherapist to take the lead in sessions, through choosing many of the instrumental activities and also at times engaging the client musically. These dynamics will be explored in more detail when addressing the therapists’ experiences and perceptions of the collaborative process.

In both cases, music’s ability to motivate and stimulate was also explored in the initial interviews (“it’s like they come alive” (AI1:1:7); “it works so well to motivate them” (BI1:3:15)) and the use of music as motivation became an integral but complex aspect in both collaborative processes, a feature which will be discussed in detail in a following section. Even though the two physiotherapists spoke about music and music therapy in different ways, their similar viewpoints regarding music’s potential to motivate seemed to be an initial point of contact between us in terms of the collaborative process. However, these viewpoints

can also have certain drawbacks, by bringing specific expectations about the way in which music functions as a motivation and how to structure sessions in order to capitalise on this potential of music to motivate. This was illustrated by Physiotherapist B in the final interview, when describing how sessions were structured in such a way that the therapists "were trying to use the music purely as a motivation...forgetting about the enjoyment" (BI2:2:8). Also, the therapists' expectation of music as motivation can be disappointed, as illustrated by Physiotherapist B's comment that the inclusion of music therapy in physiotherapeutic sessions "interfered because (the client) did not really use music as motivation" (BI2:2:3).

Another interesting aspect which emerged from the initial interviews with the physiotherapists was their conceptualisation of rhythm as an external attribute that needs to be "added" to the client as opposed to elicited from within them. This was revealed through statements such as "we can get a little bit of rhythm into him" (AI1:3:14) as well as discussions about the client's struggles "to get a rhythm" (BI1:5:29). This idea, in which the therapist is seen as having to *provide rhythm for* the client, rather than accessing his innate rhythm, contrasts somewhat to Communicative Musicality (Malloch, 1999:29), an integral concept in music therapy literature and practice. This notion refers to the inherent musical attributes of human communication that makes coordinated, synchronised companionship possible (Malloch, 1999:29). As such, every person is seen as having an innate musicality (Etkin, 1999:255) which music therapists aim to access elicit during sessions (Pavlicevic, 1999b:21). Therefore, in terms of rhythm, for example, a music therapist would typically attune to the *client's* basic beat (Pavlicevic, 1999a:124), and mirroring, matching and reflecting rhythmic aspects of *his* musical contributions, as elicited by the joint improvisation (Pavlicevic, 1999a:125). These distinct viewpoints between the music therapist and physiotherapist in each case influenced some of the dynamics of collaboration, for instance raising practical challenges regarding whether to play *for* the client, thereby providing him with rhythm, or to let the client play by himself, in order to attune to him and access his innate musicality.

5.2 Outcomes of the collaborative process

In this section, I will address the collaborative outcomes of the two therapeutic processes as they relate to theme 4. In order to address the main research question, I will first explore the outcomes related specifically to the client, which incorporated the analytic codes regarding *client-related psychological outcomes*, *client-related emotional/relational outcomes*, and *physical affordances of the therapeutic process for the client*. Some of these outcomes facilitated the clients' therapeutic process from both a music therapeutic and a physiotherapeutic point of view, while others provided some challenges for the client, which needed to be overcome. After addressing these aspects, I will discuss the analytic code of

theme 4 regarding the *personal/professional features of the collaborative process*, in order to start addressing sub-research question 1.

5.2.1 Client-related collaborative outcomes

While the psychological, emotional/relational and physical aspects of the collaborative process emerged from the data as separate analytic codes, it was also clear that in practice these aspects are highly intertwined. Therefore, although they were separated in theme 4 for conceptual clarity, I will discuss them in a more interrelated manner, exploring some of the multifaceted relationships between these aspects. With regards to the psychological features of collaboration, which involved *motivation*, *resistance* and *distraction* as categorical codes, I decided to first address *motivation* and *resistance* separately, since they emerged as rather complex features of the two therapeutic processes. I will then explore other psychological and emotional/relational features of the collaboration, including *distraction* and the different *emotional/relational challenges* and *emotional relational affordances* which emerged throughout the collaboration. I will end this section with a discussion of the various physical affordances that the therapeutic processes offered clients

5.2.1.1 Motivation and Resistance: the complex relationships between musical, emotional and physical processes

Motivation and resistance emerged as intricate aspects of the two collaborative therapeutic processes, encompassing various aspects of client behaviour, related to the use of increased physical effort; the use of increased movements; the level of participation and interest exhibited by clients; and lastly, the clients' willingness to persevere in certain exercises or activities. There were times when music and instruments were effectively used as a source of motivation for the client, but there were also times when this was not the case, with the client showing resistance to physical and musical participation. A comparison of data indicated that Case A was characterised with more instances in which the client was motivated, while Case B included more instances of client resistance (See table 4, Appendix F). These dynamics of client behaviour seemed to be related to the relationship between client and therapist, with greater levels of attunement between client and music therapist relating with more cases in which music was used as motivation, while greater levels of relational disconnect correlated with more cases in which the client showed resistance (See table 4, Appendix F). These relational factors will be explored in more detail in the following section.

With regards to motivation, data indicated that the inclusion of music in sessions specifically motivated *movement* ("it stimulated him ...to move" (AI2:1:13); *increased physical effort*

("using a lot of strength to keep his torso straight" (ASN6:1:7)); *participation* in physical activities ("a physiotherapeutic activity in which we incorporated instruments to motivate [the client's] participation" (ASN5:2:6); increased *interest* ("he started to show interest in the musical instruments (BSN5:1:17)); and *perseverance* ("it helped him to persevere (AI2:3:4)). With regards to resistance, data indicated that there were also times when the client refused or showed unwillingness towards participation in activities ("[the client] suddenly turns away again and starts whining with more intensity (BT2:4:19)") or when the client showed a lack of interest in musical activities ("he was not very interested in this and was soon distracted" (BSN6:1:8)). In Case B, the client's psychological state also influenced an increase in his muscle tone, which then impacted his physical participation, an aspect explored by the physiotherapist who noted that "it was when he didn't want to do something that you felt [an increase in muscle tone]". Although such resistance can be viewed as an obstacle that needs to be overcome, from a music therapy perspective it can also indicate that the client has a strong enough sense of self *not* to comply with all the clinical requests made by the therapists (Pavlicevic, 1999a:132).

As suggested by Nordoff and Robbins (1971a), Bean (1995), Patterson (2003) and Krakouer, Houghton, Douglas & West (2001), the prospect of playing musical instruments was a strong motivation for participation in physiotherapeutic exercises. This was observed through data indicating, for example, that the expectation of playing the bongo drum motivated crawling (ASN4:2:4), or that the positioning of different instruments could motivate the client to exercise rotation and range of movement in order to play them (ASN5:2:28). It should be noted, however, that instruments could not always be used as motivation as it became clear in Case B that the client at times avoided instruments, showing resistance to participation in instrumental play. In fact, only by adapting to a more receptive music approach, in which the client did *not* have to play instruments, could the therapists in Case B start to calm the client and encourage him to participate in physiotherapeutic exercises. This suggests that, apart from the relational dynamics influencing resistance, the client could also have experienced pressure or anxiety related to the playing of instruments. This possibility was raised during the therapeutic process and led to the music therapist and physiotherapist deciding to put less pressure on the client during sessions (BSN4:1:2). These dynamics will be addressed in more detail when considering the emotional/relational challenges of the collaborative process.

With regards to the use of *music* as motivation, it seemed that in the two collaborative therapeutic processes, the role of music during sessions involved stimulating and motivating *emotion*, which in turn motivates action. This relates with the views of Sacks (1991) Pavlicevic (1999a) and Pachetti ***et al.*** *(*2000), as indicated in the review of literature. This

could be seen in Case A, where the client's emotional investment in musical improvisations often appeared to motivate him to use physical effort, illustrated for example in data where the client was "hitting the instruments very hard [making it] clear that this emotional involvement required a lot of strength" (ASN5:2:12).

Enjoyment and increased interest in these improvisations also seemed to motivate Client A to persevere with difficult movements, illustrated through statements from session note data such as "[he was] enjoying it so much that he could sit up for much longer than usual" and "[he was] using more strength to play and also persevering in the activity for longer, since he was now more interested in what we were doing". Including musical activities in sessions also played a role in stimulating Client B's interest, as increased movement and physical effort was observed (e.g. "[he] became more interested, moving quite fast up the rest of the steps (BSN1:2:24-25) and "when he was into it, he could actually move quite a bit" (BI2:3:12). There was some difference, however, between the two cases, in terms of the *music* and *instrumental play* motivating the interest of client A, while with client B, it seemed to be the *mechanics* and the *technicalities* of the instruments, rather than the actual sound it produced, which motivated his interest (BI2:3:23). This was seen, for instance, when Client B would rather play with the knobs and bolts of instruments such as the cymbals or tambourine than to actually play these instruments (BSN5:1:7).

There were also sections of data in which it was specifically the client's *musical* investment during improvisations which required the use of increased physical effort, for instance where the client was "beating as fast as it seems possible for him" (AT1:8:2) and "using a lot of strength to keep his torso straight, in order to play a loud beat on the last note of the song phrase" (ASN6:2:6). It should be noted, however, that these musical and emotional processes of the client cannot be separated, as indicated by Pavlicevic's (1996:173) notion of the "duality of musical and emotional processes in clinical improvisation" (Pavlicevic, 1996:173), which illustrates how music and emotion share fundamental features in music therapy, where the music therapist hears the client's music not just as music, but as dynamic feeling states (Pavlicevic, 1999a:130).

Similar to the manner in which musical/emotional investment at times fostered physical effort, there were also instances where *less* musical investment from the client was directly followed by *less* physical effort. Although the client's decreased physical effort could be construed as 'resistiveness', as music therapist, I also needed to consider whether I was actually attuned to the client (Pavlicevic, 1999a:132), since inappropriate interventions may have led to the client's decreased investment. This reveals the complex relationship between music, motivation and resistance in clinical improvisations. It also illustrates the importance

of selecting appropriate music to motivate individuals (Ansdell, 1995:25), which links to Sacks' (1991:62) account of his work with a client who was only stimulated to move physically when the music affected her emotionally. These aspects show the intricate connection between a client's musical/emotional, psychological and physical processes and this needs to be carefully considered in collaboration between music therapy and physiotherapy, as all of these processes are being addressed in sessions.

5.2.1.2 Client-focused psychological and emotional/relational features of the therapeutic process

In addition to *motivation* and *resistance* as psychological features of the collaborative process, participation in musical improvisations also served as a *distraction* from physiotherapeutic exercises, a feature of collaboration which has also been addressed by Bean (1995:194-196) in the review of literature. This aspect of the therapeutic process was clearly illustrated in data from the session notes from Case A, for instance where engagement in instrumental play distracted the client from being in a standing frame, allowing him to persevere for longer than usual (ASN6:2:28), or where improvisation at the piano while sitting on a physiotherapy ball distracted him from the stabilisation and strengthening exercises which the physiotherapist was facilitating at the same time (ASN1:1:24). The physiotherapists from both cases also commented on the role of music in distracting the client from physical challenges, which was illustrated through comments such as "he didn't think of the challenge, he was thinking of the music" (AI2:1:14); "I was...strengthening his muscles and he was so busy that he didn't realise it" (AI2:3:2); and "he didn't concentrate so much on the physical stuff, so he allowed me to do more" (BI2:1:9).

In addition to the association between the client and music therapist's relationship and the levels of motivation and resistance in each case as described in the previous section, a comparison between Case A and B also indicated that greater levels of attunement between client and music therapist (in Case A) related to more instances of enjoyment, initiative and personal validation for the client, while greater levels of disconnect between these parties related to more instances of resistance and distress (See table 4, Appendix F). Even though the physical outcomes will not be discussed in this section, it was interesting to see that higher levels of attunement also corresponded to more instances of physical affordance. While one must acknowledge that there were a myriad of factors in interplay during the two therapeutic processes, the comparison of data does suggest that the relational dynamic between client and music therapist was one of the factors influencing the outcomes of the collaborative process.

With regards to Case A, the emotional/relational affordances which the collaborative process offered the client included aspects related to *emotional expression*, *enjoyment*, *personal validation* and *initiative*. Data from session notes indicated that participation in musical improvisations afforded the client opportunities to express emotions such as aggression and frustration in a constructive manner (ASN5:2:29). This aspect of the collaborative process was also remarked on by the physiotherapist during the final interview, who found such expression valuable in light of the fact that the client's disability had often caused frustration in other social settings (AI2:2:20; AI2:4:11-15). In addition, Physiotherapist A called attention to the *enjoyment* which this process offered the client (AI2:2:20), and aspect also illustrated though data from thick descriptions e.g. "beating the cymbal, still laughing softly while doing so" (BT1:8:21). As shown through session note data, this enjoyment related not only to the act of playing instruments, but also to the shared nature of clinical improvisations, in which the music therapist followed the client's cues, allowing *him* to direct the music.

The shared expression which musicking offered also allowed the client an opportunity in which the music therapist and physiotherapists could witness his accomplishments rather than his disabilities, as illustrated in session note data in which the music therapist describes how she and the physiotherapist "were both witness to [the client's] process and both equally impressed at what he was accomplishing" (ASN3:2:31). In response to these moments, the physiotherapist often displayed gestures indicating surprise at the client's abilities (AT2:8:13), which links to Ansdell's (1995:17) comment regarding music's value of bringing into focus the abilities and creativity of a person. During musical activities, Client A also displayed initiative and assertiveness in his musical contributions, at times showing playful resistiveness (Pavlicevic, 1999a:132) by suddenly stopping his musical participation and watching the music therapist in a mischievous manner before resuming play. This playful behaviour can also be related to Nordoff and Robbins' (1971) concept of the *music child*, the healthy and creative, non-disabled part of every human being which music can tap into (Pavlicevic, 1999b:21) and which was called into responsiveness in work with Client A, thereby giving him a normative and affirming interactional experience.

In comparison with Case A, the above-mentioned features of emotional expression, enjoyment, personal validation and initiative, were limited in the collaborative work with Client B and the therapeutic process with him was characterised by emotional/relational challenges such as confusion, distress and frustration. These challenges were generally ascribed by both the music therapist (in session note data) and the physiotherapist (in the final interview) to the music, the music therapist and to the unfamiliarity of the collaborative setting. With regards to music, session note and thick description data indicated that music which seemed forceful or excessive with regards to dynamics, pitch and tempo, often led to

the client expressing distress through whining, crying, or increased jerky body movements. For example, fast and loud music played by the music therapist in the bass on the piano was directly followed by the client falling over and starting to cry, to which both therapists responded by asking the client whether the music was “too scary” (BT1:7:23).

Pressure to play instruments with which he struggled also frustrated client B at times, which was often followed by him refusing participation. This links to Physiotherapist B’s comments in the initial interview regarding the use of instruments that are easy to access, and also relates to Magee’s (1999:208) discussion about the possible difficulties that may arise when working with physically disabled individuals. In addition, over-stimulation due to the inclusion of music in physiotherapeutic exercises seemed to confuse the client on certain occasions, for instance when the music therapist musically accompanied the client’s movements. This aspect of over-stimulation also relates to a comment by Physiotherapist B, who stated that “all of us together putting the demands on him, was too much for him” (BI2:16-17). In a collaborative setting between music therapy and physiotherapy, one therefore needs to consider these aspects carefully, reflecting, for instance, on how to use age-appropriate music, or taking into account that the demands placed by *two* therapists may be overwhelming for the client. The frustration and distress concerning these aspects may lead to decreased levels of participation in physical and musical activities (as in Case B), thus limiting the client’s emotional and physical therapeutic process.

In addition to the music and the over-stimulation of the client, the presence of the music therapist also seemed to provoke client confusion and distress. The client and physiotherapist’s responses at times suggested that the music therapist was the cause of the client’s distress, illustrated through anxious gazes in her direction (BT2:2:12), or the physiotherapist positioning the client so that he would face away from the music therapist (BT2:3:4). During the final interview, Physiotherapist B remarked to the music therapist/researcher that it was “probably mostly your presence” that caused the client’s anxiety in sessions. The unfamiliar setting of the collaborative situation also seemed to trigger the client’s distress and was reflected on by the physiotherapist in the final interview where she stated that “the whole situation he was just never comfortable with” (BI2:4:15).

These various emotional/relational and psychological features, as well as the factors influencing them, indicate the complex relationships and patterns within such a collaborative therapeutic situation. These aspects, when ignored, may have an inhibiting influence on the therapeutic process, but with both therapists taking cognisance of these possibilities and reflecting on how to deal with these challenges, the collaborative process can be a very rich experience for client and therapist alike.

5.2.1.3 Client-focused physical affordances of the therapeutic process

As indicated by the literature, the collaborative process between music therapy and physiotherapy offered the clients various physical affordances, facilitating certain physiotherapeutic exercises while also supporting and stimulating specific movements. As mentioned in previous sections, however, the emotional/relational and psychological aspects all influenced the physical processes of clients and this should be kept in mind when considering these features.

One of the physical affordances of the collaborative process indicated through the data involves the development of muscle control and coordination. This finding emerged through data relating to the perceptions of both the music therapist and Physiotherapist B. For example, an excerpt from session note data describes how the client was "playing fast alternating chords with both hands...thus exercising coordination and fine motor control" (ASN5:1:32), while Physiotherapist B, in answer to the researcher's question regarding the physiotherapeutic benefits of piano play, also noted the "dynamic shoulder girdle control" and "isolation of fingers" which this activity afforded (BI2:3:15).

The inclusion of instrumental play in physiotherapeutic sessions also afforded strengthening, posture, balance and weight bearing. These aspects of collaboration were emphasised by Physiotherapist A in the final interview, in which she explained (inter alia) that the collaborative process "helped to strengthen (the client's) core muscles" (AI2:1:11); "was *very* good for his balance" (AI2:3:16); and "helped with (the client's) weight bearing" (AI2:6:17). Physiotherapist A also noted that she "could see an improvement... in (the client's) posture muscles" (AI2:2:14) after the collaborative process. Piano playing, drumming and the throwing of the tambourine were also some of the specific instrumental activities mentioned when discussing these affordances.

One of the reasons why these aspects were so prominent in Case A and not in Case B, may be due to the fact that the development of the client's posture was one of the specific goals which Physiotherapist A wanted to work on during the collaborative process. However, as mentioned in the previous section, other psychological and emotional/relational features also influenced the physical affordances which each case offered, an aspect further suggested through sections of data in which increased musical investment fostered an improved posture (ASN4:1:32; ASN5:1:23), while a decrease in musical investment led to a decline in the client's posture (ASN5:2:3).

Other physical features which emerged from the two therapeutic processes included rotation, range of movement and mobilisation. In Case A, the instruments were often

purposefully positioned in such a manner that the client needed to use spinal rotation in order to play them (AT1:5:20). This feature of instrumental play was also discussed within the interview data, where Physiotherapist A describes how the client was stretching to the sides "doing rotation" while playing the piano. Purposeful instrumental play was also part of the process in Case B, where the physiotherapist at times facilitated the client's instrumental play in a specific manner in order to exercise range of movement (BT1:1:15). This benefit also emerged from session note data, in which it was described how the client engaged in a "determined exploration of the piano...as he stretched to the sides to play high and low notes" (ASN5:1:29-31). Mobilisation was another affordance which Physiotherapist A commented on in the final interview (AI2:3:9), and which was also relevant to Case B, where the physiotherapist incorporated movements such as bending and standing up to pick up the beaters during instrumental play (BSN4:2:9-11).

The last three physical features which the collaborative therapeutic process afforded clients include movement organisation, relaxation and left-right integration. In both Case A and Case B the physiotherapists noted the role that music played in enabling relaxation and supporting stretching exercises, while thick description data illustrated how participation in instrumental play fostered left-right integration. In Case A, left-right integration was exercised for instance when the client played the cymbals or drums with alternating hands (AT1:6:1; AT2:4:7), while in Case B, this affordance was related to the physiotherapist playing *for* the client, using his hands in an alternating manner (BT1:4:6) and doing "hand-over-hand" (BI2:2:2) with him.

With regards to movement organisation, the element of rhythm played an important role in the collaborative process with Client A. Through session note data, it emerged that "the structured, rhythmic melody clearly helped (the client) to organise his movement patterns" (ASN6:1:19), while "incorporating syncopated beats" enabled the music therapist to "support (the client's) movements" (ASN4:1:38). Comments from the final interview with Physiotherapist A also related to this aspect, as she explained how the collaborative process "helped with rhythm" (AI2:1:5), and "got him to do a bit of rhythm" (AI2:4:5). Similar to the discussion of rhythm in the first section of this chapter, these comments again illustrate the different therapists' conception of rhythm as an inherent element which can be accessed and supported, in comparison with it being external attribute which the client needs. In order to start addressing the therapist's perceptions and experiences of the collaborative process, in the next section I will discuss the *personal/professional features of the collaborative process* as they relate to Theme 4 (Collaborative outcomes).

5.2.2 Personal/professional features of the collaborative therapeutic process

With regards to the therapists' personal and professional experiences of collaboration, data indicated that in both cases the therapists had *affirming* as well as *challenging experiences* throughout the therapeutic process. In addition, the different therapists' perceptions indicated that although there were certain affordances (as described above), there were also instances when either the music therapy process or the physiotherapy process was limited during the collaborative process.

A comparison of data indicated that there were generally more affirming experiences in Case than Case B, with physiotherapist A commenting on the "enjoyable" experience (AI2:2:12) and repeating her perception that collaboration "worked well" (AI2:1:3; AI2:3:9; AI2:4:23). The music therapist's affirming experiences in this case involved pride in music therapy aiding the physiotherapist with regards to physical goals (ASN1:2:1), as well as being encouraged by the client's responsiveness to music (ASN6:2:27) and the physiotherapist's response to the client's abilities (ASN4:1:18). Some of the challenging experiences in this case involved the therapists' uncertainty about what the process would entail (AI2:4:24) as well as the music therapist's anxiety about her music (ASN5:1:5) and about interfering with physiotherapeutic processes (ASN4:1:4). This shows the importance of clarifying one's expectations and establishing open communication between therapists, aspects which will be addressed when discussing recommendations for collaboration.

In Case B, with regards to affirming experiences, the physiotherapist remarked on the collaborative process being a learning experience, while the music therapist commented on the confidence which the physiotherapist's encouragement gave her (BSN2:2:35), as well as the client's responsiveness encouraging her (BSN1:2:27). There were many challenging experiences which Physiotherapist B reflected on, including the difficulty she experienced in combining music therapy and physiotherapy (BI2:1:9); her perception that collaboration was a "challenging experience" (BI2:1:3); her experience that the client made collaboration difficult (BI2:1:8); and her perception that collaboration is challenging when working with clients with severe CP (BI2:1:27). In this case, there were also more instances in which the music therapist experienced anxiety. This related to her feelings of causing the client distress, to her use of music in sessions, and her perception of music interfering with physiotherapeutic goals. There were also times in which the music therapist felt incompetent (BSN1:2:5) or felt pressure to perform (BSN1:1:9). As will be seen in the following section regarding collaborative dynamics, these anxieties not only influenced aspects of collaboration, but were possibly also influenced by some of these aspects, such as the primacy of knowledge assigned to physiotherapists.

With regards to the music therapy process being limited at times during collaboration, this related mostly to difficulties related to matching, for instance when the physiotherapist played *for* the client (Case B). Also, the structure of certain instrumental activities at times only allowed for short improvisations when the physiotherapeutic goal was for the client to continuously change his positioning (Case A). The physiotherapy process was also limited at times, for instance when engagement in musical improvisations distracted the client from correct movement patterns or allowed less movement for the client, since he had to remain in a more static position to play certain instruments (AI2:1:20). These limitations need to be considered and communicated in order for therapists to negotiate the structure of sessions in such a way as to enhance the affordances and restrict the limitations.

5.3 Collaborative dynamics

Analysis of data indicated that there were many interesting dynamics which evolved throughout the therapeutic process, illustrated through the session note data, which includes the music therapist's perceptions, as well as through the final interviews with the physiotherapist participants, which involves their perceptions. These collaborative dynamics, which emerged as Theme 3, pertained specifically to the physiotherapists' primacy of knowledge throughout collaboration; the relationships between the three parties in each process; and aspects related to practice in each case. In this section, I will first address the role of physiotherapists' knowledge and insights during the collaborative process. I will then discuss the relational dynamics related to the two therapeutic processes, discussing the relationships between the client and each of the therapists, as well as the relationships between the two therapists. Lastly, I will address the practical dynamics of the collaborative process, specifically regarding different ways of working together.

5.3.1. The primacy of physiotherapist's knowledge

One of the interesting dynamics which emerged from the analysis of data involves the primacy attached to the body of knowledge which physiotherapists bring to the collaborative process. This dynamic included the perceptions of both the music therapist and physiotherapist participants. From the physiotherapists' point of view, their guidance during collaboration is vital in order for clients to do movements in the "right way" (AI2:6:24). Also, while Physiotherapist A commented that music can elicit "all the things that a physio wants", she added that this was only with cooperation, describing the need for a physiotherapist to point out to a music therapist which movement patterns to work on (AI2:6:17-23).

This role was also addressed by Physiotherapist B, who commented on the value of physiotherapists in explaining CP to music therapists, thereby giving them more insight into

the abilities and limitations of these clients (BI2:5:28). The necessity of the music therapist having and understanding of Cerebral Palsy and the movement behind it was also emphasised by Physiotherapist B (BI1:2:18; BI1:2:24; BI2:5:24). The music therapist also seemed to attach some superiority to the physiotherapists' knowledge about the client's physical needs, trusting this knowledge during sessions (ASN3:2:11). Although this links to the recommendations given by Ansdell (1995:87) and Kwak (2007:212-213) regarding the importance of consultation with physiotherapists when working with clients with physical disabilities, one also needs to consider how the primacy assigned to one body of knowledge may impact the relationship between therapists in a collaborative situation.

Through a comparison of data from the two therapeutic processes in this research study, it appeared that a possible relationship existed between the degree to which primacy of knowledge was assigned to the physiotherapist in each case, and the leadership taken by the physiotherapist during sessions (see table 5, Appendix F). Although other aspects could also have influenced this leadership role, data indicated that in Case B, where the music therapist relied more on the physiotherapist to take the lead (e.g. BT1:6:15), primacy of physiotherapeutic knowledge was already emphasised by the physiotherapist during the first interview. In Case A, where there were fewer instances during which the physiotherapist took leadership (e.g. AT1:3:21), the necessity of physiotherapeutic knowledge was only addressed in the final interview, after the therapeutic process. I would therefore like to suggest the possibility that the physiotherapist's indication of this primacy of knowledge *before* the therapeutic process started could have influenced the music therapist to take on more of a follower role during sessions.

5.3.2 Relational dynamics

Apart from the leadership relationship that developed between the music therapist and physiotherapists, other aspects pertaining to the therapists' relationships involved the mutuality or disconnect which occurred between therapists, as well as the process of developing a therapist relationship. In both therapeutic processes there were times of mutuality as well as times of relational disconnect between the music therapist and physiotherapist. Experiences of mutuality revolved around the merging of goals (ASN2:2:8), reciprocal trust (ASN2:2:7), equal involvement (BSN2:2:24) and equal investment (ASN6:2:30) between music therapist and physiotherapist during activities. Experiences of disconnect, on the other hand, revolved around different perspectives causing irritation (ASN6:1:11), as well as misattunement or lack of synchrony between therapists during musical improvisations (ASN1:2:23; ASN2:2:26; BT1:3:1; BT2:4:5). These two relational features of the collaborative process also correlates to some of the practical dynamics which

emerged in sessions, such as the shared/complementary foci between therapists (which relates to aspects of mutuality) and the dissonant foci between therapists (which relates to aspects of relational discord). These aspects will be discussed in more detail in the following section.

Although there were moments of discord and of mutuality throughout each of the collaborative processes, there was also a development in the therapists' relationship as they began to trust each other with their roles (ASN2:1:7) and had the opportunity to share significant moments related to the client (ASN3:2:30), such as witnessing his accomplishments. It also emerged that as the client became less anxious with the collaborative situation, the tension between therapists decreased (BSN2:3:1), thereby facilitating the development of a more mutual relationship.

The development of a working relationship between the physiotherapists and music therapist was also a significant aspect of relational dynamics. This was illustrated in session note data where it was described how the therapists were becoming "better able to work together" (BSN2:1:2), and in interview data, where Physiotherapist B commented on the challenge of figuring out how to work together (BI2:1:4) and get the client to do certain activities (BI2:5:28). An interesting suggestion regarding the relationship between co-therapists in collaboration was made by Physiotherapist A in the final interview. She noted that by developing an effective cooperative relationship between music therapist and physiotherapist, the presence of both therapists in sessions would not always be necessary for collaboration (AI2:7:10), suggesting that a discussion of goals and recommendations between collaborators may be sufficient (AI2:6:28-30). This is a noteworthy aspect which can be considered in planning collaboration.

As indicated in the section regarding collaborative outcomes, the relationship between client and music therapist seemed to have a significant impact on the therapeutic process. In both cases, the client-music therapist relationship included both instances of attunement and of relational disconnect. Moments of attunement revolved around the therapist matching (Pavlicevic, 1999a:125) the clients' tempo, rhythm, dynamics, intensity and quality in the music, as well as the moments of interactional synchrony (Pavlicevic, 1999a:111) between client and therapist, where they flowed together, flexibly engaging in the music through joint improvisations and musical turn-taking. Moments of relational disconnect involved the music therapist mis-attuning or failing to match the client musically as well as superficial or fragmented musicking between client and music therapist. It also included aspects pertaining to the client's lack of trust and avoidance of the music therapist, the music therapist triggering the client's anxiety, and the struggle experienced by the music therapist to connect

with the client and build a therapeutic relationship. The development of the relationship between music therapist and client involved increased musical engagement, a deepening therapeutic relationship, playful interaction, eye-contact and intimate connection between the two parties.

A comparison of data between Case A and Case B showed that there were more moments in Case A relating to the development of a relationship and attunement between the client and music therapist , while there were more moments of relational disconnect between client and music therapist in Case B. As discussed in the section regarding collaborative outcomes, these differences in relationship correlated with the psychological, emotional/relational and physical affordances of the collaborative process. This illustrates how the dynamics of the relationship between client and therapist can have an influence the outcomes of a therapeutic process and thus needs to be considered when planning for collaboration.

Another dynamic pertaining to relationships in these collaborative processes involved relational exclusivity between different parties. In Case A, where there were greater levels of intimacy and attunement between the client and music therapist, there was also more moments of relational exclusivity between these two participants. In Case B however, where the relationship between the client and music therapist involved more moments of relational disconnect, there was more moments of relational exclusivity between the client and the physiotherapist. Their relationship was also more prominent than in Case A, with Physiotherapist B often calming the client, reading and following his cues, and at times also playing with or matching him. This seems to relate also to the relational disconnect between Client B and the music therapist, and shows how some of the relational dynamics between different parties in collaboration are continuously influencing each other.

5.3.3 Practical dynamics

Through the research process, some dynamics of practice in collaboration between music therapy and physiotherapy also became apparent, which can provide valuable insights for planning such a therapeutic process. These dynamics related to the different roles, foci, values, goals and activities which the two therapists in each process took on during sessions. These were at times complementary, with the therapists thus being in harmony; shared, with the therapists being in unison; independent, with therapists working monophonically; and discordant, with the therapists being in dissonance with each other. There were also times when one therapist accompanied the other, playing a more supportive role, and other times where the physiotherapist compensated for the music therapist's role during sessions. Although these dynamics related to these two specific cases, it shows

some of the different possibilities of practice which one might expect when embarking on a collaborative therapeutic process.

The first aspect of practice which I will address is the dynamic of harmony during certain activities and between therapists' values and foci during the therapeutic process. Some of these complementary activities included the physiotherapist dancing with the client while the music therapist would provide the music (BSN6:1:27); or piano improvisations during which the client sat on a physiotherapeutic ball with the physiotherapist bouncing him in order to increase his muscle tone while he was musically engaging with the music therapist (ASN1:1:24; AI2:3:14). Another complimentary activity which Physiotherapist A also commented on in the final interview, included crawling to music, during which the physiotherapist facilitates the client in moving correctly, while the music therapist sang and provided a rhythm on the bongo drums to incorporate the client's movements (AI2:6:24 and see Thick Description 2, Appendix C). Many of these activities involved complementary values, providing not only physical benefits for the client, but also emotional and relational affordances as described in section 5.2. These cases therefore illustrate how the physiotherapist's focus on physical aspects and the music therapist's focus on the musical, emotional and relational aspects could be complementary even though they were different.

There were also times, however, when the two therapists' foci, goals and facilitation of activities were shared and they were thus working in unison. One of these shared goals included engaging the client in musical and instrumental activities, with both the music therapist and the physiotherapist offering the client different musical possibilities (Case B). Another shared goal was to offer the client some enjoyment through shared facilitation of playful musical activities (BSN2:2:25). At times both the music therapist's and the physiotherapist's goal was movement-related, also illustrated through the crawling activity from Case A, in which the music therapist focused on facilitating the client's movements musically, while the physiotherapist focused on facilitating the client's movements physically. Thus, in this instance, even though the therapists' roles were complementary, their goal was shared. Another shared focus between the music therapist and physiotherapist involved mutual satisfaction and surprise regarding the client's *abilities*, illustrated, for instance when the physiotherapist indicated to the music therapist that the client was standing all by himself by holding up her hands and giving the music therapist a small smile (ASN3:2:32).

It also emerged from the data that there the therapeutic process sometimes included moments when the music therapist and physiotherapist were working in monophony, each with an independent and individual focus, for instance when the physiotherapist was focused on positioning the client, while the music therapist's focus was on the client or the music

(ASN3:1:8). This individual focus of therapists in collaborative practice was clearly illustrated by Physiotherapist A in the final interview through comments such as “I think of just my exercises and you think of your exercises”; “I was doing therapy my way”; “you always think of yourself first”; and “everybody looks at their specific patient in a specific way”.

While these independent foci did not create challenges or difficulties in the facilitation of sessions, there were times when the physiotherapists’ and music therapist’s separate foci, goals, values and ways of facilitation were in dissonance with each other. This occurred when the therapists were clearly working from different perspectives (ASN6:1:4; BSN4:1:30) and often involved difficulties regarding matching the client, for instance when the physiotherapist played instruments *for* the client in order to enhance the physical value of activities, which posed a challenge for the music therapist in terms of knowing who to match musically (BSN3:2:20; ASN1:1:16). Dissonant perspectives also came into play when the clients showed resistiveness to musical participation. From a music therapy point of view, this had emotional value and was thus embraced, but from a physiotherapeutic view, it at times had no physical value and was therefore not welcomed, as illustrated in thick description data where the physiotherapist responded to the client’s playful resistiveness by exclaiming “Come Tshepo[2]! You must play!”. These different values and aims pose challenges for collaboration and therefore it is important for therapists to clearly negotiate and communicate how to approach collaborative sessions and what to focus on during different exercises.

Other practical dynamics which emerged from the collaborative process was the support which each therapist provided for her co-therapist. Thus, there were times when the physiotherapist accompanied the music therapist by physically enabling the child to engage musically with the music therapist, or stabilising and supporting the client in order for him to participate in instrumental play. At other times, however, the music therapist supported the physiotherapist by musically accompanying physical exercises (e.g. on the piano), or by assisting the physiotherapist in working on physical goals through specific positioning of instruments. These supportive roles were often negotiated beforehand which again calls attention to the importance of clear communication between co-therapists, which will be discussed in the following section.

The last feature regarding the dynamics of practice related to the physiotherapists’ role compensation during sessions. This involved the physiotherapist engaging the client in music and in instrumental play, musically matching the client and musically extending the client’s contributions. As noted earlier, this aspect seemed related to primacy of knowledge

[2] The client’s real name was not used

but was also specific to Case B, in which there was more relational disconnect between the client and the music therapist. I would therefore like to suggest that these aspects were all influencing each other, with the music therapist possibly experiencing the physiotherapist's behaviour as role compensation due to her own perceptions of the physiotherapist's primacy of knowledge, while the physiotherapist possibly compensated for the music therapist's role due to her perception of a lack of connection between the client and music therapist.

Therefore, it is important to note that all aspects regarding collaborative dynamics are in a continuous state of reciprocal influence, with perceptions influencing relationships and relationships influencing practice, which, in turn, will influence perceptions. When engaging in a collaborative process, it is therefore vital to consider these myriad of dynamics and how they may influence the therapeutic outcomes of the process. In the following section, I will address some of the recommendations for collaboration, as indicated in Theme 2 (Collaborative Requirements). I will also address some recommendations for future study in this area.

5.4 Recommendations

5.4.1 Requirements for effective collaboration

Through the analysis of data, some valuable perceptions and ideas regarding the requirements for effective collaboration could be distinguished, with these relating chiefly to the necessity of negotiation and mutuality between co-therapists. With regards to negotiation, the clarification of expectations emerged as a significant aspect of collaboration which facilitated the therapeutic process. By clarifying their expectations of the collaboration, the therapists could establish a sense of relaxation (BSN3:1:10) and confidence (ASN11:7) between them. It also facilitated the development of a working relationship between therapists (ASN2:1:3) and assisted the reaching of goals (ASN2:1:1), since the therapists knew what they were working towards.

During a collaborative therapeutic process between music therapy and physiotherapy, therapists should not only *clarify* expectations regarding collaboration, but should also *negotiate* certain aspects of the process, since different perspectives and ways of working are represented. One of these aspects involves the negotiation of goals, as suggested by the Physiotherapist B in the final interview: "you have to figure out your goal, and you both have to work towards the same goal" (BI2:1:29). This aspect of negotiation cannot be separated from a negotiation of the structure, activities, process and approach one would use in collaboration, since these will determine the manner in which therapists will work towards their goals. In Case A, the structure of sessions were clearly negotiated before

sessions (ASN1:1:3; ASN2:1:4) and contributed to the effective facilitation of sessions. In Case B, however, where there was initially no planned structure, this seemed to complicate the music therapist's role during sessions ((BSN1:1:4; BSN1:1:11). When the therapists eventually started to adapt their approach for the client (BSN4:1:1), thereby negotiating some of the activities and the process they would follow in order to put less pressure on him (BSN4:1:2), this not only facilitated the *therapist's* working relationship, but also had an encouraging effect on the client, who was more willing to participate in sessions (BI2:4:18). Another aspect of negotiation in collaboration between music therapy and physiotherapy includes the music, for instance during crawling activities where the rhythm and beat needs to be negotiated between all three parties (ASN5:1:8). I believe that through the negotiation of these aspects, there will be more clarity between therapists regarding their roles in the therapeutic process and this will not only facilitate the client's process, but will also aid the development of a mutual therapist relationship.

Such mutuality between therapists also emerged as a requirement for collaboration and involved aspects such as communication, cooperation, mutual goals and trust. The necessity of communication for the development of a mutual therapist relationship was emphasised by Physiotherapist B in the initial interview (BI1:4:3) and should encompass all the different aspects of negotiation. Teamwork and cooperation was highlighted by Physiotherapist A in the final interview (AI2:6:17-18), and this specifically involved the support of each others' goals. Lastly, trust between therapists also emerged as a requirement for collaboration and an important aspect in developing mutuality between therapists (ASN2:2:8) and this related particularly to trusting one's co-therapist with her role in the therapy process. By considering these various aspects and continuously communicating with your co-collaborator, effective collaboration can be planned and a mutual therapist relationship can be built, with therapists having more *shared* and *complementary* foci (as discussed in the previous section), and thereby restricting the limitations of each individual therapist's process.

5.4.2 Limitations and recommendations for future research

This study held certain limitations which need to be considered for future research in this area. Firstly, one needs to consider that the research setting can create an unequal relationship between therapists from the start. Also, since I was relying on their willingness to accommodate a music therapy student during sessions and the clients' parents continued to pay for *physiotherapy* sessions, there was an expectation that *physiotherapy* goals would be adhered to. This may have contributed to the manner in which sessions were facilitated, as well as influencing the music therapist/researcher's perceptions and experienced of the process.

Also, this study was conducted in only two settings, with the small sample size of two physiotherapist participants and two clients with CP limiting generalisability. Also, collaborative therapy in each case was conducted with *toddlers* with CP, specifically spastic and athetoid type. In order to gain a broader perspective of collaboration with this client group, I recommend that future studies incorporate clients from a broader age group, as well as including clients with ataxic and mixed type CP.

Thirdly, as both music therapist and researcher in this study, although I aimed to bracket my own pre-suppositions during the coding process, my personal experiences and perceptions as music therapist during the collaboration still influenced the analysis of data. I can therefore not claim objectivity, since research was carried out from a music therapy standpoint perspective, entailing certain values and views about the therapeutic process.

In addition, my role as researcher could have influenced my behaviour during sessions, thereby influencing the data which emerged from the study. These aspects were reflected on during the analysis process and I take cognisance of these limitations.

Other recommendations for future study which emerged through this research process include exploration of how therapists would negotiate or adapt their approach with regards to the different types of CP, since this aspect was not specifically addressed in this dissertation. Another aspect which can be explored includes ho the *client's* familiarity with music therapy, music and instruments can influence the collaborative process between music therapy and physiotherapy.

CHAPTER SIX

CONCLUSION

This research study provided some valuable insights regarding the collaboration between music therapy and physiotherapy, not only with regards to specific outcomes for clients with Cerebral Palsy, but also including perspectives from both the physiotherapy and music therapy profession. It illustrated some of the different perspectives which physiotherapists in South Africa may have about the music therapy profession, including their general understandings of the value of music to motivate and affect emotions, as well as more specific understandings regarding music therapy techniques.

With regards to the various outcomes of the collaborative process, this study explored the various psychological, emotional/relational and physical features of the collaboration. The role of music and instruments as motivation, as well as the client's resistance to this, emerged as significant, but complex features of the therapeutic process, which had an influence on the clients' levels of participation and interest, as well as on their movements, their use of physical effort and their perseverance during various exercises or musical improvisations. The inclusion of music and instrumental play during physiotherapy sessions also served as a distraction for clients from uncomfortable or tedious physiotherapeutic exercises. In addition, it allowed clients to experience enjoyment and to express themselves emotionally. The initiative they could take during musical improvisations also fostered a sense of personal validation. On the other hand, the process illustrated that collaboration also involves challenging experiences for the client, such as confusion, distress and frustration. However, these experiences can also afford the client resilience and should therefore not be discounted.

In addition to the psychological and emotional/relational features of collaboration, the process also yielded some physical affordances for clients, including control and coordination, strengthening and posture, weight bearing, balance, rotation, movement organisation, range of movement, mobilisation, relaxation and left-right integration.

The collaborative process generated both affirming and challenging personal and professional experiences for the music therapist and physiotherapists involved, relating to the therapeutic process and to the relationship between therapists. Certain perceptions about the dynamics of collaboration were also presented, including therapists' experiences of the different *relational dynamics* that developed between the three parties in each process and the *practical dynamics* and different ways of working which emerged through

collaboration. These aspects provide some valuable insights for future collaboration between therapists, providing some of the dynamical possibilities which may emerge when collaborating and which need to be considered before embarking on such a process.

Lastly, throughout the collaborative process some requirements for effective collaboration emerged, specifically regarding the negotiation of sessions, during which expectations and goals should be clarified, and the structure and approach of sessions should be planned. Mutuality between therapists also emerged as an important feature for effective collaboration, with communication, trust and cooperation facilitating such a mutual therapist relationship.

The collaborative process was a learning experience for both me, the researcher/music therapy student, and the physiotherapist participants. I believe that such collaboration holds much potential for practical application, and that it can be an enriching experience, not just for the client, but also for both therapists involved.

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APPENDIX A: INTERVIEW SCHEDULE

INTERVIEW 1 (before the commencement of collaborative sessions):

Question 1: What are your perceptions about music therapy?

Prompts: What are your perceptions about the music therapy process?
What are your perceptions about general music therapy goals?
What are your perceptions about the possible benefits of music therapy for clients with CP?

Question 2: How do you think music therapy may contribute to / impede physiotherapeutic work in sessions with clients with CP?

Prompts: What are your perceptions of how musical activities may facilitate physiotherapeutic exercises?
What are your perceptions of how music therapy may possibly interfere with physiotherapeutic exercises?

Question 3: What are the general goals you have in work with clients with CP?

Question 4: What are the specific goals you have for the client with whom we will collaboratively be working with in sessions?

Question 5: How do you think music therapy may play a role in working towards these goals?

Prompts: What are your perceptions about specific musical activities in music therapy and the role they may play in working towards these goals?

APPENDIX A: INTERVIEW SCHEDULE

INTERVIEW 2 (after the termination of collaborative sessions):

Question 1: During this process, how did you personally experience the influence of the participation of a music therapy student on your physiotherapeutic work in sessions?

Prompts: How did music therapy contribute towards your work with the client?
How did music therapy interfere with your work with the client?
What difficulties did you encounter in working with a music therapy student?

Question 2: How did you perceive the influence of the participation of a music therapy student in sessions on the client with CP?

Prompts: How did music therapy facilitate physiotherapeutic exercises for the client?
How did music therapy not facilitate physiotherapeutic exercises for the client?
How did you perceive the influence of music therapy on the client's levels of motivation during physiotherapeutic exercises?
How did you perceive the influence of music therapy on working towards your specific goals for the client?

Question 3: How have your perceptions about music therapy changed/not changed during the collaborative sessions with a music therapy student?

Prompts: How have your perceptions about the music therapy process changed?
How have your perceptions about general music therapy goals changed?
How have your perceptions about the possible benefits of music therapy for clients with CP changed?

APPENDIX A: INTERVIEW TRANSCRIPTS

INTERVIEW 1: PLACEMENT A

DATE: 6 JUNE 2011

Researcher:

okay Sarah... um, I just want to know what are your perceptions about music therapy?

Interviewee:

Um... I don't, I must admit I don't know a lot about music therapy, we don't have a music therapist at the school, but, um, I know that our children *love* music. We've seen that some of the children that we didn't know could do things will do it with music, or they'll, I'll say, not that they can do activities, it's like... they come alive. They start getting rhythm and ... they start performing.

Researcher:

Mmm.. and...if you think about music therapy... you said now that you haven't - that you don't really know a lot about it, but what do you think may be possible music therapy goals, uh, ja, for people... for music therapists?

Interviewee:

Ummm..... I think it can help with... different things. It can help with relaxation... it can help with stimulation... um... it can help with rhythm, and um.... that's all I can think of... in physio.

Researcher:

And generally, also in other areas? Do you think other goals are possible not linked specifically to physiotherapy?

Interviewee:

With music?

Researcher:

With music.

Interviewee:

[pause] um... probably... psychologically. Music can always [short pause] influences you psychologically. It makes you happy, makes you sad... it makes you feel alive. Ja... that's what I can think [laughs].

Researcher:

And so, mmmm... what do you think can the possible benefits be for a child with Cerebral Palsy to take part in music therapy sessions?

Interviewee:
Well, the benefits will be... like... to...to... to... like our children, some of them have got low muscle tone, that you want to increase their low muscle tone, and then for children with high muscle tone, help them relax. And... um... maybe... stimulate them to move better.

Researcher:
And then, how do you think music therapy may contribute to, or impede physiotherapy work in sessions with children with CP?

Interviewee:
Well, how it can contribute is like I said... but how it can ampede, ag, impede, um, it can also make them a little bit wild ... and let them get out of control. Because *they* have difficulty in controlling their muscles – their muscle patterns are not, are not normal. So if the music becomes too wild, or too loud, they might get a fright and it might stimulate their reflexes, or make them... out of control. So it can have benefits... it must be used correctly.

Researcher:
Then, what are your general goals in working with children with Cerebral Palsy?

Interviewee:
Well, in our, our school, children have to sit correctly, because it's a school, and our children's posture aren't good, so we do a lot of seating, and then... to get the most benefit out of their little bodies, like, getting a child to do his highest function, for instance, can he sit? Is..maybe that's his highest function. Can he crawl? That might be his highest function. Can he walk? Maybe not independently, but with a aid. So we try and get the highest function... physic, physical function that we can from the child, either with a aid or without a aid.

Researcher:
And then, uh, what are the specific goals that you have for the client that we will be working with?

Interviewee:

Tshepo[3] is a diaplegic, uh... he's quite severely handicapped, because he's got very low muscle tone in his trunk and his legs... the coordination in his legs aren't very good. So we are going to – we are aiming for him to walk, with a lot of help, with um... "spalkies?", with... uhm... foot aids, and also with a walking frame. That will be his highest aim. [pause] because he is quite severely handicapped. Otherwise he'll be a wheelchair child, but he will be able to... able to walk a few steps. So physically we have to get him to practice and develop his... him maximally [nods].

Researcher:

Mmmmm... then... how do you think music therapy may play a role in working towards those goals?

Interviewee:

Well, Tshepo, because he's got a very low muscle tone, with the music we can increase the muscle tone in his trunk and we can get a little bit of rhythm into him, and... um... the music uh might help him to move [uses hand gestures indicating forward movement] with rhythm and, um... getting movement better.

Researcher:

And you said that the music can stimulate him. How do you think... uh... why and how do you think the music stimulates?

Interviewee:

Stimulates him...

Researcher:

Ja...

Interviewee:

Um... I think... I don't know? But I just, in my mind. I can just think that if he starts doing an activity maybe on a ball the rhythm of the music might get him to... [makes gestures with hands indicating forward movement] get his muscle tone going better. If we want him to relax, we can play slow music... that's what I know – I don't know so much [laughs].

[3] The client's real name was not used

Researcher:
Then, um, what, what specific musical activities do you think we may be able to use... in sessions.

Interviewee:
[Pause] What kind of rhythm? Or what?

Researcher:
[Interrupts interviewee] Ja, or what... what musical activities can we incorporate in physiotherapeutic sessions?

Interviewee:
Okay we'll do [starts counting on hands] music for relaxation; music for stretching; music for stimulation; and then um... music for rhythm.

Researcher:
And do you think that um, any instrumental activities we ma-, that we may be able to use any instrumental activities during sessions?

Interviewee:
Ja!

Researcher:
Mmmm...

Interviewee:
I think we can try and see... see the effect it has on the child... ja 'cause I must say different children also react differently. We had another child that we also thought could be in.. you know, we could use for your... study, but he's a little bit deaf. So, you know, that works against it. Tshepo we've never tried with music – I've never seen him with music – we do have music at the school, but it's just a music session...actually it is on a Monday...

Researcher:
Well thank you very much Sarah, I appreciate your time.
Interviewee: Ja. I hope I could... uh... answer your questions well enough.

APPENDIX A: INTERVIEW TRANSCRIPTS

INTERVIEW 1: PLACEMENT B

DATE: 8 JUNE 2011

Researcher: Okay Jenny, what are your perceptions about music therapy?

Physiotherapist: uhh...meaning....what do I hope it gives you? Gives the children?

Researcher: Well, what, what do you think it is?

Physiotherapist: what it is... well, music therapy is a way in which you can communicate with children. On a different level.

Researcher: and, um... what do you think the music therapy process entails?

Physiotherapist: I think it's a different channel that you can work with... so it entails a lot of communication skills: Eye contact; uhh... basic turn taking; um, so ja, I think it's got a lot to do with building a relationship with them and then see what they would do with the music.

Researcher: Ja, so how do you think...what do you think happens in a –

Physiotherapist: In a session?

Researcher: A session.

Physiotherapist: um, I think you follow the cue of the child. But you have to work on the, uh, on the level of the child [uses a hand gesture indicating a low level]. And then you use what they give you in a musical way to get more out of them.

Researcher: [laughs and nods] Mmmm, and then, your perception about general music therapy goals?

Physiotherapist: [pause and scratch head] um... think about what I've worked with here... most of the time we've sort of referred children that are, are very difficult to interact with. So I think their interaction is the main thing, to see if you – like I said it's another channel of communication – so, if we can't communicate with them, or if we're not seeing an improvement then we use the music therapy as an alternative way to communicate with them. So that would be one goal – another one would be that they can interact in a group; um, another one would be... from my side that they move a bit more, so maybe, if the motivation is strong enough then they'll move more than they would from another motivation. [Nods her head]

Researcher: and, um, so... what are your perceptions of the possible benefits that music therapy may have, specifically for a child with cerebral palsy?

Physiotherapist: well, because of their brain injury and the fact that it affects their muscles, um, communication is a huge problem for them. They can't – they struggle to communicate and, and if they could show just their joy, or just some sort of happiness, um, then it would give us an idea that they can -

Researcher: yes...

Physiotherapist: - communicate in some way. It may not be the normal way of communication, but at least it's *a* way of communication –

Researcher: yes.

Physiotherapist: – um ... also, to get them to move.

Researcher: okay...

Physiotherapist: um, I think my main perception of music therapy is that it's a *fun* thing to do. Uh... so hopefully, when you work with their emotions, and in a fun way, you're going to unlock other things that come out of the child –

Researcher: yeah

Physiotherapist: – that you couldn't in another way. [Nods her head]

Researcher: then, um, how do you think music therapy may contribute to, or impede the physiotherapeutic work in sessions with clients with cerebral palsy?

Physiotherapist: [pause] um... I think the first thing is... the music therapist must understand what cerebral palsy is. Because... I think if you don't understand it then you won't know how to read the child... because they don't respond like a normal child does, or like a child with normal motor abilities. So you need to be able to understand that you need to give them a lot of time – you need to understand them holistically, and uh... so that's one thing that I can see can be a problem with a child with cerebral palsy – if the therapist doesn't have the knowledge about cerebral palsy and understand these children, then I think it would be difficult to read their cues

Researcher: Ah yes...

Physiotherapist: um...

Researcher: and what do you think might happen then?

Physiotherapist: um... I think you can frustrate the child... definitely frustrate the child. Um, so it goes a lot about understanding the child. Uh, you have to form a relationship with the child before you could just, uh, go ahead. Uh, whereas with a child that interacts normally and moves normally, where you can work with them and they will interact back with you, you have to be able to watch the cues on how they are going to interact without just the normal way for them to interact.

Researcher: ja...

Physiotherapist: Um... so... that's how I think it could impede it. Uh ... I think it could improve it because it definitely brings a fun element in – like I said the motivation part – and some children, or with cerebral palsy ... you're looking for that channel in which you can reach them. You're looking for something, that can, uh, that will make their world interesting for them. And I think that music definitely could have a way of getting there. I mean, we don't do music therapy as such, but you always include music in your session, because it works so well to motivate them. It has a calming effect, or you can work a lot on their relation...

Researcher: Then, what are your perceptions on how musical activities – specific music activities – can facilitate the physiotherapeutic process?

Physiotherapist: Mainly it would be motivation. It's a good form of motivation. So – but the tempo you would have to watch, because when you're working with a child with physio, with cerebral palsy, uh, it's all about your hands and it's all about what you feel: you observe with your eyes, but you feel with your hands as well. So you have to feel what makes this child work best: is it a faster movement? Is it a slower movement? Does he need deep pressure? Doesn't he like touch? Do you need to work distally [uses gestures of opening arms to the sides to indicate what is meant by working distally]? Do you need to work proximally [brings arms together in front of body to gesture what is meant by proximal]? So...um... repeat the question?

Researcher: Oh... musical – what musical activities would you be able to use to facilitate it?

Physiotherapist: facilitate it...

Researcher: Yes

Physiotherapist: So you would use the tempo a lot. So you would use...um... for example if this is a child that needs to move slowly, then you wouldn't – you would use something quieter and slower sort of tempo, not something very upbeat. But with a child with low tone

you would use something upbeat so you would wake them up and get them all excited. So definitely the tempo, uhm, would help a lot... um...and I think the physiotherapist and the music therapist need to chat – need to understand each other well. Co-therapy is all about understanding what the other person wants to attain, so that you can work together. So I think, uh, ja... you, I think it definitely can work, but you have to be going towards the same goal.

Researcher: Yes. Um, then, what music therapy exercises – well actually you've already said how music, music exercises can interfere, so I won't ask you that one... but what are the general goals you have for clients with cerebral palsy?

Physiotherapist: I think a little bit out of the box... I don't just think physio-orientated, so I look at them holistically, so the number one thing would be function. So you would want them to function, in a, in a society and in an environment. So, uh... it doesn't help if they can only communicate with you, you want them to be able to communicate in a group, or to show any sort of interaction within a group. It goes a lot on... when they're this age, when they're small, it goes a lot on what the parents need and what the parents want as well. So you're always looking for independence for these children, and you're always looking for, for them to reach their highest function, highest functional level. But, you've got to take in – it's a holistic approach so you've got to take everything into consideration. There's no point in me working for him to eat food if he doesn't like the food. There's no point in me making him colour in, if he can't see what he is colouring in. Or... so you have to take all the different factors into consideration and see what is the best possible way for this person to function in society.

Researcher: mmmmm ... and so, um, what are the specific goals you have for the client that we will be working with?

Physiotherapist: um... I would like him to move more freely. So to be able to... – he struggles a lot with hearing a beat and being able to uh move or int– get any response from him immediately. It's – everything takes very slow for him so if you give him enough time, he will come and do what you want him to do, but you need to give him enough time, so I would like him to shorten that time. I would like his response to be quicker and so, that would mean that we would have to make his movement a lot more fluid, um... fluent, ja. And... um... ja, his interactions are really good – fun, ja, I'd like him to have fun, but challenge him. It needs to be challenging, because he's a bright boy, so at the end of it he needs to feel as if he has achieved something. So whatever we work on, we have to set the goal so that he *will* be able to reach it. We – and I think it's quite easy in his – in this case, to show failure.

Researcher: ja...

Physiotherapist: Yeah, so we don't want to do that

Researcher: no... [shaking head]

Physiotherapist: we wanna only get him to reach a goal, and to attain a goal. To feel success... um... ja, if he could – from a speech perspective as well, if he could make more sounds while he's doing it? Um... Again, it's also controlled by the motor problem, so it's also very delayed when it comes out, so we can get that more... sort of more relaxed, but then still be able to get a response.

Researcher: then how do you think... um...what are your perceptions about specific musical activities in music therapy, and how we can apply musical activities to achieve those goals?

Physiotherapist: so not physio?

Researcher: No.

Physiotherapist: Just music therapy?

Researcher: well, how do you, yes, how do you think we can incorporate music activities in your physiotherapeutic exercises –

Physiotherapist: I see

Researcher: – in order to achieve those goals?

Physiotherapist: um, I think, various positions. You've got to change the position. It doesn't always help to use one position the whole time. You want to challenge him, so get him higher up against gravity, or put him in a position that he's not used to... um, did I answer your question?

Researcher: Yes, and um, also think about, perhaps instrumental activities also. How do you think we'll be able to use, um, instruments and so on to... to work?

Physiotherapist: Okay... our instruments are gonna have to be... easy to access. So, like a piano is a great idea, because he can get his hand there, and it doesn't matter where he gets it, it's going to make a noise, so...um, and... we can position him near a piano in a good position for him, that's gonna give him enough stability to move his arms freely. Uh... drumming is also going to be great, except that he struggles a lot to get a rhythm, so um, that integration between left and right, it is really difficult. So... but again, a big drum, something with a big amount of space for him, it's gotta give a good response back when he does do it, and it's gonna be easier than something small –

Researcher: ah yes...

Physiotherapist: for him to use... uh...loves the sticks – so we could use the sticks, um, but again, you've got to try and make it as wide as possible and as big as possible, because the narrower you make it and the smaller you make it for him, the more difficult and the more frustrated he's gonna get.

Researcher: Ja.... Thank you Jenny! That's it!

APPENDIX A: INTERVIEW TRANSCRIPTS

INTERVIEW 2: PLACEMENT A

DATE: 25 JUNE

Researcher: Sarah, um... how did you experience the influence of the participation of a music therapy student on your work in sessions with a client with cerebral palsy?

Physiotherapist: look, I think... it worked very well for static exercises, so that means it was for the strengthening of the core muscles. It worked very well. And ja, um...I think in that way... Also it, it, it helped with rhythm, to do an exercise, like with the crawling, it helped him to rhy – to crawl and it encouraged him. The music encouraged him.

Researcher: alright...

Physiotherapist: ja

Researcher: um...so, so how specifically do you think the music therapy contributed to the work?

Physiotherapist: well, it, it helped to strengthen his core muscles in that he was not, uhh... concentrating on the exercise: he was concentrating on the music. So it stimulated him to sit up better, or to move...you know? He was more – he moved easier, he was more...um – he didn't think of the challenge, he was thinking of the music, so he would rotate, like on the piano [making gestures showing how the client played instruments to the left and then to the right with a beater, rotating her body], he was moving better.

Researcher: Ja...okay, and uh, how do you think the music therapy interfered? Do you um, yeah, think that it interfered with the physiotherapeutic exercises?

Physiotherapist: no... uh, I don't think it interfered... it didn't interfere at all. It's just that in, in, when *we* do exercises, we do a little bit more movement, and that's not, that , that doesn't go with the music, but it didn't interfere at all.

Researcher: Why, why would you say that it doesn't go with, with the music therapy?

Physiotherapist: You see, if you're, if you're doing the exercises – it does go! – but if you're doing the exercises you do it and you move [gesturing with arms reaching out to left, bring back arms], and you move [reaching out forward with arms, then bring back arms], and you move [reaching out to the right, then bring back arms]. So you do it a little bit faster and there is not really time to get into the music, but if you do it with a rhythm, like we did it the other day, then it's good.

Researcher: Oh, okay...

Physiotherapist: so then you will stimulate the movement –

Researcher: – so, uh, so for instance, do you mean then that I would then – I would play the music while you would do the movement?

Physiotherapist: in that way [nods], or like we did with him when he was standing on his knees, like working here [mimics playing a drum low to the left], going up [mimics playing u drum higher up to the right], moving there, going down [mimics going down to the right to play a drum], doing these movements, but a little bit quicker, so it will rather be a rhyth-, a rhythmic thing.

Researcher: a rhythmic thing

Physiotherapist: ja.

Researcher: uh, and what difficulties did you encounter during this process... if there were any?

Physiotherapist: no... no difficulties, no not at all. It was very enjoyable [laughs].

Researcher: [laughs]

Physiotherapist: and definitely helped to strengthen him, definitely, I could see an improvement, in his... in his core muscles. That means his, um, posture muscles.

Researcher: Oh, okay...

Physiotherapist: Ja.

Researcher: And how did you perceive, uh, the influence of music therapy on him, on Tshepo?

Physiotherapist: I think he enjoyed it very much and I think his, uh... some of his frustrations came out... and um, he's inquisitive, so it stimulated his – and uh, I think he enjoyed it very much.

Researcher: uh... and [pause], how did you perceive the influence of music therapy on his levels of motivation during sessions?

Physiotherapist: I think it motivated him quite a lot [nodding]. He didn't – he did much more! Because with the strengthening of the core muscles it becomes a bit boring when he's not doing something –

Researcher: yes...mmmm

Physiotherapist: – so he was sitting there, I was working on his balance and the strengthening of his muscles and he was so busy that he didn't realise it. So it helped, uh... for his, uh.... "wat's uithouvermoë?"

Researcher: Perseverance

Physiotherapist: Perseverance! Ja, so he wasn't, it helped him to persevere.

Researcher: Okay, um, and... how did you perceive the influence of music therapy on the work – on *your* work towards the specific goals that you mentioned at the start of the process.

Physiotherapist: No I think it worked well... I think he... it worked. He strengthened, he mobilised... uh, so I think it went well.

Researcher: If you could just elaborate, uh, on how you think specific musical exercises uh... could be used for – how specific musical exercises were used for certain specific goals? If you could think, perhaps...?

Physiotherapist: Okay, for instance, if he's sitting on the ball, we are increasing his muscle tone, so I'm doing that, and even when he is, um, doing the exercises, moving his arms [mimics playing the piano, repeatedly reaching up high in the air and going down], he's getting that, he's strengthening that. And then we were working on his balance as well... that was *very* good for his balance, because he was stretching over and stretching over [mimics stretching to the right and then to the left to play the piano] –

Researcher:– are you speaking... what exercises? are you now at the piano?

Physiotherapist: The piano, at the piano. So he was, he was stretching [mimics stretching to left], so he was doing rotation, which is fantastic for our CP children, we can all try and do all our exercises with rotation, and uh... for his balance, also sitting at the – on the ball, but also all the other exercises: standing on his knees... uh, so basically we do, we repeat all the exercises. We want stability, we want balance, we want rotation, we want weight bearing, so it worked very for weight bearing, like for instance in the standing frame, he's standing, doing the music [mimics playing he cymbals], during the class, after 10 minutes he starts complaining. Now he's standing, it doesn't look like therapy, but he can't stand by himself. So he has to – he's standing in this position, he's getting weight bearing exercise, he's stretching his legs, and he's balancing, *and* he's getting rotation [mimics playing the cymbals first to the left and then to the right], so it's all, um, all exercises that we promote, that we want all the time. So he was doing that without, we were sort of... uh, not *tricking* him, but he

was doing the exercises sort of here [mimics playing cymbals to the left and to the right] and he didn't complain, he wanted to go on.

Researcher: Why do you think the *music* um... worked so well to, to 'trick' him?

Physiotherapist: I think it was, it was interesting... I think, Anine, *you* were fantastic, in that you kept him busy, you kept him going, you stimulated him. Got him to do a bit of rhythm, got him to... uh... do all the things you wanted to, so I think it, the, the music definitely helped him, and the – he was susceptible to the sounds – he liked the different sounds, and the rhythm and the things you were trying to do.

Researcher: And you mentioned a little while ago that he got rid of his frustrations. Why would you say that?

Physiotherapist: No... I just thought he was hammering away and I think he's quite a clever little boy and he tries hard and on the playground he will try to get onto the little motorbike, but he can't do it. So I think he *does* get a little bit frustrated, he must do.

Researcher: Ja...

Physiotherapist: So I think it's emotion – when he started doing it – and then he was smiling... I'm sure it made him feel better.

Researcher: Uh... now how have your perceptions about music therapy changed, or not changed during the collaborative sessions?

Physiotherapist: No it changed a lot, because we think, if you think, I think of just *my* exercises and you think of *your* exercises, so the whole thi – the whole process was quite different, because you think in a way and I think in a way, and then you have to ad – I have to adapt to you and you have to adapt to me, but I think it worked well. So I wasn't quite sure what to expect at the beginning, what we were going to do, but I think for strengthening, for everything, it worked well.

Researcher: And um, how do you, how have your perceptions about the music, music therapy process – just a simple music therapy process – how would your perceptions about *that* change? What... for instance what do you think music therapy entails? Have your perceptions about what it entails change?

Physiotherapist: Ja, it did. It did change. Because you're doing therapy for the child. And I'm thinking about music for *my* therapy.

Researcher: Okay...

Physiotherapist: So you were doing, doing therapy for him and I was doing therapy in my way, so I, I didn't perceive it like that. Like... you always think of yourself first. Of your therapy first.

Researcher: Ja...

Researcher: And, how have your perceptions about music therapy goals...- at the beginning of the process when we had the interview you mentioned a few goals that you would imagine music therapy would have. How have those perceptions changed? If they have ...

Physiotherapist: um... in a way they've changed a little bit, because we did more exercises. I thought like, we were going to do things like... jumping to the music, because I was thinking about physio-

Researcher: ja

Physiotherapist: - and movement. But it changed in a way that it's therapy, so you have to use more a static posture – which is wonderful for our children, and it's wonderful to strengthen them, and for their balance and so... it did definitely change, ja...it's a different way, so that's why we started walking to this standing frame, 'cause that's wonderful therapy, but he can go on with his music and he's getting therapy. It's not like *I'm* getting him, got him to stand up – that's also good, also good... but in a way I saw that the therapy is better for his posture.

Researcher: oh... and if you think about music therapy now, outside of a physiotherapeutic framework, just general music therapy, how do you think now about the profession of music therapy?

Physiotherapist: no I think it could be wonderful for, for a child... for an adult...um... for their *emotions*, emotionally it can be fantastic, but also for movement.

Researcher: mmmm, uh and how, how specifically, if you think, um, think about emotions, and how do you think the music, music therapy can help them in that?

Physiotherapist: well, it can get rid of emotions. And also, it can put back emotions. It can make you happy, it can make you friendly, it can make you sad... it can make you... so there's two different kinds of things that I think you can get out of music.

Researcher: If you say get rid of emotions, what do you mean by that?

Physiotherapist: Say for instance if somebody's sad and the music can – the sound of the music can get rid of that emotions: make them cry or ... [pause] do anything to get rid of their emotions, for instance crying, or thinking or... take –

Researcher: help them express?

Physiotherapist: help them *express* their emotions, ja...

Researcher: uhh....and –

Physiotherapist: – and especially for *our* children it's wonderful, because they don't always know how to express their...

Researcher: yes...exactly...

Physiotherapist: their feelings. So in the music you can get them to express their emotions, I think, ja...

Researcher: and now, just very generally, what do you think music therapy may – how may music therapy benefit children with cerebral palsy?

Physiotherapist: well, as I said, it's all the different things... So, okay, it's emotions: it can help them emotionally, it can make them happy, it can make them sad, it can make them *move*. And then... it strengthens them, it helps with their rotation, it helps with weight bearing: all the things that a physio wants, the music can bring out, but with the cooperation. I think teamwork is very important, because everybody looks at their specific patient in a specific way: if I say "okay Anine, let's do the exercises diagonally", then you can do it diagonally, or "let's do it for a longer time", or "let's do it on his knees, because I'm battling to break up the pattern, for instance – his...our spastic children go into specific patterns, so when he's standing on his knees he's breaking up his pattern. So it's a very important goal for him to be able to stand on his knees, so that he can go towards walking. And with the rhythm, for instance the exercises where we were doing crawling, we do it in a rhythm, and he has to do it the right way –

[interruption from the school's intercom]

Physiotherapist: – so it can help, the music therapy can help in many ways, and I think we saw it with the exercises. But I think cooperation will always be... important. And I don't think the physiotherapy, physiotherapist always has to be in the presence of the music therapist, but just to tell her "listen, I'm working on this; I'm working on that; I want him to use his legs separate; don't let him bunny-hop".

Researcher: Ah yes...

Physiotherapist: So I think, if you do it in cooperation, you work together, then it can work fantastically.

Researcher: And how do you think in sessions, with a physiotherapist present, how do you think that helped? The benefits that the *physiotherapist* had for the music therapist?

Physiotherapist: In, in our situation, the child knows me. And then, to position him correctly, to do the things *I* want him to do, *with* the music. So it's important for him to sit with his legs open, for instance, and it's important for him to have his feet on the ground when he's sitting. And then, the different exercises – the rotation; and the exercises that I chose are the ones that he's battling with. So it's nice to *be* present, but if you have good cooperation, you don't *always* have to do it.

Researcher: okay... well thank you very much for everything Sarah, thank you for all your time, I really enjoyed working with you.

Physiotherapist: Ag no, it was a pleasure, it was very nice and it was an eye-opener for me too, because definitely my perception changed a little bit.

INTERVIEW 2: PLACEMENT B

DATE: 24 JUNE 2011

Researcher: Hi Jenny, um... during this process, how did you personally experience the influence of a music therapy student on your physiotherapeutic work in sessions?

Physiotherapist: shoe... I found it challenging. [pause] I found it challenging um... but it was also nice challenging to, to figure out how we could work it –how we could work together. I thought it was a learning curve, where we both learn – see what we both wanted [laughing]

Researcher: [laughing] when you say challenging, in what aspects was it challenging?

Physiotherapist: mmm... I think this way, where it was most challenging was interaction. That was difficult. So what was actually difficult was the child... uh... the music as such wasn't difficult [shakes head] but it was very difficult to combine the two...with Steven.

Researcher: Yes... the music and the physio - ?

Physiotherapist: mmmm

Researcher: Yes... um... so in what aspects – how did you experience the music theraoy contributing towards your work in sessions?

Physiotherapist: I'd like to think that he did fairly well from a *physio* point of view... I don't know what he did from a music therapy point of view, but from a physiotherapy point of view I could get him to do quite a lot. I could get him to relax and to um.... – so I think... ja... I think it was just the different environment; doing different things, he was more worried about what *you* were going to do with him than what I was going to do with him. So he didn't concentrate so much on the physical stuff, so he allowed me to do more.

Researcher: Oh, okay.. so in general, in physiotherapeutic work, um... if you could now generalise to other, other clients as well, how do you think the music therapy contributed to physiotherapy work in general?

Physiotherapist: In general I think it's great. In general I think it *does* give them the motivation to do things...

Researcher: motivation...ja, and other things possibly?

Physiotherapist: Enjoyment, fun... ja, um... rhythm for movement, yeah... but I think for a child with severe cerebral palsy it's uh... difficult.

Researcher: Ja...

Physiotherapist: I think you have to figure out your goal, and you both have to work towards the same goal.

Researcher: and in this process... uh... working with a music therapy student, how did you think the music therapy interfered with your work with the client?

Physiotherapist: I think it only really interfered because he didn't really use the music as motivation...

Researcher: [nervous laugh] ja...

Physiotherapist: perhaps, you know... that's how it interfered... was that we were trying to – I think towards the end we realised we had to work in a different way with him. But in the beginning we were trying to use the music as a – purely as a motivation, and forgetting about the enjoyment and all of that... whereas I think... you – that didn't work... [shakes head] – Definitely interfered... with the process of our therapy. But I think he...Ja.. like I said, you have to... figure out the kid... and you have to both...be able to read the kid and see what approach is the best to use.

Researcher: ja.. and um, more specifically, if you think more specifically about your physiotherapeutic work, if you can think more specifically about ways it interfered specific physiotherapeutic exercises or goals and so on?

Physiotherapist: mmm.... what I can think of is that he... didn't *want* to do it. And because he didn't want to, it was very difficult to get him to do the things that he can't do. Whereas if – usually, if a child is happy or interested in something else, they don't um... focus so much on what you're trying to get them to do. But I think that... he allowed me to do a lot more in the sense that he allowed me to do more hand over hand with him, but I still couldn't get him to do the difficult stuff.

Researcher: so...we have kind of answered this, but just more specifically, how did you perceive the influence of music therapy in session on the *client*? Not just on the physiotherapeutic work.

Physiotherapist: umm [long pause] in this case it wasn't the greatest [soft laugh]. Um... it's difficult to say because in general, music therapy works really well, but in this case, he didn't – he wasn't interested. So he wasn't - don't think he was comfortable in the situation and so... was that answering your question?

Researcher: Ja!

Physiotherapist: That's basically, I think it just didn't work for him...

Researcher: ja... um... were there any cases where you think music therapy *did* facilitate physiotherapeutic exercises for the client... for Steven.

Physiotherapist: For Steven... definitely it gave him the ability to just relax, but in a different way. Usually in physio you try to get them to activate themself and to get them to do things by them self, but with Steven, with his spasticity, or with his uh... fixating, you... it's very difficult to ever show him what to do, whereas this gave me the chance to show him what to do, but then he never wanted to do it on his own.

Researcher: Oh, I see... ja... um... were there any musical activities that you thought could have worked very well - if he had wanted to do it – to facilitate physiotherapeutic exercises?

Physiotherapist: Ja! No all the musical instruments... all the musical instruments: the piano; the – I remember one session where he did really well with the piano...and um... you see, he would need a lot more of that... 'cause once he got a lot more, and he got a lot more into it – interested in it, then you can apply a lot more physio techniques.

Researcher: What did the piano offer him physiotherapeutically?

Physiotherapist: Um... um... shoulder girdle – uh... dynamic shoulder girdle control; um... isolation of his fingers...; uh... more fluent movement; um... the *freedom* for movement, because he often can't move, so when he was into it, he *could* actually move quite a bit, but you know, in a position that he would usually be able to move.

Researcher: and can you think of other musical activities that we did?

Physiotherapist: you mean like musical instruments?

Researcher: yes...

Physiotherapist: [long pause] yup! Um... the tambourine, uh that helped him in that he was interested in the workings of it, not necessarily in the sound that came out of it, but in the working of it. Uh... and once again, when he's interested in something, he does more than he usually would do...

Researcher: oh, ja...

Physiotherapist: but not the actual music... the actual sound that came out of it didn't help his movement... in this instance, ja...

Researcher: ja.., uh... how did you perceive the influence of music therapy on the client's level of motivation [laughs] during physiotherapeutic exercises?

Physiotherapist: [smiles] it didn't work in this instance. Um... I believe it *can* work, but it didn't work in this instance because he wasn't in a right place for it to work. So it's not necessarily the *music* that was the problem, I think it was just the situation, that was more the problem.

Researcher: What specifically about the situation do you think was the problem?

Physiotherapist: I think he had an issue with trust. And unfortunately, he's incredibly bright, so he's not like the other children who you could sort of distract him and he'll forget about it... I just don't think he ever felt comfortable. Uh... and I don't know why?

Researcher: Ja...

Physiotherapist: Maybe he was pushed once too far and he just didn't trust.

Researcher: Do you think that uh... that it was more the music or that or was more my presence? Or do you think it was perhaps both?

Physiotherapist: Mmmm... I think it was probably mostly your presence, um... because I know he is interested in music and he really is interested in... things – especially in a group he's interested, umm... and he, and he's doing well in the group, he's improving in the group. So, music wise, he does like the music and he does enjoy it, I just think the whole...uhm... the whole situation he was just never comfortable with. And I don't think it's for anyone specific that he wasn't comfortable with, I just think all of us together and putting the demands on him was too much for him. So, but that's why when we started to change our approach, it went better... ja.

Researcher: That's true... um, so how did you generally perceive music therapy – the influence of music therapy on working towards your specific goals for Steven?

Physiotherapist: [long pause] I don't think it worked. I – but once again, it was purely because he wasn't in the frame of mind for it to work, and... I think the concept *will* work, I do believe that, but he just wasn't in the frame of mind for it to work.

Researcher: Uh... now how have your perceptions about music therapy changed, or not changed during this process?

Physiotherapist: My perception didn't change... like it wasn't a negative or positive perception, but a... I kind of understood it a bit more. And I realised what a psychological impact it can have. Um... and I think, it is very challenging for a music therapist, because

you've got to be in touch with that child's psyche. And you've got to be in touch and feel what they feel and use the tempo to go with them and that... which is something which I don't really understand too much about, but uh... I think, I just think that it is a complicated thing. I don't think it's so easy, I don't think – you definitely don't have a recipe, so you can't – what works for one child won't work for another child. Uh... but I think it's a journey and I think you will be able to find out what that child wants and what works for that child. But it's a journey, we have to grow it together and see if it's gonna work.

Researcher: And, how have your perceptions of music therapy goals changed... during this process?

Physiotherapist: Yes... ja I think it did... because I always thought you want the kid to participate in that instrument – you know that's what I thought it was mostly about, but I think – I still think that's part of the process, but now I think you can use other ways to achieve your goal.

Researcher: Such as?

Physiotherapist: Such as just listening to the tempo of the music;... uh, feeling the movement to music; uh... ja...

Researcher: And what do you think the goals of those activities are?

Physiotherapist: [long pause] to make the child more comfortable... in his own body; to make him more comfortable for – in a certain situation; um... to... enjoyment [nods head] – still enjoyment, and just, different ways of experiencing things. You can experience things, this is more a sensory way of experiencing it. Not necessarily an act of participation, but more a sensory one.

Researcher: and now, how have your perception of the possible benefits of music therapy for client with cerebral palsy changed, if they have?

Physiotherapist: um... I think they've changed, but – I don't think they've changed, I think they've stayed the same, but I've always really, I've always thought the music therapist has to really understand cerebral palsy and has to understand um... uh the movement behind it, because that's uh their limitation. So I think, uh... that's what I've always enjoyed doing, working with a music therapist, is because a physio can explain it and uh... give you a bit more insight as to what – why they can't do it. And I think it's then up to both of you to then figure out a way to get them to do something

APPENDIX A: INTERVIEW TRANSCRIPTS

Researcher: So, um... how do you think such a process may differ between working with a client with spastic CP, versus one with low ... low muscle tone?

Physiotherapist: A CP with low muscle tone or just -

Researcher: - a CP with low muscle tone.

Physiotherapist: Difficult to answer, because you don't really get a CP with pure low tone, they usually have mixed, so even your spastic person has still got a low tone. So if you're talking – I can talk about a client with Down's syndrome with low tone, but they don't have a problem with movement as such, music therapy will be excellent, but with um.. with CP, uh... low tone CP, the music will.... the problem is still the movement, so it's still gonna be difficult but I do think that maybe the tempo of the music will be able to excite them enough to activate them more to uh... to do it. But I would say uh... *with* physio, that's how you would improve the tone, not with.. you know... just music itself.

Researcher: Ja... and with Steven, since he built up a lot of muscle tone, especially in his arms, how do you think the music influenced his tone?

Physiotherapist: His tone? It actually didn't influence his tone. Huh-uh... It was more his psychological status that influenced his tone. Um... and his tone... it was more voluntary the increase in his tone: it was when he didn't want to do something that you felt it. When he wanted to do something, he managed to do it. I mean, the, the tone still limited him, but the music didn't influence it. [shakes head]

Researcher: okay...thank you very much Jenny

Physiotherapist: Pleasure!

APPENDIX A: CODED INTERVIEWS

LINE NR	PLACEMENT A:INTERVIEW 1 DATE:6 JUNE 2011	DESCRIPTIVE CODES
A:I1:1:4	I must admit I don't know a lot about music therapy, we don't have a music therapist at the	Lack of MT knowledge
A:I1:1:5	school, but, um, I know that our children *love* music. We've seen that some of the children	Pupils' love of music
A:I1:1:6	that we didn't know could do things will do it with music, or they'll, I'll say, not that they can	Music enables
A:I1:1:7	do activities, it's like... they come alive. They start getting rhythm and ... they start	Music enlivens
A:I1:1:8	performing.	Music adds rhythm to C
A:I1:1:8		Music enables (performance)
A:I1:1:14	I think it can help with... different things. It can help with relaxation... it can help with	MT helps: wide application
A:I1:1:14	stimulation... um... it can help with rhythm, and um.... that's all I can think of... in physio.	Therapeutic use of music: relaxation
A:I1:1:15		Therapeutic use f music: Stimulation
A:I1:1:15		Therapeutic use of music: Give rhythm
A:I1:1:25	probably... psychologically. Music can always [short pause] influences you psychologically.	Music influences
A:I1:1:26	It makes you happy, makes you sad... it makes you feel alive. Ja... that's what I can think [	psychologically
A:I1:1:26		Music evokes emotions
		Music enlivens
A:I1:2:5	increase their low muscle tone, and then for children with high muscle tone, help them	MT can increase muscle tone
A:I1:2:6	relax. And... um... maybe... stimulate them to move better.	MT can relax muscle tone
A:I1:2:7		MT can stimulate movement
A:I1:2:13	it can also make them a little bit wild ... and let them get out of control. Because *they* have	MT can make Cl lose control
A:I1:2:14	difficulty in controlling their muscles – their muscle patterns are not, are not normal. So if	MT working against muscle control
	the music becomes too wild, or too loud, they might get a fright and it might stimulate their	
A:I1:2:15	reflexes, or make them... out of control. So it can have benefits... it must be used correctly.	Music can over-stimulate/frighten
A:I1:2:16		
A:I1:2:17		Music can make C lose control
A:I1:2:21	Well, in our, our school, children have to sit correctly, because it's a school, and our	Discriminate use of music
A:I1:2:22	children's posture aren't good, so we do a lot of seating, and then... to get the most benefit	PT goals: Seating
A:I1:2:23	out of their little bodies, like, getting a child to do his highest function	PT goals: Posture
A:I1:2:26	So we try and get the highest function... physic, physical function that we can from the	PT goals: Highest function
	child, either with a aid or without a aid.	PT goals: Highest physical
A:I1:3:4	we are aiming for him to walk, with a lot of help, with um... "spalkies?", with... uhm... foot	function
A:I1:3:4	aids, and also with a walking frame.	PT goals: Walking
A:I1:3:8	So physically we have to get him to practice and develop his... him maximally.	PT goals: C needs external help
A:I1:3:8		PT goals: practice
A:I1:3:14	with the music we can increase the muscle tone in his trunk and we can get a little bit of	PT goals: highest function
A:I1:3:14		MT aids PT: Increasing muscle tone
A:I1:3:15	rhythm into him, and... um... the music uh might help him to move [uses hand gestures	Music adds rhythm to C
A:I1:3:16	indicating forward movement] with rhythm and, um... getting movement better.	Music facilitates movement
A:I1:3:25	I don't know? But I just, in my mind. I can just think that if he starts doing an activity maybe	Rhythm facilitates movement
A:I1:3:25		Lack of knowledge

A:I1:3:26 A:I1:3:27 A:I1:4:1 A:I1:4:1 A:I1:4:7 A:I1:4:12 A:I1:4:22 A:I1:4:23	on a ball the rhythm of the music might get him to... [makes gestures with hands indicating forward movement] get his muscle tone going better. If we want him to relax, we can play slow music... that's what I know – I don't know so much [laughs]. What kind of rhythm, or what? music for relaxation; music for stretching; music for stimulation; and then um... music for rhythm. I think we can try and see... see the effect it has on the child... ja 'cause I must say different children also react differently. We had another child that we also thought could be in.. you know, we could use for your... study, but he's a little bit deaf. So, you know, that works against it.	Intuition about music's effects Emphasis on rhythm Rhythm Increases muscle tone PT perception: Slow music relaxes Lack of knowledge Emphasis on rhythm Therapeutic use of music: Relaxation Therapeutic use of music: Stretching Therapeutic use of music: Stimulation Therapeutic use of music: give rhythm PT focus on importance of rhythm Intuition about music's effects Individual responses to music MT not applicable for the deaf

APPENDIX A: CODED INTERVIEWS

LINE NR	PLACEMENT B: INTERVIEW 1 HIGHLIGHTS DATE: 6 JUNE 2011	DESCRIPTIVE CODES
B:I1:1:4	what it is... well, music therapy is a way in which you can communicate with children.	MT as Communication
B:I1:1:5	On a different level.	MT as different level of
B:I1:1:7	it's a different channel that you can work with... so it entails a lot of communication	communication
B:I1:1:8	skills: Eye contact; uhh... basic turn taking; um, so ja, I think it's got a lot to do with	MT as different channel
B:I1:1:9	building a relationship with them and then see what they would do with the music.	MT entails: communication skills
B:I1:1:14	you follow the cue of the child. But you have to work on the, uh, on the level of the	MT entails: relating before doing
B:I1:1:15	child [uses a hand gesture indicating a low level]. And then you use what they give	MT entails: following C's cues
B:I1:1:16	you in a musical way to get more out of them.	MT entails: being informed by C's
		level
		MT entails: using music to elicit more
B:I1:1:20	We've sort of referred children that are very difficult to interact with	Refer to MT C's with whom other
		therapists can't interact
B:I1:1:21	I think their interaction is the main thing, to see if you – like I said it's another channel	Perceptions: MT focuses on
B:I1:1:22	of communication – so, if we can't communicate with them, or if we're not seeing an	Interaction
B:I1:1:23	improvement then we use the music therapy as an alternative way to communicate	MT as different channel of
B:I1:1:24	with them. So that would be one goal – another one would be that they can interact in	communication
	a group; um, another one would be... from my side that they move a bit more, so	MT as alternative communication
B:I1:1:25	maybe, if the motivation is strong enough then they'll move more than they would from	MT goals: Group interaction
B:I1:1:26	another motivation.	MT goals: More movement
		MT: motivation for movement
B:I1:2:2	communication is a huge problem for them.	Muscle impairment affects
B:I1:2:2		communication
		MT facilitates communication
B:I1:2:3	if they could show just their joy, or just some sort of happiness, um, then it would give	Muscle impairment affects emotional
B:I1:2:3		expression
B:I1:2:4	us an idea that they can -	MT facilitates emotional expression
		Muscle impairment influences others'
B:I1:2:4		perceptions of C
		MT facilitates change in perceptions
		about C's ability
B:I1:2:6	- communicate in some way. It may not be the normal way of communication, but at	MT as different channel of
	least it's *a* way of communication –	communication
B:I1:2:9	also, to get them to move.	MT can elicit movement
B:I1:2:11	I think my main perception of music therapy is that it's a *fun* thing to do. Uh... so	MT is fun
B:I1:2:12	hopefully, when you work with their emotions, and in a fun way, you're going to unlock	Role of emotions
B:I1:2:13	other things that come out of the child –	Enjoyment as a key to unlock C
B:I1:2:18	the music therapist must understand what cerebral palsy is. Because... I think if you	Necessity of MT's CP knowledge
B:I1:2:19	don't understand it then you won't know how to read the child... because they don't	Necessity of MT's CP knowledge:
	respond like a normal child does, or like a child with normal motor abilities. So you	reading C
B:I1:2:21	need to be able to understand that you need to give them a lot of time – you need to	Understanding CP client need for time
B:I1:2:22	understand them holistically, and uh... so that's one thing that I can see can be a	Necessity: Holistic understanding of C
B:I1:2:24	problem with a child with cerebral palsy – if the therapist doesn't have the knowledge	Necessity of MT's CP knowledge
B:I1:2:25	about cerebral palsy and understand these children, then I think it would be difficult to	Necessity of reading C's cues

	read their cues	similarly
B:I1:3:1	I think you can frustrate the child... definitely frustrate the child. Um, so it goes a lot	Misreading cues can frustrate C
B:I1:3:2	about understanding the child. Uh, you have to form a relationship with the child	Lack of understanding can frustrate C
B:I1:3:2	before you could just, uh, go ahead. Uh, whereas with a child that interacts normally and moves normally, where you can work with them and they will interact back with	Building relationship first (link with 'relating before doing')
B:I1:3:5	you, you have to be able to watch the cues on how they are going to interact without just the normal way for them to interact.	Greater necessity to read CP clients' cues (than normally)
B:I1:3:9	it definitely brings a fun element in – like I said the motivation part – and some	Fun motivates
B:I1:3:10	children, or with cerebral palsy ... you're looking for that channel in which you can reach them. You're looking for something, that can, uh, that will make their world	MT different channel for communication
B:I1:3:12	interesting for them. And I think that music definitely could have a way of getting there.	Music stimulates interest
B:I1:3:13	I mean, we don't do music therapy as such, but you always include music in your	Music therapy vs including music
B:I1:3:13		Knowledge & intuition: PT including music
B:I1:3:14	session, because it works so well to motivate them. It has a calming effect, or you can	Music motivates
B:I1:3:14		Music relaxes
B:I1:3:15	work a lot on their relation...	MT focuses on relating
B:I1:3:18	Mainly it would be motivation. It's a good form of motivation. So – but the tempo you	Music *as* motivation
B:I1:3:19	would have to watch, because when you're working with a child with physio, with	Discriminate use of Tempo
B:I1:3:21	cerebral palsy, uh, it's all about your hands and it's all about what you feel: you observe with your eyes, but you feel with your hands as well. So you have to feel what	Discriminate use of tempo: feeling what works
B:I1:3:22	makes this child work best: is it a faster movement? Is it a slower movement?	Discriminate use of tempo: individual responses
B:I1:3:30	you would use the tempo a lot. So you would use...um... for example if this is a child	Emphasis on tempo
B:I1:3:31	that needs to move slowly, then you wouldn't – you would use something quieter and	Discriminate use of dynamics: Quiet music for slow movement
B:I1:3:32	slower sort of tempo, not something very upbeat. But with a child with low tone you	Discriminate use of tempo: High muscle tone – slow tempo
B:I1:4:1	would use something upbeat so you would wake them up and get them all excited. So definitely the tempo, uhm, would help a lot... um...and I think the physiotherapist and	Discriminate use of tempo Low muscle tone – high tempo
B:I1:4:3	the music therapist need to chat – need to understand each other well. Co-therapy is	Need Communication between MT & PT
B:I1:4:3		Need Understanding between MT & PT
B:I1:4:4	all about understanding what the other person wants to attain, so that you can work	Co-therapy necessitates understanding of other's goals
B:I1:4:5	together. So I think, uh, ja... you, I think it definitely can work, but you have to be going towards the same goal.	Co-therapy necessitates joint goals PT goals: Holistic approach
B:I1:4:10	I look at them holistically, so the number one thing would be function. So you would	PT goals: Function
B:I1:4:11	want them to function, in a, in a society and in an environment. So, uh... it doesn't help	PT goals: Function in society
B:I1:4:12	if they can only communicate with you, you want them to be able to communicate in a	PT goals: transferrable
B:I1:4:13	group, or to show any sort of interaction within a group. It goes a lot on... when they're	communication skills

	this age, when they're small, it goes a lot on what the parents need and what the	PT goals: consider parental needs
B:I1:4:15	parents want as well. So you're always looking for independence for these children,	PT goals: Independence
B:I1:4:16	and you're always looking for, for them to reach their highest function, highest	PT goals: Reach highest function
B:I1:4:17	functional level. But, you've got to take in – it's a holistic approach so you've got to	PT considers C's preferences
BI1:4:19	take everything into consideration. There's no point in me working for him to eat food	PT goals: function in society
	if he doesn't like the food.	PT goals: Move freely
B:I1:4:22	see what is the best possible way for this person to function in society.	Discriminate use of tempo: CP client's
B:I1:4:25	I would like him to move more freely.	need for time
B:I1:4:28	you need to give him enough time, so I would like him to shorten that time. I would like	PT goals: Shorten response time
		C's slow responses
B:I1:4:29	his response to be quicker and so, that would mean that we would have to make his	C: Disjointed movements
		PT goals: fluid movements
B:I1:4:30	movement a lot more fluid, um... fluent, ja. And... um... ja, his interactions are really	PT goals: Enjoyment & Challenge
B:I1:4:30		PT goals: sense of achievement
B:I1:4:31	good – fun, ja, I'd like him to have fun, but challenge him. It needs to be challenging,	Necessity of setting realistic goals
B:I1:4:33	he needs to feel as if he has achieved something. So whatever we work on, we have	Client's familiarity with failure/
B:I1:4:34	to set the goal so that he *will* be able to reach it. We – and I think it's quite easy in his	likelihood of failure
B:I1:4:35	– in this case, to show failure.	
B:I1:5:4	we wanna only get him to reach a goal, and to attain a goal. To feel success... um...	PT goals: sense of achievement
B:I1:5:5	ja, if he could – from a speech perspective as well, if he could make more sounds	Muscle impairment affects delayed
	while he's doing it? Um... Again, it's also controlled by the motor problem, so it's also	vocalisation
B:I1:5:7	very delayed when it comes out, so we can get that more... sort of more relaxed, but	PT goals: Relax C enough to get
		response
B:I1:5:8	then still be able to get a response.	Muscle impairment delays verbal
		response
B:I1:5:19	various positions. You've got to change the position. It doesn't always help to use one	MT assisting positioning goals
B:I1:5:20	position the whole time. You want to challenge him	PT goals: Challenge
B:I1:5:25	our instruments are gonna have to be... easy to access. So, like a piano is a great	Discriminate use of instruments: Easy
		access
B:I1:5:26	idea, because he can get his hand there, and it doesn't matter where he gets it, it's	Discriminate use of instruments: Ease
		of piano use
B:I1:5:27	going to make a noise, so...um, and... we can position him near a piano in a good	Discriminate use of instruments:
		make big noise
B:I1:5:28	position for him, that's gonna give him enough stability to move his arms freely. Uh...	Positioning: stability and freedom:
		music offers both movement
B:I1:5:29	drumming is also going to be great, except that he struggles a lot to get a rhythm, so	C Struggles with rhythm
B:I1:5:30	um, that integration between left and right, it is really difficult. So... but again, a big	Music can be involved in Left-Right
		integration
B:I1:6:1	drum, something with a big amount of space for him, it's gotta give a good response	Discriminate use of instruments: size
		and response
B:I1:6:2	back when he does do it, and it's gonna be easier than something small –	Discriminate use of instruments: Easy
		access
B:I1:6:4	loves the sticks – so we could use the sticks, um, but again, you've got to try and	Discriminate use of instruments: PT

	make it as wide as possible and as big as possible, because the narrower you make it	considers C's preferences
B:I1:6:5	and the smaller you make it for him, the more difficult and the more frustrated he's	Discriminate use of instruments: size
B:I1:6:6	gonna get.	Discriminate use of instruments: size Inappropriate use of instruments: frustration

APPENDIX A: CODED INTERVIEWS

LINE NR	PLACEMENT A: INTERVIEW 2 DATE: 18 JUNE	DESCRIPTIVE CODES
A:I2:1:3	it worked very well for static exercises, so that means it was for the strengthening of the core muscles.	MT afforded strengthening
A:I2:1:5	it helped with rhythm, to do an exercise, like with the crawling, it helped him to rhy –	MT helps: give rhythm
A:I2:1:6	to crawl and it encouraged him. The music encouraged him.	MT afforded encouragement
A:I2:1:11	it helped to strengthen his core muscles in that he was not, uhh... concentrating on	MT afforded strengthening
A:I2:1:12	the exercise: he was concentrating on the music. So it stimulated him to sit up	Music distracts from pt exercise
A:I2:1:13	better, or to move... he moved easier, he	MT stimulated movement
A:I2:1:14	didn't think of the challenge, he was thinking of the music, so he would rotate, like on the piano	Music distracted from challenge
A:I2:1:16	he was moving better.	MT enabled 'better' movement
A:I2:1:19	don't think it interfered... it didn't interfere at all. It's just that in, in, when *we* do	PT feel MT not interfering
A:I2:1:20	exercises, we do a little bit more movement, and that's not, that , that doesn't go	MT allowed less movement
A:I2:1:21	with the music, but it didn't interfere at all.	PT feel MT not interfering
A:I2:1:27	there is not really time to get into the music,	Instrumental play for pt purpose: only short musicking possible
A:I2:1:28	but if you do it with a rhythm, like we did it the other day, then it's good.... you will stimulate the movement	Rhythm stimulates movement
A:I2:2:6	doing these movements, but a little bit quicker, so it will rather be a rhyth-, a rhythmic thing.	PT focus on importance of rhythm
A:I2:2:12	no difficulties, no not at all. It was very enjoyable	PT perception: Collaboration enjoyable
A:I2:2:14	definitely helped to strengthen him, definitely, I could see an improvement, in his... in	MT afforded strengthening
A:I2:2:15	his core muscles. That means his, um, posture muscles.	**PT perception of collaborative process**
A:I2:2:20	I think he enjoyed it very much and I think his, uh... some of his frustrations came	process afforded enjoyment
A:I2:2:21	out... and um, he's inquisitive, so it stimulated his – and uh, I think he enjoyed it very much.	Musicking affords expression of frustrations
A:I2:2:25	I think it motivated him quite a lot	Music stimulating C
A:I2:2:26	he did much more! Because with the strengthening of the core muscles it becomes a bit boring when he's not doing something –	Music elicits *more* music motivates interest
A:I2:3:1	so he was sitting there, I was working on his balance and the strengthening of his	PT tasks: balance & strengthening
A:I2:3:2	muscles and he was so busy that he didn't realise it.	Music distracts C from pt exercises
A:I2:3:4	So it helped, uh... for his perseverance	MT afforded perseverance
A:I2:3:5	it helped him to persevere.	MT afforded perseverance
A:I2:3:9	I think it worked well... I think he... it worked. He strengthened, he mobilised...	MT afforded strengthening
A:I2:3:9		MT afforded mobilisation
A:I2:3:14	if he's sitting on the ball, we are increasing his muscle tone, so I'm doing that, and	Ts together increase C muscle tone
A:I2:3:15	even when he is...doing the exercises..... he's strengthening that.	Collaborative activity affords muscle

		strengthening
A:I2:3:16	And then we were working on his balance as well... that was *very* good for his	Ts together work on C balance
A:I2:3:17	balance, because he was stretching over and stretching over [mimics stretching to	Balance through instrumental play
A:I2:3:17	the right and then to the left to play the piano] –	Stretching through instrumental play
A:I2:3:21	he was stretching [mimics stretching to left], so he was doing rotation, which is fantastic for our CP children,	instrumental play foster rotation
A:I2:3:23	for his balance, also sitting at the – on the ball	balance through instrumental play
A:I2:3:25	We want stability, we want balance, we want rotation, we want weight bearing, so it	PT focus on own pt goals
A:I2:3:25	worked very for weight bearing, like for instance in the standing frame, he's	MT afforded weight bearing
A:I2:3:26	standing, doing the music [mimics playing he cymbals], during the class, after 10 minutes he starts complaining.	Music distracting from pt exercises
A:I2:4:1	So he was doing that without, we were sort of... uh, not *tricking* him, but.... he didn't	Including music extends
A:I2:4:2	complain, he wanted to go on.	perseverance
A:I2:4:4	I think, Anine, *you* were fantastic, in that you kept him busy, you kept him going, you stimulated him.	PT views MT role as keeping C busy PT views MT role as motivating C PT views MT role as stimulating C
A:I2:4:5	Got him to do a bit of rhythm,	PT views MT role as getting client to 'do' rhythm
A:I2:4:6	got him to... uh... do all the things you wanted to, so I think it, the, the music	PT views MT role as getting the client to 'do'
A:I2:4:7	definitely helped him, and the – he was susceptible to the sounds –	PT perception: music helped C
A:I2:4:8	he liked the different sounds, and the rhythm and the things you were trying to do.	C enjoying music
	Researcher: And you mentioned a little while ago that he got rid of his frustrations. Why would you say that?	
A:I2:4:11	I just thought he was hammering away and I think he's quite a clever little boy and he tries hard and on the playground he will try to get onto the little motorbike,	Musicking affords expression of frustration
A:I2:4:13	but he can't do it. So I think he *does* get a little bit frustrated, he must do.	C's frustration with disability
A:I2:4:15	So I think it's emotion – when he started doing it – and then he was smiling... I'm sure it made him feel better	music tapped into emotion process afforded enjoyment
A:I2:4:21	I think of just *my* exercises and you think of *your* exercises, so the whole thi – the	Each T focused on own exercises
A:I2:4:22	whole process was quite different, because you think in a way and I think in a way,	T's approach process differently
A:I2:4:23	and then you have to ad – I have to adapt to you and you have to adapt to me, but I	Collaboration requires Ts adapting to one another
A:I2:4:24	think it worked well.	PT perception: Collaboration worked

A:I2:4:24	So I wasn't quite sure what to expect at the beginning, what we were going to do,	PT uncertainty
A:I2:4:25	but I think for strengthening, for everything, it worked well.	process 'worked' for strengthening
	Researcher: Uh... now how have your perceptions about music therapy changed, or not changed during the collaborative sessions?	
A:I2:4:30	It did change. Because you're doing therapy for the child. And I'm thinking about music for *my* therapy.	using music to support pt vs use music as therapy
A:I2:5:1	So you were doing, doing therapy for him and I was doing therapy in my way, so I, I	Each T focused on own therapy
A:I2:5:2	didn't perceive it like that. Like... you always think of yourself first. Of your therapy first.	Each T focus on own therapy
	Researcher: How did your perceptions of the music therapy process.....about what music therapy entails, change?	
A:I2:5:8	in a way they've changed a little bit, because we did more exercises. I thought like, we were going to do things like... jumping to the music,	using music to support pt vs using music as therapy
A:I2:5:9	because I was thinking about physio-and movement.	PT's focus on pt & movement
A:I2:5:12	you have to use more a static posture – which is wonderful for our children, and it's	PT perception: MT requires static posture
A:I2:5:13	wonderful to strengthen them, and for their balance	MT affords strengthening Balance through instrumental play
	it's a different way, so that's why we started walking to this standing frame,	
A:I2:5:16	'cause that's wonderful therapy, but he can go on with his music and he's getting therapy.	Instrumental play distracts from pt
A:I2:5:18	But in a way I saw that the therapy is better for his posture.	Process developed posture
A:I2:5:22	I think it could be wonderful for, for a child... for an adult...for their *emotions*, emotionally it can be fantastic, but also for movement.	MT affords emotional expression MT 'works': movement
A:I2:5:26	it can get rid of emotions. And also, it can put back emotions. It can make you happy, it can make you friendly, it can make you sad	MT affords emotional expression
A:I2:6:5	help them *express* their emotions	MT affords emotional expression
A:I2:6:7	especially for *our* children it's wonderful, because they don't always know how to	Disability interferes: emotional
A:I2:6:10	express their...feelings.	expression
A:I2:6:10	So in the music you can get them to express their emotions	Music affords emotional expression
A:I1:2:6:15	it can help them emotionally, it can make them happy, it can make them sad, it can	Music stimulates emotion
A:I2:6:16	make them *move*. And then... it strengthens them, it helps with their rotation, it helps	Music stimulates movement
A:I2:6:16		MT affords strengthening
A:I2:6:16		MT affords rotation
A:I2:6:17	with weight bearing: all the things that a physio wants, the music can bring out, but with the cooperation.	MT affords weight bearing mt works for pt but only with PT cooperation
A:I2:6:18	I think teamwork is very important,	teamwork nb
A:I2:6:19	because everybody looks at their specific patient in a specific way: if I say "okay Anine, let's do the exercises diagonally", then you can do it diagonally, or "let's do it	Different Ts think differently

A:I2:6:20 A:I2:6:19-23	for a longer time", or "let's do it on his knees, because I'm battling to break up the pattern, for instance – his...our spastic children go into specific patterns, so when he's standing on his knees he's breaking up his pattern.	PT focus: how MT aids PT Communication nb for working together on goals
A:I2:6:24	And with the rhythm, for instance the exercises where we were doing crawling, we do it in a rhythm, and he has to do it the right way –	MT provide rhythm; PT facilitate correct movements
A:I2:6:27	The music therapy can help in many ways, and I think we saw it with the exercises.	MT facilitate pt exercises
A:I2:6:28	But I think cooperation will always be... important. And I don't think the	Cooperation nb
A:I2:6:29	physiotherapy, physiotherapist always has to be in the presence of the music therapist,	Good cooperation: PT presence not always needed
A:I2:6:30	but just to tell her "listen, I'm working on this; I'm working on that; I want him to use	PT guidance necessary
A:I2:6:30	his legs separate; don't let him bunny-hop".	NB Communication between MT&PT
A:I2:7:2	So I think, if you do it in cooperation, you work together, then it can work fantastically.	Cooperation nb Cooperation nb
A:I2:7:6	the child knows me.	PT necessary: knows C
A:I2:7:7	And then, to position him correctly, to do the things *I* want him to do, *with* the music.	PT positions C for musicking
A:I2:7:8	And then, the different exercises – the rotation; and the exercises that I chose are the ones that he's battling with. So it's nice to *be* present, but if you have good	PT facilitate physical exercises Good cooperation: PT presence not always needed
A:I2:7:10	cooperation, you don't *always* have to do it.	

APPENDIX A: CODED INTERVIEWS

LINE NR	PLACEMENT B:INTERVIEW 2 DATE: 24 JUNE 2011	
B:I2:1:3	I found it challenging I found it challenging um... but it was also nice challenging to, to	Challenging experience
B:I2:1:4	figure out how we could work it –how we could work together.	PT & MT developing working relationship
B:I2:1:5	I thought it was a learning curve, where we both learn – see what we both wanted	Learning experience
B:I2:1:7	where it was most challenging was interaction. That was difficult.	Interaction was challenging
B:I2:1:8	So what was actually difficult was the child... uh... the music as such wasn't difficult	C made experience difficult
B:I2:1:9	[shakes head] but it was very difficult to combine the two...with Steven.	Difficulty combining pt & mt
B:I2:1:14	I'd like to think that he did fairly well from a *physio* point of view... I don't know what he did	C did well from pt view
B:I2:1:15	from a music therapy point of view, but from a physiotherapy point of view I could get him	PT lack mt knowledge
B:I2:1:16	to do quite a lot. I could get him to relax	Process enabled relaxation
B:I2:1:17	it was just the different environment; doing different things, he was more worried about	Unfamiliar setting cause C anxiety
B:I2:1:18	what *you* were going to do with him than what I was going to do with him.	MT's interactions with C cause anxiety
B:I2:1:19	So he didn't concentrate so much on the physical stuff, so he allowed me to do more.	C distracted from pt – allows more
B:I2:1:23	In general I think it's great. In general I think it *does* give them the motivation to do things...	MT motivates action
B:I2:1:26	Enjoyment, fun... ja, um... rhythm for movement, yeah...	MT affords enjoyment
B:!2:1:26		Rhythm stimulates movement
B:I2:1:27	but I think for a child with severe cerebral palsy it's uh... difficult.	PT view: collaboration = challenge with severe CP
B:I2:1:29	I think you have to figure out your goal, and you both have to work towards the same goal.	Negotiate mutual goals
B:I2:2:3	I think it only really interfered because he didn't really use the music as motivation... that's how it interfered	Music not motivating C
B:I2:2:7	towards the end we realised we had to work in a different way with him.	Adapting approach for C
B:I2:2:8	In the beginning we were trying to use the music as a – purely as a motivation,	Using music to stimulate
B:I2:2:9	forgetting about the enjoyment you – that didn't work Definitely interfered... with the process of our therapy.	movement at expense of enjoyment
B:I2:2:11	you have to... figure out the kid. you have to both...be able to read the kid and see what approach is the best to use.	Adapting approach for C
B:I2:2:16	he... didn't *want* to do it.	C refusing participation
B:I2:2:17	And because he didn't want to, it was very difficult to get him to do the things that he can't do.	C unwillingness – less perseverance
B:I2:2:18	Usually, if a child is happy or interested in something else, they don't um... focus so much on what you're trying to get them to do.	Increased interest fosters physical effort
B:I2:2:20	he allowed me to do a lot more in the sense that he allowed me to do more hand over	C allowed hand-over-hand

	hand with him	
B:I2:2:21	still couldn't get him to do the difficult stuff.	C showing resistiveness
B:I2:2:25	it wasn't the greatest	Challenging experience
B:I2:2:26	in general, music therapy works really well,	MT generally works
B:I2:2:27	but in this case, he didn't – he wasn't interested.	C uninterested
B:I2:2:27	don't think he was comfortable in the situation	Unfamiliar setting cause C anxiety
B:I2:3:3	it gave him the ability to just relax, but in a different way. Usually in physio you try to get	Process enabled relaxation
B:I2:3:4	them to activate themself - get them to do things by them self	PT focus on pt goals
	with his spasticity, or with his uh... fixating, it's very difficult to ever show him what to do,	
B:I2:3:6	this gave me the chance to show him what to do,	
B:I2:3:7	but then he never wanted to do it on his own.	C showing resistiveness
	all the musical instruments:	
B:I2:3:11	the piano; one session where he did really well with the piano, he would need a lot more	Piano playing afforded success
B:I2:3:12	of that, once he got a lot more, and he got a lot more into it – interested in it, then you can apply a lot more physio techniques.	Increased interest required for pt
B:I2:3:15	shoulder girdle – uh... dynamic shoulder girdle control; um... isolation of his fingers...; uh...	Process afforded muscle control
B:I2:3:15		Process afforded fine motor control
B:I2:3:16	more fluent movement; um... the *freedom* for movement, because he often can't move, so	Music affords freedom
B:I2:3:17	when he was into it, he *could* actually move quite a bit,	Increased interest – increased movement
B:I2:3:23	he was interested in the workings of it, not necessarily in the sound	Instruments vs sounds motivate interest
B:I2:3:24	when he's interested in something, he does more	Increased interest – increased movement
B:I2:3:27	not the actual music... the actual sound that came out of it didn't help his movement... in this instance	Music no physical effect
B:I2:4:1	it didn't work in this instance. I believe it *can* work, but it didn't work in this instance because he wasn't in a right place for it to work.	Collaboration not working for C
B:I2:4:3	not necessarily the *music* that was the problem, I think it was just the situation, that was more the problem.	Collaborative situation caused C distress
B:I2:4:5	he had an issue with trust.	C Not trusting MT
B:I2:4:6	I just don't think he ever felt comfortable.	Unfamiliar setting cause C anxiety
B:I2:4:7	pushed once too far and he just didn't trust.	Pressure cause lack of trust
B:I2:4:9	I think it was probably mostly your presence, because I know he is interested in music	MT trigger C anxiety
	and he's doing well in the group, he's improving in the group.	MT presence cause distress
B:I2:4:14	So, music wise, he does like the music and he does enjoy it, I just think the whole...uhm...	C enjoys music
B:I2:4:15	the whole situation he was just never comfortable with. And I don't think it's for anyone	Unfamiliar setting cause C
B:I2:4:16	specific that he wasn't comfortable with, I just think all of us together and putting the	anxiety/Collaborative situation

B:I2:4:17	demands on him was too much for him.	caused C distress Pressure to play cause distress
B:I2:4:18	when we started to change our approach, it went better	Adapting approach for C
B:I2:4:22	I don't think it worked, purely because he wasn't in the frame of mind for it to work	Collaborative process not working for C
B:I2:4:24	I think the concept *will* work, he just wasn't in the frame of mind for it to work.	C resistive
B:I2:4:28	My perception didn't change... like it wasn't a negative or positive perception, but a... I kind of understood it a bit more. I realised what a psychological impact it can have.	PT gain understanding of mt
B:I2:4:29	I think, it is very challenging for a music therapist, because you've got to be in touch with that child's psyche.	MT challenge: attuning
B:I2:4:30	you've got to be in touch and feel what they feel and use the tempo to go with them and	Importance of using tempo
B:I2:4:31	that, which is something which I don't really understand	PT lack mt understanding
B:I2:5:2	you definitely don't have a recipe, what works for one child won't work for another child.	Adapting approach for C
B:I2:5:3	I think it's a journey	Learning experience
B:I2:5:4	I think you will be able to find out what that child wants and what works for that child.	Adapting approach for C
B:I2:5:5	it's a journey, we have to grow it together and see if it's gonna work.	Learning experience Developing process
B:I2:5:8	ja I think it did...I always thought you want the kid to participate in that instrument – you know that's what I thought it was mostly about	MT entails playing instruments
B:I2:5:10	still think that's part of the process, but now I think you can use other ways to achieve your goal.	PT realise mt involves various techniques
B:I2:5:13	Such as just listening to the tempo of the music; feeling the movement to music;	Importance of using tempo
B:I2:5:16	make the child more comfortable... in his own body; make him more comfortable for – in a certain situation;	MT goal: enable C comfort
B:I2:5:18	enjoyment - still enjoyment	MT goal: enjoyment
B:I2:5:18	different ways of experiencing things.	MT goal: enable different ways of experiencing
B:I2:5:19	This is more a sensory way of experiencing it. Not necessarily an act of participation, but more a sensory one.	Mt = sensory experience Mt not requiring active participation
B:I2:5:24	I've always thought the music therapist has to really understand cerebral palsy and has to understand um... uh the movement behind it,	Importance of MT's CP knowledge
B:I2:5:26	because that's uh their limitation.	C's limitation = movement
B:I2:5:27	that's what I've always enjoyed doing, working with a music therapist, is because a physio can explain it	PT can explain CP to MT
B:i2:5:28	give you a bit more insight as to what – why they can't do it. And I think it's then up to	PT give MT insight
B:I2:5:29	both of you to then figure out a way to get them to do something	Develop working relationship
B:I2:6:6	talk about a client with Down's syndrome with low tone, but they don't have a problem with movement as such, music therapy will be excellent,	MT easier: C no movement impairment
B:I2:6:7	but ... low tone CP, the music will.... the problem is still the movement, so it's still gonna	PT view: collaboration =

	be difficult	challenge when C have
B:I2:6:8	maybe the tempo of the music will be able to excite them enough to activate them more to uh... to do it	movement difficulties
B:I2:6:9	I would say *with* physio, that's how you would improve the tone, not with.. you know... just music itself.	PT required for muscle tone increase, not just music
B:I2:6:13	It actually didn't influence his tone	Music no physical effect
B:I2:6:14	It was more his psychological status that influenced his tone	Psychological status influence tone
B:I2:6:15	it was more voluntary the increase in his tone: it was when he didn't want to do something that you felt it.	C's unwillingness
B:I2:6:16	When he wanted to do something, he managed to do it.	More willing, more perseverance
B:I2:6:22	the tone still limited him, but the music didn't influence it.	Music no physical effect

APPENDIX B: SESSION NOTE DATA

SESSION NOTES 1

PLACEMENT A

DATE: 6 JUNE 2011

Although I initially felt uncertain and anxious about this first session, not knowing what would happen or how Tshepo[4] would respond to my presence, it helped that Sarah and I discussed which activities we would do and how we would do them before the session started. By structuring the session around certain instrumental activities facilitated in such a way that they encompass physiotherapeutic exercises, I felt like I knew what was expected of me. By negotiating the structure of the session with Sarah, I feel like both of us could relax in the knowledge that we only had to focus on our own roles – Sarah on facilitating Tshepo's movements and posture, and me on engaging Tshepoin musical activities. Still, I felt the pressure of showing Sarah what music therapy is all about and I think this caused anxiety, which influenced my ability to spontaneously make music with Tshepo.

The session started with Tshepo on the bed, with the physiotherapist, Sarah[5], doing some stretching exercises, while I am at the piano, accompanying these exercises. I felt distanced from him and Sarah as if the music I was making was superficial, and since I didn't know him yet and he was passively being moved by Sarah, it was difficult to match *him*. After this, Tshepo sat up and then had to push up to his left and right side alternatively, each time rolling again onto his back. I played fast scales up and down the piano to match his movements and for the first time Tshepo seemed to grasp that the music was related to him and he started to smile. However, although he seemed to enjoy the music, he was not working harder physically and I became more nervous and self-conscious about my music.

The first activity where I started to feel more confident in what we were doing, since I felt more familiar with this, was a piano activity in which Tshepo sat on a physiotherapeutic ball while playing the piano. I played the piano with him while Sarah balanced him on the ball by holding his hips and gently bouncing him. From the start Tshepo sat very straight up and immediately started to explore the piano. In an attempt to engage Tshepo, I lifted both my arms up in the air while saying an ascending "and...." and Tshepo immediately followed my cue, also lifting both his hands and together we attacked the piano playfully, playing loud repeated tone clusters, with

[4] Client's real name not used
[5] Physiotherapist's real name not used

Tshepo using both hands alternatively and putting a lot of energy into playing. I felt like we were getting to know each other and developing a relationship through play. After this, Sarah congratulated Tshepo, commenting on how extremely straight his back had been throughout the whole activity, and this made me also feel proud, since the musical activity was now 'working'.

The next activity involved Tshepo playing three different instruments: the djembe drum, a tambourine and a bongo drum. The djembe was placed in front of him and he had to stand on his knees to play it, then he had to go down on his side to where the tambourine was placed, using his back arm to support him and playing the tambourine with his free arm. Tshepo was very focused throughout this activity and played with a lot of intention and a lot of effort. He also looked intently at me and would often pause before hitting the drum to see if I would wait for him. He made a lot of eye contact and also followed me when I would lift up both my hands, even though it took a lot of effort for him to do so. This made me feel like the music really motivated Tshepo to use his muscles and to try very hard to do these exercises. He did, however, get very tired and at times he would just rely completely on Sarah to stabilise him and support him so that he could play the instrument. Since one of the goals of this activity was to strengthen his trunk, I felt that his relying on Sarah defied the purpose, and it seemed that he wanted so much to play the instruments that as his concentration became more focused on playing, he lost his focus over the control of his body. This made me rather anxious, since I felt like the music making was now interfering with Tshepo's physiotherapy.

We then did a crawling activity where Tshepo had to crawl over a mattress on the counts "One and two" while I played on the piano to accompany him. However, this was very difficult for him and I also found it difficult to play with him, since I did not know whether to play chords on his movements, such as him moving his hands/legs, or to play with Sarah's counts, since these did not always correlate. Thus, Sarah and I were not in synchrony in this moment, and therefore I think my music and Sarah's counting may have confused him and also may have distracted him from focussing on how to move for this activity.

For the last activity, Tshepo was positioned over a cylinder-shaped mattress, with his legs placed on either side of the mattress. He then had to bow down to the one side to pick up a beater and he then had to stand up, supporting himself by holding onto a frame with one hand and playing the glockenspiel which I held out for him so it was at the optimal height. Tshepo enjoyed playing the glockenspiel and explored quite a lot

with glissandos and repeated notes, and this worked very well on the one side (Tshepo's 'good side'), with Tshepo playing intentionally, rotating his body in an effort to play the glockenspiel without Sarah even having to tell him to do so. However, when we turned to the other side, Tshepo was by now so tired that he took on very bad posture, again leaning a lot on Sarah and NOT using his muscles to support himself. Sarah therefore stopped the activity, acknowledging that he must be very tired but also saying that he did *very* well in the session.

APPENDIX B: SESSION NOTE DATA

SESSION NOTES 2

PLACEMENT A

DATE: 8 JUNE 2011

I already felt more confident with this session, since I could think about ways to musically support Tshepo according to the exercises we did in the previous session. I knew what to expect from the session and thus felt more able to achieve these expectations. Sarah and I again negotiated the activities we would do beforehand and we therefore also knew what we were expecting from each other. This mutuality in our relationship also helped me while working with Tshepo, since I felt Sarah trusted me completely with the music, while I could trust her completely with the handling and facilitation of Tshepo's movements.

We started the session again with Sarah stretching Tshepo while I accompanied on the piano. Although he was smiling throughout the stretching exercises, I was not matching what he was doing, but what Sarah was doing *with* him, and thus wondered about what matching means in this situation. We then did a rotation exercise with the glockenspiel and tambourine, during which I played with him. Tshepo's playing was explorative, with very little rhythmical or melodic coherence and it was difficult to create a musical structure, since we moved from the glockenspiel to the tambourine and back again quite fast, since the purpose was to exercise his rotation. I therefore felt like the structure if the physiotherapeutic exercise did not really go with music therapeutic aims of matching and meeting the client, since there was no time to really play together. Still, Tshepo did show enjoyment, especially when playing the tambourine, making eye contact and clearly communicating – holding his arm high up and pausing before playing, looking to see whether I would play with him. This developed into a game and the expectation of me following him triggered his interest. His muscle control during this exercise was also very good and Sarah commented twice on how his control was very good and improved throughout the exercise. Again, this gave *me* confidence in what we were doing as well.

The piano improvisation was very interactive, with Tshepo showing much responsiveness and also keeping a good posture by keeping his position of sitting up straight on the physiotherapy ball while playing. The physiotherapist commented afterwards again on how he was sitting up 'very nice and straight, keeping his balance' throughout the activity. Since this activity also gave me the opportunity to play with Tshepo in a more relational manner, I felt like this activity allowed for a merging of both music therapeutic and physiotherapeutic goals. Tshepo explored a wide range of the piano, as well as different ways of playing: at times he used both hands, pressing down loud clusters of keys in succession; at times he

played clusters with one hand; and at times he played with one finger (his index finger), often playing repeated notes and rarely using his other fingers. I mostly followed Tshepo's cues, but also introduced my own changes, going softer or slower to see if he would follow this. He did, but soon went back to playing loud, fast clusters over a big range. Tshepo again introduced the 'expectation' game, lifting his arms up in the air, pausing and looking at me to see if I would follow his cue. He showed great enjoyment when I did, but did not persevere long with this game, since it took a lot of strength for him to raise his arms. After a while he did become tired and started to lose his posture, at which moment Sarah nodded to me to end. This enforced my sense of mutuality between Sarah and me, and I also think that this gave her a sense that I trusted her judgement, thereby building a sense of mutuality between us. It felt very encouraging to see how Tshepo was strengthening his core muscles throughout the piano improvisation, enjoying it so much that he could sit up straight for so much longer than usual.

The crawling activity again did not work very well, mostly because Tshepo was so interested in playing the instruments (especially the shaker which he was holding) that he was not concentrating on crawling. My drumming at first also did not provide enough rhythmical structure and Tshepo constantly turned his head towards the drum, thus taking on an incorrect posture. Towards the end, I started playing a more structured rhythm and this seemed to help Tshepo to organise his movements.

In another activity, Tshepo had to stand (with Sarah facilitating this, stabilising him and holding him upright, while he played the drums, which were positioned to his left and right side respectively. Musically, Tshepo was very responsive and interactive, making a lot of eye contact, watching me to see if I would follow his cues and playing in different manners, using both hands, or one hand, playing loudly or softly, playing fast or slow etc. However, he was so engaged in the musical activity, that he lost his focus on keeping his posture and relied more and more on Sarah to hold him up. The activity thus put a lot of strain on Sarah and although Tshepo showed enjoyment and did not want to stop, Sarah soon said that he was lying on her and was not strengthening his core muscles. I was completely unaware of this and thus realised how easy out was to fall 'out of tune' with a co-therapist.

Overall, I was again amazed by Tshepo's responsiveness to the music and his willingness to lay and to engage in musical activities. Sarah was also very pleased with his participation and with his physical performance throughout the session and this enforced the feelings of mutuality between me and her and our experience of the process.

APPENDIX B: SESSION NOTE DATA

SESSION NOTES 3

PLACEMENT A

DATE: 13 JUNE 2011

With this session, I really started to feel as if Tshepo and I were connecting on a deeper level. I felt more confident about my own use of music and I also think that the music I used were a much better match to Tshepo and that he also related better with it. Upon reflection however, I realised that although the session was quite relational between Tshepo and me, Sarah at times played much more of a background role. Thus, in many of the activities, while I was relating with Tshepo and having fun in the music with him, Sarah was doing the more unpleasant work of facilitating his movements, stabilising him and positioning him. Her presence was crucial, and many of the things we did we would not have been able to do without her, but I think that both Tshepo and I were much more focused on each other than on Sarah.

The session started with Tshepo riding a bicycle, with Sarah facilitating this while I played piano accompaniment in the background. There was no eye contact between us, but I felt the music did create a playful atmosphere, and the syncopated beats did seem to energise Tshepo somewhat. Also, the syncopation made it possible for Tshepo to paddle at his own rhythm and tempo, while still being contained within the beats of the music, since I could not clearly see at what speed or rhythm he was paddling.

During the next activity, in which Tshepo was positioned with his torso over a roller, so that he put weight on one arm while playing the tambourine or bongo drums with another arm, Tshepo took the lead completely. He played in a variety of ways: sometimes beating regular crotchet beats loudly, then scratching the surface slowly, then suddenly scratching it fast and then again beating the drum/tambourine with gusto. His head mostly hung low, but almost every time he made a change and I followed it, he would look up at me and smile. I became more aware of the playful relationship that was developing between us as Tshepo tried more and more to ‘catch me out’, making quick changes in the music or raising his arm up very high in the air, pausing and then suddenly bringing it down to beat the drum. Lifting his arm up in this manner took a lot of effort and strength, but he would do it over again, since it clearly brought enjoyment. We also moved flexibly between turn-taking and playing together and I felt our music was gradually becoming more flexible. Playing in this manner made me experience a true sense of sharing between Tshepo and me, and was left

wondering how Sarah felt, since even though she was close in proximity, she was not part f the music making and therefore not part of this sense if sharing.

During the piano improvisation, Tshepo was again able to sit up straight for almost 7 minutes, with Sarah again commenting afterwards on how good exercise this was for his trunk. The improvisation started out with almost no structure and coherence. Tshepo explored the piano, but played without any evident beat or musical purpose: it seemed his playing was purely exploratory. I struggled to find a basic beat and the improvisation consisted mainly of a collection of random sounds. Once I brought in a more structured, regular beat, Tshepo was also able to play more coherently and for the first time our improvisation seemed to be going somewhere. The music was in the style of a march and Tshepo played loud clusters of notes with both hands on the beat of the march. The improvisation did still move between structure and unstructure, at times becoming more playful, and I felt like Tshepo and I were starting to negotiate our music and thus a more mutual relationship was starting to develop. After 7 minutes, I looked at Sarah to see when she wanted us to end, again trusting her knowledge and expertise in terms of Tshepo's physical needs and capabilities. She nodded and then suddenly verbally exclaimed "well done Tshepo!" in the middle of a phrase and so our improvisation ended quite abruptly and unsatisfactorily, making me aware of the fact that Sarah was not attuned to me or Tshepo, or aware of the significance of ending together.

For the next activity, we used cymbals for Tshepo to play while standing and holding on with one hand to a small ladder. The cymbals' sound was clearly intriguing for Tshepo and served as strong motivation for him to do this exercise, which was very difficult for him. The music made was superficial and consisted of loud banging on the cymbals, but just the act of banging the cymbals and making such a big noise was enough to bring great joy to Tshepo. The exercise worked better to one side than to the other, and on his weaker side he needed more support from Sarah. He got very tired and needed verbal encouragement to keep on trying. Afterwards, Sarah commented that this was a 'difficult one for him'.

We ended the session with an activity in which Tshepo was positioned to stand on his knees and play the glockenspiel, which was positioned at waist height in front of him. Sarah was clearly impressed by Tshepo's physical performance, indicating to me and the camera girl that Tshepo was standing all by himself by showing both her hands to us, and giving us a small smile. In this moment, I felt the same sense of sharing between Sarah and me, because we were both witness to Tshepo's process and both

equally impressed at what he was accomplishing. This made me reflect also on what it must mean for Tshepo to be witnessed in such a manner, with the focus on his abilities.

APPENDIX B: SESSION NOTE DATA

SESSION NOTES 4

PLACEMENT A

DATE: 15 JUNE 2011

Tshepo presented with low energy today and showed less eagerness to participate in the musical activities. Although he did still play the musical instruments, he had poor posture and Sarah continuously had to reposition him, which made me feel like the session had limited physiotherapeutic value. Tshepo also looked down most of the time and I felt like he was trying to shut me out. From a music therapy perspective, however, I thought that this session was very valuable in the sense that Tshepo was now willing to show a different side of himself – he did not do just what was expected of him, but he pushed the boundaries and was willing to explore a darker side of himself.

During the glockenspiel improvisation, Tshepo initially seemed quite disinterested, but gradually became more and more engaged as the activity continued, exploring different ways of playing with me. He played very softly at first, with little energy, but then started going louder and playing with force. We flowed naturally between taking turns and playing together and at one stage he stopped very suddenly, with the clear intention of seeing whether I would stop with him. He then suddenly started to play loud and fast glissandos at which moment Sarah looked up to the camera girl and smiled, which signified to me her surprise and wonder at what Tshepo was actually capable of.

The piano improvisation shifted between moments of seeming disinterest, where Tshepo would play the piano but would look away and play in a disorganised manner with no musical intention, to moments where he played very intentionally, hitting the piano keys with such force and intensity that I wondered in the moments whether he was playing out his anger or frustration. There were also moments where I experienced his playing as intentionally avoiding contact with me – playing intentionally in a disorganised manner, in such a way that I really struggled to make coherent music with him. There were still moments of interactional synchrony, where Tshepo and I played together, going louder and softer, faster and slower, where I followed his cues and he also followed mine. One of these cues were glissandos which he introduced, which developed into a theme, and I later introduced pauses and staccato chords, with Tshepo and me lifting our arms up high in the air, pausing and then suddenly playing repeated chords. Throughout this, Tshepo's posture was quite good, with Sarah keeping him positioned on the physiotherapy ball and turning his head to the front when he looked away. He was thus exercising his torso throughout the whole activity and Sarah again commented on how well he performed.

APPENDIX B: SESSION NOTE DATA

WE then did the crawling activity where Sarah facilitated Tshepo's crawling while I sang the tune of a children's marching song while playing a strong rhythm on the bongo drums. By playing strongly on the beat, but also incorporating some syncopated beats, I was able to support the movements of Tshepo's arms and of his legs as he crawled towards me. The strong rhythm, together with the melody, did seem to help him organise his movements and his crawling was much better than in the previous sessions. Also, the bongo drum was good motivation for him to crawl towards me and when he reached me he immediately started to play the drum. At this stage, however, he was very tired and although he played with intention, his posture was poor and Sarah had to correct his posture continuously. He was relying completely on her to stand on his knees and thus the physiotherapeutic purpose of the activity – which was to strengthen his torso – was not being achieved.

APPENDIX B: SESSION NOTE DATA

SESSION NOTES 5

PLACEMENT A

DATE: 22 JUNE 2011

We started the session with a crawling exercise, with Sarah facilitating Tshepo's crawling, while I sand the same marching theme from the previous session whilst playing the bongo drum, in order to help Tshepo organise his movements. However, I only played drum beats together with the melody notes, following Tshepo's movements - pausing and waiting for him to put down his hand or foot. This did not work as well in terms of movement organisation amnd providing a rhythmical pattern for him to follow, but it did make it enjoyable for him, since it was like a game and he could manipulate when I played the next beat. I thus realised that a strong rhythm, which incorporates syncopated beats, worked best for Tshepo, since it provided a regular external rhythmic stimuli, while also allowing for movements that are not on the beat.

The piano improvisation was monotonous for almost 5 minutes, with no musical structure, themes or patterns developing and no authentic musical interaction between Tshepo and me. Sarah's facial expression at times also made me think that Tshepo's posture was not as good during this exercise today. However, after a few minutes of random, disorganised playing of notes, it seemed that Tshepo had suddenly 'discovered' a rhythmical theme which he wanted to explore and extend *with* me. His posture changed slightly and he started nodding his head to the beat of the music. Also, his facial expression changed to intense concentration, frowning and playing with a lot of intensity, often looking in my direction or at my hands, as if negotiating the music with me. He also looked briefly at me before pausing and suddenly going softer, and for the first time I felt we were not only playing games anymore – we were now negotiating music between us. In terms of his posture, the renewed focus also led to more determined exploration of the piano and he stretched to the sides to play high and low notes and also started playing fast alternating chords with both hands. He was thus exercising range of movement, coordination and fine motor control. The improvisation went on for too long and Tshepo became less engaged in the activity. One can clearly see how parallel with his gradual decline of interest, there is also decline in his body posture, as he started to sink forward more and more, eventually putting his head down on the keys.

The next activity was a physiotherapeutic exercise in which we incorporated instruments to motivate Tshepo's participation. He had to go down to one side, holding himself up with one arm and playing the instrument with his other arm, the he had to get up on both knees and

play instruments set out on a big cube in front of him, and then he had to go down to the other side, holding himself up with one hand whilst playing with the other. At first, he seemed quite bored and Sarah had to hold him up, but then he suddenly started to become more aggressive, hitting the instruments very hard and even throwing the tambourine over. I allowed this, since there was no danger to himself or the instruments getting hurt, and incorporated his throwing of the tambourine into the syncopated melody which I was singing. I also matched his intensity and reflected some of what he was doing by putting the tambourine down loudly and with a jerking, almost aggressive quality, in front of him. Tshepo clearly enjoyed this game a lot and he put a lot of strength into it, using his muscles in his torso and one arm to keep himself upright and using strength and force when throwing down the tambourine. This activity thus had a lot of value from a relational and emotional point of view, since Tshepo could constructively express aggression and experience someone sharing this with him, as well as from a physical point of view, since he was strengthening a variety of muscles in his torso and arms, as well as his legs, by playing in various positions. It was also easy for me to focus just on the music, while Sarah could position Tshepo in the correct manner.

For the last activity, Tshepo was put into a standing frame, with cymbals position first to his left so that he had to rotate to his left in order to play them, and then to his right, so he had to rotate to his other side. His behaviour was very strange throughout this activity: there were moments where he again seemed to be playing out his aggression and indulging his destructive side, playing with more force than I had ever seen him use, and then there were moments where he would suddenly stop bend over and hide his face, eventually coming up with a big, naughty smile. Also, there were times he would just decide to drop the beater, laughing when Sarah or I picked it up for him, thus manipulating us and enjoying it! He also closed his eyes a few times as if very tired and when he dropped the beater for the fourth time, we decided to end the session.

APPENDIX B: SESSION NOTE DATA

SESSION NOTES 6

PLACEMENT A

DATE: 24 JUNE 2012

Our last session today was very interesting. Tshepo's behaviour was very different than in any other session: he displayed more aggression and much more resistiveness, throwing the instruments and the beaters away from him and refusing to play. In this, the different perspectives of me and Sarah became evident, as I saw the resistiveness as Tshepo becoming more assertive and starting to feel safe enough in our relationship to trust that he could act out and I would be able to handle it, while Sarah experienced his behaviour as inappropriate and naughty. She was completely thrown and surprised by his behaviour, a few times exclaiming "no no no", or "come on, play Tshepo!", with a look of dismay on her face when he threw the beater away from himself.

We then did the crawling exercise, again with Sarah facilitating Tshepo's crawling, while I sat at the other end of the carpet and sang and played a march with the bongo drum, rhythmically supporting Tshepo's movements. I again incorporated syncopated rhythmic patterns on the bongo drum, while singing the structured, rhythmic melody and the combination of the melody and rhythm clearly helped Tshepo to organise his movement patterns. He also intentionally put his hands down very loudly on the carpet with the beat of the song, as if saying through this that he was also part of the music making, even though he was not playing an instrument. When he came to me, I held the bongo drum for him to play, while Sarah stabilised him, helping him to stand on his knees while playing. He also supported his body by pressing down on the bongo drums, playing with alternate hands most of the time. This was an exceptional moment, with Tshepo becoming very animated, playing strongly and rhythmically on the bongos, becoming so overly enthusiastic that he completely missed the bongo drum on one attempt to bang it very loudly. I matched his playing with my voice, singing a blued-like melody with the same intense quality in my voice. I felt like Tshepo and I were very attuned at this moment and he even started to mouth the 'papapa' which I was singing, even though he made no sound with his voice. Right at this moment, Sarah exclaimed 'well done Tshepo' since he was using a lot of strength to play in that manner, and I felt like this interrupted the intense moment between Tshepo and me. Still, he later again started to mouth what I was singing with me, and also lifted both his arms up high, using a lot of strength to keep his torso straight, in order to play a loud beat on the last note of the song phrase. This activity thus had immense physiotherapeutic and music therapeutic value, but I felt like six sessions were not enough – Tshepo was only now starting to assert himself.

APPENDIX B: SESSION NOTE DATA

The piano improvisation was also very special today, with a few different themes developing and Tshepo playing with much more musical intention. He played strong rhythms and also engaged in turn taking with me, playing two chords, then taking his arms away while I played two chords, then again playing two chords etc. It was also now more than just a musical game, it made musical sense and Tshepo's intensity and the concentration with which he played showed how much he valued being part of making *music*, not just random sounds. He also played with a lot of aggression at times, even at a stage using his elbow in order to play loudly. Sarah held him by the hips, supporting him and constantly correcting his posture. She also bounced him throughout the activity and later on moved the physiotherapeutic ball from side to side while he was playing, thereby exercising his core muscles and strengthening his torso. She also smiled a few times throughout the improvisation, sharing looks of surprise with the camera girl, indicating her wonder at what Tshepo was capable of.

WE ended the session with a cymbal activity, in which Sarah put Tshepo in his standing frame, and he could play the cymbals and the drum, which I held for him, while standing in the frame. The act of music thus served to distract him from the discomfort of having to stand in the frame. Interestingly, although Tshepo immediately started to play the cymbals and the drum, he played in a disorganised manner, without any real intention or concentration – he was looking around the room, randomly banging the instruments. However, the moment I started to sing a jazz-like melody with him, with syncopation and pauses, he started to play in a more organised manner and he also become more involved in the activity, playing with concentration and a lot of intention. This clearly showed me the difference between simply letting him play instruments on his own versus making music *with* someone, since he clearly became more invested in the activity once we were making music together and this led to him using more strength to play and also persevering in the activity for longer, since he was now more interested in what we were doing. Of course, since Tshepo was in the standing frame, Sarah did not have to support him or facilitate his movements and thus she only watched the activity and took no active part in it.

APPENDIX B: SESSION NOTE DATA

SESSION NOTES 1

PLACEMENT B

DATE: 8 JUNE 2011

This was a very difficult and worrying first session and I already feel nervous about our next session. Jenny[6], the physiotherapist, did tell me beforehand that she does not plan structured sessions beforehand, but rather looks at whatever the client is interested in during the session, but I did not realised how difficult this would make my role. Firstly, Steven[7] did not seem interested in any of the musical instruments and also seemed distressed about my presence and about the music I was making. I therefore felt like I was an interference in the session and I had no idea what was expected of me, since I did not know what we were working on. Also, the fact that Jenny already knows a lot about music therapy added to my anxiety in terms of 'doing it right' during the session. Overall, I felt like a third wheel, trying to force musical activities on Steven. Musically I also felt stuck, and I think this may be related to the lack of structure as well.

Steven entered the session tired and distressed upon seeing me and the instruments. The physiotherapist comforted him until he was more relaxed, but when I played a few high-pitched notes on the piano to stimulate his interest, Jenny told me that this did not make him happy. Steven eventually became interested in a game where he had to put balls into a hole, which then produced music. While the physiotherapist facilitated this exercise, I just sat and watched, feeling as if I was of no use and for quite some time, I was just a spectator in the session.

Steven's interest was briefly stimulated by the cymbals, which I tapped with my finger nails to produce a sound. Jenny asked Steven if he wanted to try and then guided him to walk towards the cymbals which were placed in such a way that he had to climb up a step and then onto a table to play. Steven needed to be coaxed into climbing up the step by the prospect of playing the glockenspiel, which was placed on the table and in which he showed more interest, vocalising when the physiotherapist asked him if he wants to play this. I was still quite irrelevant during this activity, only holding out the glockenspiel to Steven, since I was afraid that playing or singing would again frighten him away from engaging in the music. Eventually, Steven engaged in turn-taking with me, although he only once he managed to play completely on his own. I then took the glockenspiel and used it as a aeroplane, in order to create a more playful atmosphere. However, he soon lost interest and glanced towards

[6] The physiotherapist's real name was not used
[7] The client's real name was not used

the cymbals again. It seemed that he had become interested enough in the cymbals to now climb up the steps.

Together, Steven and I played on the cymbals, at times together, at times taking turns. Although the atmosphere was slightly more playful, the music was stagnant and I still felt stuck as to how to match Steven: There was a lot of space in the music, with many pauses and silences as Steven struggled to play. I did not sing or provide any musical base for Steven's cymbal crashes and felt a bit incompetent, wondering what Jenny was thinking about my music therapy skills...

We then moved towards the piano, which was set up with steps for Steven to climb onto in order to play. At the first step, Steven hid his face in his arms and I then took this into a peek-a-boo game, trying anything to start building a relationship with him. When I then moved to the piano and started to play a few notes, he hid his face again in his arms. When Jenny then asked him if he would like to climb up to the piano, he strongly bowed his body and his face down and protested vocally. I clearly felt that I was the cause of Steven's refusal to do any exercises and felt increasingly anxious about my own presence.

Jenny and I tried to trick Steven into paying the piano by putting balls on the keys which he had to fetch. Although I tried to play with him and support Steven musically, my music was still incoherent, consisting of random notes, widely interspersed, with no basic beat. I think that my anxiety really influenced my ability to just be present in the music.

Jenny then facilitated Steven in gliding down the steps, while I play descending scales on the piano, accompanying his movements, although I did not feel as if the music I played had any physical influence. Steven was then motivated to climb up the steps again in order to get to a truck which Jenny had placed on the piano. It took a lot of effort for Steven to do this, but by moving the truck up and down the piano keys, indirectly playing ascending and descending scales, Steven became more interested, moving quite fast up the rest of the steps. With Steven responding to the music, I felt for the first time in the session like I was doing something right and I started to feel more confident. At first, he just pushed the truck over the range of the piano, but eventually, he moved his hands to the piano keys and started to press down the keys underneath the truck. I was able to reflect what Steven was playing on the piano, while Jenny was supporting Steven and helping him to balance by gently holding his hips. For the first time, I felt there was a greater sense of collaboration and mutuality between Jenny and me and this made me feel more at ease.

APPENDIX B: SESSION NOTE DATA

SESSION NOTES 2

PLACEMENT B

DATE: 10 JUNE 2011

Although it was still difficult to work with Steven, I felt as if this session went much better than the previous one and as if Jenny and I were also better able to work together. Steven was in a better mood than the previous session and seemed much more at ease and relaxed when he saw me, which immediately made me also feel less anxious about the session. Instead of conducting the session in the physiotherapy room, where there are a lot of distractions, Jenny suggested we rather conduct it in the music room and I also think that this helped Steven to be less confused with these sessions, since he already associates music making with the music room. This was also a more neutral space for Jenny and me and I think it facilitated a sense of collaboration between us: I felt less like a music therapy student helping out during a physiotherapy session and more like Jenny and I could work together more equally.

At the start of the session, Steven looked intently at the instruments that were set out on a table in the room and Jenny took this cue and invited Steven to walk towards the instruments. I marched on my knees with Steven and he often made eye contact with me, as if we were playing a game together. When we reached the table, Steven immediately reached towards the bells, but accidently pushed one of the bells off the table. Jenny again took this as a cue for the next activity: Steven had to go down onto his knees and fetch instruments on the floor and then put them back on the table by getting back up on his feet. Each time Steven seemed to show interest in a new instrument, Jenny followed his cue and created some activity from that, for instance climbing up steps to fetch the shakers that were put on top of the drum. We were thus using the instruments rather unconventionally and since Steven was not really playing the instruments, but rather playing *with* them, I found it difficult to know how I should make music. Therefore, I again started to feel more like a physiotherapy assistant rather than a music therapy student. Although Steven briefly played with me, also making eye contact, he soon lost interest, possibly because he was not able to make much sound, which made it difficult for me to match and meet him and make the music interesting.

Steven then again tried to pick up the drum and Jenny suggested that he becomes a ‘music soldier’ carrying the drum around. She helped him to do this and so he lifted the drum and walked around with it, while I sang “walk walk walk ___walk walk walk ___”

to the beat of his walking pattern. After a few steps, Jenny put the drum down and helped Steven to play a loud drum roll, much to his enjoyment. Directly after this, he looked away from the drum, towards the piano and pointed with his arm in the direction of the piano. Jenny then asked him to walk to the piano, but again he reached towards the drum and so Jenny took his cue and told him to pick up the drum and take it to the piano. Steven immediately did this, and I went to the piano, playing the theme from “Ek is nie ‘n stap soldaatjie nie...” on the piano on the beat of his walking. With the help of Jenny, Steven then lifted the drum up one of the steps which had been set op for Steven in front of the piano and the Jenny put the drum on top of the piano. Steven then climbed up the step and Jenny and I tried to engage him in a piano improvisation, with me playing a few notes, then Jenny playing and also verbally inviting Steven to play. Steven played a few notes, but soon looked down to the floor or turned his head away from us and the piano, eventually looking up and pointing at the drum. Steven’s shifts in interest made it difficult for me to provide any coherent, containing music and my music became just as fragmented as the activities we were doing, jumping from one activity to the next.

During one activity, in which Steven was climbing up the piano, he hit his head and started to cry. Jenny and I tried to distract him by playing a few notes on the piano, by playing the drum together and eventually by offering him cookies, but only when he spotted the glockenspiel did he suddenly stop crying, looking intently in its direction. I therefore went to fetch the glockenspiel and held it out for Steven to play, feeling that at last there was some form of musical stimulation that Steven really seemed to like. Jenny slightly adjusted the manner in which he was holding the beater, and I used the glockenspiel as an aeroplane, ‘flying’ it around and making flying sounds and the running the notes over Steven’s beater, so that he played loud glissando’s by only having to lift up the beater. I experienced more mutuality between Jenny and me in this activity, since she was supporting Steven and facilitating his movements, while I was enabling him to make big sounds on the glockenspiel and establishing a sense of playfulness. We were thus equally involved in the activity and working towards the same immediate goal: to bring an element of enjoyment in the session for Steven.

When Steven showed interest in the cymbals, we then brought them to where he was sitting and Jenny suggested he play the cymbals with his one hand, which still held the beater. However, he immediately took his other free hand and brought it up to the cymbal in an effort to play the cymbal. Since he played the cymbal with his hand and not the beater, he did not make any sound and on reflection I realised that I should have matched the intensity of his movements in that moment and made the sound *for*

him, since he definitely intended to make a big sound. Later on in the cymbal activity I did do this and his facial expression showed that he enjoyed creating a big sound, even though he was not making this sound himself. After the session, Jenny commented that she thought this worked well, and this gave me more confidence about my own work in this context. Also, I think Steven's positive response influenced both Jenny and me in the moment, making both of us more at ease, and making us more able to read each other and to read Steven.

Steven soon lost interest again, but Jenny then picked him up by his feet and swung him around, which caused him to regain some energy. I accompanied him and Jenny on the piano, matching the rhythm and the playful quality of their movements. Steven looked towards me throughout this activity and I felt that the music contributed to this activity by energising Steven, providing containment and by stimulating him. I also felt more able to musically match what they were doing, since their movements were more fluent and continuous. I think that deciding together to work in this receptive manner made it easier for me and Jenny, with us both feeling less anxious about distressing Steven by putting pressure on him to play an instrument.

Jenny also could continue in a more usual physiotherapeutic manner, and did not need to take me into consideration as much. The music seemed to distract Steven from the more uncomfortable movements, creating a more playful atmosphere and therefore playing a relevant part in the session. Thus, although Steven and Jenny were not actively involved in the music making, I do think they were influenced by the music specifically in terms of enjoyment and making it more interesting. I therefore think there was a definite sense of reciprocity and collaboration between Jenny and me.

APPENDIX B: SESSION NOTE DATA

SESSION NOTES 3

PLACEMENT B

DATE: 13 JUNE 2011

Building on the previous session, Jenny and I discussed beforehand that we would try more receptive musicking today to see if Steven would engage more positively through that. Discussing this with her before the session already gave me a greater sense of collaboration with Jenny, since we were now starting to negotiate the session together. The session therefore started with me at the piano and Jenny with Steven on the carpet, with Jenny dancing with Steven, loosening up his arms and bouncing him around to the beat of the music, while I played up-beat music, in a marching style. Although I was not matching *Steven*, I was supporting physiotherapeutic exercises with the music, and therefore felt like I was contributing towards the session. All three of us seemed much more relaxed with this manner of playing, and with a calmer Steven, I also felt less tension between Jenny and me. Steven enjoyed this for a while but then his attention was diverted towards the drum, so Jenny used this cue to engage Steven in some drumming. At first, Jenny played for Steven, using his arms to play the drum while I played the same marching theme on the piano to the rhythm of Jenny and Steven's beating. Steven started to lose interest and then Jenny suggested I play 'start-stop' music on the piano. This stimulated his interest, and he started to play on his own, taking effort to put the beater on the drum skin, at which moment I would play staccato chords on the piano. Upon reflection, I realised that I was very much relying on Jenny's ideas and leadership, since she knew Steven better and also could read him better. Although, this made sessions easier, I also had to consider that it created more of a 'leader-follower' relationship than a collaborative, mutual relatiotionship.

After this, during a glockenspiel activity, Jenny took Steven's hands and did some hand-over-hand playing on the glockenspiel as well as playing with alternating hands. Steven was standing throughout this activity and briefly he bent over, losing muscle tone in his torso, but with encouragement from Jenny and with me holding up the glockenspiel, Steven was motivated to get up straight again. I also held up the glockenspiel high so that Steven had to stretch his arms up high (with Jenny's help) in order to play. Although we were using the instruments to encourage Steven's movements, I was not contributing musically in this moment and thus had more a role of assistant than music therapist.

APPENDIX B: SESSION NOTE DATA

During a piano improvisation, I frightened Steven by playing low tremolos in the bass and thus realised the importance of playing the right type of music. Jenny quickly consoled Steven, and I was left feeling like the ‘bad therapist’, making the client cry, while Jenny was the ‘good therapist’. After being consoled, Steven, Jenny and I improvised for a while, mostly with Jenny taking both Steven’s hands to play, moving from side to side over the range of the piano, thus exercising range of movement, or using both hands alternately. Although this was good physiotherapeutic exercise for him, from a music therapeutic point of view it was less relevant, since *Steven* was not really playing and I could therefore not really meet and match *him* in the music. Steven soon became more interested in opening and closing the piano’s bookstand and I incorporated this in the music I was playing in the treble on the piano. Jenny encouraged Steven to use both his hands, which he was able to do with her help and for this brief moment, I felt like all three of us were equally involved in the activity, each with their own role.

Steven played quite well on the guitar after this for a short while, plucking strings by himself and using intention, exercising fine motor control and coordination. We also did some stop and go on the guitar and on the drum, with Jenny again facilitating Steven’s movements so that he could play loud and fast with alternating hands. We also played peek-a-boo with the drum and with this game, Jenny could manipulate Steven’s arms and facilitate different movements without resistance from him. I think that all of these activities had great physiotherapeutic value for Steven, and that the use of instruments and music really facilitated and encouraged his participation. However, from a music therapy point of view, since Steven was not playing by himself, I had to change my approach in terms of matching and attuning to the client. I therefore realised that in this context, it may be more necessary to think in terms of using the instruments and the music itself as a source of interest and motivation.

APPENDIX B: SESSION NOTE DATA

SESSION NOTES 4

PLACEMENT B

DATE: 15 JUNE 2011

This session went very better than the last three! For the first time Steven seemed at ease and as if he enjoyed the music. We started the session with Jenny doing physiotherapeutic exercises with Steven on a small physiotherapy ball, while I supported their movements on the piano. Steven clearly enjoyed this – he continuously looked towards me with a big smile, and although it is not clear whether the music had a physical effect on him, in terms of organising or supporting his movements, it did make the exercise more enjoyable. Steven even asked for 'more', allowing Jenny to manipulate his movements and his posture. He also seemed highly motivated to use his own muscles to lift his head and his feet up off the floor when Jenny asked him to, often looking around and smiling at me and the piano, clearly enjoying the fact that the sounds were matching his movements.

Steven showed interest in the percussion instruments, first the drum and then the glockenspiel, but his participation was brief and he soon lost interest and looked at a new/different instrument. With the drum, he first tried to play on his own, but was only able to scratch the surface very softly and this soon seemed to become tedious. Jenny then helped him to play, taking his arms and playing fast beats with alternating hands. Although this was good from a physiotherapeutic point f view, from a music therapy perspective I realised that I was now not matching what *he* was playing, but what *Jenny wa*s playing for him and thus I was not musically connecting with Steven. Although Steven was passively 'making music', he was not creatively part of the music making process and I think that this was the main reason why he lost all interest in playing the drum soon after this. At this moment, I think that both Jenny and I were in difficult positions, since from her point of view Steven had to be doing some movements, while from my point of view I wanted to wait and see what he would do by himself. The piano improvisation continued in the same way: Steven at first played with the book-stand and I improvised according to the sounds he ,made by opening and closing the stand, but Jenny stopped him after a while and told him that he was only to play on the keys. Thus, while I was focusing on what was being presented, being process-focused, Jenny was focusing on what needed to be happening, thus being more outcomes-focused.

When Jenny asked Steven to choose between the cymbal and the glockenspiel, Steven clearly indicated the cymbal, but although he was engaged in playing with the cymbal for more than 5 minutes, he was never really engaged in the music, nut was rather interested in

the workings of the cymbal, especially in the stand's different knobs and screws. I sang a syncopated melody and played on the cymbal in an effort to support what Steven was doing, but there was no musical interaction between us. In fact, I could just as well not have been there. IN terms of movement, Steven did very well, reaching towards the instrument, bending down to pick up the beater; walking towards the cymbal; pulling the cymbals towards himself; and standing up from a sitting position to get closer to the instrument. Thus, the instrument itself, especially the technicalities of the instrument, seemed to motivate Steven to move, but he showed no interest in the sound it produced, making no attempt to play it on his own.

APPENDIX B: SESSION NOTE DATA

SESSION NOTES 5

PLACEMENT B

DATE: 22 JUNE 2011

This session did not go very well. We started the session with Steven standing in fornt of a table with various instruments set out for him to play with and to explore. He did seem relatively interested in these instruments, especially in the castanette, which he explored for a while. I sang a hello song, playing on the tambourine, trying to contain Steven's explorations. However, Steven seemed much more interested in the workings of the castanette than in the actual sound it produces and he seemed even less interested in me. Jenny also tried to engage him in music making, but he looked away from almost every instrument she showed him. I then tried to engage him with the finger game itsy bitsy spider, using my fingers on the tambourine while Jenny used her fingers to climb up Steven's back, but although this briefly caught his attention, he suddenly looked away from me, hid his face in his arms and then contracted his face as if he wanted to cry.

Jenny then suggested a flying activity, in which she sways Steven while I accompany their movements at the piano. Steven looked at me as I stood up and went to the piano and the moment I sat down he started to show interest in the musical instruments again. I played softly in the background, trying to contain Steven and matching some of the sounds he was making. He rattled the metal jingles of the tambourine and also reached out for the shaker, which he accidentally pushed off the table. This evolved into a game, with Jenny picking up the shaker and putting it at different places on the table top so that Steven had to move and stretch in order to push it off the table. I accompanied this game at the piano by playing trills and tremolos while he moved towards the shaker, and then sharp, staccato chords the moment the shaker hit the ground. Steven was engaged in this activity for a short while, but then I uttered "well done Steven" when he managed to reach quite far to push a shaker off the table and this seemed to trigger something in Steven and he started to cry.

Jenny managed to keep him relatively calm, trying to find out what he wanted and what was wrong, and it was clear that he was trying to communicate, but struggling to do so. Eventually, he used his arms to sign 'finished', which Jenny could understand. All through this, I remained seated at the piano, feeling that I was the cause of Steven's distress.

Jenny then did some muscle relaxation, rolling, swaying and walking exercises with Steven, while I accompanied them at the piano. I started by playing very loudly and over the full range of the piano, but Steven became quite upset and I immediately felt that the bass notes

were scaring him. I then played more flowing, softer music on the middle and high ranges of the piano and this had a better effect, although I don't think it had any significant impact on the exercises themselves. After a few minutes of this, Steven started to cry again and although Jenny tried to engage him in more musical activities, he said 'no' to every activity and we therefore decided to finish the session.

APPENDIX B: SESSION NOTE DATA

SESSION NOTES 6

PLACEMENT B

DATE: 24 JUNE 2011

This was our last session with Steven and it was rather disappointing. Very little happened musically throughout the session, mainly because Jenny and I were afraid that too much music would upset Steven again, causing him to refuse to take part in any activity. WE therefore decided to take on a more receptive music therapy approach. We started the session with a hide and seek game, hiding different instruments across the room and then letting Steven find them by playing them quickly and thus letting the sound guide him. He was not very interested in this and he was soon distracted, first by an aeroplane flying overhead, and shortly after that by a car leaving the parking lot. Jenny tried to engage him in instrumental play by making sounds on a few percussion instruments, but Steven did not even look in the direction of the sounds. Together, Jenny and I then made aeroplane movements and sounds and then Jenny moved Steven around like an aeroplane. WE were thus playing, but I felt rather awkward and useless. Steven was very briefly interested by the cymbal, turning his body to look at it when I played it, but soon his attention was diverted again. Jenny put some shakers in Steven's sweater – some in his pockets and one in his sweater cap, so that he would make a noise every time he moved. She then did some physiotherapeutic exercises with him, such as rolling, shaking, letting him hang by his feet. The sound of the shakers did make this a little more interesting, but I felt musically stuck, even though I tried to support the sounds by playing with similar intensity on the cymbals. Still, my presence felt somewhat redundant.

After this, I started playing rock-around-the-clock on the guitar, while Jenny made dance movements, trying to entice Steven in dancing with her. For a while he simply stood and listened, but then seemed to become more engaged, moving towards Jenny, reaching out and then dancing with her for a while. We did "stop-start" with the guitar and with their movement, which initially seemed to interest Steven, but then he suddenly became upset and Jenny eventually told me to stop playing. I think that the slapping of the guitar for the sudden stops may have been too forceful and loud for him and since he was tired, this may have increased his feelings of discomfort with the session.

We ended the session with Old Macdonald, which purpose was more to calm Steven down than having any other physical aim. Jenny positioned Steven in a way that he faced away from me, which indicated that she realised I was part of the reason Steven became so easily upset. Steven did become engaged in the activity, but although I was the one playing the

guitar and singing with Jenny, there was very little interaction between Steven and me and again my presence was not necessary. Also, Steven became very distracted by the camera – often looking at the camera and contracting his mouth, which made me wonder whether the camera did not also influence his behaviour, making him more aware of himself and his disabilities, even if at an unconscious level. His increasing disinterest in the music led Jenny to ask him if he was finished, and he then signed to her that he was.

APPENDIX B: CODED SESSION NOTES

LINE NR	PLACEMENT A: Session 1 notes highlights DATE: 6 JUNE	DESCRIPTIVE CODES
A:SN1:1:1	Although I initially felt uncertain and anxious about this first session, not knowing what	MT uncertainty
A:SN1:1:2	would happen or how Tshepo[8] would respond to my presence, it helped that Sarah	MT uncertainty
A:SN1:1:3	and I discussed which activities we would do and how we would do them before the	Negotiating structure
A:SN1:1:4	session started. By structuring the session around certain instrumental activities	Structure session around MT
	facilitated in such a way that they encompass physiotherapeutic exercises, I felt like I	activities to incorporate PT exercises
A:SN1:1:6	knew what was expected of me. By negotiating the structure of the session with	Ts Clarify expectations
		Negotiating structure
A:SN1:1:7	Sarah, I feel like both of us could relax in the knowledge that we only had to focus on	Clarifying expectations: relaxation
A:SN1:1:8	our own roles –	
A:SN1:1:9	Sarah on facilitating Tshepo's movements and posture, and me on engaging Tshepo	PT facilitate movement; MT engage C
	in musical activities.	musically
A:SN1:1:10	Still, I felt the pressure of showing Sarah what music therapy is all about and I think	MT feel pressure to perform
A:SN1:1:11	this caused anxiety, which influenced my ability to spontaneously make music with	MT: Anxiety influencing musicking
	Tshepo.	
A:SN1:1:14	I felt distanced from him and Sarah as if the music I was making was superficial,	MT feeling distanced from PT
A:SN1:1:15	since I didn't know him yet and he was passively being moved by Sarah, making it	Not knowing C:Superficial musicking
A:SN1:1:16	difficult to match *him*.	Matching who?: PT playing for C
A:SN1:1:20	However, although he seemed to enjoy the music, he was not working harder	Enjoying musicking but no physical
	physically	exertion
A:SN1:1:21	and I became more nervous and self-conscious about my music.	MT's anxiety about own music
A:SN1:1:23	The first activity where I started to feel more confident in what we were doing, since I	Familiar activity: MT confidence
A:SN1:1:24	felt more familiar with this, was a piano activity in which Tshepo sat on a physio ball	Piano playing while on physio ball
	while playing the piano.	
A:SN1:1:32	I felt like we were getting to know each other	Getting to know C through music
A:SN1:1:32	and developing a relationship through play.	Piano playing developing relationship
A:SN1:1:33	After this, Sarah congratulated Tshepo, commenting on how extremely straight his	Piano playing facilitating good posture
A:SN1:2:1	back had been throughout the whole activity, and this made me also feel proud, since	Pride in MT 'working' in relation to PT
	the musical activity was now 'working'.	goals
A:SN1:2:11	This made me feel like the music really <u>motivated Tshepo to use his muscles and to</u>	Music motivating use of muscles
A:SN1:2:12	<u>try very hard to do these exercises.</u>	Music motivating C to try hard
	Since one of the goals of this activity was to	
A:SN1:2:14	strengthen his trunk, I felt that his relying on Sarah defied the purpose, and it	Musical activity defy pt goal
A:SN1:2:15	seemed that he wanted so much to play the instruments that as his	Instrumental play: distraction from PT
A:SN1:2:16	concentration became more focused on playing, he lost his focus over the	Musical activity defy pt goal
	control of his body.	

[8] Client's real name not used

APPENDIX B: CODED SESSION NOTES

A:SN1:2:18 A:SN1:2:19	This made me rather anxious, since I felt like now suddenly the music making was interfering with Tshepo's physiotherapy.	MT's anxiety: shift from music supporting to interfering with PT
A:SN1:2:23 A:SN1:2:24 A:SN1:2:25	Thus, Sarah and I were not in synchrony in this moment, and therefore I think my music and Sarah's counting may have confused him and also may have distracted him from focussing on how to move for this activity.	Ts lack of synchrony Ts over-stimulating C: confusing C Ts over-stimulating C: distracting from correct movement

NOTES:

1. ASN1:1:15

   KNOWING the client (knowing CP etc): How do these two professionals "know" their client…what does "knowing" mean for each therapist and within the collaboration?

2. ASN1:2:9

   MT goal: Motivation to work harder at PT goals. Relationships between goals. [what does "collaboration" mean? Support? Can you address separate goals at the same time? Are you addressing the same goals through a different medium? Are you supporting the physio? Do you shift in supporting each other?]

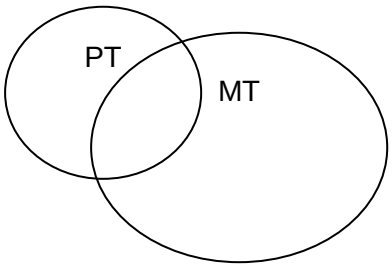
3. ASN1:2:23

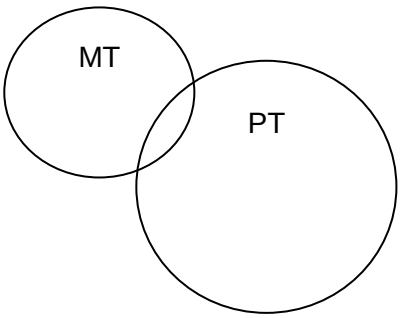
   Client over-stimulated. T's objectives were actually similar, but they ended up not being complimentary as the client couldn't manage the number of tasks he was being presented with.

4. Reflect on the fact that from the start there is already an unequal relationship between me and the physiotherapists, since I came to them and they are thus doing me a favour by letting me participate in sessions. Also, the parents are continuing to pay the physiotherapists for doing *physiotherapy* with the clients and thus there is the expectation that *physiotherapy* goals will be adhered to. This also contributed to the power relationship between us. This contributed to my anxiety about sessions, especially when it seemed that the music and musical activities were interfering with physiotherapy exercises.

5. With negotiation and collaboration, you need shared knowledge and a shared way of doing, BUT, we have separate expertise. This creates anxiety, because how do you work together when each person have different sets of knowledge, ways of doing and goals? At Alma, this anxiety was relieved by discussing and negotiating the structure of sessions and deciding that we would each have different tasks and different roles, each focusing on our own area of expertise and not really interfering with the other therapist's mode of working (e.g Sarah did not make music with me and I did not physically facilitate/support Tshepo). However, although this made the facilitation of sessions easier and had positive results, we were not really coming from a shared space. Were we really collaborating?? This may be the reason why Sarah in the last interview mentioned that it would not always be necessary for both the PT and the MT to be present.

At Alma, the music therapy space was more evident, even though we were in the physiotherapy room. The physiotherapist's role was more passive, mine more active, and therefore I think all of us had the perception that my role was 'bigger'. Still, there were more times where there was a shared space, where both Sarah and I were equally actively involved, such as during the crawling activities. At BTC, even though we were in the music therapy room, the physiotherapy space was more evident. Overall, there were much less of a shared space, and generally, we the times where the session 'worked best', were the times where we used receptive music making and thus worked rather separately.





APPENDIX B: CODED SESSION NOTES

LINE NR	PLACEMENT A: SESSION 2 NOTES HIGHLIGHTS DATE: 8 JUNE 2011	CODES
A:SN2:1:1	I already felt more confident with this session, since I could think about ways to musically support Tshepo according to the exercises we did in the previous session. I	Clarifying expectations: confidence
A:SN2:1:3	knew what to expect from the session and thus felt more able to achieve these expectations.	Clarifying expectations: facilitate reaching goals
A:SN2:1:4	Sarah and I again negotiated the activities we would do beforehand and we therefore	Negotiating structure
A:SN2:1:5	also knew what we were expecting from each other, making it easier to work together.	Clarifying expectations: facilitate working relationship
A:SN2:1:6	This mutuality in our relationship also helped me while working with Tshepo, since I	Mutual T-relationship aids C-T relationship
A:SN2:1:7	felt Sarah trusted me completely with the music, while I could trust her completely with the handling and facilitation of Tshepo's movements.	Trusting the other with roles
	[stretching with piano accompaniment]	PT facilitate movement; MT engage musically
A:SN2:1:11	I was not matching what he was doing, but what Sarah was doing *with* him, and thus wondered about what matching means in this situation.	Matching who?: PT moving C Meaning of Matching in collaborative context
	[tambourine & glockenspiel rotation exercise]	
A:SN2:1:17	I therefore felt like the structure of the physiotherapeutic exercise did not really go with music therapeutic aims of matching and meeting the client, since there was no time to really play together.	Structure of pt not allowing matching
A:SN2:1:21	His muscle control during this exercise was also very good and Sarah commented	Instrumental play affords good muscle control
A:SN2:1:22	twice on how his control was very good and improved throughout the exercise	PT verbally comment – C good muscle control
A:SN2:1:23	Again, this gave *me* confidence in what we were doing as well.	PT's encouragement giving MT confidence
	[piano improvisation]	
A:SN2:1:30	Since this activity also gave me the opportunity to play with Tshepo in a more	Building relationship through play
A:SN2:1:31	relational manner, I felt like this activity allowed for a merging of both music therapeutic and physiotherapeutic goals.	Piano play: Space for merging PT and MT (goals)
A:SN2:2:7	This enforced my sense of mutuality between Sarah and me, and I also think that this	Merging goals develop T mutuality
A:SN2:2:8	gave her a sense that I trusted her judgement, thereby building a sense of mutuality	Trust builds mutuality
	between us. It felt very encouraging to see how Tshepo was strengthening his core	Piano playing strengthening core
A:SN2:2:10	muscles throughout the piano improvisation, enjoying it so much that he could sit up	Enjoyment affords perseverance
A:SN2:2:11	straight for so much longer than usual.	
	[drumming rotation activity: PT stabilise C, while he plays on drum to right and then to his left]	
A:SN2:2:24	The activity thus put a lot of strain on Sarah and although Tshepo showed enjoyment	Instrumental play cause PT strain
A:SN2:2:25	and did not want to stop, Sarah soon said that he was lying on her and was not strengthening his core muscles.	Musical activity defy pt goal
A:SN2:2:26	I was completely unaware of this and thus realised how easy out was to fall 'out of tune' with a co-therapist.	MT unaware of PT's strain MT & PT not attuned
A:SN2:2:28	Overall, I was again amazed by Tshepo's responsiveness to the music and his willingness to play and to engage in musical activities. Sarah was also very pleased	C's responsiveness motivates MT

A:SN2:2:29 A:SN2:2:31	with his participation and with his physical performance throughout the session and this enforced the feelings of mutuality between me and her and our experience of the process.	PT pleased: C's physical performance C's participation affords Ts mutuality

APPENDIX B: CODED SESSION NOTES

LINE NR	Placement A: Session 3 notes DATE: 13 JUNE 2011	CODES
A:SN3:1:1	With this session, I really started to feel as if Tshepo and I were connecting on a deeper level.	Deepening therapeutic relationship
A:SN3:1:2	I felt more encouraged about my own use of music because he was so responsive and	C's responsiveness motivate MT
A:SN3:1:3	I think that the music I used was a much better match to Tshepo and that he also related better with it.	MT matching C C relating to matching music
A:SN3:1:4	Upon reflection however, I realised that although the session was quite relational between Tshepo and me, Sarah at times played much more of a background role.	C & MT relating while PT in background
A:SN3:1:6	Thus, in many of the activities, while I was relating with Tshepo and having fun in the music with him, Sarah was doing the physically challenging work of facilitating	PT facilitating movement; MT engage musically
A:SN3:1:8	his movements, stabilising him and positioning him. Her presence was crucial, and	PT position & stabilise C
A:SN3:1:9	many of the physically valuable things we did we would not have been able to do without her, but I think	PT enhance physical value of musical engagements
A:SN3:1:10	that both Tshepo and I were much more focused on each other than on Sarah.	Exclusivity between MT&C
A:SN3:1:24	I became more aware of the playful relationship that was developing between us as	Building relationship through play
A:SN3:1:24	Tshepo tried more and more to 'catch me out',	Playful interaction MT&C
A:SN3:1:30	I felt our music was gradually becoming more flexible. Playing in this manner made	C & MT: Flexible musicking
A:SN3:1:31	me experience a true sense of sharing between Tshepo and me, and was left	Musical exclusivity: MT&C
A:SN3:1:32	wondering how Sarah felt, since even though she was close in proximity, she was not part of the music making and therefore not part of this sense if sharing.	Musical exclusivity:MT&C
A:SN3:2:8	The improvisation did still move between structure and unstructure, at times becoming more playful,	flexible musicking MT&C Playful interaction: MT & C
A:SN3:2:9	and I felt like Tshepo and I were starting to negotiate our music and thus a more	Negotiating music: MT & C
A:SN3:2:10	mutual relationship was starting to develop. After 7 minutes, I looked at Sarah to see	Developing mutuality: MT & C
A:SN3:2:11	when she wanted us to end, again trusting her knowledge and expertise in terms of	MT trusting PT knowledge
A:SN3:2:11	Tshepo's physical needs and capabilities.	Primacy assigned to PT knowledge of C's physical needs
A:SN3:2:12	She nodded and then suddenly verbally exclaimed "well done Tshepo!" in the middle of a phrase and so our improvisation ended quite abruptly and unsatisfactorily,	PT interrupting musicking
A:SN3:2:14	making me aware of the fact that Sarah was not attuned to me or Tshepo, or aware	PT not attuned to C & MT
A:SN3:2:15	of the significance of ending together.	PT unaware of significance of MT&C ending musicking
A:SN3:2:28	Sarah was clearly impressed by Tshepo's physical performance, indicating to me	PT impressed: C's physical progress
A:SN3:2:29	and the camera girl that Tshepo was standing all by himself by showing both her	PT gestures surprise at C's ability

A:SN3:2:30	hands to us, and giving us a small smile. In this moment, I felt the same sense of	MT and PT sharing
A:SN3:2:31	sharing between Sarah and me, because we were both witness to Tshepo's process	MT & PT witnessing C's process
A:SN3:2:32	and both equally impressed at what he was accomplishing. This made me reflect	MT & PT mutual impressions-
ASN3:2:33	also on what it must mean for Tshepo to be witnessed in such a manner, with the	C's ability
A:SN3:2:34	focus on his abilities.	MT & PT focus on C's ability

Note:

1. ASN3:1:9

   I was dependent on PT presence as crucial to achieving the physio goals that she had set – this is more specific than general dependency…

APPENDIX B: CODED SESSION NOTES

LINE NR	PLACEMENT A: SESSION NOTES DATE: 15 JUNE 2011	CODES
A:SN4:1:1	Tshepo presented with low energy today and showed less eagerness to participate	low energy – less
A:SN4:1:2	in the musical activities. Although he did still play the musical instruments, he had	participation
A:SN4:1:3	poor posture and Sarah continuously had to reposition him, which made me feel like	PT positions & stabilises C
A:SN4:1:4	the session had limited physiotherapeutic value. Tshepo also looked down most of	MT anxiety: 'not working' i.t.o. pt goals
A:SN4:1:5	the time and I felt like he was trying to shut me out. Although from a physiotherapist	C avoiding MT
A:SN4:1:6	perspective his low participation led to less physical value, from a music therapy	PT: resistivenss less physical value
	perspective, his resistiveness was very valuable in the sense that Tshepo was now	vs. MT: resistiveness emotional value
A:SN4:1:8	willing to show a different side of himself – he did not do just what was expected of	MT affords different expressions
	him, but he pushed the boundaries and was willing to explore a 'darker' side of	of self
	himself.	
A:SN4:1:10	During the glockenspiel improvisation, Tshepo initially seemed quite disinterested,	C uninterested in music
A:SN4:1:11	but gradually became more and more engaged as the activity continued, exploring	C increased musical engagement
A:SN4:1:12	different ways of playing with me. He played very softly at first, with little energy, but	Musical investment foster physical
A:SN4:1:13	then started going louder and playing with force. We flowed naturally between	effort
A:SN4:1:14	taking turns and playing together and at one stage he stopped very suddenly, with	MT & C flowing together
A:SN4:1:15	the clear intention of seeing whether I would stop with him. He then suddenly	C show musical initiative
A:SN4:1:16	started to play loud and fast glissandos at which moment Sarah looked up to the	PT gestures surprise at C's abilities
	camera girl and smiled, which signified to me her surprise and wonder at what	
A:SN4:1:18	Tshepo was actually capable of, which really encouraged me.	MT encouraged by PT's surprise
A:SN4:1:19	The piano improvisation shifted between moments of seeming disinterest, where	C shifts in interest
	Tshepo would play the piano but would look away and play in a disorganised	
A:SN4:1:21	manner with no musical intention, to moments where he played very intentionally,	Musical investment foster physical
	hitting the piano keys with such force and intensity that	effort
A:SN4:1:23	I wondered in the moments whether he was playing out his anger or frustration.	Musicking affords expression of
		frustration
A:SN4:1:24	There were also moments where I experienced his playing as intentionally avoiding	C avoiding MT
A:SN4:1:25	contact with me – playing intentionally in a disorganised manner, in such a way that	
A:SN4:1:26	I really struggled to make coherent music with him.	MT fail matching C
A:SN4:1:27	There were still moments of interactional synchrony, where Tshepo and I played	C & MT: interactional synchrony
A:SN4:1:28	together, going louder and softer, faster and slower, where I followed his cues and	MT follow C cues
A:SN4:1:29	he also followed mine. One of these cues were glissandos which he introduced,	C follow MT cues
A:SN4:1:30	which developed into a theme, and I later introduced pauses and staccato chords,	C showing musical initiative
A:SN4:1:31	with Tshepo and me lifting our arms up high in the air, pausing and then suddenly	Shared musicking motivates physical
		effort
A:SN4:1:32	playing repeated chords. Throughout this, Tshepo's posture was quite good, with	Musical investment fosters improved
		posture
A:SN4:1:33	Sarah keeping him positioned on the physiotherapy ball and turning his head to the	PT positions & stabilises C
A:SN4:1:34	front when he looked away. He was thus exercising his torso throughout the whole	Piano playing exercises torso
A:SN4:1:35	activity and Sarah again commented on how well he performed.	PT pleased: C's physical performance
A:SN4:2:36	WE then did the crawling activity where Sarah facilitated Tshepo's crawling while I	PT physically facilitate, MT musically
A:SN4:1:37	sang the tune of a children's marching song while playing a strong rhythm on the	facilitate
		musical and physical facilitation –
		same goal

APPENDIX B: CODED SESSION NOTES

A:SN4:1:38	bongo drums. By playing strongly on the beat, but also incorporating some syncopated beats, I was able to support the movements of Tshepo's arms and of	Syncopation facilitates movement organisation
A:SN4:2:2	his legs as he crawled towards me. The strong rhythm, together with the melody, did seem to help him organise his movements and his crawling was much better	Movement organisation requires clear rhythmical pattern
A:SN4:2:4	than in the previous sessions. Also, the bongo drum was good motivation for him to crawl towards me and when he reached me he immediately started to play the	Instrumental play motivates crawling
A:SN4:2:5	drum. At this stage, however, he was very tired and although he played with	Low energy – less participation
A:SN4:2:6	intention, his posture was poor and Sarah had to correct his posture continuously.	PT positions & stabilises C
A:SN4:2:7	He was relying completely on her to stand on his knees and thus the	PT physically facilitates C musicking
A:SN4:2:8	physiotherapeutic purpose of the activity – which was to strengthen his torso – was not being achieved, which again caused me to feel somewhat anxious.	MT anxiety: not working i.t.o. pt goal

A: SN4:1:35

Note: C's physical 'performance': This links with how the therapist views the process and what is valuable and not valuable: this is "working" because he is "performing". And you feel that you are achieving something within the collaboration when the physio comments on how the client is "performing correctly". Yes, you are there to support the physio (as opposed to a completely equal/mutual collaboration so that is appropriate, but you also need to reflect critically on how you are making your own way of working / understanding the client / the therapeutic process subserviant in some ways and viewing the process through a physio lens.

A:SN4:2:8

Note: different perspectives: MT focus on process and PT focus = achievement: collaboration makes MT now also focus on achievement – causes anxiety!

APPENDIX B: CODED SESSION NOTES

LINE NR	PLACEMENT A: SESSION NOTE HIGHLIGHTS DATE: 22 JUNE 2011	DESCRIPTIVE CODES
A:SN5:1:1	We started the session with a crawling exercise, with Sarah facilitating Tshepo's crawling,	PT physically facilitate movement;
	while I sang the same marching theme from the previous session whilst playing the	MT musically facilitate movement
A:SN5:1:3	bongo drum, in order to help Tshepo organise his movements. I only played drum beats	MT music help movement organisation
A:SN5:1:4	together with the melody notes, following Tshepo's movements - pausing and waiting for	MT music follow C movements
A:SN5:1:5	him to put down his hand or foot. I felt somewhat anxious while doing this, since it did not	MT anxiety: music 'not working'
A:SN5:1:6	work as well as the previous session , in terms of movement organisation and providing a	(pt goals)
A:SN5:1:7	rhythmical pattern for him to follow, since the music was not strong or rhythmical enough.	Movement organisation requires clear rhythmical pattern
A:SN5:1:8	Also, it was difficult to negotiate a beat with Sarah, since I wanted to incorporate Tshepo's	Difficulty negotiating beat MT&PT
A:SN5:1:9	cues, while she counted with a steady beat.	Different intentions: PT steady beat vs MT adaptable beat
A:SN5:1:10	However, I feel like I did make it more enjoyable for him, since it was like a game and he	Playful musical engagement – C enjoyment
A:SN5:1:11	could manipulate when I played the next beat, but Sarah and I were missing each other in	Giving C control over beat
A:SN5:1:12	terms of intention, since the physiotherapist intended for Tshepo to crawl at a regular	Ts different intentions: PT regular
A:SN5:1:13	beat, while I wanted to include his contributions and thus ply a more flexible beat. .	beat vs MT adaptable
A:SN5:1:14	I thus realised that a strong rhythm, which incorporates syncopated beats, worked best	Movement organisation requires
	for Tshepo, since it provided a regular external rhythmic stimuli, while also allowing for	strong rhythmical pattern
A:SN5:1:16	movements that are not on the beat.	Syncopation facilitates movement organisation
	The piano improvisation was monotonous for almost 5 minutes, with no musical structure,	
A:SN5:1:18	themes or patterns developing and no authentic musical interaction between Tshepo and	No authentic interaction: MT&C
A:SN5:1:19	me. Sarah's facial expression at times also made me think that Tshepo's posture was not	PT gestures not pleased: posture;
A:SN5:1:20	as good during this exercise today, making me nervous. However, after a few minutes of	MT anxiety: music 'not working' i.t.o. pt goals
A:SN5:1:21	disorganised playing of notes, it seemed that Tshepo had suddenly 'discovered' a strong	
A:SN5:1:22	rhythmical theme which he wanted to explore and extend *with* me.	C extend &explore music with MT
A:SN5:1:23	His posture improved slightly and he started nodding his head to the beat of the music.	Musical investment followed by improved posture
A:SN5:1:24	Also, his facial expression changed to intense concentration, frowning and playing with a	C musically invested;
A:SN5:1:25	lot of intensity, often looking in my direction or at my hands, as if negotiating the music	Negotiating music: MT&C
A:SN5:1:26	with me. He also looked briefly at me before pausing and suddenly going softer, and	C making eye-contact with MT C show musical initiative
A:SN5:1:27	I felt like there was now a new dimension to our play: we were negotiating music between	Negotiating music: MT&C
A:SN5:1:28	us as Tshepo began to take musical initiative in a greater variety of ways. He also had an	C show musical initiative
A:SN5:1:29	improved posture, the renewed focus leading to more determined exploration of the	Musical investment foster

		improved posture
A:SN5:1:30	piano, as well as the use of physical effort as he stretched to the sides to play high and	Musical investment foster physical
A:SN5:1:31	low notes and also started playing fast alternating chords with both hands.	effort
A:SN5:1:32	He was thus exercising range of movement, coordination and fine motor control.	Musical exploration foster range of movement Musical exploration foster coordination Musical exploration foster fine motor control
A:SN5:2:1	The improvisation went on for too long and Tshepo became less engaged in the activity.	Lessening musical investment –
A:SN5:2:2	One can clearly see how parallel with his gradual decline of interest, there is also decline	lessening physical effort
A:SN5:2:3	in his body posture, as he started to sink forward more and more, eventually putting his	Decline in musical interest –
A:SN5:2:4	head down on the keys.	decline in posture
A:SN5:2:5	The next activity was a physiotherapeutic exercise in which we incorporated instruments	Instrumental play facilitate movement
A:SN5:2:6	to motivate Tshepo's participation. He had to go down to one side, holding himself up with	Instruments motivate physical participation
A:SN5:2:7	one arm and playing the instrument with his other arm, the he had to get up on both	Instrumental play supports pt
A:SN5:2:8	knees and play instruments set out on a big cube in front of him, and then he had to go	exercise
A:SN5:2:9	down to the other side, holding himself up with one hand whilst playing with the other. At	Less musical investment – less
A:SN5:2:10	first, he seemed quite bored and Sarah had to hold him up, which immediately made me	physical effort
A:SN5:2:11	feel anxious that this was not working, but then he suddenly started to become more	MT anxiety: 'not working' i.t.o. pt goals
A:SN5:2:12	aggressive, hitting the instruments very hard and it was clear that this emotional	Emotional investment requires
A:SN5:2:13	involvement required a lot of strength from Tshepo. I allowed this, since there was no	physical effort
A:SN5:2:14	danger to himself or the instruments getting hurt, and incorporated his throwing of the	MT use syncopation to support C
A:SN5:2:15	tambourine into the syncopated melody which I was singing. I also matched his intensity	
A:SN5:2:16	by reflecting some of what he was doing by putting the tambourine down loudly and with	MT matching C intensity
A:SN5:2:17	a jerking, almost aggressive quality, in front of him. Tshepo clearly enjoyed this game a	MT matching aggressive quality
A:SN5:2:18	lot and he put a lot of strength into it, using his muscles in his torso and one arm to keep	Emotional investment requires
A:SN5:2:19	himself upright and using strength and force when throwing down the tambourine. I really	physical effort
A:SN5:2:20	felt like this activity had a lot of value from a relational, emotional & physical point of view,	Collaborative activity: relational, emotional + physical value
A:SN5:2:21	since Tshepo could constructively express aggression and experience someone sharing	Musicking affords constructive expression aggression
A:SN5:2:22	this with him,	Musicking affords shared expression
A:SN5:2:23	and he was also strengthening a variety of muscles in his torso and arms, as well as his legs, by playing in various positions.	Collaborative activity affords muscle strengthening
A:SN5:2:24	It was also easy for me to focus just on the music, while Sarah could position Tshepo in the correct manner.	PT focus –positioning; MT focus music

APPENDIX B: CODED SESSION NOTES

A:SN5:2:26 A:SN5:2:28	For the last activity, Tshepo was put into a standing frame, with cymbals position first to his left so that he had to rotate to his left in order to play them, and then to his right, so he had to rotate to his other side.	Instrumental play support pt exercise instrumental play foster rotation
A:SN5:2:29	His behaviour was very strange throughout this activity: there were moments where he again seemed to be playing out his aggression and indulging his destructive side, playing	Musicking affords constructive expression aggression
A:SN5:2:31	with more force than I had ever seen him use, and then there were moments where he	Emotional investment requires physical effort
A:SN5:2:32	would suddenly stop bend over and hide his face, eventually coming up with a big,	Playful interaction: MT&C
A:SN5:2:33	naughty smile. Also, there were times he would just decide to drop the beater, laughing	C showing resistiveness
A:SN5:2:34	when Sarah or I picked it up for him, clearly enjoying this sense of control! He also closed	C enjoy control
A:SN5:2:35	his eyes a few times as if very tired and when he dropped the beater for the fourth time,	C showing resisitiveness
A:SN5:2:36	we decided to end the session.	

ASN5:1

Note: Different perspectives: achievement vs process, fitting into PT perspective causes anxiety

ASN5:5

Different perspectives: difficult therapist negotiation

Different perspectives: PT *gives* C a beat, MT attempts to incorporate C's beat

ASN5:2:2

Note: musical intention // physical intention

ASN5:2:20

Shared MT and PT value – active, shared involvement in physiotherapeutically structured musical activity affords holistic value for client: emotionally, physically and relationally: equal investment from both therapists and from both viewpoints and perspectives it has value. Even though foci are different, this enables something more for the client. Thus, not always need to focus on same thing, BUT intention was the same. Different roles according to skills, but shared intention, investment and value.

Reflect: throughout research process I began to 'lose' my music therapy perspectives: was so focused on the physical benefits and contributing to physiotherapy practice, that I stopped exploring the emotional and relational value of sessions. BTC: so focused on C's resistance and unwillingness, hampering his physical development, but not considering how the participation in something difficult/not nice can have great emotional value for client, nb for emotional development i.t.o. persevering when things are difficult

APPENDIX B: CODED SESSION NOTES

LINE NR	PLACEMENT A: SESSION NOTES DATE: 24 JUNE 2011	CODES
	Our last session today was very interesting. Tshepo's behaviour was very different than in any other session: he displayed more aggression and much more resistiveness, throwing the instruments and the beaters away from him and	
A:SN6:1:4	refusing to play. In this, I realised that the different perspectives of me and Sarah	C showing resistiveness
A:SN6:1:5	became evident, making the facilitation more challenging, as I saw the	Working from different perspectives
A:SN6:1:6	resistiveness as Tshepo becoming more assertive and starting to feel safe	PT: resistiveness inappropriate vs. MT: resistiveness = valuable
A:SN6:1:7	enough in our relationship to trust that he could act out and I would be able to handle it, while Sarah experienced his behaviour as inappropriate and 'naughty'.	MT focus = therapeutic relationship
A:SN6:1:9	She was completely thrown and surprised by his behaviour, a few times exclaiming "no no no", or "come on, play Tshepo!", with a look of dismay on her	PT: resistiveness inappropriate
A:SN6:1:11	face when he threw the beater away from himself. I felt somewhat irritated with	Different perspectives cause irritation
A:SN6:1:12	this, eventually telling Sarah that it was okay for him to do this. I realised then that I should have told her earlier on that this behaviour is acceptable from a	Different perspectives: communication necessary
A:SN6:1:14	music therapy point of view.	MT: resistiveness valuable
	We then did the crawling exercise, again with Sarah facilitating Tshepo's crawling, while I sat at the other end of the carpet and sang and played a march	PT physically facilitate; MT musically facilitate
A:SN6:1:17	with the bongo drum, rhythmically supporting Tshepo's movements. I again	Syncopation facilitates movement
A:SN6:1:18	incorporated syncopated rhythmic patterns on the bongo drum to incorporate all	organisation
A:SN6:1:19	of Tshepo's movements, while singing the structured, rhythmic melody and the combination of the melody and rhythm clearly helped Tshepo to organise his movement patterns.	Structured rhythm & melody facilitate movement organisation
A:SN6:1:21	I think Sarah and I understood each other more than last session and we were	Mutual understanding – better collaboration
A:SN6:1:22	better able to negotiate the tempo and rhythm with Tshepo, as he intentionally put his hands	Negotiating rhythm: MT,PT&C
A:SN6:1:23	down very loudly on the carpet with the beat of the song, as if saying through this that he was also part of the music making, even though he was not playing an	Musicking fosters C assertiveness
A:SN6:1:25	instrument. When he came to me, I held the bongo drum for him to play, while Sarah stabilised him, helping him to stand on his knees while playing. He also supported his body by pressing down on the bongo drums, playing with alternate hands most of the time. This was an exceptional moment, with Tshepo becoming	PT stabilise C for musicking Musicking fosters weight bearing
A:SN6:1:29	very animated, playing strongly and rhythmically on the bongos, becoming so overly enthusiastic that he completely missed the bongo drum on one attempt to	Musical investment requires physical effort
A:SN6:1:31	bang it very loudly. I matched his playing with my voice, singing a blues-like melody with the same intense quality in my voice.	MT matching C quality
A:SN6:1:33	I felt like Tshepo and me were so attuned at this moment and he even started to mouth the 'papapa' which I was singing, even though he made no sound with his	MT and C attuned

A:SN6:1:35	voice. However, Sarah was not as relationally with us as right at this moment,	MT&C relating while PT in background
A:SN6:2:1	exclaimed 'well done Tshepo' (since he was using such strength to play in that	PT pleased: C's physical performance
A:SN6:2:2	manner) and I felt like this interrupted the intense moment between Tshepo and	Different perspectives cause irritation
A:SN6:2:3	me. In this instance it seemed clear that even though this was significant from	Instrumental play equal significance - PT & MT
A:SN6:2:4	both a physiotherapeutic and a music therapeutic point of view, Sarah and I were	Working from different perspectives
A:SN6:2:5	both being in the moment from our own perspectives and thus 'missing' each other.	PT & MT not attuned
A:SN6:2:6	He later again started to mouth what I was singing with me, and also lifted both	Musical investment motivate physical effort
A:SN6:2:7	his arms up high, using a lot of strength to keep his torso straight, in order to play	drumming fosters torso strengthening
A:SN6:2:8	a loud beat on the last note of the song phrase. This activity thus had immense physiotherapeutic and music therapeutic value, but I felt like six	Instrumental play equal significance – P T& MT
A:SN6:2:10	sessions were not enough – Tshepo was only now starting to assert himself.	Musicking fosters C assertiveness
	The piano improvisation was also very special today, with a few different themes	
A:SN6:2:12	developing and Tshepo playing with much more musical intention. He played	C musically invested
S:SN6:2:13	strong rhythms and also engaged in turn taking with me, playing two chords, then taking his arms away while I played two chords, then again playing two	C&MT engage in turn-taking
A:SN6:2:15	chords etc. It was also now more than just a musical game, it made musical	C & MT playful interaction
A:SN6:2:16	sense and Tshepo's intensity and the concentration with which he played	C musically invested
A:SN6:2:17	showed how much he valued being part of making *music*, not just making	C musically invested
A:SN6:2:18	sounds. He also played with a lot of aggression at times, even at a stage using	Musicking affords expression of aggression
A:SN6:2:19	his elbow in order to play loudly. Sarah held him by the hips, supporting him and constantly correcting his posture. She also bounced him throughout the activity	PT stabilise & support C for MT&C musicking
A:SN6:2:21	to increase his muscle tone and later on moved the physiotherapeutic ball from	C & MT improvise; PT increase C muscle tone
A:SN6:2:22	side to side while he was playing, thereby exercising his core muscles and	C & MT musically engaged; PT exercise core muscles
A:SN6:2:23	strengthening his torso. She also smiled a few times throughout the improvisation, sharing looks of surprise with the camera girl, indicating her	Piano playing exercise torso
A:SN6:2:23	wonder at what Tshepo was capable of. While being aware of this, I was	PT's gestures surprise at C's *abilities*
A:SN6:2:24	completely focused on Tshepo and I felt we were connecting quite intimately.	MT focus on C MT & C connect intimately
	We ended the session with a cymbal activity, in which Sarah put Tshepo in his standing frame, and he could play the cymbals and the drum, which I held for	
A:SN6:2:27	him, while standing in the frame. I felt excited at seeing how the act of music	MT encouraged by C's response
A:SN6:2:28	served to distract him from the discomfort of having to stand in the frame,	Musicking distracts from discomfort
A:SN6:2:29	something which Sarah even commented on after the session, which gave me a	PT's pleased: C's physical

		performance
A:SN6:2:30	sense of mutual investment in this process between me and her. Interestingly, although Tshepo immediately started to play the cymbals and the drum, he played in a disorganised manner, without any real intention or concentration – he was looking around the room, randomly banging the instruments. However, the	PT&MT mutually invested
A:SN6:3:2	moment I started to sing a structured jazz-like melody with him, with syncopation and pauses, he started to play in a more organised manner and he also become	Structured rhythm & melody facilitates movement organisation
A:SN6:3:4	more involved in the activity, playing with concentration and a lot of intention.	C musically invested
A:SN6:3:5	This clearly showed me the difference between simply letting him play instruments on his own versus making music *with* someone, since he clearly	MT&C musically relating
A:SN6:3:7	became more invested in the activity once we were making music together and	Mutual musicking enhance investment
A:SN6:3:8	this led to him using more strength to play and also persevering in the activity for	Mutual musicking affords physical perseverance
A:SN6:3:9	longer, since he was now more interested in what we were doing. Of course,	Increased interest affords increased perseverance
A:SN6:3:10	since Tshepo was in the standing frame, with me engaging him musically, Sarah did not have to support him or facilitate his movements and thus she only	PT sets up pt activity; MT engage musically
A:SN6:3:11	watched the activity and took no active part in it.	MT&C relating while PT in background

ASN6:1:5 VIEW ON RESISTIVENESS MAY INDICATE: PT focus = physical achievement vs MT focus = holistic development and therapeutic relationship

ASN6:1:26 Equal involvement: shared goal – shared value (for PT, MT and C)

ASN6:2:1 MT shift from appreciating and wanting verbal encouragement from PT in early sessions, to now being confident in what MT is doing – not needing her encouragement anymore, in fact becoming irritated with it – owning my role as music therapist

ASN6:2:22 seems as if he is driven to engage in the musical improvisation as a primary pursuit and then she is suporting him physically while he does this – rather then you supporting him musically while he engages in a primarily physical activity.

APPENDIX B: CODED SESSION NOTES

LINE NR	PLACEMENT B: SESSION 1 NOTES HIGHLIGHTS DATE: 6 JULY 2011	CODES
B:SN1:1:1	This was a very difficult and worrying first session and I already feel nervous about our	MT anxiety: difficult session
B:SN1:1:2	next session. Jenny[9], the physiotherapist, did tell me beforehand that she does not plan	PT communicate: no planned structure
B:SN1:1:3	structured sessions beforehand, but rather looks at whatever the client is interested in	PT follows C's interests
B:SN1:1:4	during the session, but I did not realised how difficult this would make my role. Firstly,	Not planned structure: Difficult MT role
B:SN1:1:5	Steven[10] did not seem interested in any of the musical instruments and also seemed	C uninterested in music
B:SN1:1:6	distressed about my presence and about the music I was making. I therefore felt like I	MT trigger C anxiety
B:SN1:1:7	was an interference in the session and I had no idea what was expected of me, since I did	MT feel – interfering MT uncertainty
B:SN1:1:8	not know what we were working on. Also, the fact that Jenny already knows a lot about	PT familiar with mt
B:SN1:1:9	music therapy added to my anxiety in terms of 'doing it right' during the session. Overall,	MT feel pressure to perform
B:SN1:1:10	I felt like a third wheel, trying to force musical activities on Steven. Musically I also felt	MT feel irrelevant
B:SN1:1:11	stuck, and I think this may be related to the lack of structure as well.	MT feel musically stuck Not planned structure: difficult MT role
B:SN1:1:12	Steven entered the session tired and distressed upon seeing me and the instruments.	C response suggest MT = causing distress
B:SN1:1:13	The physiotherapist comforted him until he was more relaxed, but when I played a few	PT calming C
B:SN1:1:14	high-pitched notes on the piano to stimulate his interest, Jenny told me that this did not make him happy.	PT response suggest MT = causing distress
B:SN1:1:16	While the physiotherapist facilitated this exercise, I	PT facilitate while MT in
B:SN1:1:17	just sat and watched, feeling as if I was of no use and for quite some time, I was just a	background
B:SN:1:1:18	spectator in the session.	MT feel irrelevant
B:SN1:1:25	I was still quite irrelevant during this activity, only holding out the	MT feel irrelevant
B:SN1:1:26	glockenspiel to Steven, since I was afraid that playing or singing would again frighten him away from engaging in the music.	Excessive cause distress
B:SN1:2:2	Although the atmosphere was slightly more playful, the music was stagnant and I still felt	MT feel musically stuck
B:SN1:2:3	stuck as to how to match Steven: There was a lot of space in the music, with many	MT fail matching C
B:SN1:2:4	pauses and silences as Steven struggled to play. I did not sing or provide any musical	
B:SN1:2:5	base for Steven's cymbal crashes and felt a bit incompetent, wondering what Jenny was	MT feeling Incompetent
B:SN1:2:6	thinking about my music therapy skills...	MT&C:Struggle build relationship
B:SN1:2:9	trying anything to start building a relationship with him.	MT feel own presence causing distress
B:SN1:2:13	I clearly felt that I was the cause of Steven's refusal to do any exercises and felt increasingly anxious about my own presence	MT & PT shared goal: engage C
B:SN1:2:15	Jenny and I tried to trick Steven into paying the piano by putting balls on the keys which	

[9] The physiotherapist's real name was not used
[10] The client's real name was not used

	he had to fetch.	MT anxiety influence musicking
B:SN1:2:18	I think that my anxiety really influenced my ability to just be present in the music.	PT facilitate movement; MT
B:SN1:2:21	Jenny then facilitated Steven in gliding down the steps, while I played descending scales	accompany musically
	on the piano, accompanying his movements, although I did not feel as if the music I	MT perception: music no physical
B:SN1:2:23	played had any physical influence on him.	influence
		Increased interest foster physical
B:SN1:2:24	It took a lot of effort for Steven to do this, but by moving the truck up and down the piano	effort
	keys, indirectly playing ascending and descending scales, Steven became more	
	interested, moving quite fast up the rest of the steps.	C's responsiveness fosters MT
B:SN1:2:27	With Steven responding to the music, I felt for the first time in the session like I was doing	confidence
	something right and I started to feel more confident.	PT stabilse & support C for MT&C
B:SN1:2:30	I was able to reflect what Steven was playing on the piano, while Jenny was supporting	musicking
	Steven and helping him to balance by gently holding his hips. For the first time, I felt there	Mutuality between MT and PT:
B:SN1:2:32	was a greater sense of collaboration and mutuality between Jenny and me and this made	less tension MT
	me feel more at ease.	

APPENDIX B: CODED SESSION NOTES

LINE NR	SESSION 2 NOTES HIGHLITES DATE: 8 JUNE 2011	CODES
B:SN2:1:1	Although it was still difficult to work with Steven, I felt as if this session went much	MT experience: Difficult working with C
B:SN2:1:2	better than the previous one and as if Jenny and I were also better able to work together.	MT & PT developing working relationship
B:SN2:1:4	Steven was in a better mood than the previous session and seemed much more at ease and relaxed when he saw me, which immediately made me also feel less anxious about the session.	C accepting MT
B:SN2:1:9	This was also a more neutral space for Jenny and me and I think it facilitated a sense of collaboration between us:	Neutral space develop T mutuality
B:SN2:1:10	I felt less like a music therapy student helping out during a physiotherapy session and more like Jenny and I could work together more equally.	MT as assistant develop to MT as equal
B:SN2:1:23	since Steven was not really playing the instruments, but rather playing *with* them, I found it difficult to know how I should make music.	C playing with instrument vs. engaging in music
B:SN2:1:24	Therefore, I again started to feel more incompetent, like a physiotherapy assistant rather than a music therapy student.	MT as PT assistant
B:SN2:1:25	Although Steven briefly played with me, also making eye contact, he soon lost interest, possibly because he was not able to make much sound,	C making eye-contact with MT C losing interest
B:SN2:1:27	which made it difficult for me to match and meet him and make the music interesting.	C's playing: difficult matching
B:SN2:2:9	Steven's shifts in interest made it difficult for me to provide any coherent, containing music and	C's shifts in interest
B:SN2:2:10	my music became just as fragmented as the activities we were doing, jumping from one activity to the next.	MT musicking = fragmented
B:SN2:2:21	I experienced more mutuality between Jenny and me in this activity, since she was	Mutuality MT& PT
B:SN2:2:22	supporting Steven and facilitating his movements, while I was enabling him to make big sounds on the glockenspiel and establishing a sense of playfulness.	PT facilitating movements; MT engage musically
B:SN2:2:24	We were thus equally involved in the activity and working towards the	Mutuality MT&PT: Equal involvement
B:SN2:2:25	same immediate goal: to bring an element of enjoyment in the session for Steven.	MT & PT shared goal - enjoyment
B:SN2:2:35	Jenny commented that she thought this worked well, and this gave me more confidence about my own work in this context.	PT encouragement gives MT confidence
B:SN2:2:36	Also, I think Steven's positive response influenced both Jenny and me in the moment,	Ts encouraged by C's response
B:SN2:3:1	making both of us more at ease, and making us more able to read each other and to	Less anxiety C – less tension Ts
B:SN2:3:2	read Steven.	MT & PT reading cues
B:SN2:3:7	I felt that the music contributed to this activity by energising Steven, providing containment and by stimulating him.	Music stimulating C
B:SN2:3:8	I also felt more able to musically match what they were doing, since their	MT matching PT& C movements

	movements were more fluent and continuous.	
B:SN2:3:9	I think that deciding together to work in this receptive manner made it easier for me	Adapting approach for C
B:SN2:3:10	and Jenny, with us both feeling less anxious about distressing Steven by putting	Less anxiety C: less tension between Ts
B:SN2:3:11	pressure on him to play an instrument.	Pressure to play cause distress
B:SN2:3:12	Jenny also could continue in a more usual physiotherapeutic manner, and did not need to take me into consideration as much, since I was following them.	PT facilitate exercises: MT accompany musically
B:SN2:3:14	The music seemed to distract Steven from the more uncomfortable movements,	Musicking distract from discomfort
B:SN2:3:15	creating a more playful atmosphere and therefore playing a relevant part in the session.	Music adds enjoyment
B:SN2:3:16	Thus, although Steven and Jenny were not actively involved in the music making, I do think the music had an influence on them, especially in terms of enjoyment. I	Music adds enjoyment
B:SN2:3:18	therefore think there was a definite sense of reciprocity and collaboration between Jenny and me.	Reciprocity between MT&PT

Note: 2:21 experiencing mutuality when PT and MT each fall into their traditional roles – each in their comfortable space, but is it a shared space?

APPENDIX B: CODED SESSION NOTES

LINE NR	SESSION 3 NOTES HIGHLIGHTS DATE: 13 JUNE 2011	CODES
B:SN3:1:1	Building on the previous session, Jenny and I discussed beforehand that we would try	Negotiating structure
B:SN3:1:2	more receptive musicking today to see if Steven would engage more positively	MT & PT shared goal:
	through that. Discussing this with her before the session already gave me a greater	engage C
B:SN3:1:4	sense of collaboration with Jenny, since we were now starting to negotiate the session	Clarifying expectations
	together.	facilitate working relationship
B:SN3:1:8	Although I was not matching Steven, I was supporting physiotherapeutic exercises	MT musically support pt
	with the music, and therefore felt like I was contributing towards the session. All three	exercise
B:SN3:1:10	of us seemed much more relaxed with this manner of playing,	Clarifying expectations:
		relaxation
B:SN3:1:11	and I also felt less tension between Jenny and me.	Less anxiety C- less tension
		between Ts
B:SN3:1:18	Upon reflection, I realised that I was very much relying on Jenny's ideas and	MT relying on PT leadership
B:SN3:1:19	leadership, since she knew Steven better and also could read him better.	PT Knowing C better
		PT reading C better
B:SN3:1:20	Although, this made sessions easier, I also had to consider that it created more of a	Leader-follower therapist
	'leader-follower' relationship than a collaborative, mutual relatiotionship.	relationship
B:SN3:1:28	Although we were using the instruments to encourage Steven's movements, I was not	Instruments motivate
		physical participation
B:SN3:1:29	contributing musically in this moment and thus had more a role of assistant than	MT as PT assistant
	music therapist.	Using right music
B:SN3:1:31	During a piano improvisation, I frightened Steven by playing low tremolos in the bass	Music too forceful: distress
	and thus realised the importance of playing the right type of music. Jenny quickly	
B:SN3:1:33	consoled Steven, and I was left feeling like the 'bad therapist', making the client cry,	PT calming C
	while Jenny was the 'good therapist'.	MT feel own presence cause
		C distress
B:SN3:1:35	Jenny taking both Steven's hands to play, moving from side to side over the range of	PT play with C
B:SN3:2:1	the piano, thus exercising range of movement, or using both hands alternately.	PT use instrumental play-
		exercise range of movement
B:SN3:2:2	Although this was good physiotherapeutic exercise for him, from a music therapeutic	PT playing for C: pt value vs
	point of view it was less relevant, since *Steven* was not really playing and I could	mt value
B:SN3:2:4	therefore not really meet and match *him* in the music. Steven soon became more	Matching who? PT playing
		for C
B:SN3:2:5	interested in opening and closing the piano's bookstand and I incorporated this in the	MT incorporate all C's
	music I was playing in the treble on the piano.	movements
B:SN3:2:7	Jenny encouraged Steven to use both his hands, which he was able to do with her	MT play music; PT facilitate
		movement
B:SN3:2:8	help and for this brief moment, I felt like all three of us were equally involved in the	Different roles but equal
	activity, each with their own role.	involvement
B:SN3:2:16	I think that all of these activities had great physiotherapeutic value for Steven, and that	Instrumental play - Physio
		value
B:SN3:2:17	the use of instruments and music really facilitated and encouraged his participation.	Music motivates participation

B:SN3:2:18 B:SN3:2:20	However, from a music therapy point of view, since Steven was not playing by himself, I had to change my approach in terms of matching and attuning to the client. I therefore realised that in this context, it may be more necessary to think in terms of using the instruments and the music itself as a source of interest and motivation.	Matching who? PT playing for C Use music and instruments as motivation

APPENDIX B: CODED SESSION NOTES

LINE NR	PLACEMENT B: SESSION NOTES 4 DATE: 15 JUNE 2011	DESCRIPTIVE CODES
B:SN4:1:1	This session went much better than the last three and I think it had everything to do	Adapting approach for C
B:SN4:1:2	with our change of approach and deciding that we need to put less pressure on	Mutual decision: less pressure on C
	Steven to actually *play* instruments! For the first time Steven seemed at ease and as if he enjoyed the music, since he did not need to perform but could just listen to and enjoy the music. We started the session with Jenny doing physiotherapeutic	
B:SN4:1:6	exercises with Steven on a small physiotherapy ball, while I supported their movements on the piano.	PT facilitate exercises, MT accompany musically
B:SN4:1:7	It felt encouraging to see that Steven enjoyed this – he continuously looked towards	MT encouraged by C's enjoyment
B:SN4:1:8	me with a big smile, and for the first time I felt he was starting to accept me as being	C accepting MT
B:SN4:1:9	part of this space. Although it did not seemed as if the music had a physical effect	MT perception: Music no physical effect?
	on him in terms of organising or supporting his movements, it did clearly make the	
B:SN4:1:11	exercise more enjoyable and since Steven was less anxious, this also lifted some of	Music adds enjoyment
B:SN4:1:12	the tension that both Jenny and I were feeling, specifically the underlying tension	C Less anxiety: less tension between Ts
B:SN4:1:13	between me and her. Steven even asked for 'more', allowing Jenny to manipulate	Cs willing participation allows movement
	his movements and his posture, which again made me much less anxious, since at	manipulation
B:SN4:1:15	last, I felt the music therapy was starting to contribute to sessions. He also seemed	MT less anxious - Contribute to pt
B:SN4:1:16	highly motivated to use his own muscles to lift his head and his feet up off the floor	C motivated to exercise
B:SN4:1:17	when Jenny asked him to, often looking around and smiling at me and the piano,	PT facilitate exercise; MT accompany
	clearly enjoying the fact that the sounds were matching his movements.	musically
B:SN4:1:18		Matching music brings enjoyment
	Steven showed interest in the percussion instruments, first the drum and then the glockenspiel, but his participation was brief and he soon lost interest and looked at	
B:SN4:1:20	a new/different instrument. With the drum, he first tried to play on his own, but was	C's shifts in interest
	only able to scratch the surface very softly and this soon seemed to become tedious.	
	Jenny then helped him to play, taking his arms and playing fast beats with alternating hands. Although this was good from a physiotherapeutic point f view,	
B:SN4:1:24	from a music therapy perspective I realised that I was now not matching what *he*	PT Playing for C: Physical value
B:SN4:1:25	was playing, but what *Jenny wa*s playing for him and thus I was not musically	PT Playing for C: MT matching who?
B:SN4:1:26	connecting with Steven.	PT playing for C: MT not connecting with
	Although Steven was passively 'making music', he was not creatively part of the	C
B:SN4:1:27		PT playing for C: not allow creative
	music making process and I think that this was the main reason why he lost all	assertiveness
B:SN4:1:28	interest in playing the drum soon after this.	C uninterested in music
B:SN4:1:29		
	At this moment, I think that both Jenny and I were working from our different	
B:SN4:1:30	perspectives, since from her point of view Steven had to be doing some	Working from different perspectives
B:SN4:1:31	movements, while from my point of view I wanted to wait and see what he would do	PT: what should C? do vs. MT: what
B:SN4:1:32	by himself. The piano improvisation continued in the same way: Steven at first	would C do?
B:SN4:1:33	played with the book-stand and I improvised according to the sounds he ,made by	
B:SN4:1:34	opening and closing the stand, but Jenny stopped him after a while and told him	MT incorporate all Cs actions in music
B:SN4:1:35	that he was only to play on the keys.	PT stop musicking when not
	Thus, while I was focusing on what was being presented, being process-focused,	'appropriate'

B:SN4:1:37	Jenny was focusing on what needed to be happening, thus being more outcomes-	MT process-focused vs PT product-
B:SN4:2:1	focused.	focused
B:SN4:2:1		
	When Jenny asked Steven to choose between the cymbal and the glockenspiel, Steven clearly indicated the cymbal, but although he was engaged in playing with the cymbal for more than 5 minutes, he was never really engaged in the music: he	
B:SN4:2:4		C playing *with* instrument vs *engaging* in
	was more interested in the workings of the cymbal, especially in the stand's	musicking
B:SN4:2:5	different knobs and screws, than in the sounds it made. I sang a syncopated	MT use syncopation to support C
	melody and played on the cymbal in an effort to support what Steven was doing, but	No authentic interaction: MT&C
B:SN4:2:7	there was no musical interaction between us. In fact, I could just as well not have	MT feel irrelevant
B:SN4:2:8	been there.	Instrumental play facilitate movement
B:SN4:2:9	IN terms of movement, Steven did very well, reaching towards the instrument,	Instrumental play incorporate pt
B:SN4:2:10	bending down to pick up the beater; walking towards the cymbal; pulling the	exercises:
B:SN4:2:11	cymbals towards himself; and standing up from a sitting position to get closer to the	bending & standing up
B:SN4:2:12	instrument, but from my point of view, there was no relating happening between us.	MT focus: relational
B:SN4:2:13		No authentic interaction: MT&C
B:SN4:2:13	Thus, the instrument itself, especially the technicalities of the instrument, seemed to	
B:SN4:2:14	motivate Steven to move, but he showed no interest in the sound it produced,	C interested in instrument vs sounds
B:SN4:2:15	making no attempt to make music with it.	Instrument vs music motivating
		movement

APPENDIX B: CODED SESSION NOTES

LINE NR	PLACEMENT B: SESSION NOTES 5 DATE: 22 JUNE 2011	DESCRIPTIVE CODES
	After the relative enthusiastic reaction from Steven last session, I felt very	
B:SN5:1:2	discouraged that today's session he again did not want to participate. We started the	C's unwillingness
	session with Steven standing in front of a table with various instruments set out for	
B:SN5:1:4	him to play with and to explore. He did seem relatively interested in these	C shifts in interest
	instruments, especially in the castanette, which he explored for a while. I sang a	
B:SN5:1:6	hello song, playing on the tambourine, trying to match and contain Steven's	MT fail matching C
B:SN5:1:7	explorations. However, Steven seemed much more interested in the workings of the	instruments vs sounds motivate
	castanette	interest
B:SN5:1:8	than in the actual sound it produces and he seemed even less interested in me.	C no interest in MT
B:SN5:1:9	Jenny also tried to engage him in music making,	PT engage C in music
B:SN5:1:10	but he looked away from almost every instrument she showed him. I then tried to	C avoid instruments
B:SN5:1:11	engage him with the finger game itsy bitsy spider, using my fingers on the	Playful interaction: MT&C
B:SN5:1:12	tambourine while Jenny used her fingers to climb up Steven's back, and although	PT & MT shared goal= engaging C
B:SN5:1:13	this briefly caught his attention, he suddenly looked away from me, hid his face in	C avoiding MT
	his arms and then contracted his face as if he wanted to cry.	
	Jenny then suggested a flying activity, in which I was to accompany their	
	movements at the piano. Steven looked at me as I stood up and went to the piano	
B:SN5:1:17	and the moment I sat down he started to show interest in the musical instruments	C shifts in interest
B:SN5:1:18	again, which made me strongly suspect that my close presence is the reason for	MT feel own presence cause distress
	Steven's withdrawal from music activities. I played softly in the background, trying	
B:SN5:1:20	unsuccessfully to contain Steven and matching some of the sounds he was making.	MT fail matching C
	He rattled the metal jingles of the tambourine and also reached out for the shaker,	
B:SN5:1:22	which he accidentally pushed off the table, with me matching the sound of it	MT matching C
		MT incorporate all C's cues
B:SN5:1:23	dropping on the piano. This evolved into a game, with Jenny picking up the shaker	PT engage C in music
B:SN5:1:24	and putting it at different places on the table top so that Steven had to move and	PT musically extend C's movements
B:SN5:1:25	stretch in order to push it off the table. I accompanied this game at the piano by	PT facilitate exercise: MT accompany
	playing trills and tremolos while he moved towards the shaker, and then sharp,	musically
	staccato chords the moment the shaker hit the ground. Steven was engaged in this	
	activity for a short while, but then I uttered "well done Steven" when he managed to	
B:SN5:1:29	reach quite far to push a shaker off the table and my verbal encouragement seemed	MT trigger C anxiety
	to trigger something in Steven and he started to cry, while Jenny managed to keep	PT calming C
	him relatively calm, trying to find out what he wanted and what was wrong. It was	
	clear that he was trying to communicate, but struggling to do so. Eventually, he used	
B:SN5:1:33	his arms to sign 'finished', which Jenny could understand. All through this, I	C communicate to PT: finished
B:SN5:1:34	remained seated at the piano, feeling that I was the cause of Steven's distress.	MT feel own presence cause C
		distress
B:SN5:1:35	Jenny then did some muscle relaxation, rolling, swaying and walking exercises with	PT facilitate muscle relaxation
		PT facilitate walking
		PT facilitate swaying
B:SN5:1:36	Steven, while I accompanied them at the piano. I started by playing loudly and over	PT facilitate exercise; MT accompany

		musically
B:SN5:2:1	the full range of the piano, but Steven became quite upset and I immediately felt that	Inappropriate music cause C distress
B:SN5:2:2	the bass notes I was playing were scaring him. I then played more flowing, softer	Inappropriate music cause C distress
B:SN5:2:3	music on the middle and high ranges of the piano and this briefly had a calming	Appropriate music calms C
B:SN5:2:4	effect, although I don't think it had any significant impact on the physical exercises themselves, except as background music. After a few minutes of this, Steven started to cry again and although Jenny tried to engage him in more musical activities, he said 'no' to every activity and we therefore decided to finish the session.	Music no physical effect

APPENDIX B: CODED SESSION NOTES

LINE NR	PLACEMENT B: SESSION NOTES 6 DATE: 24 JUNE 2011	CODES
	This was our last session with Steven and it was rather disappointing. Very little	
B:SN6:1:2	happened musically throughout the session, mainly because Jenny and I were	C's response cause PT and MT anxiety
B:SN6:1:3	afraid that too much music would upset Steven again,	Excessive music causes distress
B:SN6:1:4	causing him to refuse to take part in any activity. We therefore decided to take	C refuse participation
B:SN6:1:5	on a more receptive music therapy approach. We started the session with a hide	Ts decide: adapt approach
	and seek game, hiding different instruments across the room and then letting	
	Steven find them by playing them quickly and thus letting the sound guide him.	
B:SN6:1:8	He was not very interested in this and he was soon distracted, first by an	C uninterested in music
	aeroplane flying overhead, and shortly after that by a car leaving the parking lot.	
B:SN6:1:10	Jenny tried to engage him in instrumental play by making sounds on a few	PT new task: engaging C in music
B:SN6:1:11	percussion instruments, but Steven did not even look in the direction of the	C uninterested in music
	sounds, showing no interest in the sounds or the music.	
B:SN6:1:13	Together, Jenny and I then made aeroplane movements and sounds in a mutual	
B:SN6:1:14	attempt to gain Steven's interest .Jenny then moved Steven around like an	PT & MT shared goal= engaging C
B:SN6:1:15	aeroplane. We were thus playing, but I felt rather awkward and useless. Steven	PT&C play while MT feels irrelevant
	was very briefly interested by the cymbal, turning his body to look at it when I	
	played it, but soon his attention was diverted again. Jenny put some shakers in	
B:SN6:1:18	Steven's sweater – some in his pockets and one in his sweater cap, so that he	PT new task: engage C in instrumental play
	would make a noise every time he moved, to see whether this stimulated him.	
B:SN6:1:20	She then did some physiotherapeutic exercises with him, such as rolling,	PT task: stimulate C through instrument
	shaking, letting him hang by his feet.	
B:SN6:1:22	The sound of the shakers added a new dimension to the exercises, but I felt	Instruments add new dimension
B:SN6:1:23	musically stuck, even though I tried to support the movements and sounds by	MT feel musically stuck
B:SN6:1:24	playing with similar intensity on the cymbals.	MT support PT&C by matching intensity
B:SN6:1:25	Still, my presence felt somewhat redundant.	PT & C play while MT feel irrelevant
	After this, I started playing rock-around-the-clock on the guitar, while Jenny	
B:SN6:1:27	made dance movements, trying to entice Steven in dancing with her. For a while	MT play music; PT engage C in dancing
	he simply stood and listened, but then seemed to become more engaged,	
B:SN6:1:29	moving towards Jenny, reaching out and then dancing with her for a while. I then	
B:SN6:1:30	did "stop-start" with the guitar, while Jenny did the same with their movement,	MT control music, PT control movements
	which initially seemed to interest Steven, but then he suddenly became upset	
B:SN6:1:31	and Jenny eventually told me to stop playing.	C shift: interest to distress
B:SN6:1:32	This made me think that the slapping of the guitar for the sudden stops may	PT stops MT musicking
B:SN6:1:33		PT influence MT: MT causing C distress
	have been too forceful and loud for him and since he was tired, this may have	
B:SN6:1:34	increased his feelings of discomfort with the session.	Music too forceful: C distress
B:SN6:1:35	We ended the session with Old Macdonald, which purpose was more to calm	
B:SN6:1:36	Steven down than having any other physical aim. Jenny positioned Steven in a	Use familiar music to calm C
B:SN6:1:37	way that he faced away from me, and I felt like this indicated to me that she	PT positions C: face her, away from MT

B:SN6:1:38	realised I was part of the reason Steven became so easily upset. Steven did become engaged in the activity, but although I was the one playing the guitar	PT influence MT: MT causing C distress
B:SN6:2:1	and singing with Jenny, there was no real interaction between Steven and	PT relationally engage C; MT accompany
B:SN6:2:2	me and again I felt my presence was not necessary. Also, Steven became very	No authentic interaction: MT & C
B:SN6:2:3	distracted by the camera – often looking at the camera and contracting his	MT feel irrelevant
B:SN6:2:4	mouth, which made me wonder whether the camera did not also influence his	Camera distracting C
B:SN6:2:5	behaviour, making him more aware of himself and his disabilities, even if at an unconscious	Camera influence C behaviour
B:SN6:2:6	level. His increasing disinterest in the music led Jenny to ask him if he was finished,	Camera influence C behaviour
B:SN6:2:7	and he then signed to her that he was, which left me very dissatisfied with the	PT follow C cue to finish
B:SN6:2:8	last session.	MT dissatisfaction with ending

APPENDIX C: THICK DESCRIPTION DATA
CODED THICK DESCRIPTIONS

LINE NR	PLACEMENT A THICK DESCRIPTION : SESSION 5 17:40-22:50	DESCRIPTIVE CODES
A:T1:1:1	[This excerpt begins well into the 5th session, after a crawling activity and a piano improvisation. It starts towards the end	
A:T1:1:2	of an activity in which the client first played small percussion instruments placed in front of him on a square	Structure session around mt
A:T1:1:3	physiotherapeutic cushion while standing on his knees; then played an instrument placed towards his left, so that he	activities to incorporate pt
A:T1:1:4	rotated his body playing with his right hand; and then thirdly played the tambourine placed to his right. The client is sitting	exercises
A:T1:1:5	on his knees, with his body rotated to the right, stabilising himself by pressing down on the floor with his right hand, with	Musicking fosters weight-
A:T1:1:6	his left hand free to play the tambourine. The physiotherapist is standing on her knees, bent over slightly behind the	bearing
A:T1:1:7	client. She is stabilising him by keeping his right arm straight by holding him by the elbow, as well as by lightly holding his	PT positioning and stabilising
A:T1:1:8	left hip. The music therapist is sitting in front of the client, taking turns with him in playing the tambourine, while singing.]	C
		C&MT engage in turn-taking
A:T1:1:9	The client picks up the tambourine with his left arm in a flowing movement, at a moderate tempo. He very briefly turns his	
A:T1:1:10	head to the left, looking towards the camera and smiling, then turns back his head while lifting his left arm a bit higher up	
A:T1:1:11	in the air than where he was holding it, gaining momentum and then throwing the tambourine to his right. It lands close to	Camera influence C behaviour
A:T1:1:12	him and he immediately picks it up again, lifting his arm even higher in the air to gain momentum and again throwing the	
A:T1:1:13	tambourine to his right, this time throwing it further. This second picking up and throwing of the tambourine forms one	C throwing tambourine: using
A:T1:1:14	flowing movement and the client's movements have a relatively strong quality. The music therapist sits in the same	upper body
A:T1:1:15	position throughout these movements, singing a strong, moderately slow melody, in the alto register, using the sounds	
A:T1:1:16	"papapa". The first 6 note phrase uses the first 5 notes of a major scale, the first measure consisting of three crotchet	MT matching C's movements
A:T1:1:17	beats and a rest, and the second measure having a syncopated beat. The music therapist sings the first note of the	
A:T1:1:18	phrase together with the first fall of the tambourine on the floor, singing the other two crotchet beats while the tambourine	
A:T1:1:19	is still rattling from the fall. The music therapist pauses slightly before singing the next syncopated beat, so that it is sung	MT syncopation incorporates
A:T1:1:20	together with the second fall of the tambourine, which makes a louder noise than the first time. The music therapist's	all C's movements
A:T1:1:21	voice has a strong, staccato quality and each time the tambourine falls on the floor, her head also makes a small jerky	
A:T1:2:1	nod, which matches the strength with which she sings the notes.	MT matching C intensity
A:T1:2:2	The music therapist then pauses for a few seconds, both her and the client looking at the tambourine, while the	
A:T1:2:3	physiotherapist looks at the client's body. The music therapist then bends over to her left in a quick, strong movement,	Each T focus on own exercise
A:T1:2:4	and reaches forward, taking hold of the tambourine and rattling it while bringing it closer and setting it down forcefully in	
A:T1:2:5	front of the client. Together with the grabbing, rattling and setting down of the tambourine, she strongly sings	MT & C playful interaction
A:T1:2:6	taaaa.....*da*!, thereby matching her own movements in her vocalisation. Exactly at the same moment that the music	
A:T1:2:7	therapist sings 'taaaa', the client falls forward to the floor with his body, in a quick motion, while looking at the tambourine	
A:T1:2:8	and smiling. The physiotherapist responds quickly and together with the music therapist setting down the tambourine,	C losing muscle control
A:T1:2:9	she pulls up the client by his shoulders so that he sits up straight again, with a small smile on her face. The moment the	PT positioning & stabilising C
A:T1:2:10	client sits up, he reaches for the tambourine and in one sweeping movement he throws the tambourine, this time in the	
A:T1:2:11	direction of the music therapist. He then looks at her, smiles and bites his lip. The music therapist sings the same	MT&C playful interaction
A:T1:2:12	syncopated melody that formed the second part of the first phrase and repeats this as she then grabs the tambourine	
A:T1:2:13	and in the same sweeping manner throws it on the floor in front of her. Both the music therapist and the client's	
A:T1:2:14	movements are strong but flowing. There is a slight pause between his throwing of the tambourine and hers, with the last	MT&C attuned
A:T1:2:15	note of each short phrase sung in an accented, staccato manner, but there is still a sense of flow between their	
A:T1:2:16	movements.	MT&C flowing together
A:T1:2:17	The music therapist then pushes the tambourine towards the client in a gentle manner, and the moment it is within his	
A:T1:2:18	reach, he flips the tambourine over in a quick, strong, jerky, staccato manner, which the music therapist imitates with her	MT vocally imitates C
A:T1:2:19	voice, starting to sing the whole first phrase again, but now singing the crotchet notes together with the client's flip of the	instrumental play
A:T1:2:20	tambourine with the same strong, jerky, staccato quality. The music therapist then imitates the client by also flipping the	MT&C playful interaction
A:T1:2:21	tambourine over in a jerky manner towards him, while singing the syncopated part of the melody in an accented, jerky	
A:T1:2:22	manner. This pattern is repeated 3 times when the music therapist then introduces a new phrase, with higher melody	
A:T1:2:23	notes but still based on the major tonic chord. This phrase starts with an accented crotchet, a rest, another accented	
A:T1:3:1	crotchet and another rest. She synchronises the first crotchet note with the client fall of the tambourine as the client again	MT incorporates all C's
A:T1:3:2	flips it over in a strong, jerky manner. The music therapist then sings the second crotchet note at the same time as loudly	movements
A:T1:3:3	playing a staccato beat on the tambourine. The second part of the phrase has the same syncopated rhythm that was	MT syncopation incorporates
A:T1:3:4	used before and this she sings while then flipping over the tambourine towards the client again. The music therapist then	all C's movements

A:T1:3:5	sings a long note “daaa” on the dominant of the key, while the client picks up the tambourine and takes some time pulling	Musical investment fosters
A:T1:3:6	his arm backwards before throwing the tambourine far to his right, away from the music therapist, who then sings the	physical effort
A:T1:3:7	second phrase again with the first accented crotchet sung together with the tambourine hitting the ground. The music	
A:T1:3:8	therapist picks up the tambourine and sets it down in front of the client strongly, while singing the second syncopated half	
A:T1:3:9	of the phrase in a slightly less strong manner. The client then picks up the tambourine again, with a slower movement	
A:T1:3:10	and less energy, while the music therapist sings four descending notes from the dominant to the second of the key,	
A:T1:3:11	which she holds while the client gets ready to throw the tambourine, until singing a strong “pa” on the tonic, which she	MT matches C
A:T1:3:12	synchronises with the tambourine hitting the ground. The client threw the tambourine this time again far to his right, away	C using physical effort
A:T1:3:13	from the music therapist, further away than any of the other times.	
A:T1:3:14	Directly after the rattling of the tambourine has stopped, the music therapist chuckles, which is followed by the	MT enjoy playful interaction
A:T1:3:15	physiotherapist exclaiming loudly “okay Tshepo, that was great fun!”, while the music therapist reaches forward and	PT verbally affirms playful
A:T1:3:16	sweeps her hand over the client’s forehead in a manner that suggests affection. The physiotherapist then lifts the client	interaction – MT&C
A:T1:3:17	by taking hold of his body underneath his arms and turning him to his left so that he faces a square physiotherapeutic	PT positioning & stabilising C
A:T1:3:18	cushion, sets him down on his knees in front of the cushion, where the client then puts his arms on top in order to	
A:T1:3:19	stabilise himself. Simultaneously, the music therapist gets on her knees and also turns towards the cushion, so that she	
A:T1:3:20	faces the client, standing on her knees at the other side of it. While she does so, the physiotherapist says firmly, with an	
A:T1:3:21	ascending tone of voice: “okay, now to the standing frame...”, to which the music therapist responds by standing up, and	PT taking leadership
A:T1:3:22	remaining standing slightly to the side of the client. The physiotherapist also stands up and moves to the side of the room	MT follow PT leadership
A:T1:3:23	to fetch the client’s standing frame. While she does this, the music therapist remains standing in the same position, while	
A:T1:4:1	the client tries to push himself up with his arms on the cushion, no one responding to this or seeming to notice this. He	Instruments motivate C to try
A:T1:4:2	sits back again on his knees and takes hold in each hand a shaker and a bell, which were lying in front of him on the	hard
A:T1:4:3	cushion. He drops the shaker, but then strongly shakes the bells three times in succession. No one responds to this	MT&PT not responding to C
A:T1:4:4	either, with the music therapist still standing across from him in the same position, and the physiotherapist walking	
A:T1:4:5	towards him, from where she placed the standing frame. As he plays the third beat, the physiotherapist bends down and	
A:T1:4:6	picks him up with her hands taking hold of his body underneath his arms. At the same time the music therapist also	
A:T1:4:7	bends down and reaches towards him, but then drops her arms at the moment the moment the physiotherapist picks him	MT uncertainty
A:T1:4:8	up, stands up straight again, and then moves towards the front of the standing frame, while the physiotherapist takes the	PT set up pt activity
A:T1:4:9	client to the back of the standing frame, so that she can place him in the frame.	
A:T1:4:10	The physiotherapist places the client in the standing frame, handing him over to the music therapist, who takes hold of	MT help PT set up pt activity
A:T1:4:11	the client underneath his arms to keep him standing up. The physiotherapist then bends down behind the client to fasten	
A:T1:4:12	the clasps of the standing frame, thereby closing the back ‘door’ of the frame. The music therapist still holds the client up,	
A:T1:4:13	while the client puts his arms on the soft rails which form the top sides of the frame. The physiotherapist stands up	
A:T1:4:14	straight and asks softly “okay Tshepo, are you in?”, but then bends down again, now kneeling behind the standing frame.	
A:T1:4:15	At the same time, the music therapist lets go of the client’s body and walks away from the client, to the left side of the	
A:T1:4:16	room. The client is now standing in the frame, looking directly at the camera, with a serious expression on his face. After	Camera influence C behaviour
A:T1:4:17	a few steps, the music therapist turns around and moves to the other side, where she walks quickly and grabs a cymbal	
A:T1:4:18	stand with two cymbals, which she then takes and puts down to the left of the client, diagonally in front of him. She then	
A:T1:4:19	walks quickly to the left of the room again, out of the camera’s view. From the moment she gets the cymbals, the client	
A:T1:4:20	follows the music therapist with his head and eye gaze, with a frown on his face. A few moments after she puts down the	C carefully watching MT
A:T1:4:21	cymbals in front of him, he reaches forward with his left hand and taps the one cymbal closest to him, which then makes	Instruments motivate physical
A:T1:4:22	a soft sound. At the same moment that he starts to reach forward, the physiotherapist stands up from behind the	participation
A:T1:4:23	standing frame and says “Anine, it’s up to you now...”, walking away from the client. This is directly followed by the music	PT relying on MT
A:T1:5:1	therapist moving back into the camera view and holding up a beater to the client, who takes it with his right hand. She	Each T focus on own exercise
A:T1:5:2	then walks again to the right side of the room, out of the camera’s view, while the client lifts up the beater up in a rather	Less musical investment –
A:T1:5:3	slow, floppy manner and plays one beat on the cymbal closest to him, by beating the bottom side of the cymbal with the	less physical effort
A:T1:5:4	beater. He does not make a very loud sound and the manner in which he beats the cymbal suggests a half-hearted	
A:T1:5:5	attempt. While he does this, the physiotherapist moves back towards the client, goes and stands behind him and takes	PT focus = C posture
A:T1:5:6	hold of his shoulders, which she softly pulls back. She then puts her hands around his waist and pulls down his jersey,	
A:T1:5:7	also pulling her head back while looking at his body and frowning. Directly after this (although seemingly not in response	
A:T1:5:8	to this), the client lifts up the beater again and plays one beat on the cymbal closest to him and then a second beat on	Instruments motivate physical

A:T1:5:9	the other cymbal, which is further to his left, tapping the tops of the cymbals softly, using careful, slow, and small	participation
A:T1:5:10	movements. While playing the beat, he slowly turns his head sideways looking at each cymbal while he taps it. His beats	
A:T1:5:11	make soft cymbal crashes. He then taps the bottom sides of each cymbal, first the one furthest from him and then the	
A:T1:5:12	one closest to him, each time keeping the beater head on the cymbal and therefore producing a blunt tapping sound and	
A:T1:5:13	not a cymbal crash. The music therapist then moves back into the camera frame with a beater in her hand. As she walks	Each T focus on own exercise
A:T1:5:14	towards the client, the physiotherapist lifts her hands off the client and walks away from the client, out of the camera	
A:T1:5:15	frame. The client also stops playing and watches the music therapist's movements, while bouncing the beater up and	C carefully watching MT
A:T1:5:16	down and up and down in his hand. The moment the music therapist gets close to the cymbals, she plays a few soft,	MT musically inviting C
A:T1:5:17	repetitive beats on the cymbal, while still moving towards the client's left side, which is directly followed by the client	C musically responds to MT's
A:T1:5:18	playing a beat on each cymbal, in quicker succession than his previous beats and with more energy. The second beat is	invitation
A:T1:5:19	played loudly, with him quickly lifting the beater off the cymbal so that the cymbal crash reverberates. While doing this,	
A:T1:5:20	he keeps his left hand positioned on the front of the standing frame, holding this side of the frame, rotating his body to	Instrumental play foster
A:T1:5:21	the left and playing the cymbals with his right hand. The music therapist kneels down to the side of the cymbals, also	rotation
A:T1:5:22	diagonally to the left, in front of the client, while playing another beat on each cymbal. At the same time, the client leans	Musical investment fosters
A:T1:5:23	forward with his whole body, lifting his left hand off the standing frame and beating the cymbal closest to him with this	physical effort
A:T1:6:1	hand, in a repetitive manner, the beats that he plays producing only a very soft, blunt tapping sound. He then adds the	
	beater, playing in an alternating fashion one beat with his left hand and one beat with the beater, with a galloping rhythm.	C playing with alternating
A:T1:6:2	The music therapist simultaneously plays three	hands
A:T1:6:3		MT over-attuning
A:T1:6:4	beats on the other cymbal, with her beats much louder and stronger than those the client is playing. IN response to the	C responds to MT over-
A:T1:6:5	music therapist's beats, the client stops playing, lifting his beater up, away from the cymbals in a quick movement and	attuning: stops playing
A:T1:6:6	looking at the music therapist with a frown on his face. She then responds by tapping four quick, repetitive beats with her	MT musically invites C
A:T1:6:7	beater on a drum placed in front of her, to which the client responds by playing a single loud beat on the cymbal. There is	C musically responds to MT's
A:T1:6:8	no structured beat or rhythm to their playing. The music therapist again plays the same four, quick repetitive beats on the	invitation
A:T1:6:9	drum, which is then followed by the client playing slow, repetitive beats with his beater, first on the cymbal that is furthest	Instrumental play fosters
A:T1:6:10	to his left, and then on the other cymbal. His body is now completely rotated to his left and he watches the music	rotation
A:T1:6:11	therapist, who has stopped playing, while he continues to play on the cymbals in a random manner. The music therapist	
A:T1:6:12	gets up from her knees and moves out of the camera frame for a moment, returning with a small djembe drum in her	MT relying on PT leadership
A:T1:6:13	hand, while asking the physiotherapist if she can place the drum to the left side of the client, on a small table. The	
A:T1:6:14	physiotherapist replies in the affirmative and the music therapist puts the drum to the left of the cymbal, while the client	Less musical investment –
A:T1:6:15	continues to play beats on both the cymbals, with no rhythmic structure to his playing, making slow, 'floppy' movements	less physical effort
A:T1:6:16	with his arms. The moment the music therapist sets the drum down, the client plays two strong beats on the drum with	Instrumental play fosters
A:T1:6:17	his beater, the second one stronger and longer than the first. He then plays another single strong beat on the cymbal. At	strengthening
A:T1:6:18	the same time, the music therapist kneels down diagonally to the left of the client, on the other side of the cymbals, also	MT matching C's intensity
A:T1:6:19	playing a single strong beat with the client's beat on a different drum, which is placed in front of her. The client then beats	
A:T1:6:20	the one cymbal twice, strongly, with big arm movements, with the same rhythm that he beat the drum. This is followed by	
A:T1:6:21	the music therapist playing two strong beats on the cymbal, the second beat reverberating for longer than the first. This	
A:T1:6:22	gives the alternating beating between the client and the music therapist some rhythmic structure, as the beating now	MT provides musical structure
A:T1:6:23	sounds in ¾ metre, with a crotchet-minim rhythm. The client then beats the other cymbal twice strongly with this crotchet-	for C's beating
A:T1:7:1	minim rhythm, together with the therapist playing the drum with this rhythm as well. The client then initiates a small	C show musical initiative
A:T1:7:2	accelerando and crescendo on the cymbal closest to him, playing slightly faster and louder beats. The music therapist	MT follows C's cues
A:T1:7:3	responds directly to this by also playing increasingly faster and louder beats on the djembe drum with her beater together	
A:T1:7:4	with the client, but increasing the tempo and speed of her playing much more than the client. The client then stops	C making eye-contact with MT
A:T1:7:5	playing and watches the therapist, who plays one last loud beat and pauses, looking up at the client. This is directly	
A:T1:7:6	followed by the client lifting up his right hand high in the air and bringing it down fast and strong to play a very loud beat	C's playing suggest
A:T1:7:7	on the cymbal farthest away from him and then repeating the gesture, lifting his high up in the air and bringing it down	expression
A:T1:7:8	strongly to play another two loud beats on the other cymbal, closest to him. He puckers his lips and frowns with	aggression/frustration
A:T1:7:9	concentration and purpose while playing these strong beats.	Emotional investment fosters
A:T1:7:10		physical effort
A:T1:7:11	The music therapist plays the first two strong beats with the client on the same cymbals that he played on, but on the	MT matches C intensity

A:T1:7:12	third beat he plays, she makes a strong beating movement with her beater, but beats in the air, and then beats two	MT imitates C's movements
A:T1:7:13	strong beats on the drum in front of her after the client's beat. The client then pulls back his arm high in the air again as if	
A:T1:7:14	getting ready to play another strong beat, also lifting his eyebrows and looking at the cymbal. However, he then turns his	
A:T1:7:15	head and looks at the music therapist, slightly changing the expression on his face to a small smile, and then letting the	C& MT playful interaction
A:T1:7:16	beater fall from his hand, behind his back, onto the floor. As it falls from his hand, he turns his body around and looks to	
A:T1:7:17	where it fell. At the same moment, the music therapist draws in a sharp breath, as she watches the beater fall. The	PT physically facilitates C
A:T1:7:18	physiotherapist immediately bends down, so that she is now also in the camera frame, and picks up the beater, handing	musicking
A:T1:7:19	it back to the client, while the music therapist drums her fingers on the drum in front of her. The client watches the	
A:T1:7:20	physiotherapist while she does this and takes the beater from her with a big smile on his face, then turning his head to	C enjoying control
A:T1:7:21	the music therapist, smiling at her in a mischievous manner. He then lifts the beater high up in the air again, still smiling	C making eye-contact with MT
A:T1:8:1	while looking at the cymbal, and then plays a loud beat on the cymbal. The music therapist matches this by playing a	MT&C Playful interaction
A:T1:8:2	loud beat with both her hands on the drum in front of her at the same moment. Frome there on, the client continues to	
A:T1:8:3	play strong beats on both the cymbals initially within a regular 4/4 metre, starting with 2 minims, then 4 crotchets and	Musical investment fosters
A:T1:8:4	then increasing the tempo of his beating, beating as fast as it seems possible for him, in the spirit of a drum roll. The	physical effort
A:T1:8:5	music therapist matches each of these beats, playing strong, loud beats on the drum with both hand, together with the	MT matching C dynamics
A:T1:8:6	client, and then playing a loud drum roll, faster than that of the client. While the music therapist keeps the drum roll going,	MT extending C's music
A:T1:8:7	the client lifts his arm up in the air again and strongly brings it down to play another loud beat on the cymbal, which the	
A:T1:8:8	therapist matches by also playing a single strong beat with both hands on the drum. The client the plays another three	MT match C intensity
A:T1:8:9	loud and strong minim beats on the cymbal closest to him. The music therapist matches the second one in the same way	
A:T1:8:10	as the first and then plays 4 regular crotchet beats on the drum alternating her hands (thereby repeating the rhythmic	
A:T1:8:11	pattern that the client had played a moment ago). The client then in a quick motion lifts up his left hand, with which he	Musical investment fosters
A:T1:8:12	had be steadying himself on the rail of the standing frame, brings it forward strongly as if aiming to bang the cymbal with	physical effort
A:T1:8:13	his hand, but he does not hit the cymbal and instead brings both his hands down strongly to grab the edge of the	C showing playful
A:T1:8:14	standing frame, while sticking out his chest in a quick, jerky manner, shutting his eyes very tightly, puckering his lips and	resistiveness
A:T1:8:15	turning his face upwards to the ceiling. The music therapist plays a strong beat with both hands on the drum together	C&MT Playful interaction
A:T1:8:16	with this quick motion of the client. The music therapist then pauses, while the client seems to beat the beater	MT match C's movements
A:T1:8:17	unintentionally against the standing frame. The music therapist shortly drums her finger nails on the drum, which is	
A:T1:8:18	followed by the client starting to chuckle, bending his body low over to his right, and putting his face on his right hand,	C enjoying playful interaction
A:T1:8:19	which is still holding the beater. He remains frozen and silent in this position for a few seconds, hiding his face in his	C&MT playful interaction
A:T1:8:20	hand, while the music therapist starts again to very softly drum her fingers on the drum. This is directly followed by the	
A:T1:8:21	physiotherapist saying in a loud voice: "play Tshepo, play!". The client then lifts his body up straight while also lifting the	PT directs C
A:T1:8:22	beater up in the air and uttering a loud laugh, with his mouth wide open. He plays the cymbal, without much strength and	Process affords enjoyment
A:T1:8:23	energy in the movement, and looking up at the ceiling while beating the cymbal, still laughing softly while doing so. The	Less musical investment –
A:T1:8:24	music therapist also plays a beat on the drum together with the client, but with a slightly softer quality. The client's body	less physical effort
A:T1:9:1	remains in this position, with his face turned upwards to the ceiling, while he then starts to beat the beater against the	MT matching C quality
A:T1:9:2	wooden standing frame. The therapist starts to beat the drum together with his playing and this is followed by the client	
A:T1:9:3	also starting to use his left hand to tap the standing frame, using his hand and the beater in an alternating manner. His	C playing with alternating
A:T1:9:4	beating is soft and irregular and he uses small arm movements. In a quick, sudden movement, he lifts his right arm with	hands
A:T1:9:5	the beater up high in the air and quickly brings it down to play another loud cymbal crash. He pauses, with his hands	Instrumental play fosters
A:T1:9:6	hanging in front of him and then repeats this movement, playing another loud cymbal crash. This pattern is repeated	strengthening
A:T1:1:7	another few times, each time with the music therapist matching the client's cymbal crash with a loud beat, played with	MT matching C
A:T1:9:8	both hands on the drum. The client and therapist then play together on the cymbals and the drums for a while, with no	MT & C musically relating
A:T1:9:9	particular rhythmic structure or pattern. The client then starts to play loud and fast repetitive beats on the cymbal closest	
A:T1:9:10	to him, with a frown on his face, while playing with strong and quick movements. The music therapist plays a loud and	C's playing suggest
A:T1:9:11	strong rhythmic pattern on the drum together with the client's repetitive beats, eventually playing one last very strong	expression of
A:T1:9:12	beat with the client, who lifted up his arms extra high in the air, pausing slightly before playing the last beat. He then	aggression/frustration
A:T1:9:13	drops his arm down in a quick but floppy movement, hitting the standing frame with the beater and then letting the beater	
A:T1:9:14	fall from his hands. He briefly closes his eyes and relaxes his face, letting his head tip forward slightly to the left. He then	C gestures communicate:
A:T1:9:15	opens his eyes a little, squinting in the direction of the music therapist, who chuckles softly, while whispering "finished".	finished
A:T1:9:16	The client responds by opening his eyes wide and then smiling at the music therapist. She responds by asking him	MT&C playful interaction

APPENDIX C: THICK DESCRIPTION DATA
CODED THICK DESCRIPTIONS

A:T1:9:17	"what's that?! you want to play Tshepo?" while reaching forward on her knees and picking up the beater. The client	C enjoys MT reading his
A:T1:9:18	keeps on looking at the music therapist with a small smile on his face, while the physiotherapist takes a few steps	gestures
A:T1:9:19	forward, coming into the camera frame, taking the beater from the music therapist and saying "let's try it from the other	C making eye-contact with MT
A:T1:9:20	side". The client starts to frown, pursing his lips, while the physiotherapist takes hold of the cymbals and places it on the	PT taking leadership
A:T1:9:21	client's right side. While this is happening, the music therapist gets up and moves the drums to the other side of the	C showing resistiveness
A:T1:9:22	client, and the client reaches forward in a half-hearted manner and slaps the one cymbal with his right hand, with a	
A:T1:9:23	pouting expression on his face. The physiotherapist then tells the client in a high, squeaky voice: "come, Tshepo! You	Less musical investment –
A:T1:10:1	must play, Tshepo, you must play!", to which the music therapist responds by giggling softly, in a manner that suggests	less physical effort
A:T1:10:2	some nervousness. The physiotherapist moves in behind the client and holds the beater in front of him. He lifts his right	PT forcing C participation
A:T1:10:3	arm, opening his hand to take the beater, but the physiotherapist takes hold of his left hand, opens it up and puts the	cause MT anxiety
A:T1:10:4	beater in that hand. He grasps the beater with his left hand, and then also takes hold of the bottom part of the beater with	
A:T1:10:5	his right hand, slowly closing his hand around it. He then lets he beater drop onto the cymbal, bouncing it in his hand and	PT focus on pt goals
A:T1:10:6	then letting it drop on the drum. His movements are small and without energy, and together with his pout it creates the	
A:T1:10:7	impression that he is not interested in the activity. The music therapist moves forward on her knees and starts to play a	Less musical investment –
	few beats on the cymbal and drum. The client then starts to direct his movements more, turning his head in the direction	less physical effort
	of each instrument before playing them, playing single beats on each cymbal and the drum, but still with an uninterested	Shared musicking motivates
	expression on his face.	physical effort

APPENDIX C: THICK DESCRIPTION DATA
CODED THICK DESCRIPTIONS

LINE NR	PLACEMENT A: THICK DESCRIPTION SESSION 6 07:30 – 10:30	DESCRIPTIVE CODES
A:T2:1:1	[This excerpt starts 7 and a half minutes into the final session. The session began with a stretching	
A:T2:1:2	exercise, in which the physiotherapist gently stretched the client's leg, arm and torso muscles, while the	
A:T2:1:3	music therapist played piano music which followed the movements of the client. After the client had been	
A:T2:1:4	stretched, the physiotherapist moved the client towards the mat for a crawling activity, while the music	
A:T2:1:5	therapist went to fetch the bongo drums for this activity.]	
A:T2:1:6	The music therapist is positioned on her knees at one end of a long soft mat, with bongo drums placed in	
A:T2:1:7	front of her, while the physiotherapist and client are positioned at the other end of the 'pathway', facing the	PT positions C
A:T2:1:8	music therapist. The physiotherapist places the client in a crawling position, with both hands and knees on	PT directs C
A:T2:1:9	the floor, telling the client softly, but firmly, "Come! There's the drums, there's the drums...". While she	C's movement = musical intention
A:T2:1:10	positions him, the client lifts one hand and strongly beats it down again on the mat, with the music therapist	MT matches C
A:T2:1:11	playing a strong beat on the drum at the same moment to match this movement. The physiotherapist also	PT facilitate crawling
A:T2:1:12	gets into the crawling position, holding the client's calves with her hands to get ready for the crawling	PT directs; MT invites
A:T2:1:13	activity, then saying "Okay! Let's go Tshepo!". The music therapist then says "and..." with an ascending	PT facilitate movement; MT engage
A:T2:1:14	tone, while the physiotherapist starts lifting the client's left leg and bringing it one step forward. The	musically
A:T2:1:15	moment the client's leg is placed on the floor the music therapist starts to sing, with a strong voice in the	PT physically facilitate movement; MT
A:T2:1:16	alto register, a marching melody to the tune of "ek is nie 'n stap-soldaatjie nie", at a moderately slow	musically facilitate movement
A:T2:1:17	tempo, using the sounds 'papapa', while also playing a syncopated drum-rhythm. At the same time, the	Synchrony between MT&PT
A:T2:1:18	physiotherapist counts "one and two..." together with the accented beats of the drum, which falls together	
A:T2:1:19	with the alternating placing of the client's legs on the mat. The client also lifts his left hand up high and puts	Negotiating rhythm: PT, MT &C
A:T2:1:20	it down strongly on the floor, so that it falls together with the physiotherapist's "two" and the music	
A:T2:1:21	therapist's accented beat. As the physiotherapist facilitates the forward crawling of the client's left leg, the	C's movements = musical intention
A:T2:1:22	client moves his right arm up high, bringing it down strongly to beat the floor. This time when he brings	
A:T2:2:1	down an arm, he beats the floor slightly before the expected beat of the song, but the music therapist	MT incorporates all C's movements
A:T2:2:2	adapts the song and plays a strong drumbeat, as well as singing a strong "pa" together with the client's	PT & MT adapting rhythm to C
A:T2:2:3	beat. The physiotherapist also adapted her count "one" to this, saying it together with the music therapist's	
A:T2:2:4	and the client's beat. With the second set of crawling steps, the client does not lift his hands up high	
A:T2:2:5	anymore, although still putting his hands alternatively forward on the carpet. He does not place his hands	
A:T2:2:6	intentionally to the rhythm of the song, in fact moving them quite irregularly, however, the syncopated	MT incorporates all C's movements
A:T2:2:7	rhythm of the song incorporates the irregular beats at which he places his hands on the floor, while the	PT physically facilitate movement; MT
A:T2:2:8	strong, accented beats still fall on the "one and two" counts which the physiotherapist calls out while	musically facilitate movement
A:T2:2:9	placing his legs alternatively on the floor. With the third set of crawling steps, the physiotherapist stops	MT control music; PT control
A:T2:2:10	calling out "one and two", now only placing the client's legs on the floor according to the beat that the music therapist is playing.	movements
A:T2:2:11	However, this beat is flexible as the music therapist also carefully adapts it according to the client's arm	Negotiating rhythm: MT, PT&C
A:T2:2:12	movements as well as the physiotherapist's placement of his legs. The client then starts to veer off the mat	
A:T2:2:13	to the right, and the physiotherapist lifts his body and positions him in a straight line again, so that they	PT positioning C
A:T2:2:14	both face the music therapist. The music therapist accents some of the syncopated beats in the melody so	
A:T2:2:15	that the moment the client's legs and then arms are put down on the floor falls together with these accents,	MT incorporates all C's movements
A:T2:2:16	thereby incorporating the physiotherapist's re-positioning of the client into the rhythm of the song. As the	MT musically supports pt exercise
A:T2:2:17	client gets closer to the music therapist and the drum, he moves his hands forward alternatively at a	C's movements becoming steady
A:T2:2:18	steadier pace as well as a slightly faster pace, which the music therapist matches by also singing the	MT matching C's tempo
A:T2:2:19	syncopated melody slightly faster. The physiotherapist also starts moving his legs forward at this faster	PT follows C's tempo
A:T2:2:20	pace. The beats of his legs now fall on the first beats of each measure of the melody, while the beats of his	MT incorporates all C's movements
A:T2:2:21	hands fall on syncopated beats played by the music therapist on the drum. The syncopation and the	
A:T2:2:22	accents thus incorporate all the movements, but also create momentum, appearing to stimulate the client's	MT's syncopation stimulates
A:T2:3:1	forward movement.	movement
A:T2:3:2	When the client comes within reach of the drum, he stretches forward with his arm and places his right	
A:T2:3:3	hand strongly on the left drum, thereby rotating his body. The music therapist plays a strong beat with him,	Stretching through instrumental play

APPENDIX C: THICK DESCRIPTION DATA
CODED THICK DESCRIPTIONS

A:T2:3:4	as well as singing a firm, staccato “pa” with this beat, while the physiotherapist moves her own body	Instrumental play foster rotation
A:T2:3:5	forward and comes up on her knees.	MT matches C intensity
A:T2:3:6	The music therapist keeps on singing and playing at the same tempo and in the same style, while the	
A:T2:3:7	physiotherapist lifts the client and positions him on his knees. While the physiotherapist is doing this, the	MT focus = music; PT focus =
A:T2:3:8	client is reaching forward towards the drum with both hands, making beating movements, playing the drum	positioning
A:T2:3:9	weakly as he is barely able to reach it, since it is placed on the ground and therefore too low for his new	Instrument motivates movement
A:T2:3:10	position. In response, the music therapist puts the drums on her knees and moves closer to the client. As	
A:T2:3:11	she does this, she stops singing while the client starts beating the drum with a little more strength, playing	
A:T2:3:12	slightly more firm beats, although his beating is still soft. The physiotherapist is still busy positioning him	MT listen to C
A:T2:3:13	correctly so that he can stand on his knees, keeping his body upright, holding his body up with both her	PT positioning C
A:T2:3:14	arms around his chest. The music therapist starts to vocalise again, now making soft, breathy, whispered	
A:T2:3:15	‘papapa’ sounds, matching the soft, fast beats of the client’s drumming, which does not have a very	MT matching C
A:T2:3:16	structured beat. There is no melody or structured beat to the music therapist’s vocalisations either. The	
A:T2:3:17	physiotherapist now holds the client up straight by pushing his hips forward. The client’s arm movements	MT matching C unstructured beat
A:T2:3:18	are now fast, but limp and his beating is slightly weaker. The music therapist starts to sing a jazz-like	PT positioning C
A:T2:3:19	melody, incorporating the feeble quality of the client’s playing by singing in a breathy voice. She also	
A:T2:3:20	includes the fast rhythm in her melody, in which there is also no structured beat. The music therapist’s	MT matching C
A:T2:3:21	voice gradually becomes stronger and she starts to add accented beats, which the client responds to by	
A:T2:3:22	starting to play stronger, regular and more structured beats. The client then plays three strong crotchet	C follows MT cues
A:T2:3:23	beats with his right hand, which the music therapist matches with her voice, singing three strong, loud, high	C showing musical initiative
A:T2:4:1	crotchet notes together with his beating, after which the client stops beating the drum with his whole hand,	MT follows C cues
A:T2:4:2	resting both his hands on the left and right drum of the bongo and tapping his fingers quite fast (but very	C showing musical initiative
A:T2:4:3	softly) on the drum head. In response to this, the therapist changes her voice quality, making a big	
A:T2:4:4	decrescendo, eventually singing in a whisper, while the physiotherapist remains in the same position,	MT follows C’s cues
A:T2:4:5	looking down at the client’s body posture and softly pushing his hips forward with both her hands. The	
A:T2:4:6	client then suddenly lifts his right hand up high and immediately plays a single strong beat on the right	PT positioning & stabilising C
A:T2:4:7	drum, with the music therapist also responding with immediacy and matching that by singing a loud note	C showing musical initiative
A:T2:4:8	exactly with his beat, followed by a softer descending phrase ending which ends on the tonic. He then lifts	MT matching C
A:T2:4:9	his left hand in a smaller movement, and now plays a single strong beat on the left drum, which the music	
A:T2:4:10	therapist again matches by singing the same loud note exactly with his beat, followed by a similar, but	
A:T2:4:11	shorter phrase ending, which ends on the third of the key. The client then goes on to play in a more	MT matching C
A:T2:4:12	sustained manner, using both hands alternatively, playing alternating firm beats on each drum in a	
A:T2:4:13	moderate tempo. While playing one beat with his right hand, he presses down with his left to stabilise	C sustained musical participation
A:T2:4:14	himself, and then he lifts his left hand, pressing down now with his right hand on the other drum, to play the	Musicking affords left-right integration
A:T2:4:15	next beat with his left hand. This manner of playing single beats with alternating hands is repeated for a	Drumming affords self-stabilisation
A:T2:4:16	few beats, while the music therapist sings a syncopated jazz melody, not always singing on the client’s	
	beats, but using his beats to structure and give tempo and form to her melody. Thereby, both the client’s	MT incorporates all C’s movements
A:T2:4:17	and the music therapist’s contributions are equally prominent and important to the music they are making.	
A:T2:4:18	At this moment, the physiotherapist, who is still holding Tshepo by the hips, whispers “very good Tshepo”,	Negotiating music: MT & C
A:T2:4:19	which seems to relate to him stabilising himself by pressing down on his left arm when playing with the	PT verbally comment: C good muscle
A:T2:4:20	right arm and then again stabilising himself on his right arm when playing with his left. The music therapist	control
A:T2:4:21	and the client show no visible response the physiotherapist’s comments, remaining focused on each other.	Focused exclusivity between MT&C
A:T2:5:1	The client keeps on playing a steady beat with alternate hands while the music therapist sings in the same	C making eye-contact with MT
A:T2:5:2	jazz-like style, when suddenly, the client pauses before playing a beat, while looking to the right of the	MT matching C
A:T2:5:3	music therapist, with the music therapist responding by sustaining a note and then singing a loud “**ta**dada”	PT verbally comment: C good muscle
A:T2:5:4	when he eventually plays a single beat, to which the physiotherapist responds by softly saying “good	control
A:T2:5:5	Tshepo”.	
A:T2:5:6	At the same moment, he turns his head towards the music therapist, but closes his eyes and starts to	
A:T2:5:7	mouth “papapa”, without vocalising. He then tries to beat the drum twice but misses each time. He then	

A:T2:5:8	suddenly puts his elbow on the drum head and rests his head in his hand, turning his head away from the music therapist, but watching her out of the corner of his eye with a mischievous small smile.	Playful interaction: MT&C
A:T2:5:9	The music therapist responds by mirroring his movement: also putting her right elbow on the other drum	
A:T2:5:10	head and resting her head on her hand, looking at him in the same manner. She synchronised the moment	Playful interaction: MT&C
A:T2:5:11	when he puts his elbow on the drum with the second last note of the phrase and then put her elbow down	MT incorporate all C's movements
A:T2:5:12	on a strong, but whispered "pa", which ended the phrase with the same playful, mischievous quality that	
A:T2:5:13	the client showed. The physiotherapist responds to this shared moment between the client and the music	PT verbally affirms playful interaction:
A:T2:5:14	therapist by looking up to the camera girl, smiling and exclaiming "good Tshepo!".	MT&C
A:T2:5:15	The music therapist then lifts her elbow off the drum, looks at the client and very softly sings an ascending,	MT musically inviting C
A:T2:5:15	inviting melodic phrase, which ends on the dominant of the key, followed by a short pause for the client to	
A:T2:5:20	respond. The client remains in the same position, but responds to the music therapist's invitation by playing	C musically responds to MT's
A:T2:6:1	a few soft, but firm beats with his free hand, with his head still turned away from the therapist and the drum.	invitation
A:T2:6:2	The therapist again sings a similar melodic phrase and again the client responds by playing a few beats	
A:T2:6:3	with his free hand in the pause that the therapist created. He then plays a few beats again, with a slightly	MT musically invites C
A:T2:6:4	stronger and louder quality, moving his hand forward towards the music therapist, who responds by	C musically responds to MT invitation
A:T2:6:5	suddenly sitting up straighter and singing a much stronger melodic line. At this moment, the client turns his	C increased musical interaction
A:T2:6:6	head in a quick motion towards the music therapist and makes eye contact, followed directly with his cap	MT matching C intensity
A:T2:6:7	falling off his head. He then pushes himself up straight with his arms and turns around, looking over his	C makes eye-contact with MT
A:T2:6:8	shoulder towards the cap. Upon seeing that the physiotherapist was bending down to pick it up, he turns	
A:T2:6:9	back towards the drums and the music therapist again, but now rests his whole upper body on the drums,	
A:T2:6:10	leaning his head on his arms, which is placed on the drums.	
A:T2:6:11	There is a pause in the music as the music therapist stops singing, looking closely at the client while the	Focuses exclusivity between MT&C
A:T2:6:12	physiotherapist puts on the client's cap. The client then initiates the music making, by starting to beat the	C showing musical initiative
A:T2:6:13	one drum with his right hand, the first beat played with a very strong accent, followed by three softer beats,	
A:T2:6:14	while still resting his head on his left arm. While he plays, the physiotherapist takes hold of his upper body	PT positioning C
A:T2:6:15	and repositions him so that he again has a straight body posture, on his knees in front of the drum. She	PT positioning C; MT engage
A:T2:6:16	now holds him up with her arms around his waist, while the music therapist is still in the same position,	musically
A:T2:6:17	sitting with the drums positioned on her knees. The music therapist responds to the client's drum beats by	
A:T2:6:18	whispering 'papapa' and playing a few soft beats on the drum. This does not match the strong first beat	
A:T2:6:19	which the client played, but is on the same dynamic level as the three softer beats which followed. The	MT matching dynamics
A:T2:6:20	client then responded to this by again mouthing "papapa" with the music therapist and also starting to play	MT follow C cues; C follow MT cues
A:T2:6:21	more energetically, using both hands. The music therapist watches the client's mouth and sings "papapa"	
A:T2:6:22	the rhythm with which the client is mouthing these sounds. The physiotherapist notices this and whispers to	PT directs
A:T2:6:23	the client "sing Tshepo, sing!", to which the music therapist responds by shaking her head to the physiotherapist.	MT disagrees with PT's verbal prompting
A:T2:7:1	The client's beating then becomes irregular both in rhythm and dynamics, with some strong beats and	
A:T2:7:2	some softer beats, and then suddenly lifts his left arm up high, bringing it down quickly as if aiming to play	Playful interaction MT&C
A:T2:7:3	a strong beat. However, just before beating the drum, he suddenly stops the quick downward motion of his	Playful interaction MT&C
A:T2:7:4	arm and just puts his arm down gently on the drum. The music therapist, on the other hand, plays a strong	
A:T2:7:5	beat and strongly sings "pa" together with the client's *expected* beat. This is directly followed by exactly the	Playful interaction MT&C
A:T2:7:6	same response as a few moments ago: the client puts his right elbow on the drum, rests his head in his	
A:T2:7:7	hand and looks at the music therapist out of the corner of his eye. This time the music therapist responds	PT uncertainty
A:T2:7:8	by vocalising a long, low, descending "hmmmm", while the physiotherapist looks at the music therapist with	C showing musical initiative
A:T2:7:9	a small, unsure smile. The client then sweeps his left hand over the drum followed by a sudden slap on the	C & MT flowing together
A:T2:7:10	left drum, the sweeping sound overlapping with the music therapist's vocalisation, and the music therapist	
A:T2:7:11	playing a drum beat with the client's slap on the other side of the bongo. The client then lifts his head and	Musicking affords left-right integration
A:T2:7:12	right elbow off the right drum and starts playing both the drums with alternate hands again, still resting on	PT stabilise and support C for MT&C
A:T2:7:13	alternate arms but putting less pressure on each arm and seemingly relying more on the physiotherapist	musicking

A:T2:7:14	for stabilisation. As the client starts beating the drums strongly, at a moderate tempo with regular beats, the	
A:T2:7:15	music therapist starts singing the same melody used with the crawling activity, using the tune of “ek is nie	MT matching C
A:T2:7:16	‘n stap-soldaatjie nie” with “papapa” sounds. She sings this at the tempo and beat which the client is	
A:T2:7:17	playing on the drums, a strong, marching quality in her voice. In the middle of the first phrase, the client	C musical engagement fosters
A:T2:7:18	suddenly starts playing very energetically, moving his whole upper body as he plays the drum. He now	strengthening
A:T2:7:19	plays galloping beats very strongly on the drum by alternating his right and left arm, remaining slightly	Drumming affords self-stabilisation
A:T2:7:20	longer on his left arm when playing the second beat to stabilise himself. The music therapist responds to	MT matching C
A:T2:7:21	this by incorporating the galloping rhythm into the melody and also singing more strongly and energetically.	C follows MT cues
A:T2:7:22	In response to this, the client becomes even more energetic, making bigger body movements while playing	MT follows C’s cues
A:T2:7:23	and increasing the tempo, which the music therapist follows by also increasing the tempo of the melody.	
A:T2:8:1	The physiotherapist, who is still supporting the client by holding him up underneath his arms, reacts to the	PT verbally comments: C good muscle
A:T2:8:2	client’s sudden energetic response by saying “good Tshepo!” and a few seconds later again “good	control
	Tshepo”, looking at his body posture and the strength he is using to play while saying this. The client then	
	leans his body on the right drum, but continues playing with his left hand on the left drum, now playing the	C rhythmically matches MT
A:T2:8:4	same rhythm as the melody that the music therapist is singing. At the end of the phrase, he lifts his left	C taking musical initiative
A:T2:8:5	hand up high in the air and pauses, looking at the music therapist, who responds by also pausing the	playful musical interaction MT&C
A:T2:8:6	singing. When the client then suddenly starts beating the drum again, the music therapist starts singing the	MT matches C
A:T2:8:7	next phrase with him. The client reacts to the music therapist’s response to him by lifting up his whole	Musical engagement affords
	body, lifting up both arms high in the air and playing loud beats with both hands simultaneously. He does	strengthening
	this repeatedly, each time using a lot of effort to lift his arms up and then beating the drum very strongly	Musical investment fosters physical
	with both arms.	effort
A:T2:8:11	The music therapist adapts the rhythm and beat of the melody so that she pauses slightly - taking in loud	MT matching C
A:T2:8:12	breaths - every time the client’s arms are in the air, and then singing a loud, strong “pa” with every beat	
A:T2:8:13	that the client plays. The physiotherapist responds by looking up at the music therapist and smiling and	PT gestures surprise at C’s abilities
	then again looking down at the client’s body and posture.	

APPENDIX C: THICK DESCRIPTION DATA
CODED THICK DESCRIPTIONS

LINE NR	PLACEMENT B: THICK DESCRIPTION SESSION 3 07:08 – 10:40	DESCRIPTIVE CODES
B:T1:1:1	[This excerpt starts 7 minutes into the third session. Before this, the music therapist had been sitting at the piano from	
B:T1:1:2	the start of the session, while the client and the physiotherapist had been sitting on the floor together. The	
B:T1:1:3	physiotherapist had been facilitating the client to play the drums with beaters, at first positioning him with his back to	PT facilitate C musicking
B:T1:1:4	the music therapist and eventually turning him to face the music therapist. The music therapist supported their beating	PT positions C: face her, away from MT
B:T1:1:5	of the drum on the piano, accompanying the client's movements. She then got up from the piano and joined the client	MT musically supports C movements
B:T1:1:6	and the physiotherapist on the carpet, taking the glockenspiel to client to play.]	
B:T1:1:7	The physiotherapist is sitting on the ground, with the client standing between her legs, facing away from her and	
B:T1:1:8	looking in the direction of the music therapist. The physiotherapist is holding each of his hands closed around	PT physically facilitates C musicking
B:T1:1:9	glockenspiel beaters. The music therapist is sitting across from them holding the glockenspiel in the air in front of the	
B:T1:1:10	client. The physiotherapist takes the client's right arm and plays a quick ascending glissando, while the music	Matching who? PT playing for C
B:T1:1:11	therapist also sways the glockenspiel in the opposite direction to facilitate the playing of the glissando. At that same	MT facilitate C musicking
B:T1:1:12	moment, together with the physiotherapist and the client's glissando, the music therapist sings loudly, with a sharp	
B:T1:1:13	quality, "Ste - ven" in an ascending interval of a third, in a high register, opening her mouth widely and raising her	MT over- attuning
B:T1:1:14	eyebrows very high while looking with expectation at the client. Then the physiotherapist takes both the client's arms	
B:T1:1:15	and plays the glockenspiel with them in a middle-to-outward motion, quickly and loudly playing simultaneously an	PT playing for C: range of movement
B:T1:1:16	ascending glissando with his right hand and a descending glissando with his left hand. At this moment, the client is	
B:T1:1:17	looking to his right, away from the glockenspiel and the music therapist, with a vague expression on his face. While	C uninterested
B:T1:1:18	this is happening, the music therapist again drags the glockenspiel through the air to the client's left in a quick, sharp	MT facilitate C musicking
B:T1:1:19	manner, at the same moment that the physiotherapist takes the client's hands to play the glissandos. Together with	Matching who? PT playing for C
B:T1:1:20	this second glissando, the music therapist sings, with the same strong, sharp voice quality, "plays –the", also on an	
B:T1:1:21	ascending third but one tone lower than the last time. Her voice quality is sharp, staccato and strong, and her facial	MT over- attunning
B:T1:1:22	expression is one of over-excitement as she looks towards the client and tries to make eye-contact. The	
B:T1:1:23	physiotherapist takes the client's right hand and plays an ascending glissando while the music therapist loudly and	PT playing for C: left-right integration
B:T1:2:1	sharply, in a jerky manner, sings "glock-en - " and then the physiotherapist takes his left hand and plays a descending	
B:T1:2:2	glissando while the music therapist sings a loud staccato "- spiel". The client turns his head even further to the right,	Matching who? PT playing for C
B:T1:2:3	showing no awareness of the music or interest in the fact that the physiotherapist is using his hands to play an	C uninterested
B:T1:2:4	instrument. The physiotherapist then asks in a firm, low tone of voice "Where is the glockenspiel, Steven? Where is	PT relationally engages C
B:T1:2:5	it?", while rocking his arms and body from side to side, in an attempt to draw his attention to the activity. The client	PT engage C in music
B:T1:2:6	looks back towards the glockenspiel, at which moment the music therapist roles onto her back, making swaying	
B:T1:2:7	movements back and forth with the glockenspiel in the air and vocalising a low, ascending "wooaaooohhhh",	MT try engage C in play
B:T1:2:8	mimicking the sound of an aeroplane as she roles backwards. While doing this, the physiotherapist starts saying in a	
B:T1:2:9	sing-song voice "let's go find it! Let's go find it!" bringing the client's arms forward in the direction of the music therapist	MT & PT shared goal = engaging C
B:T1:2:10	and the glockenspiel, which are now further away, as the music therapist is still on her back on the floor.	
B:T1:2:11	Then together, as the music therapist sits up again, both the physiotherapist and the music therapist vocalise a high,	
B:T1:2:12	ascending 'woooo', at the same pitch, but with the music therapist singing at a higher dynamic level. Immediately after	MT & PT shared goal = engaging C
B:T1:2:13	this the music therapist and the physiotherapist together sing a short staccato 'wow' also at the same time and high	
B:T1:2:14	pitch, at the moment the physiotherapist plays a single beat on the glockenspiel with the client's arms. The client is	MT over-attuning
B:T1:2:15	now looking at the music therapist, but still has a rather blank expression. The same pattern is repeated, with the	PT and MT musically engaged
B:T1:2:16	music therapist rolling back vocalising 'woooaaoohh' ascending, starting at a low tone, while the physiotherapist says	PT facilitate C musicking
B:T1:2:17	'let's go find it', also ascending at the same pitch level as the music therapist, but this time in a less energetic manner,	C uninterested in music
B:T1:2:18	and then when the music therapist comes up again the physiotherapist plays a single beat with the client's arms while	
B:T1:2:19	vocalising a short 'wow' exactly together with the music therapist, at the same high pitch. The music therapist rolls	PT & MT shared goal: engage C
B:T1:2:20	back again while vocalising "woooaaaoooh", while the physiotherapist says in the same tone "let's go find it, let's go	
B:T1:2:21	find it", and together the physiotherapist and music therapist vocalise a short high-pitched "wow" at the moment the	
B:T1:2:22	physiotherapist plays the glockenspiel with the client's arms. This is repeated a fourth time, with the music therapist	
B:T1:2:23	rolling back, vocalising a strong 'woooaaaoooh' while the physiotherapist says at the same ascending tone "let's go	
B:T1:3:1	find it", but with less energy in her voice than the music therapist, holding the client's arms up and forward and beating	MT & PT not attuned

		PT playing for C: range of movement
B:T1:3:2	the glockenspiel the moment the music therapist rolls up again, vocalising a staccato, high-pitched 'wow' together with	PT &MT musically engaged
B:T1:3:3	the music therapist at the moment of beating the glockenspiel. Then, just as the music therapist starts to roll back	
B:T1:3:4	again, the physiotherapist whispers excitedly in the client's ear "let's see, let's see", reaching with his arms towards	PT relationally engaging C
B:T1:3:5	the glockenspiel, which the music therapist immediately brings closer again. The physiotherapist again uses both the	PT playing for C: range of
B:T1:3:6	client's arms and plays the glockenspiel with them in a middle-to-outward motion, in a quick, loud, staccato manner,	movement
B:T1:3:7	playing simultaneously an ascending glissando with his right hand and a descending glissando with his left hand. At	
B:T1:3:8	this same moment the music therapist exclaims a long 'ah!!' in a breathy, ascending tone, followed by the	
B:T1:3:9	physiotherapist also exclaiming 'ah!', but in a short, staccato manner. She then takes his hands again and plays the	MT & PT not attuned
B:T1:3:10	glissando in the opposite direction, from an outward-to-middle motion with both hands. The music therapist starts	PT playing for C: range of
B:T1:3:11	singing again on this glissando, singing the same melody and words: "Ste-ven ..... plays the..... glocken..... spiel",	movement
B:T1:3:12	with the physiotherapist using the client's hands on each fragment to play an outward or inward glissando. The music	Matching who? PT play for C
B:T1:3:13	therapist sustains some of the notes longer, in a manner that creates expectation, which the physiotherapist follows by	MT & PT engaging musically
B:T1:3:14	pausing the client's movements, keeping his arms in the air. The physiotherapist in a quick and sudden movement	
B:T1:3:15	plays another glissando, to which the music therapist responds with immediacy, singing in a quick, strong, sharp and	Matching who? PT playing for C
B:T1:3:16	accented manner the next word on that glissando. The music therapist makes different faces in each pause, raising	
B:T1:3:17	her eyebrows, making her eyes big, making a round mouth or rolling her eyes, in an attempt to gain the client's	MT over-attuning
B:T1:3:18	attention. This same pattern is repeated again, except that the physiotherapist now plays the glissandos by taking	MT try playfully engaging C
B:T1:3:19	both hands of the client in the same direction, first to the right, then to the left and then to the right again, while the	PT playing for C: mobilisation
B:T1:3:20	music therapist sways the glockenspiel each time in the opposite direction that the client's arms are moving. The	MT over-attuning
B:T1:3:21	client's body sways with the physiotherapist right-left-right, but in a limp, unintentional manner, and the music therapist	C not invested
B:T1:3:22	mirrors these swaying movements by swaying left-right-left with her body. Although she still incorporates pauses,	
B:T1:3:23	which now serve the purpose of giving the physiotherapist and the client the space to get back into a position where	
B:T1:4:1	they can play the glockenspiel, the music therapist changes the quality of her singing, singing the same phrase now in	
B:T1:4:2	a swaying, slightly more legato manner, in an attempt to musically match the physiotherapist and the client's	MT matching PT&C movements
B:T1:4:3	movements.	
B:T1:4:4	The music therapist repeats the same melodic phrase "Steven....plays the.....glockenspiel", but now the client remains	
B:T1:4:5	standing upright, with the music therapist holding the glockenspiel in one position in front of him and the	
B:T1:4:6	physiotherapist using his hands to play single beats with both hands on "steven" and on "plays the", but then playing	PT playing for C: left-right
B:T1:4:7	with alternating hands, right-left-right, on the three syllables "glock-en-spiel". From there on, the physiotherapist	integration
B:T1:4:8	continues playing the glockenspiel with the client's hands in this alternating manner, with a slow, but more regular	
B:T1:4:9	beat, to which the music therapist sings "Steven plays the glockenspiel" in a light, soft, staccato manner, at the same	Matching who? PT playing for C
B:T1:4:10	tempo as the physiotherapist's playing, accenting the words that fall on these beats. The physiotherapist at times	
B:T1:4:11	crosses the client's arms over each other, doing hand-over-hand with him and also taking each arm back quite far	PT playing for C: left-right
B:T1:4:12	after playing a beat, thereby facilitating bigger arm movements. The client seems quite at ease, allowing the	integration
B:T1:4:13	physiotherapist to use his arms, with his arms and body very relaxed, his head also bopping unintentionally from side	C allows hand-over-hand
B:T1:4:14	to side due to the alternate movement of his arms. The music therapist also bops her head from side to side at times,	
B:T1:4:15	mirroring the client. The physiotherapist then initiates an accelerando and crescendo, suddenly starting to play faster	PT playing for C: mobilisation
B:T1:4:16	and louder with the client's arms, to which the music therapist responds by immediately also singing in a faster, more	Matching who? PT playing for C
B:T1:4:17	energetic manner, which is also reflected in her body movements, which become more quick and jerky as she bops	
B:T1:4:18	her head to the regular beat of the music from side to side. At the last phrase, the music therapist sings a new line –	
B:T1:4:19	"plays the glockenspiel to-day-ay-ay", and at the moment where she sings the last "ay" the physiotherapist suddenly	
B:T1:4:20	stops playing, jerking the client's arms to a stop and vocalising a short, breathy 'hah!', to which the music therapist	
B:T1:4:21	responds by mouthing 'ah' directly afterwards and rolling her eyes around the room as if searching for something, then	
B:T1:4:22	cupping her ear and looking at the client, with raised eyebrows and round mouth, gesturing to him to listen carefully.	MT try playfully engaging C
B:T1:4:23	The physiotherapist then takes the client's right arm and plays a soft, slow and more gentle glissando on the	PT engage C in music
B:T1:5:1	glockenspiel, which the music therapist accompanies with singing softly 'mmm-ba' both notes at the same alto pitch,	Matching who? PT playing for C
B:T1:5:2	which does not match the ascending glissando the client is playing. At this moment, the client turns his head, looking	MT fail matching C
B:T1:5:1	over his shoulder and over the physiotherapist's shoulder to the back of the room. In response to the turn of his head,	

APPENDIX C: THICK DESCRIPTION DATA
CODED THICK DESCRIPTIONS

B:T1:5:4	the physiotherapist again strongly says “hah!” in a staccato whisper, looking down towards the client with her face very	PT engage C in music
B:T1:5:5	close to his. The client responds to this by suddenly looking back to the glockenspiel. The music therapist again	
B:T1:5:6	vocalises ‘mmm-ba’, at the same pitch but at a lower tone than the previous vocalisation, with raised eyebrows,	MT focus: engaging C
B:T1:5:7	looking intently at the client, and then the physiotherapist plays two more gentle, glissandos with the client’s hand, with	Matching who? PT playing for C
B:T1:5:8	which the music therapist each time sings ‘mmm-ba’, which is sung in thin tone of voice, with a breathy quality, and no	
B:T1:5:9	rhythmic or melodic structure. The physiotherapist then changes her hold on the client’s left hand, holding it much	PT physically facilitate C
B:T1:5:10	more lightly, just keeping his hands closed around the beater and lifting his arm up towards the height of the	musicking
B:T1:5:11	glockenspiel, but giving him freedom to move his arm on his own. The physiotherapist then whispers to the client to try	
B:T1:5:12	and play the glockenspiel, while the music therapist still glides the glockenspiel over the head of the beater, now in a	PT relationally engaging C
B:T1:5:13	soft, slow and gently manner, so that the client plays a slow, soft glissando. The physiotherapist softly and gently says	MT facilitiate C musicking
B:T1:5:14	to the client “good...” also stabilising his body with one arm around his waist and the other arm lightly holding his left	
B:T1:5:15	arm up. The music therapist glides the glockenspiel over the beater three times, each time singing a soft ascending	PT encouraging C
B:T1:5:16	third together with the glissando, while the physiotherapist keeps the client’s arm stabilised. The physiotherapist then	MT facilitate C musicking
B:T1:5:17	takes hold of the client’s right hand, and as she does so, the client lets the beater in his right hand drop. The	PT positions & stabilises C
B:T1:5:18	physiotherapist vocalises “bop” in a low tone and staccato quality, imitating the drop of the beater on the carpet. This	
B:T1:5:19	is directly followed by the music therapist also vocalising “bop” but in a shrill voice at a very high register, with much	PT matching C
B:T1:5:20	more energy in her voice than the physiotherapist.	MT over-attuning
B:T1:5:21	The client looks down to where he dropped his beater at the same moment that the physiotherapist uses her right	
B:T1:5:22	hand to open up the client’s fist. He shifts his gaze and looks at his hand while she does this. The physiotherapist then	
B:T1:5:23	brings the client’s right arm forward, keeping her hand against his so that his fingers are stretched open and at the	
B:T1:6:1	same time whispering to the client “where’s the glockenspiel?”, at the same time that the client looks back in the	PT physically facilitate movement
B:T1:6:2	direction of the music therapist and the glockenspiel. The physiotherapist lifts the client’s left hand, which is still	PT engaging C in music
B:T1:6:3	holding the beater, positioning it in a way that he can play the glockenspiel again. The music therapist glides the	
B:T1:6:4	glockenspiel over the head of the beater in a moderately fast, strong manner from left to right and then does this again	PT physically facilitate C
B:T1:6:5	twice, each time from a different direction. At the same time that the client plays a glissando, the music therapist sings	musicking
B:T1:6:6	the same ascending third that she used previously, still in a breathy, soft voice which does not match the slightly	MT facilitate C musicking
B:T1:6:7	stronger, quicker sound made by the glockenspiel. The physiotherapist keeps the client’s arm and body steady, also	
B:T1:6:8	moving his arm a little bit forward each time the music therapist brings the glockenspiel closer, in a manner suggesting	MT fail matching C
B:T1:6:9	that she is helping him to play. Directly after each glissando, the music therapist says “oh!” in a strong, high-pitched	PT positioning & stabilising C
B:T1:6:10	staccato voice, in a manner that suggests a sudden surprise or excitement. Her facial expression also feigns	
B:T1:6:11	excitement, as she looks intently at the client with an excessively big smile and raised eyebrows. The client does not	MT & PT facilitating C musicking
B:T1:6:12	look at the music therapist while she does this, but instead his head is turned to the right and it appears that he is	MT over-attuning
B:T1:6:13	looking at the piano. Just as the music therapist starts to bring the glockenspiel close to the client again, the	
B:T1:6:14	physiotherapist says in a firm, low tone: “I think you are seeing something else?” The music therapist responds to this	C uninterested
B:T1:6:15	by immediately stopping the movement of the glockenspiel, as well as changing her facial expressions to a look of	
B:T1:6:16	seriousness, looking in the same direction as the client. The physiotherapist then asks the client what he sees and at	PT reading C’s cues
B:T1:6:17	the same time, the music therapist brings the glockenspiel down and puts it on the ground, while still looking at the	MT follow PT leadership
B:T1:6:18	client. The client responds by sticking out his chin and lifting his arms in the direction of the piano. This is followed by	
B:T1:6:19	the physiotherapist asking “the piano?”, to which the music therapist responds by saying “ooooh” in a low tone, at the	
B:T1:6:20	same time that the physiotherapist asks “do you want to go play the piano?”. The client brings the beater, which he is	C indicate interest
B:T1:6:21	still holding, close to his body, still watching the piano, while the physiotherapist asks him in an excited whisper “do	
B:T1:6:22	you want to play stop-and-go! Stop-and-go!?”. The music therapist mouths the physiotherapist’s words with her,	
B:T1:6:23	raising her eyebrows and looking from side to side as if searching the room for something. The physiotherapist then	PT relationally engaging C
B:T1:7:1	asks the client “should we try?” to which the client responds by vocalising a deep, raspy ‘uh’. The physiotherapist then	
B:T1:7:2	says in an excited whisper “okay! Let’s go for it!” and then asks the client firmly to hand her the beater, while the music	
B:T1:7:3	therapist starts shifting her body closer to the piano, but pausing her movements while the client hands over the	PT engaging C in music
B:T1:7:4	beater to the physiotherapist. While taking the beater from the client, the physiotherapist also tells the client to close	
B:T1:7:5	his mouth and swallow. The music therapist mimics swallowing to the client directly after the physiotherapist tells him	
B:T1:7:6	to do this. He looks at her while she does this and then looks down and swallows.	
B:T1:7:7	The physiotherapist then exclaims ‘piano time, go go go!’, positioning the client so that he can walk to the piano, to	

APPENDIX C: THICK DESCRIPTION DATA
CODED THICK DESCRIPTIONS

B:T1:7:8	which the music therapist responds by standing up in a fast, jerky manner and starting to move to the piano. The	
B:T1:7:9	physiotherapist then exclaims “Faster! Faster! Faster!” to which the music therapist responds by modeling running in	PT positioning C
B:T1:7:10	very small, but fast steps towards the piano, while the physiotherapist then exclaims “Go! Go! Go!”. The client watches	MT follow PT leadership
B:T1:7:11	the music therapist with a small smile on his face and takes two steps in the direction of the piano. At this moment, the	MT try playfully engaging C
B:T1:7:12	music therapist, who has now knelt before the bass side of the piano, starts to play dark, but soft, rolling chords in the	MT& PT shared focus= engage C
B:T1:7:13	bass for three seconds. The moment she stops playing, the client, who is still watching her, loses his balance and falls	C making eye-contact with MT
B:T1:7:14	gently into physiotherapist’s arms. The physiotherapist catches him and drops him to the side, matching this dropping	
B:T1:7:15	movement with a vocal “whooa!”, which she says in an excited, playful manner. At the same moment as the	Sudden musical stop startle C
B:T1:7:16	physiotherapist’s vocalisation, the music therapist plays another low, dark, smooth mezzo piano cluster in the bass of	PT matching C
B:T1:7:17	the piano, which does not match the quickness or lightness of the physiotherapist’s vocalisation or the dropping	MT fail matching C
B:T1:7:18	movement of the client. Directly after this, the client starts to make soft, short whining noises, to which the	Music too forceful: C distress
B:T1:7:19	physiotherapist responds by saying ‘ooooh’ in a gentle, descending tone of voice, after which the client stops whining.	PT calms C
B:T1:7:20	Upon seeing the client’s response and hearing the client whining, the music therapist jumps up from where she was	
B:T1:7:21	kneeling, moving over quickly to the treble side of the piano, where she sits down on the piano chair. While moving,	
B:T1:7:22	she whispers in a tone that suggests anxiety “was it too low? too low!”. The physiotherapist cradles the client in her	MT anxiety: music cause distress
B:T1:7:23	arms and whispers to him softly “ooh, was it scary?”. The music therapist responds immediately by also whispering	Inappropriate music cause distress
B:T1:8:1	“Too scary”. The physiotherapist then whispers to the client “let’s try again”, followed by the music therapist playing a	PT engaging C in music
B:T1:8:2	few notes in the treble register. Directly after the physiotherapist says this, the client starts to moan, making long	Pressure to play cause distress
B:T1:8:3	descending, intense vocalisations. The physiotherapist responds to this by saying in a quick, consoling manner “okay,	
B:T1:8:4	let’s just dance”, while the music therapist immediately stops playing. At the same time, the physiotherapist picks the	PT positions client: face her, away
B:T1:8:5	client up, and positions him so that he is turned away from the music therapist, standing with his face turned towards	from MT
B:T1:8:6	her and his legs pushed against her knees where she is sitting. While positioning him, she also says “show me your	
B:T1:8:7	dancing”, during which the music therapist first watches the client and physiotherapist closely, as the client takes small	MT plays music; PT engage C in
B:T1:8:8	jerky steps in the same place while the physiotherapist positions him. The music therapist then starts to play a	dancing
B:T1:8:9	waltzing theme in the middle range of the piano at the same tempo that the client had taken his jerky steps. The	MT matching C
B:T1:8:10	physiotherapist holds the client’s arms, bouncing them and trying to get the client to bounce with the music, but the	
B:T1:8:11	client bends over forward until he falls gently into the physiotherapist’s lap. The physiotherapist starts singing with the	PT & MT engaging in music
B:T1:8:12	music therapist’s waltzing theme “bom pom pom, bom pom pom” while softly tapping the rhythm of the waltz softly on	
B:T1:8:13	the client’s bum. The music therapist continues playing the waltz, looking over her shoulder at the client, who is still	PT engage C; MT musically
B:T1:8:14	lying in the physiotherapist’s lap.	accompany

APPENDIX C: THICK DESCRIPTION DATA
CODED THICK DESCRIPTIONS

LINE NR	PLACEMENT B: THICK DESCRIPTION SESSION 5 11:00 – 14:00	DESCRITIVE CODES
B:T2:1:1	[This excerpt starts 11 minutes into the session, with the client standing at a small table with instruments	
B:T2:1:2	packed out in front of him, which include a tambourine, shakers and bells. From the start of the session he	
B:T2:1:3	had been standing at this table, at first with the music therapist sitting at the other side of the table, engaging	
B:T2:1:4	him in playing with the various musical instruments, while the physiotherapist sat behind him and helped him	PT facilitate movement; MT engage
B:T2:1:5	to play. Although he did engage every now and then, he mostly refused, often starting to whine. After 8	musically
B:T2:1:6	minutes, the music therapist moved to the piano, while the physiotherapist went to sit on the other side of	
B:T2:1:7	the table, taking over the music therapist's task of engaging the client in the instruments. When the excerpt	PT engage C in instrumental play
B:T2:1:8	starts, she is busy encouraging him to push the shakers off the table, while the music therapist is	
B:T2:1:9	accompanying his movements and the sound of the shakers falling on the ground on the piano.]	PT engage C; MT accompany musically
B:T2:1:10	He is facing the table and the physiotherapist, who is sitting at the other side of the table, out of the camera	
B:T2:1:11	frame, with his back turned to the music therapy student. She is sitting a distance away at the piano, looking	
B:T2:1:12	at the client and the physiotherapist. While the physiotherapist says to the client in a high, excited, mezzo	
B:T2:1:13	forte tone: "come on, push them!" the client's face crumples and he starts to whine, while looking down at	Pressure to play cause distress
B:T2:1:14	the table and the instruments. The music therapist responds by frowning in manner that seemed to express	
B:T2:1:15	empathy, while the physiotherapist whispers 'okay' to him. In a strong, loud voice, at a lower tone, she asks	PT calms C
B:T2:1:16	him to tell her what is going on, while he keeps on whining and sniffing softly, looking up in the air and	PT relationally engaging C
B:T2:1:17	making small but quite strong, jerky movements with his body. The music therapist's one hand is still on the	
B:T2:1:18	keys as she watches the interaction between the client and the physiotherapist with a serious look on her	C&PT engaging while MT=onlooker
B:T2:1:19	face. The client suddenly starts to bounce on his legs while bending his upper body, making more intense	
B:T2:1:20	whining sounds. Exactly at this moment, the music therapist turns her body sharply towards him, with a big	
B:T2:1:21	frown on her face, rubbing her leg anxiously. The physiotherapist asks him in a gentle, but firm and low	C's response cause MT anxiety
B:T2:2:1	vocal tone what he wants to do. He responds with a long whine on a descending third, in a way that clearly	PT relationally engaging C
B:T2:2:2	signifies unhappiness, also scrunching up his face, frowning and puckering his lips. When she asks him	
B:T2:2:3	again, in a soft and gentle, slightly higher tone, he lifts his hands and puts them together in a sign that he	C communicate to PT: finished
B:T2:2:4	has been taught to use in order to indicate 'finished'. The physiotherapist does not acknowledge this and	PT not acknowledging C
B:T2:2:5	asks him in an excited, strong voice if he wants to play the piano or the drums, playing a few loud, regular	
B:T2:2:6	crotchet beats on the drum in an attempt to engage him in the music. The client turns his face away from the	PT engage C in music
B:T2:2:7	physiotherapist, looking towards his left side in the direction of the music therapist. He then bends down	
B:T2:2:8	even more, with his body rotated to the left, his right arm on the table and his face leaning on this arm. The	
B:T2:2:9	physiotherapist again plays a few loud, strong quaver beats on the drum and in response to this the music	MT&PT shared goal: engaging C
B:T2:2:10	therapist leans down towards another drum and imitates the physiotherapist's drum beats, but starts at a	
B:T2:2:11	softer dynamic level and gradually increases the dynamics. The client slowly lifts his head and looks towards	
B:T2:2:12	the music therapist, making repeated soft, short descending vocalisations, which still has a whiny quality.	C response suggest MT = cause of
B:T2:2:13	The music therapist then picks up the drum while the physiotherapist reaches over the table and places a	distress
B:T2:2:14	beater in the client's hands. He continues to look towards the music therapist, who makes a face at him,	MT over-attuning
B:T2:2:15	puckering her lips, raising her eyebrows and widening her eyes, while the physiotherapist gently takes his	
B:T2:2:16	hand with the beater and beats the drum with four moderately strong and regular crotchet beats. The music	PT engaging C in music
B:T2:2:17	therapist does not respond the physiotherapist's beating, but keeps her gaze focused on the client, while	MT focus = C
B:T2:2:18	she remains sitting on the piano chair, holding the djembe drum between her legs. Both the client and	
B:T2:2:19	physiotherapist then sit and watch as the music therapist then slowly lifts up her hands, while looking at the	
B:T2:2:20	client and crouching her shoulders, eventually hiding her face in her hands. She opens them gently, peeking	MT try playfully engaging C
B:T2:2:21	through her two hands, these movements not relating to anything that the physiotherapist or client had been	
B:T2:2:22	doing. At the moment she opens her hands, the client turns back to face the physiotherapist in a quick, jerky	
B:T2:2:23	manner, at which time the physiotherapist makes a short, strong and breathy exclamation, "wow!", which	PT matches C
B:T2:3:1	matches the jerkiness with which the client turns around towards her. The client then starts to whine,	
B:T2:3:2	appearing anxious, while bouncing on his legs in a tense manner and scrunching his face. Immediately, the	
B:T2:3:3	physiotherapist gently takes hold of his one arm, putting her other hand gently on his back and saying in a	PT calming C
B:T2:3:4	high, firm, but gentle voice - "I am here! There we go!", trying to hand the beater again to him.	PT response suggest MT causing

		distress
B:T2:3:5	The client's whining becomes gradually louder as he turns his body to his right, away from the beater that	C avoiding instruments
B:T2:3:6	the physiotherapist holds as well as from the direction of the music therapist, who is still is sitting silently at	C avoiding MT
B:T2:3:7	the piano, now with a hopeless expression on her face.	C's response cause MT anxiety
B:T2:3:8	The physiotherapist then asks the client what he wants in a firm, strong, voice, first asking if he wants to	
B:T2:3:9	climb on the table, at which he responds with a loud whine. The physiotherapist exclaims with an ascending	C's unwillingness
B:T2:3:10	tone, in a manner suggesting exasperation, "eish, what do we want?!". Directly after this, the music therapist	
B:T2:3:11	softly whispers "no...", while the physiotherapist gets up from her position at the other side of the table. In	
B:T2:3:12	response to the physiotherapist getting up, the music therapist also starts to stand up from the piano chair in	MT follow PT leadership
B:T2:3:13	a slow, rather jerky manner, suggesting uncertainty. Her body is still bent over and just as she starts to	MT uncertainty
B:T2:3:14	straighten up, she again sits down on the piano chair the moment she sees that the physiotherapist has	
B:T2:3:15	gone to sit next to the client on the floor. The client is still standing at the small table, his elbows resting on	
B:T2:3:16	the table top. The moment the physiotherapist goes to sit next to where the client is standing, the client's	PT calming C
B:T2:3:17	face briefly becomes more relaxed. The physiotherapist then holds out castanettes to the client, asking him	PT engaging C in instrumental play
B:T2:3:18	if he likes them. The client's facial expression changes to one suggesting interest, his eyes becoming large	C's shifts in interest
B:T2:3:19	as he looks at the castanette. At this moment, the music therapist in the background softly says 'let's see...',	
B:T2:3:20	however, the physiotherapist then claps a few beats with the castanettes and this is followed by the client	
B:T2:3:21	starting to whine softly again, vocalising 'uh-uh'. The physiotherapist gently, in an ascending and then	C's unwillingness
B:T2:4:1	descending tone, asks the client "also not that? okay...", putting the castanettes down on the table. She then	PT follow C's cues
B:T2:4:2	picks up two shakers in her hands and tries to engage him with the shakers, by shaking them quickly,	PT engaging C in instrumental play
B:T2:4:3	sharply and strongly. The physiotherapist directly follows her own shaking of the shakers with a quick and	
B:T2:4:4	sharp intake of breath, in a manner that suggests being startled. The music therapist immediately imitates	
B:T2:4:5	this intake of breath, but the quality is softer and less sharp than that of the physiotherapist. The music	MT & PT not attuned
B:T2:4:6	therapist is still sitting a distance away on the piano chair, watching the interaction between the client and	C&PT engaging; MT onlooker
B:T2:4:7	the physiotherapist closely. A short moment after the 'startled' vocalisations made by the physiotherapist	
B:T2:4:8	and then the music therapist, the client turns his face away from the physiotherapist and makes a short, low	C showing resistiveness
B:T2:4:9	whining sound. The physiotherapist then puts the shaker in the client's sweater pocket, to which the client	PT engaging C in music
B:T2:4:10	responds by looking down at what she is doing, but still making soft, staccato whining noises. The music	C unwillingness
B:T2:4:11	therapist softly drums her fingers on the drum, which is followed by the physiotherapist rattling the shaker in	
B:T2:4:12	the client's pocket, to which the music therapist responds by exclaiming in a quick, high tone "oh!", also	Matching who? PT playing for C
B:T2:4:13	drumming her fingers louder on the drum each time the physiotherapist rattles the shaker. The client then	
B:T2:4:14	makes another longer, ascending vocalisation, which has a whining, questioning quality, looking away from	C avoiding instruments
B:T2:4:15	the physiotherapist and the shakers. The physiotherapist then asks him in a sharp, staccato, breathy and	
B:T2:4:16	excited manner where the shakers are, to which he responds by stopping his long vocalisation and looking	PT relationally engaging C
B:T2:4:17	back in the direction of the shakers in his pockets. He momentarily looks interested, his facial expression	C's shifts in interest
B:T2:4:18	changing as his eyes become bigger and his frown smooths, lifting his arms up from the table top. However,	
B:T2:4:19	he then suddenly turns away again and starts whining with more intensity than before, with each successive	C showing resistiveness
B:T2:4:20	vocalisation becoming shorter, higher and sharper in quality, followed by loud sniffing. The music therapist	
B:T2:4:21	stops pattering her fingers softly on the drum skin and very softly says 'oh', after which the physiotherapist	MT response suggest hopelessness
B:T2:4:22	firmly says to the client that she can't help him if he doesn't tell her what is going on.	C communicates to PT: finished
B:T2:4:23	The physiotherapist then asks the client what he wants, making questioning gestures with her hands. The	
B:T2:5:1	client turns towards the physiotherapist and lifts his hands, putting them together, signalling 'finished'. The	PT relationally engaging C
B:T2:5:2	physiotherapist then makes the same signal with her hands while asking him twice whether he is finished.	
B:T2:5:1	The client responds each time with an affirming vocalisation "uh", the second time looking pointedly over his	PT&C engaging while MT onlooker
B:T2:5:4	shoulder at the music therapist. The music therapist remains seated in the same position, watching the	
B:T2:5:5	interaction between the physiotherapist and the client, and nodding slowly when the client signs 'finished'.	
B:T2:5:6	The physiotherapist then asks the client what he is finished with, to which he responds by looking at the	C avoid instruments
B:T2:5:7	instruments and softly uttering a short, soft "hmmm". When the physiotherapist then asks if he is finished	PT try engage C in instrumental play
B:T2:5:8	with the instruments, he utters the same affirming vocalisation – a short soft "hmmm". The physiotherapist	Pressure to play cause distress

APPENDIX C: THICK DESCRIPTION DATA
CODED THICK DESCRIPTIONS

B:T2:5:9	then suggests playing the cymbals, to which the client responds with a long mezzo forte, descending whine:	C response cause PT hopelessness
B:T2:5:10	“hm mmmm”, looking away from the physiotherapist, puckering his lips and frowning. At this moment, the	C response cause MT anxiety
B:T2:5:11	physiotherapist utters a strong, but high “no?”, in a manner that suggests exasperation or hopelessness.	Pressure to play cause distress
B:T2:5:12	She then looks at the music therapist, who laughs nervously, saying softly, in a thin voice “he’s finished”	PT calming C
B:T2:5:13	and shrugging her shoulders, a resigned look on her face.	
B:T2:5:14	The client becomes more anxious, starting to whine more loudly, his whines again becoming shorter, higher	
B:T2:5:15	and more intense, to which the physiotherapist responds by calling him to her in an urgent manner, her	PT taking leadership
B:T2:5:16	voice also becoming higher and stronger. He turns towards her and takes small, jerky steps in her direction,	
B:T2:5:17	walking until he is in her arms. The physiotherapist assists him by holding his arm, gently saying ‘here we	
B:T2:5:18	go’, telling the music therapist that they are going to do some rough play as she takes the client in her arms,	
B:T2:5:19	gently patting his back and getting up from the floor. As the music therapist watches the client moving	MT relying on T leadership
B:T2:5:20	towards the physiotherapist, she turns her body towards them and bends forward, a look of sympathy on her	
B:T2:5:21	face. She responds to the physiotherapist’s suggestion by smiling, saying “okay” and then asking the	PT&C engaging while MT onlooker
B:T2:5:22	physiotherapist “must I play along or do you think he will - ? ” at which the physiotherapist responds with a	PT play with C
B:T2:5:23	firm “ja”. The music therapist puts the drum on the ground and turns back to the piano, her head turned so	PT facilitates exercise; MT
B:T2:6:1	that she still watches the physiotherapist and the client.	accompany musically
B:T2:6:2	The physiotherapist holds the client firmly, exclaiming “here comes Steven! Here comes the aeroplane!”,	
B:T2:6:3	swinging the client clockwise around in circles. The music therapist starts playing the piano the moment the	MT over-attuning
B:T2:6:4	physiotherapist starts swinging the client. She initially, very briefly plays major rolling chords in the middle	MT music follow PT&C movements
B:T2:6:5	register, but then suddenly starts to play atonal rolling chords ascending and the descending over the whole	
B:T2:6:6	range of the piano, loud, fast and shrill. This is much more intense and strong than the light, flowing	PT relationally engage C
B:T2:6:7	movement with which the physiotherapist sways the client. The music therapist stops playing the moment	C unwillingness
B:T2:6:8	that the physiotherapist stops swinging the client, her hands still positioned over the keys in expectation,	PT play with C
B:T2:6:9	head turned to the client and the physiotherapist, while the physiotherapist asks the client if he wants more.	PT facilitate exercise; MT
B:T2:6:10	The client responds by vocalising “uh uh”, followed by the physiotherapist suggesting that they fly	accompany musically
B:T2:6:11	backwards. The physiotherapist then gently lets the client fall backwards, holding his legs while his head	MT matching PT&C movements
B:T2:6:12	hangs to the ground. The moment the physiotherapist initiates that movement, the music therapist	PT facilitate swaying
B:T2:6:13	immediately starts to play the piano again, but now her playing is gentler, as she uses more tonal rolling	
B:T2:6:14	chords, playing softer and slower, using the pedal to create a dreamlike quality. The physiotherapist then	PT & MT matching C movements
B:T2:6:15	starts to sway the client from side to side, while the music therapist, who is still keeping her eyes on the	
B:T2:6:16	physiotherapist and the client, plays a swaying ‘do – so – do – so’ melody line in the upper register of the	
B:T2:6:17	piano, in a slow tempo to the same beat as the side-to-side swaying of the client. The physiotherapist sings	PT facilitate rolling
B:T2:6:18	“boom boom” in a low voice also with the swaying, initially without a melody but then using the same melody	PT musically match C movements
B:T2:6:19	line that the music therapist is playing. Then, the physiotherapist gently, in a flowing motion, puts the client’s	
B:T2:6:20	head and shoulders on the floor, with his feet still in the air, and then rolls him quickly from his neck onto his	MT matching PT&C movements
B:T2:6:21	back, vocalising “wheeooo”, in an alto range at a mezzo forte dynamic level, to match the quick, rolling	MT follows PT&C movements
B:T2:6:22	movement with which she puts him on the floor. Together with this movement and the sound that the	
B:T2:6:23	physiotherapist makes, the music therapist plays a fast, descending run in the high register of the piano,	PT facilitate exercises; MT
B:T2:7:1	also matching this downward movement of the roll. The music therapist stops at the same time as the	accompany musically
B:T2:7:2	physiotherapist stops moving, as the physiotherapist again asks the client if he wants more. The	MT follows PT&C movements
B:T2:7:3	physiotherapist then starts to gently bounce the client’s bottom on the floor by lifting his legs higher up in the	
B:T2:7:4	air and then making them bounce gently up and down. The piano music reflects aspects of the client and	MT matching PT & C movements
B:T2:7:5	physiotherapist’s movements, with semi-staccato chords following the motion with which the physiotherapist	Music no physical effect
B:T2:7:6	bounces the client. The physiotherapist often stops these movements midway, giving their movements a	PT&C engaging while MT onlooker
B:T2:7:7	jerky quality, which is reflected in the piano music, which is fragmented, with no structure or flow. The	
B:T2:7:8	physiotherapist and the client show no response to the music, both looking intently at each other, while the	
B:T2:7:9	music therapist looks intently at them.	

APPENDIX D: COMPLETE LIST OF CODES

Clarifying expectations: relaxation
Clarifying expectations: confidence
Clarifying expectations: facilitate working relationship
Clarifying expectations: facilitate reaching goals
Ts clarify expectations
Negotiating structure
No planned structure: difficult MT role
Negotiate mutual goals
Structure session around mt activities to incorporate pt exercises
Developing process
Ts must understand CP to understand CP
PT gain understanding of mt
Ts negotiate: less pressure on C
Ts decide: adapt approach
Adapting approach for C
Ts must understand C holistically
PT realise mt involves various techniques
Difficulty negotiating beat: MT&PT
Negotiating rhythm: PT, MT & C
Negotiating music: MT&C
PT&MT adapting rhythm to C
Ts must understand C's need for time
NB communication between MT&PT
NB understanding between MT&PT
Communication nb for working together on goals
Mutual understanding – better collaboration
Teamwork nb
Cooperation nb
Mutual understanding – better collaboration
Collaboration requires Ts adapting to one another
NB understanding of other's goals
Merging goals develop T mutuality
Trust builds mutuality

PT lack mt knowledge
PT familiar with mt
PT lack mt understanding
PT including music in pt sessions
PT values music
Pupils love music
MT generally works
Intuition about music's effects
MT must use music discriminately
Guard use of tempo
use of tempo: feeling what works
use of tempo: individual responses
use of tempo: consider C's need of time
importance of using tempo
use of dynamics: Quiet music for slow movement
use of tempo: High muscle tone – slow tempo
use of tempo: Low muscle tone – high tempo
MT entails playing instruments
use of instruments: Easy access
use of instruments: Ease of piano use
use of instruments: make big noise
use of instruments: consider size and response
use of instruments: consider C's preferences
Consider individual responses
Must build relationship first
MT entails: following C's cues
MT entails: being informed by C's level
MT: different channel for reaching client
MT goal: enable different ways of experiencing
MT entails: communication skills
MT entails: using music to elicit more
T not applicable for deaf
Refer to MT C's with whom other therapists can't interact
MT focuses on interaction
MT goals: Group interaction
MT entails: relating before doing
Music helps: relationship
MT goal: enjoyment
MT entails using music to elicit more
Music enables
Music enlivens
Music influences psychologically
Music evokes emotions
Music motivates
MT goal: enable C comfort
MT can relax muscle tone
Therapeutic use of music: Relaxation
Therapeutic use of music: Stretching
MT goals: More movement
MT can increase muscle tone
MT can stimulate movement
Therapeutic use of music: Stimulation
MT as motivation for movement
Music facilitates movement
Music can over-stimulate/frighten
Music can make C lose control
Music can work against muscle control

APPENDIX D: COMPLETE LIST OF CODES

Music helps: stimulation
Musical activities' benefits are focused on rhythm
Therapeutic use of music: give rhythm
Music adds rhythm to C
Rhythm facilitates movement
PT focus on importance of rhythm

MT trusting PT knowledge
PT knowledge of C physical needs
PT can explain CP to MT
PT give MT insight
PT knowing better
PT necessary: knows C
PT guidance necessary
Mt works for pt but only with PT cooperation
PT necessary for C muscle tone increase
Necessity of MT's C knowledge
MT must understand CP to read C
PT interrupting musicking
PT: what should C do vs. MT: what would C do?
Working from different perspectives
Ts approach process differently
Difficulty combining pt & mt
PT forcing C participation cause MT anxiety
PT: resistivenss less physical value vs. MT: resistiveness emotional value
PT: resistiveness inappropriate vs. MT resistiveness valuable
Meaning of matching in collaborative context
Matching who? PT playing for C
Matching who? PT moving C
Structure of pt not allowing matching
Ts different intentions: PT regular beat vs. MT adaptable beat
PT directs; MT invites
MT requires static posture
PT playing for C
PT playing for C: not allowing creative assertiveness
PT playing for C: pt value vs. mt value
C & MT musically engaged; PT exercise core muscles
PT facilitate movement; MT engage musically
PT positioning C; MT engage musically
PT enhance physical value of musical engagement
MT play music; PT facilitate movement
MT control music; PT control movements
PT focus –positioning; MT focus music
MT&C improvise; PT increase muscle tone
MT provide rhythm; PT facilitate correct movements
Different roles but equal involvement
C Piano playing while on physio ball
MT play music; PT engage C in dancing
Instrumental play incorporate pt exercises
PT set up pt activity; MT engage musically
PT enables reaching pt goals through musical engagement
Collaborative activity: relational, emotional & physical value
Instrumental play equal significance: MT&PT
Piano play: Space for merging PT & MT goals
MT & PT shared goal – engaging C
MT & PT shared goal – enjoyment
Ts together working on balance
MT & PT mutual impressions-C's ability
MT & PT focus on C's ability
MT & PT matching C movements
MT & PT reading cues
PT physically facilitate movement while MT musically facilitate movement
MT&PT musically engaged
MT & PT facilitating C musicking
PT positions & stabilises C
PT positions C
PT directs C
PT playing for C: physical value
PT facilitate muscle relaxation
PT facilitate walking
PT facilitate crawling
PT facilitate swaying
Instrumental play – pt value
PT focus on pt goals
PT focus = C posture
PT focus: how mt can aid pt
PT's focus on pt & movement
PT facilitate physical exercises
C did well from PT view
MT focus = therapeutic relationship
MT focus = C
MT try playfully engaging C
MT focus – engaging C
MT facilitate C musicking
Individual perspectives
Each T focus on own exercise
PT physically enables musical engagement between MT&C
PT physically facilitates C musicking
PT stabilise & support C for MT&C musicking

APPENDIX D: COMPLETE LIST OF CODES

PT positions C for musicking
Instruments add new dimension
PT relying on MT
MT help PT set up pt activity
MT support PT&C: matching intensity
PT facilitate exercise; MT accompany musically
PT taking leadership
MT follow PT cue
PT engage C; MT accompany musically
MT use syncopation to support C
Instrumental play facilitate movement
Instrumental play support pt exercise
MT music follow C movements
MT music follows PT&C movements
MT matching PT&C movements
MT musically support pt exercise
MT assists positioning goals
MT facilitate pt exercises
Use music to support pt vs. use music as therapy
MT as PT assistant
MT relying on PT leadership
Leader-follower therapist relationship
PT engage C in music
PT stimulate C through instrumental play
PT engage C in instrumental play
PT musically extend C's movements
PT musically match C movements
PT unaware of significance of MT&C ending musicking
C&MT relating while PT in background
Focused exclusivity between MT&C
Musical exclusivity between MT&C
PT not attuned to C&MT
PT facilitate while MT in background
PT & C play while MT feel irrelevant
PT positions C: face her, away from MT
C&PT engaging while MT = onlooker
MT matching C
MT matching C tempo
MT matching C intensity
MT matching C quality
MT matching C unstructured beat
MT matching dynamics
Matching music brings enjoyment
C relates to matching music
MT incorporate all Cs movements
Flexible musicking MT&C
C explore & extend music with MT
MT&C flowing together
C increased musical engagement
C&MT engage in turn-taking
MT&C: interactional synchrony
MT syncopation incorporates all C's movements
MT vocally imitates C's instrumental play
MT follow C cues
C follow MT cues
MT&C attuned
C's movements show musical intention
C rhythmically matches MT
MT listen to C
MT musically inviting C
MT provide musical structure for C's beating
C musically responds to MT's invitation
MT imitates C movements
MT&C musically relating
Playful interaction MT&C
Developing mutuality MT&C
Piano playing developing relationship
Getting to know C through music
Building relationship with C
Building relationship through play
C increased musical engagement
Deepening therapeutic relationship
C accepting MT
C making eye-contact with MT
MT&C connect intimately
C carefully watching MT
C responds to MT over-attuning: stops playing
MT extending C's music
MT try engage C in play
Not knowing C: superficial musicking
No authentic interaction: MT&C
PT playing for C: MT not connecting with C
C playing with instrument vs. engaging in musicking
Pressure cause lack of trust
C not trusting MT
C no interest in MT
C avoiding MT
MT interactions with C cause anxiety
MT fail matching C
MT over-attuning
MT under-attuning
C's playing: difficulty matching

APPENDIX D: COMPLETE LIST OF CODES

MT trigger C anxiety
MT&C: struggle to build relationship
MT musicking = fragmented
MT&PT not responding to C
C response suggest MT = cause of distress
PT follow C's cue to finish
C communicate to PT: finished
PT relationally engage C
PT play with C
PT reading C better
PT follows C's tempo
C responds to PT
PT not acknowledging C
PT calming C
PT matching C
PT encouraging C
Mutual T relationship facilitate T-C relationship
Mutuality between MT and PT: less tension MT
Trust builds mutuality
Merging goals develop T mutuality
C's participation affords Ts mutuality
Mutuality MT&PT: Equal involvement
MT& PT mutually invested
Neutral space develop T mutuality
Reciprocity between MT & PT
Synchrony between MT&PT
Less anxiety – C: less tension between Ts
MT & PT sharing moment
MT as assistant develop to MT as equal
MT & PT developing working relationship
Trusting the other with roles
Good cooperation: pt presence not always needed
Ts lack of synchrony
MT & PT not attuned
Different perspectives cause irritation
Different perspectives: communication necessary
MT disagrees with PT's verbal prompting
MT feel distanced from PT
MT follow PT leadership
PT stops musicking: not 'appropriate'
MT relying on PT leadership
Shared musicking motivates physical effort
Increased interest fosters physical effort
MT elicits more
Music motivating C to try hard
C using physical effort
Emotional investment requires physical effort
Musical investment fosters physical effort
PT views MT role as getting the client to 'do'
MT stimulates action
Instruments motivate physical participation
Music motivates participation
Increased interest – increased movement
Music stimulating C
Use music and instruments as motivation
PT views MT role as motivating C
PT views MT role as stimulating C
Increased interest required for pt
Instrument vs. sounds motivate interest
Music motivates interest
C indicate interest
C musically invested
Mutual musicking enhance investment
Music motivating use of muscles
C motivated to exercise
Instrument vs. music motivating movement
Instrument motivate movement
Instrumental play motivate crawling
MT stimulates movement
Rhythm stimulates movement
MT's syncopation stimulates movement
Enjoyment affords perseverance
Mutual musicking affords physical perseverance
Increased interest affords physical perseverance
MT afforded perseverance
Including music extends perseverance
C sustained musical participation
More willing, more perseverance
C refusing participation
C avoid instruments
C showing resistiveness
Low energy – less participation
C unwillingness – less perseverance
C uninterested
C losing interest
C not invested
C shift: interested to distressed
C shifts in interest
C's unwillingness
Less musical investment – less physical effort
Ts over-stimulating C: confusion
Sudden musical stop startle C

APPENDIX D: COMPLETE LIST OF CODES

Excessive music cause distress
Pressure to play cause distress
Music too forceful: C distress
Inappropriate music cause distress
Unfamiliar setting cause C anxiety
Collaborative situation causes C distress
C response suggest MT = causing distress
PT response suggest MT = causing distress
Misreading cues can frustrate C
Lack of understanding can frustrate C
Inappropriate use of instruments can frustrate
Instrumental play affords good muscle control
Process afforded muscle control
Piano playing strengthening core
Collaborative activity affords muscle strengthening
MT affords strengthening
Instrumental play fosters strengthening
Musicking fosters weight bearing
MT affords weight bearing
Piano playing facilitate good posture
Process developed posture
Musical investment foster improved posture
Less musical investment – declines posture
Music affords stability
Balance through instrumental play
Stretching through instrumental play
Instrumental play foster rotation
MT affords rotation
MT music help movement organisation
C's movements becoming steady
Movement organisation requires clear rhythmical pattern
Syncopation facilitates movement organisation
Structured rhythm & melody facilitates movement organisation
MT helped: give rhythm
PT views MT role as getting client to 'do' rhythm
Musical exploration foster range of movement
PT use instrumental play- exercise range of movement
PT playing for C: range of movement
Musical exploration foster coordination
Musical exploration foster fine motor control
Process fostered fine motor control
Piano playing exercises torso
Drumming fosters torso strengthening
Drumming affords self- stabilisation
C Throwing tambourine: using upper body
Psychological status (not music) influence tone
Ts together increase muscle tone
Cs willing participation allows movement manipulation
Musicking incorporate Bending and standing up
Music affords freedom
MT enabled 'better' movement
MT afforded mobilisation
Process enabled relaxation
Music can afford left-right integration
C allowed hand-over-hand
Muscking affords left-right integration
PT does hand-over hand with C
C playing with alternating hands
MT & PT witnessing C's process
Musicking affords shared expression
MT facilitates change in perceptions about C's ability
Piano playing affords success
music afforded encouragement
Musicking affords expression of aggression
Musicking affords expression of frustration
MT affords different expressions of self
MT facilitates emotional expression
Music tapped into emotion
C playing suggests expression of aggression/frustration
Music stimulates emotion
Music adds enjoyment
C enjoying control
MT is fun
Enjoyment as key to unlock C
Fun motivates
Process afforded enjoyment
C enjoys music
C enjoying playful interaction
C enjoys MT reading his gestures
C show musical initiative
Musicking fosters C assertiveness
C showing playful resistiveness
MT as different channel of communication
MT facilitates communication
MT as alternative communication
MT as a secondary way of communicating
C gestures communicate
Instrumental play distracts from pt
Musicking distract from discomfort
MT distracts from pt exercise
Music distract from challenge

APPENDIX D: COMPLETE LIST OF CODES

C distracted from pt – allows more
PT views MT role as keeping C busy
Musical activity defy PT goal
Music no physical influence
MT perspective: music no physical influence
Ts over-stimulating C:distracting form correct movement
MT allowed less movement
MT not motivating C
Instrumental play for pt purpose: only short musicking possible
Using music to stimulate movement at expense of enjoyment
Camera influence C behaviour
Learning experience
Familiar activity: MT confidence
Pride in MT 'working' in relation to PT goals
PT verbally comment: C good muscle control
PT verbally affirms playful interaction:MT&C
PT encouragement give MT confidence
PT pleased: C's physical performance
PT impressed: C's physical progress
PT gestures surprise at C's abilities
MT encouraged by C's response
MT enjoy playful interaction
C's responsiveness motivates MT
Ts encouraged by C's response
MT less anxious – contribute to pt
MT encouraged by PT's surprise
C's responsiveness fosters MT confidence
PT feel MT not interfering
PT perception: collaboration enjoyable
PT perception: MT not looking like therapy but *being* therapy
PT perception: music helped C
PT perception: collaboration worked
MT Uncertainty
PT uncertainty
C's response cause MT & PT anxiety
C's response cause MT anxiety
C's response cause PT hopelessness
MT unaware of PT's strain
MT feel pressure to perform
MT feel incompetent
MT anxiety influence musicking
MT anxiety: difficult session
MT anxiety about own music
MT anxiety: music cause distress
MT anxiety: shift from music supporting to interfering with PT
MT anxiety: music 'not working' i.t.o. pt goals
Instrumental play cause PT strain
MT feel musically stuck
PT influence MT: MT causing distress
MT experience: difficult working with C
MT feel irrelevant
MT dissatisfaction with ending
MT feel own presence cause C distress
PT gestures not pleased: posture
MT feel – interfering
Collaborative process not working for C
Challenging experience
Interaction was challenging
C made experience difficult
PT view: collaboration = challenge with severe CP
MT easier: C no movement impairment
PT view: collaboration = challenge when C have movement difficulties
MT challenge = attuning
MT response suggest hopelessness

APPENDIX D: PRELIMINARY GROUPING OF CODES

Knowing/not knowing

MT uncertainty ASN1:1:1
MT uncertainty ASN1:1:2
Ts clarifying expectations ASN1:1:6
Clarifying expectations: relaxation ASN1:1:7
MT uncertainty ASN1:1:14
Clarifying expectations: confidence ASN1:1:22; ASN2:1:1 ASN2:1:3
Getting to know C through music ASN1:1:30
Ts clarifying expectations ASN2:1:5
MT unaware of PT's strain ASN2:2:28
MT trusting PT knowledge ASN3:2:11
Primacy assigned to PT knowledge of C physical needs ASN3:2:11
PT unaware of significance of ending ASN3:2:15
Use familiar music to calm C BSN6:1:31
PT lack of mt knowledge AI1:1:4
Pt lack of knowledge AI1:3:25 AI1:4:1
Necessity of MT's CP knowledge (reading C) BI1:2:18; BI1:2:24; BI1:2:19
Knowledge & intuition: PT includes music BI1:3:13
PT not knowing what to expect from process AI2:4:30
PT perception - PT necessary: knows C AI2:7:6

Negotiating

Negotiating structure ASN1:1:3; ASN2:1:4; ASN1:1:6
Negotiating music: MT& C ASN3:2:9; ASN5:1:24; ASN5:1:25
Negotiating decisions: less pressure on C BSN4:1:2
Difficulty negotiating beat: MT & PT ASN5:1:8
Different intentions: Difficult therapist negotiation ASN5:1:11
Mutual negotiation of rhythm : PT, MT & C ASN6:1:22

Focus

Focus on individual roles ASN1:1:8; ASN2:1:8
Reciprocal focus: MT & C (not PT) ASN3:1:10
Focus on instrumental play vs. on muscle control ASN1:2:15
MT focus on what C presents BSN4:1:34
PT focus on what C should present BSN4:1:34
MT focus on relational BSN4:2:8; AI2:3:25
MT focus = therapeutic relationship ASN6:1:7
Focused interest fosters musical exploration ASN5:1:27
PT focus on positioning ASN5:2:25
MT focus on music ASN5:2:25
MT focus on C ASN6:2:24
PT perception: MT focuses on interaction BI1:1:22
PT focus on rhythm AI2:2:6
Each T focus on own therapy AI2:5:1; AI2:5:2
PT focus: how MT aids PT AI2:6:20

Roles and tasks

Focus on individual roles ASN1:1:8; ASN2:1:8
Trusting the other with roles ASN2:1:7
PT facilitate movement; MT musically engage ASN1:1:9 ASN2:1:8
C&MT relating while PT in background ASN3:1:4
PT considers C preferences BI1:4:19
C&MT relating while PT facilitate movement ASN3:1:6
PT position & stabilise C ASN3:1:7
PT new task: engaging C in music BSN6:1:10 BSN5:1:9
PT new task: engaging C in instrumental play BSN6:1:20
PT stimulate C through instrument BSN6:1:21
PT does physio exercises BSN6:1:22
PT engage C in dancing BSN6:1:27
PT facilitate movement; MT accompany musically BSN4:1:6; BSN4:1:17
MT engage C in play BSN5:1:11
PT&MT shared task: engaging C BSN5:1:21
PT control movements: MT control music BSN6:1:30
PT engage C relationally; MT accompany musically BSN6:2:1
PT facilitate muscle relaxation BSN5:1:35
PT facilitate walking BSN5:1:35
PT facilitates swaying BSN5:1:35
MT accompanying C&PT BSN5:1:36
PT physically facilitate movement ASN5:1:1
MT musically facilitate movement ASN5:1:2
PT physically holds C; MT hold instrument; C stabilise & play ASN6:1:25
PT positions C ASN4:1:32
PT physically facilitate, MT rhythmically facilitate ASN4:2:36
PT corrects C posture ASN4:2:5
PT positions & supports; MT engage C musically ASN6:2:19
PT increase C muscle tone; MT engage C in improvisation ASN6:2:21

APPENDIX D: PRELIMINARY GROUPING OF CODES

PT physically holds C ASN5:2:10
PT exercise C core; MT engage C in play ASN6:2:22
PT sets up activity: passive role ASN6:3:10
PT balance & strengthen T AI2:3:1
Ts together increase C muscle tone AI2:3:16
MT & C depend – PT achieve pt goals through music ASN3:1:9
PT extends C's movements BSN5:1:23

PT perception of MT's roles

MT Keeps C busy AI2:4:4
MT Motivates C AI2:4:4
MT stimulates C AI2:4:4
MT gets client to 'do rhythm' AI2:4:5
MT gets client to 'do' AI2:4:6

Goals

Separate vs integrated goals ASN1:1:8
Space for integrating MT & PT goals ASN2:1:31
Pride that MT 'works' in relation to pt goals ASN1:1:32
mt not fostering pt goals ASN1:2:13
ASN2:2:26
ASN4:2:8
Shared goal – engaging C BSN6:1:14
MT supporting pt goal (posturing) ASN4:1:35
Musical & physical facilitation – shared goal ASN4:1:39
MT goals = group interaction BI1:1:26
MT goals = more movement BI1:1:26
Co-therapy necessitates understanding of others' goals BI1:4:4
Co-therapy necessitates integrated goals BI1:4:5
PT Consider parental needs (goals) BI1:4:15
MT assisting positioning goals BI1:5:19

Physiotherapy goals

Strengthening truck ASN1:2:12
Seating AI1:2:21
Posturing AI1:2:22
Highest function AI1:2:23
AI1:2:26
AI1:3:8
BI1:4:11
BI1:4:17
Walking AI1:3:4
Provide C external help AI1:3:4
Practice AI1:3:8
Holistic BI1:4:10
Function in society BI1:4:12
BI1:4:10
Transferable communication skills BI1:4:12
Independence BI1:4:16
Move freely BI1:4:25
Shorten C response time BI1:4:29
Fluid movement BI1:4:30
Enjoyment BI1:4:31
Challenge BI1:4:31
BI1:5:20
Sense of achievement BI1:4:33
BI1:5:4
Relax C enough – get response BI1:5:7

Physical benefits

MT stimulates movement AI2:6:15
Improved muscle control ASN2:1:21
Collaborative activity affords muscle strengthening ASN5:2:23
MT works – strengthening AI2:1:3
AI2:1:11
AI2:6:16
Process worked – strengthening AI2:2:9
AI2:4:25
Process worked – weight bearing AI2:3:25
AI2:6:16
Piano playing facilitate strengthening core ASN2:2:10
MT works – strengthening core AI2:2:14
Piano playing facilitate good posture ASN1:1:31
Process worked – posture AI2:5:18
PT playing for C: physical benefits ASN4:1:24
Instrumental play facilitate movement BSN4:2:10
Instrumental play fosters balance AI2:1:17
AI2:3:23
Instrumental play fosters stretching AI2:1:17
Instrumental play fosters rotation AI2:1:21
MT works – rotation AI2:6:16
Instrumental play incorporate pt: bending & standing up BSN4:2:11
MT music help movement organisation ASN5:1:3
Strong rhythm help movement organisation ASN4:22
Melody and rhythm help movement organisation

MT rhythmically support movements ASN6:1:17
Musical exploration foster physical effort ASN5:1:28
ASN4:1:30
(ASN6:2:6)
ASN6:2:21
Musical exploration foster range of movement ASN5:1:30
Musical exploration foster coordination ASN5:1:30
Musical exploration foster fine motor control ASN5:1:30
C Participation affords good posture ASN4:1:31

APPENDIX D: PRELIMINARY GROUPING OF CODES

C participation affords torso exercise ASN4:1:33
Collaborative activity: relational, emotional & physical value ASN5:2:21
Purposeful facilitation of instrumental play exercise rotation ASN5:2:27
Music distracts from physical discomfort ASN6:2:28
MT distracting C from pt exercises AI1:1:12
AI2:3:2
Music distracts from challenge AI2:1:14
MT helps: relaxation AI1:1:14
AI1:4:12
Uses of music: stretching AI1:4:12
Music can increase muscle tone AI1:2:5
AI1:3:14
Music can relax muscle tone AI1:2:6
MT stimulates ease of movement AI2:1:13
MT enabled 'better' movement AI2:1:16
Music facilitates movement AI1:3:15
Rhythm facilitates movement AI1:3:15
MT can elicit movement BI1:2:9
Process worked: mobilisation AI2:3:10
Music offers stability and freedom BI1:5:28
Music can help: left-right integration BI1:5:30
Music facilitates PT to break C patterns AI2:6:22

Matching

Matching who? PT playing for C ASN1:1:15
ASN2:1:11
BSN4:1:25
Meaning of matching in collaborative context ASN2:1:11
Structure of pt not allowing matching ASN2:1:17
MT musically matching T ASN3:1:3
MT musically matching C quality ASN6:1:32
MT musically matching C aggressive quality ASN5:2:17
T relating to matching music ASB3:1:4
MT musically matching PT&C intensity BSN6:1:21
Matching music affords enjoyment BSN4:1:18
MT try match C sounds: soft music BSN5:1:20
MT try match C accidental cues BSN5:1:20

Mutuality

Mutuality between MT & PT ASN2:2:7
Mutual trust builds collaboration ASN2:2:8
Mutual T relationship aid C-T relationship ASN2:1:6
Developing mutuality: MT&C ASN3:2:10
MT&PT: mutual impressions – C ability ASN3:2:32
Mutual understanding – better collaboration ASN6:1:21

Mutual musicking

Mutual music-making enhance investment ASN6:1:7
Mutual music-making affords physical perseverance ASN6:1:8
Mutual negotiation of rhythm ASN6:1:22

Pressure to perform

MT feels pressure to perform ASN1:1:10
Negotiating – less pressure on C BSN4:1:2
Less pressure – less anxiety BSN4:1:3
Less pressure – enjoyment BSN4:1:4
C not needing to perform – less anxiety BSN4:1:5

Anxiety

MT not knowing what to expect: anxiety ASN1:1:1
MT&PT not knowing what to expect – C's response: anxiety BSN6:1:2
MT anxiety influence musicking ASN1:1:11
MT anxiety about own music ASN1:1:21
MT anxiety: shift from music supporting to Interfering – pt ASN1:2:17
mt 'not working' – MT anxiety ASN5:1:5
ASN5:2:11
not achieving pt goal – MT anxiety ASN4:2:8
PT gestures cause MT anxiety ASN5:1:18
Mt contribute to pt – MT less anxiety BSN4:1:15
Less pressure – less anxiety BSN4:1:3
C not needing to perform – less anxiety BSN4:1:5
C less anxious: less tension- Ts BSN4:1:12
MT trigger C anxiety BSN5:1:28

APPENDIX D: CATEGORICAL CODES

DESCRIPTIVE CODES	PRELIMINARY CATEGORICAL CODES
Clarifying expectations: relaxation Clarifying expectations: confidence Clarifying expectations: facilitate working relationship Clarifying expectations: facilitate reaching goals	Benefits of clarifying expectations
Ts clarify expectations Negotiating structure Negotiate mutual goals Ts negotiate: less pressure on C Ts decide: adapt approach Structure session around mt activities to incorporate pt exercises Adapting approach for C Collaboration requires Ts adapting to one another No planned structure: difficult MT role Developing process	Negotiating structure
Difficulty negotiating beat: MT&PT Negotiating rhythm: PT, MT & C Negotiating music: MT&C PT&MT adapting rhythm to C	Negotiating music
PT lack mt knowledge PT familiar with mt PT lack mt understanding MT: different channel for reaching client MT must use music discriminately PT values music Pupils love music MT entails: communication skills MT entails: relating before doing MT entails: following C's cues MT entails: being informed by C's level MT entails: using music to elicit more MT entails playing instruments Refer to MT C's with whom other therapists can't interact MT focuses on interaction MT goals: Group interaction MT goals: More movement MT goal: enable C comfort MT goal: enjoyment MT goal: enable different ways of experiencing MT not applicable for deaf	Prior perception of music therapy profession
MT can increase muscle tone MT can relax muscle tone MT can stimulate movement	Prior perception of music therapy benefits profession

APPENDIX D: CATEGORICAL CODES

Musical activities' benefits are focused on rhythm Therapeutic use of music: Relaxation Therapeutic use of music: Stretching Therapeutic use of music: Stimulation Therapeutic use of music: give rhythm MT as motivation for movement MT generally works	
Ts different intentions: PT regular beat vs MT adaptable beat Meaning of matching in collaborative context PT interrupting musicking PT: what should C do vs. MT: what would C do? Working from different perspectives PT: resistivenss less physical value vs. MT: resistiveness emotional value PT: resistiveness inappropriate vs. MT resistiveness valuable Ts approach process differently Different Ts think differently Use music to support pt vs use music as therapy PT perception: MT requires static posture PT directs; MT invites Matching who? PT playing for C Matching who? PT moving C PT playing for C: not allowing creative assertiveness PT playing for C: pt value vs. mt value C enjoying music but no physical exertion Musical activity defy PT goal Structure of pt not allowing matching	Dissonance/ Contrasting foci
Different roles but equal involvement C & MT musically engaged; PT exercise core muscles PT facilitate movement; MT engage musically PT positioning C; MT engage musically PT enhance physical value of musical engagement C Piano playing while on physio ball MT play music; PT engage C in dancing MT play music; PT facilitate movement MT control music; PT control movements Instrumental play incorporate pt exercises Collaborative activity: relational, emotional & physical value PT focus –positioning; MT focus music Instrumental play equal significance: MT&PT MT&C improvise; PT increase muscle tone PT set up pt activity; MT engage musically MT provide rhythm; PT facilitate correct movements	Harmony/ Complementary foci
Piano play: Space for merging PT & MT goals	Unison/ Shared foci

APPENDIX D: CATEGORICAL CODES

MT & PT mutual impressions-C's ability MT & PT focus on C's ability MT & PT shared goal – engaging C MT & PT shared goal – enjoyment Ts together working on balance PT physically facilitate movement while MT musically facilitate movement Musical & physical facilitation: same goal MT & PT reading cues	
PT positions & stabilises C PT positions C PT directs C PT enables reaching pt goals through musical engagement PT playing for C: physical value PT facilitate muscle relaxation PT facilitate walking PT facilitate crawling PT facilitate swaying MT focus = therapeutic relationship MT focus = C Instrumental play – pt value PT focus on pt goals PT focus: how mt can aid pt Each T focus on own exercise PT's focus on pt & movement PT facilitate physical exercises PT focus: get client to activate self C did well from PT view	Monophony/ Individual foci
PT engage C in music PT stimulate C through instrumental play PT engage C in instrumental play PT musically extend C's movements	Role compensation
Necessity of MT 's CP knowledge MT trusting PT knowledge PT knowledge of C physical needs PT necessary: knows C PT guidance necessary MT must understand CP to read C PT including music in pt sessions PT stops musicking: not 'appropriate' Mt works for pt but only with PT cooperation PT can explain C to MT PT give MT insight PT knowing better	Primacy of PT knowledge

APPENDIX D: CATEGORICAL CODES

PT unaware of significance of MT&C ending musicking MT feeling distanced from PT C&MT relating while PT in background PT facilitate while MT in background Focused exclusivity between MT&C Musical exclusivity between MT&C PT not attuned to C&MT PT & C play while MT feel irrelevant PT positions C: face her, away from MT	Relational exclusivity
MT&C musically relating Piano playing developing relationship Getting to know C through music C's responsiveness motivates MT MT matching C MT matching C tempo MT matching C intensity MT matching C quality MT matching C unstructured beat MT matching dynamics Matching music brings enjoyment C relates to matching music Flexible musicking MT&C MT incorporate all Cs movements MT syncopation incorporates all C's movements C explore & extend music with MT MT&C flowing together C increased musical engagement C&MT engage in turn-taking MT&C: interactional synchrony MT follow C cues C follow MT cues MT&C attuned C's movements = musical intention C rhythmically matches MT MT listen to C MT musically inviting C C musically responds to MT's invitation	MT & C Connecting through music
Building relationship with C Building relationship through play Playful interaction: MT&C Deepening therapeutic relationship Developing mutuality: MT&C C accepting MT C making eye-contact with MT	MT & C developing relationship

APPENDIX D: CATEGORICAL CODES

MT&C connect intimately	
Not knowing C: superficial musicking No authentic interaction: MT&C PT playing for C: MT not connecting with C C playing with instrument vs. engaging in musicking Pressure cause lack of trust C not trusting MT C no interest in MT C avoiding MT MT interactions with C cause anxiety MT fail matching C C's playing: difficulty matching MT trigger C anxiety MT&C: struggle to build relationship MT musicking = fragmented	MT & C not connecting
PT follow C's cue to finish C communicate to PT: finished PT relationally engage C PT play with C PT reading C better PT follows C's tempo	PT's connection with C
MT & PT developing working relationship Mutual T relationship facilitate T-C relationship Trusting the other with roles Synchrony between MT&PT Mutuality between MT and PT: less tension MT C's participation affords Ts mutuality Less anxiety – C: less tension between Ts MT & PT sharing moment Mutuality MT&PT: Equal involvement MT& PT mutually invested Neutral space develop T mutuality MT as assistant develop to MT as equal Reciprocity between MT & PT Good cooperation: pt presence not always needed	Developing mutual MT-PT relationship
Teamwork nb Cooperation nb NB communication between MT&PT NB understanding between MT&PT NB understanding of other's goals Communication nb for working together on goals Merging goals develop T mutuality Trust builds mutuality Mutual understanding – better collaboration	Necessities for mutual MT-PT relationship

APPENDIX D: CATEGORICAL CODES

Ts lack of synchrony MT & PT not attuned Different perspectives cause irritation Different perspectives: communication necessary MT disagrees with PT's verbal prompting	Discordant MT-PT relationship
MT as PT assistant MT relying on PT leadership Leader-follower therapist relationship PT required for muscle tone increase, not just music	Unequal MT-PT relationship
PT physically enables musical engagement between MT&C PT physically facilitates C musicking PT stabilise & support C for MT&C musicking PT positions C for musicking	PT provide physical support for musicking
Instruments add new dimension MT support PT&C: matching intensity PT facilitate exercise; MT accompany musically MT use syncopation to support C Instrumental play facilitate movement Instrumental play support pt exercise MT music follow C movements MT matching PT&C movements MT musically support pt exercise MT assists positioning goals MT facilitate pt exercises	MT provide musical support for physical exercise
PT calming C	PT provide emotional support
MT familiar music calm C Appropriate music calming C	MT provide emotional support
Music motivating use of muscles C motivated to exercise Instrument vs. music motivating movement Instruments motivate physical participation Instrument motivate movement Music motivates participation Instrumental play motivate crawling Shared musicking motivates physical effort Increased interest fosters physical effort Increased interest – increased movement Music stimulating C Use music and instruments as motivation MT elicits more MT stimulates movement Rhythm stimulates movement Music stimulates emotion PT views MT role as motivating C	Stimulation

APPENDIX D: CATEGORICAL CODES

PT views MT role as stimulating C PT views MT role as getting the client to 'do' MT stimulates action MT's syncopation stimulates movement	
MT perception: music no physical influence Music no physical effect	Lack of stimulation
Enjoyment affords perseverance Mutual musicking affords physical perseverance Increased interest affords physical perseverance MT afforded perseverance Including music extends perseverance C sustained musical participation	Perseverance
Increased interest required for pt Music motivating C to try hard Emotional investment requires physical effort Instrument vs. sounds motivate interest Music motivates interest C musically invested Musical investment fosters physical effort Less musical investment – less physical effort Mutual musicking enhance investment	Investment
C refusing participation C uninterested in music C losing interest C shift: interested to distressed C shifts in interest C's unwillingness C avoid instruments C showing resistiveness Low energy – less participation C unwillingness – less perseverance	Resistance
Ts over-stimulating C: confusion Ts over-stimulating C: distracting from correct movement Excessive music cause distress Pressure to play cause distress Music too forceful: C distress Camera influence C behaviour Inappropriate music cause distress Misreading cues can frustrate C Lack of understanding can frustrate C Inappropriate use of instruments can frustrate MT allowed less movement Instrumental play for pt purpose: only short musicking possible Music not motivating C	Interferences

APPENDIX D: CATEGORICAL CODES

Using music to stimulate movement at expense of enjoyment Unfamiliar setting cause C anxiety Collaborative situation causes C distress C's frame of mind cause process not working	
Learning experience Familiar activity: MT confidence Pride in MT 'working' in relation to PT goals PT verbally comment: C good muscle control PT verbally affirms playful interaction:MT&C PT encouragement give MT confidence PT pleased: C's physical performance PT impressed: C's physical progress PT gestures surprise at C's abilities MT encouraged by C's response Ts encouraged by C's response MT less anxious – contribute to pt MT encouraged by PT's surprise C's responsiveness fosters MT confidence PT feel MT not interfering PT perception: collaboration enjoyable PT perception: MT not looking like therapy but *being* therapy PT perception: music helped C PT perception: collaboration worked	Affirming personal/professional experiences
MT Uncertainty PT uncertainty C's response cause MT & PT anxiety MT unaware of PT's strain MT feel pressure to perform MT feel incompetent MT anxiety influence musicking MT anxiety: difficult session MT anxiety about own music MT anxiety: shift from music supporting to interfering with PT MT anxiety: music 'not working' i.t.o. pt goals Instrumental play cause PT strain MT feel musically stuck PT influence MT: MT causing distress MT experience: difficult working with C MT feel irrelevant MT dissatisfaction with ending MT feel own presence cause C distress PT gestures not pleased: posture MT feel – interfering Collaborative process not working for C	Challenging personal/professional experiences

APPENDIX D: CATEGORICAL CODES

Challenging experience Interaction was challenging C made experience difficult Difficulty combining pt & mt PT view: collaboration = challenge with severe CP MT easier: C no movement impairment PT view: collaboration = challenge when C have movement difficulties MT challenge = attuning	
Music enables Music enlivens Music adds rhythm to C Music influences psychologically Music evokes emotions Music facilitates movement Rhythm facilitates movement Intuition about music's effects Music can over-stimulate/frighten Music can make C lose control Music can work against muscle control Music helps: stimulation Music helps: relaxation Music helps: relationship Consider individual responses Must build relationship first Music motivates PT focus on importance of rhythm	Shared knowledge spaces
Guard use of tempo use of tempo: feeling what works use of tempo: individual responses use of tempo: consider C's need of time importance of using tempo use of dynamics: Quiet music for slow movement use of tempo: High muscle tone – slow tempo use of tempo: Low muscle tone – high tempo use of instruments: Easy access use of instruments: Ease of piano use use of instruments: make big noise use of instruments: consider size and response use of instruments: consider C's preferences	Shared knowledge spaces: use music discriminately
Ts must understand C's need for time Ts must understand C holistically Ts must understand CP to read C PT gain understanding of mt PT realise mt involves various techniques	Developing shared understanding

APPENDIX D: CATEGORICAL CODES

Instrumental play affords good muscle control Process afforded muscle control	Muscle control
Piano playing strengthening core Collaborative activity affords muscle strengthening MT affords strengthening	Strengthening
Musicking fosters weight bearing MT affords weight bearing	Weight bearing
Piano playing facilitate good posture Process developed posture Musical investment foster improved posture Less musical investment – declines posture	Posture
Music affords stability Balance through instrumental play	Balance
Stretching through instrumental play	Stretching
Instrumental play foster rotation MT affords rotation	Rotation
MT music help movement organisation C's movements becoming steady Movement organisation requires clear rhythmical pattern Syncopation facilitates movement organisation Structured rhythm & melody facilitates movement organisation MT helped: give rhythm PT views MT role as getting client to 'do' rhythm	Movement organisation
Musical exploration foster range of movement PT use instrumental play- exercise range of movement	Range of movement
Musical exploration foster coordination	Coordination
Musical exploration foster fine motor control Process fostered fine motor control	Fine motor control
Piano playing exercises torso Drumming fosters torso strengthening Drumming affords self- stabilisation	Develop torso
Psychological status (not music) influence tone Ts together increase muscle tone	Muscle tone
Cs willing participation allows movement manipulation Musicking incorporate Bending and standing up Music affords freedom MT enabled 'better' movement MT afforded mobilisation	Mobilisation
Process enabled relaxation	Relaxation
Music can afford left-right integration C allowed hand-over-hand Muscking affords left-right integration	Left-right integration

APPENDIX D: CATEGORICAL CODES

MT & PT witnessing C's process Musicking affords shared expression MT facilitates change in perceptions about C's ability Piano playing affords success	Personal validation
Musicking affords expression of aggression Musicking affords expression of frustration MT affords different expressions of self MT facilitates emotional expression Music tapped into emotion	Emotional expression
Music adds enjoyment C enjoying control MT is fun Enjoyment as key to unlock C Fun motivates Process afforded enjoyment C enjoys music	Enjoyment
C show musical initiative Musicking fosters C assertiveness MT afforded encouragement	Initiative
MT as different channel of communication MT facilitates communication MT as alternative communication MT as a secondary way of communicating	Communication
Instrumental play distracts from pt Musicking distract from discomfort MT distracts from pt exercise Music distract from challenge C distracted from pt – allows more PT views MT role as keeping C busy	Distraction as benefit

APPENDIX D: CONTEXTUAL INFORMATION CODES

Physiotherapeutic goals:

PT goals: Seating

PT goals: Posture

PT goals: Highest function

PT goals: Highest physical function

PT goals: Walking

PT goals: C needs external help

PT goals: practice

PT goals: Holistic approach

PT goals: Function in society

PT goals: transferrable communication skills

PT goals: consider parental needs

PT goals: Independence

PT considers C's preferences

PT goals: function in society

PT goals: Move freely

PT goals: Shorten response time

PT goals: fluid movements

PT goals: Enjoyment & Challenge

PT goals: sense of achievement

PT goals: sense of achievement

PT goals: Relax C enough to get response

PT goals: Challenge

Effects of muscle impairment

Muscle impairment affects communication

Muscle impairment affects emotional expression

Muscle impairment influences others' perceptions of C

C's slow responses

C: Disjointed movements

Client's familiarity with failure/ likelihood of failure

Muscle impairment affects delayed vocalisation

Muscle impairment delays verbal response

C Struggles with rhythm

C's frustration with disability

Disability interferes – emotional expression

C's limitation = movement

APPENDIX D: CODE TABLES FROM EACH THEME

THEME 1: PHYSIOTHERAPISTS' PRECOLLABORATIVE UNDERSTANDINGS OF MUSIC THERAPY				
DESCRIPTIVE CODES	LOWER-ORDER CATEGORICAL CODES	CATEGORICAL CODES	ANALYTIC CODES	THEMES
PT lack mt knowledge PT familiar with mt PT lack mt understanding PT including music in pt sessions		Familiarity with music therapy	Levels of familiarity and openness	Physiotherapists' pre-collaborative understandings of music therapy
PT values music Pupils love music MT generally works Intuition about music's effects		Openness to music therapy	Levels of familiarity and openness	
MT must use music discriminately Guard use of tempo use of tempo: feeling what works use of tempo: individual responses use of tempo: consider C's need of time importance of using tempo use of dynamics: Quiet music for slow movement use of tempo: High muscle tone – slow tempo use of tempo: Low muscle tone – high tempo		Use of musical elements	Techniques	
MT entails playing instruments use of instruments: Easy access use of instruments: Ease of piano use use of instruments: make big noise use of instruments: consider size and response use of instruments: consider C's preferences		Use of instruments	Techniques	
Consider individual responses		Client-centred	Techniques	

APPENDIX D: CODE TABLES FROM EACH THEME

Must build relationship first MT entails: following C's cues MT entails: being informed by C's level				
MT: different channel for reaching client MT as alternative communication MT facilitates communication MT as secondary way of communicating MT goal: enable different ways of experiencing MT entails: communication skills MT entails: using music to elicit more T not applicable for deaf		Communication value	Alternative emotional/relational possibilities	
Refer to MT C's with whom other therapists can't interact MT focuses on interaction MT goals: Group interaction MT entails: relating before doing Music helps: relationship		Interactional value	Alternative emotional/relational possibilities	
MT goal: enjoyment MT entails using music to elicit more Music enables Music enlivens Music influences psychologically Music evokes emotions Music motivates		Psychological/emotional value	Alternative emotional/relational possibilities	
MT goal: enable C comfort MT can relax muscle tone Therapeutic use of music: Relaxation Therapeutic use of music: Stretching		Relaxation	Links to physiotherapeutic goals	
MT goals: More movement		Stimulation	Links to	

APPENDIX D: CODE TABLES FROM EACH THEME

MT can increase muscle tone MT can stimulate movement Therapeutic use of music: Stimulation MT as motivation for movement Music facilitates movement Music can over-stimulate/frighten Music can make C lose control Music can work against muscle control Music helps: stimulation			physiotherapeutic goals	
Musical activities' benefits are focused on rhythm Therapeutic use of music: give rhythm Music adds rhythm to C Rhythm facilitates movement PT focus on importance of rhythm		Focus on rhythm	Links to physiotherapeutic goals	

APPENDIX D: CODE TABLES FROM EACH THEME

THEME 2: COLLABORATIVE REQUIREMENTS				
DESCRIPTIVE CODES	LOWER-ORDER CATEGORICAL CODES	CATEGORICAL CODES	ANALYTIC CODES	THEMES
Clarifying expectations: relaxation Clarifying expectations: confidence Clarifying expectations: facilitate working relationship Clarifying expectations: facilitate reaching goals	Benefits of clarifying expectations	Expectations	Negotiation	Collaborative requirements
Ts clarify expectations		Expectations	Negotiation	
Negotiating structure No planned structure: difficult MT role		Structure	Negotiation	
Negotiate mutual goals		Goals	Negotiation	
Structure session around mt activities to incorporate pt exercises		Activities	Negotiation	
Developing process Ts must understand CP to understand CP PT gain understanding of mt		Process	Negotiation	
Ts negotiate: less pressure on C Ts decide: adapt approach Adapting approach for C Ts must understand C holistically PT realise mt involves various techniques		Approach	Negotiation	
Difficulty negotiating beat: MT&PT Negotiating rhythm: PT, MT & C Negotiating music: MT&C PT&MT adapting rhythm to C Ts must understand C's need for time		Music	Negotiation	
NB communication between MT&PT NB understanding between MT&PT Communication nb for working together on goals Mutual understanding – better collaboration		Communication	Mutuality	

APPENDIX D: CODE TABLES FROM EACH THEME

Teamwork nb Cooperation nb		Cooperation		
NB understanding of other's goals Merging goals develop T mutuality		Mutual goals		
Trust builds mutuality		Trust		

APPENDIX D: CODE TABLES FROM EACH THEME

THEME 3: COLLABORATIVE DYNAMICS – PRACTICE				
DESCRIPTIVE CODES	LOWER-ORDER CATEGORICAL CODES	CATEGORICAL CODES	ANALYTIC CODES	THEMES
PT interrupting musicking PT: what should C do vs. MT: what would C do? Working from different perspectives Ts approach process differently Difficulty combining pt & mt PT forcing C participation cause MT anxiety	Therapeutic values	Dissonance/moving against one another	Practice	Collaborative dynamics
PT: resistivenss less physical value vs. MT: resistiveness emotional value PT: resistiveness inappropriate vs. MT resistiveness valuable	Physical vs relational/emotional focus	Dissonance/ moving against one another	Practice	
Meaning of matching in collaborative context Matching who? PT playing for C Matching who? PT moving C Structure of pt not allowing matching	Attunement vs assistance	Dissonance/moving against one another	Practice	
Ts different intentions: PT regular beat vs. MT adaptable beat PT directs; MT invites	Structure vs flexibility	Dissonance/moving against one another	Practice	
MT requires static posture PT playing for C PT playing for C: not allowing creative assertiveness PT playing for C: pt value vs. mt value	Misunderstanding ways of working	Dissonance/ moving against one another	Practice	
C & MT musically engaged; PT exercise core muscles PT facilitate movement; MT engage musically PT positioning C; MT engage musically PT enhance physical value of musical engagement	Complementary foci	Harmony	Practice	

MT play music; PT facilitate movement MT control music; PT control movements PT focus –positioning; MT focus music MT&C improvise; PT increase muscle tone MT provide rhythm; PT facilitate correct movements				
Different roles but equal involvement C Piano playing while on physio ball MT play music; PT engage C in dancing Instrumental play incorporate pt exercises PT set up pt activity; MT engage musically PT enables reaching pt goals through musical engagement	Complimentary activities	Harmony	Practice	
Collaborative activity: relational, emotional & physical value Instrumental play equal significance: MT&PT	Complementary values	Harmony	Practice	
Piano play: Space for merging PT & MT goals MT & PT shared goal – engaging C MT & PT shared goal – enjoyment Ts together working on balance Ts together increase muscle tone	Shared goal	Unison	Practice	
MT & PT mutual impressions-C's ability MT & PT focus on C's ability MT & PT matching C movements MT & PT reading cues	Shared focus	Unison	Practice	
PT physically facilitate	Shared facilitation	Unison	Practice	

movement while MT musically facilitate movement MT&PT musically engaged MT & PT facilitating C musicking				
PT positions & stabilises C PT positions C PT directs C PT playing for C: physical value PT facilitate muscle relaxation PT facilitate walking PT facilitate crawling PT facilitate swaying Instrumental play – pt value PT focus on pt goals PT focus = C posture PT focus: how mt can aid pt PT's focus on pt & movement PT facilitate physical exercises C did well from PT view	Physiotherapist's foci	Monophony	Practice	
MT focus = therapeutic relationship MT focus = C MT try playfully engaging C MT focus – engaging C MT facilitate C musicking	Music therapist's foci	Monophony	Practice	
Individual perspectives Each T focus on own exercise	Independent foci	Monophony	Practice	
PT physically enables musical engagement between MT&C PT physically facilitates C musicking PT stabilise & support C for MT&C musicking PT positions C for musicking	PT supporting MT	Accompaniment	Practice	
Instruments add new dimension PT relying on MT MT help PT set up pt activity MT support PT&C: matching intensity PT facilitate exercise; MT accompany musically	MT supporting PT	Accompaniment	Practice	

APPENDIX D: CODE TABLES FROM EACH THEME

PT engage C; MT accompany musically MT use syncopation to support C Instrumental play facilitate movement Instrumental play support pt exercise MT music follow C movements MT music follows PT&C movements MT matching PT&C movements MT musically support pt exercise MT assists positioning goals MT facilitate pt exercises Use music to support pt vs. use music as therapy				
PT engage C in music PT stimulate C through instrumental play PT engage C in instrumental play PT musically extend C's movements PT musically match C movements		Physiotherapist's role compensation	Practice	

APPENDIX D: CODE TABLES FROM EACH THEME

THEME 3: COLLABORATIVE DYNAMICS PRIMACY OF PHYSIOTHERAPISTS' KNOWLEDGE				
DESCRIPTIVE CODES	LOWER-ORDER CATEGORICAL CODES	CATEGORIAL CODES	ANALYTIC CODES	THEMES
MT trusting PT knowledge PT knowledge of C physical needs PT can explain CP to MT PT give MT insight PT knowing better		Physiotherapist giving insight	Primacy of physiotherapist's knowledge	Collaborative dynamics
PT necessary: knows C PT guidance necessary Mt works for pt but only with PT cooperation PT necessary for C muscle tone increase		Necessity of physiotherapist's knowledge		
Necessity of MT's C knowledge MT must understand CP to read C		Music therapist's need to gain knowledge		

APPENDIX D: CODE TABLES FROM EACH THEME

THEME 3: COLLABORATIVE DYNAMICS - RELATIONSHIPS				
DESCRIPTIVE CODES	LOWER-ORDER CATEGORICAL CODES	CATEGORICAL CODES	ANALYTIC CODES	THEMES
PT unaware of significance of MT&C ending musicking C&MT relating while PT in background Focused exclusivity between MT&C Musical exclusivity between MT&C PT not attuned to C&MT	Exclusivity between MT&C	Relational exclusivity	Relationships	Collaborative dynamics
PT facilitate while MT in background PT & C play while MT feel irrelevant PT positions C: face her, away from MT C&PT engaging while MT = onlooker	Exclusivity between PT&C	Relational exclusivity	Relationships	
MT matching C MT matching C tempo MT matching C intensity MT matching C quality MT matching C unstructured beat MT matching dynamics Matching music brings enjoyment C relates to matching music MT incorporate all Cs movements Flexible musicking MT&C C explore & extend music with MT MT&C flowing together C increased musical engagement C&MT engage in turn-taking MT&C: interactional synchrony MT syncopation incorporates all C's movements MT vocally imitates C's	Attunement	Relationship between MT&C	Relationships	

instrumental play MT follow C cues C follow MT cues MT&C attuned C's movements show musical intention C rhythmically matches MT MT listen to C MT musically inviting C MT provide musical structure for C's beating C musically responds to MT's invitation MT imitates C movements				
MT&C musically relating Playful interaction MT&C Developing mutuality MT&C Piano playing developing relationship Getting to know C through music Building relationship with C Building relationship through play C increased musical engagement Deepening therapeutic relationship C accepting MT C making eye-contact with MT MT&C connect intimately C carefully watching MT C responds to MT over-attuning: stops playing MT extending C's music MT try engage C in play	Developing relationship	Relationship between MT&C	Relationships	
Not knowing C: superficial musicking No authentic interaction: MT&C PT playing for C: MT not connecting with C C playing with instrument vs. engaging in musicking Pressure cause lack of trust	Relational disconnect	Relationship between MT&C	Relationships	

APPENDIX D: CODE TABLES FROM EACH THEME

C not trusting MT C no interest in MT C avoiding MT MT interactions with C cause anxiety MT fail matching C MT over-attuning MT under-attuning C's playing: difficulty matching MT trigger C anxiety MT&C: struggle to build relationship MT musicking = fragmented MT&PT not responding to C C response suggest MT = cause of distress				
PT follow C's cue to finish C communicate to PT: finished PT relationally engage C PT play with C PT reading C better PT follows C's tempo C responds to PT PT not acknowledging C PT calming C PT matching C PT encouraging C		Relationship between PT & C	Relationships	
Mutual T relationship facilitate T-C relationship Mutuality between MT and PT: less tension MT C's participation affords Ts mutuality Mutuality MT&PT: Equal involvement MT& PT mutually invested Neutral space develop T mutuality Reciprocity between MT & PT Synchrony between MT&PT MT & PT sharing moment	Mutuality	Relationship between MT&PT	Relationships	
Less anxiety – C: less tension between Ts MT as assistant develop to MT	Developing relationship	Relationship between MT&PT	Relationships	

as equal MT & PT developing working relationship Trusting the other with roles Good cooperation: pt presence not always needed				
Ts lack of synchrony MT & PT not attuned Different perspectives cause irritation Different perspectives: communication necessary MT disagrees with PT's verbal prompting MT feel distanced from PT	Relational disconnect	Relationship between MT&PT	Relationships	
MT follow PT leadership MT follow PT cue PT stops musicking: not 'appropriate' MT relying on PT leadership PT taking leadership MT as PT assistant Leader-follower therapist relationship	Leadership of PT	Relationship between MT&PT	Relationships	

THEME 4: COLLABORATIVE OUTCOMES – CLIENT-FOCUSED EMOTIONAL/RELATIONAL FEATURES OF THE THERAPEUTIC PROCESS

DESCRIPTIVE CODES	LOWER-ORDER CATEGORICAL CODES	CATEGORICAL CODES	ANALYTIC CODES	THEMES
Ts over-stimulating C: confusion Sudden musical stop startle C	Confusion	Emotional/ relational Challenges	Client-focused emotional/relational features of the therapeutic process	Collaborative outcomes
Excessive music cause distress Pressure to play cause distress Music too forceful: C distress Inappropriate music cause distress Unfamiliar setting cause C anxiety	Distress	Emotional/ relational Challenges	Client-focused emotional/relational features of the therapeutic process	

APPENDIX D: CODE TABLES FROM EACH THEME

Collaborative situation causes C distress C response suggest MT = causing distress PT response suggest MT = causing distress				
Misreading cues can frustrate C Lack of understanding can frustrate C Inappropriate use of instruments can frustrate	Frustration	Emotional/ relational Challenges	Client-focused emotional/ relational features of the therapeutic process	
MT & PT witnessing C's process Musicking affords shared expression MT facilitates change in perceptions about C's ability Piano playing affords success MT afforded encouragement	Personal validation	Emotional/ relational affordances	Client-focused emotional/ relational features of the therapeutic process	
Musicking affords expression of aggression Musicking affords expression of frustration MT affords different expressions of self MT facilitates emotional expression Music tapped into emotion C playing suggests expression of aggression/frustration Music stimulates emotion	Emotional expression	Emotional/ relational affordances	Client-focused emotional/ relational features of the therapeutic process	
Music adds enjoyment C enjoying control MT is fun Enjoyment as key to unlock C Fun motivates Process afforded	Enjoyment	Emotional/ relational affordances	Client-focused emotional/ relational features of the therapeutic process	

APPENDIX D: CODE TABLES FROM EACH THEME

enjoyment C enjoys music C enjoying playful interaction C enjoys MT reading his gestures				
C show musical initiative Musicking fosters C assertiveness C showing playful resistiveness C gestures communicate	Initiative	Emotional/ relational affordances	Client-focused emotional/ relational features of the therapeutic process	

THEME 4: COLLABORATIVE OUTCOMES – CLIENT-FOCUSED PHYSICAL AFFORDANCES OF THE THERAPEUTIC PROCESS				
DESCRIPTIVE CODES	LOWER-ORDER CATEGORICAL CODES	CATEGORICAL CODES	ANALYTIC CODES	THEMES
Instrumental play affords good muscle control Process afforded muscle control Musical exploration foster fine motor control Process fostered fine motor control Musical exploration foster		Control & coordination	Client-focused physical affordances of the therapeutic process	Collaborative outcomes

coordination				
Piano playing strengthening core Collaborative activity affords muscle strengthening MT affords strengthening Instrumental play fosters strengthening Piano playing exercises torso Drumming fosters torso strengthening Drumming affords self-stabilisation C Throwing tambourine: using upper body Piano playing facilitate good posture Process developed posture Musical investment foster improved posture Less musical investment – declines posture		Strengthening & posture	Client-focused physical affordances of the therapeutic process	
Musicking fosters weight bearing MT affords weight bearing		Weight bearing	Client-focused physical affordances of the therapeutic process	
Music affords stability Balance through instrumental play		Balance	Client-focused physical affordances of the therapeutic process	
Instrumental play foster rotation MT affords rotation		Rotation	Client-focused physical affordances of the therapeutic process	
MT music help movement organisation C's movements becoming steady Movement organisation requires clear rhythmical pattern Syncopation facilitates movement organisation Structured rhythm & melody facilitates movement organisation MT helped: give rhythm		Movement organisation	Client-focused physical affordances of the therapeutic process	

APPENDIX D: CODE TABLES FROM EACH THEME

PT views MT role as getting client to 'do' rhythm				
Musical exploration foster range of movement PT use instrumental play-exercise range of movement PT playing for C: range of movement		Range of movement	Client-focused physical affordances of the therapeutic process	
Cs willing participation allows movement manipulation Musicking incorporate Bending and standing up Music affords freedom MT enabled 'better' movement MT afforded mobilisation		Mobilisation	Client-focused physical affordances of the therapeutic process	
Process enabled relaxation Stretching through instrumental play		Relaxation	Client-focused physical affordances of the therapeutic process	
Music can afford left-right integration C allowed hand-over-hand Muscking affords left-right integration PT does hand-over hand with C C playing with alternating hands		Left-right integration	Client-focused physical affordances of the therapeutic process	

THEME 4: COLLABORATIVE OUTCOMES PROFESSIONAL/COLLABORATIVE FEATURES OF THE THERAPEUTIC PROCESS				
DESCRIPTIVE CODES	LOWER-ORDER CATEGORICAL CODES	CATEGORICAL CODES	ANALYTIC CODES	THEMES
Musical activity defy PT goal Music no physical influence MT perspective: music no physical influence Ts over-stimulating C:distracting form correct movement MT allowed less movement	Physiotherapy process limited	Limiting individual professional processes	Professional/collaborative features of the therapeutic process	Collaborative outcomes

APPENDIX D: CODE TABLES FROM EACH THEME

MT not motivating C				
Instrumental play for pt purpose: only short musicking possible Using music to stimulate movement at expense of enjoyment	Music therapy process limited	Limiting individual professional processes	Professional/collaborative features of the therapeutic process	
Camera influence C behaviour	Research influences therapeutic process	Limiting individual professional processes	Professional/collaborative features of the therapeutic process	
Learning experience Familiar activity: MT confidence Pride in MT 'working' in relation to PT goals MT enjoy playful interaction MT less anxious – contribute to pt PT feel mt not interfering PT perception: collaboration enjoyable PT perception: mt not looking like therapy but *being* therapy PT perception: music helped C PT perception: collaboration worked	Response to collaborative process	Affirming personal/professional experiences	Professional/collaborative features of the therapeutic process	
PT verbally comment: C good muscle control PT verbally affirms playful interaction: MT&C PT pleased: C's physical performance PT impressed: C's physical progress PT gestures surprise at C's abilities MT encouraged by C's response C's responsiveness motivates MT Ts encouraged by C's response C's responsiveness fosters MT	Response to client	Affirming personal/professional experiences	Professional/collaborative features of the therapeutic process	

confidence				
PT encouragement give MT confidence MT encouraged by PT's surprise	Response to co-collaborator	Affirming personal/professional experiences	Professional/collaborative features of the therapeutic process	
MT Uncertainty PT uncertainty MT feel incompetent MT feel musically stuck	Uncertainty	Challenging personal/professional experiences	Professional/collaborative features of the therapeutic process	
C's response cause MT & PT anxiety C's response cause MT anxiety MT anxiety influence musicking MT anxiety: difficult session MT anxiety about own music MT anxiety: music cause distress MT anxiety: shift from music supporting to interfering with PT MT anxiety: music 'not working' i.t.o. pt goals	Anxiety	Challenging personal/professional experiences	Professional/collaborative features of the therapeutic process	
MT experience: difficult working with C MT feel own presence cause C distress PT gestures not pleased: posture Collaborative process not working for C Interaction was challenging C made experience difficult PT view: collaboration = challenge with severe CP MT easier: C no movement impairment PT view: collaboration = challenge when C have movement difficulties C's response cause PT hopelessness	Client-related challenges	Challenging personal/professional experiences	Professional/collaborative features of the therapeutic process	
MT unaware of PT's strain	Process-related	Challenging	Professional/collaborative	

APPENDIX D: CODE TABLES FROM EACH THEME

MT feel pressure to perform PT influence MT: MT causing distress MT feel irrelevant MT dissatisfaction with ending MT feel – interfering Challenging experience MT challenge = attuning MT response suggest hopelessness	challenges	personal/professional experiences	features of the therapeutic process	

THEME 4: COLLABORATIVE OUTCOMES – CLIENT- FOCUSED PSYCHOLOGICAL FEATURES OF THE THERAPEUTIC PROCESS				
DESCRIPTIVE CODES	LOWER-ORDER CATEGORICAL CODES	CATEGORICAL CODES	ANALYTIC CODES	THEMES
Shared musicking motivates physical effort Increased interest fosters physical effort MT elicits more Music motivating C to try hard C using physical effort Emotional investment requires physical effort	Increased effort	Motivation	Client-focused psychological features of the collaborative process	Collaborative outcomes

APPENDIX D: CODE TABLES FROM EACH THEME

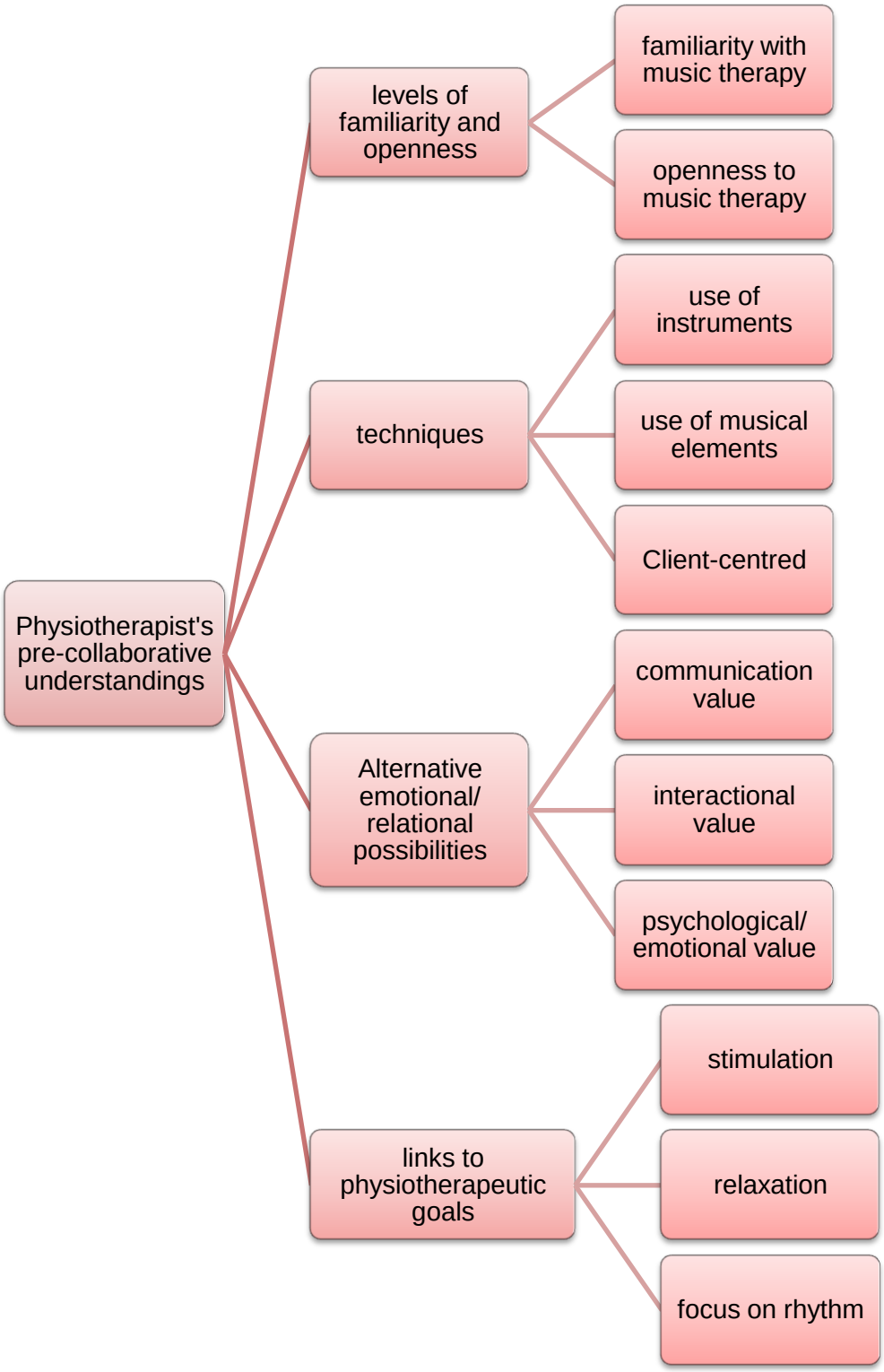
Musical investment fosters physical effort				
PT views MT role as getting the client to 'do' MT stimulates action Instruments motivate physical participation Music motivates participation	Participation	Motivation	Client-focused psychological features of the collaborative process	
Increased interest – increased movement Music stimulating C Use music and instruments as motivation PT views MT role as motivating C PT views MT role as stimulating C Increased interest required for pt Instrument vs. sounds motivate interest Music motivates interest C indicate interest C musically invested Mutual musicking enhance investment	Interest	Motivation	Client-focused psychological features of the collaborative process	
Music motivating use of muscles C motivated to exercise Instrument vs. music motivating movement Instrument motivate movement Instrumental play motivate crawling MT stimulates movement Rhythm stimulates movement MT's syncopation stimulates movement	Movement	Motivation	Client-focused psychological features of the therapeutic process	Collaborative outcomes
Enjoyment affords perseverance Mutual musicking affords physical perseverance Increased interest affords physical perseverance MT afforded perseverance Including music extends perseverance C sustained musical participation More willing, more perseverance	Perseverance	Motivation	Client-focused psychological features of the therapeutic process	
C refusing participation C avoid instruments C showing resistiveness Low energy – less participation C unwillingness – less perseverance	Participation	Resistance	Client-focused psychological features of the therapeutic process	
C uninterested C losing interest C not invested	Interest	Resistance	Client-focused psychological features of the therapeutic	

APPENDIX D: CODE TABLES FROM EACH THEME

C shift: interested to distressed C shifts in interest C's unwillingness Less musical investment – less physical effort			process	
Instrumental play distracts from pt Musicking distract from discomfort MT distracts from pt exercise Music distract from challenge C distracted from pt – allows more PT views MT role as keeping C busy		Distraction	Client-focused psychological features of the therapeutic process	

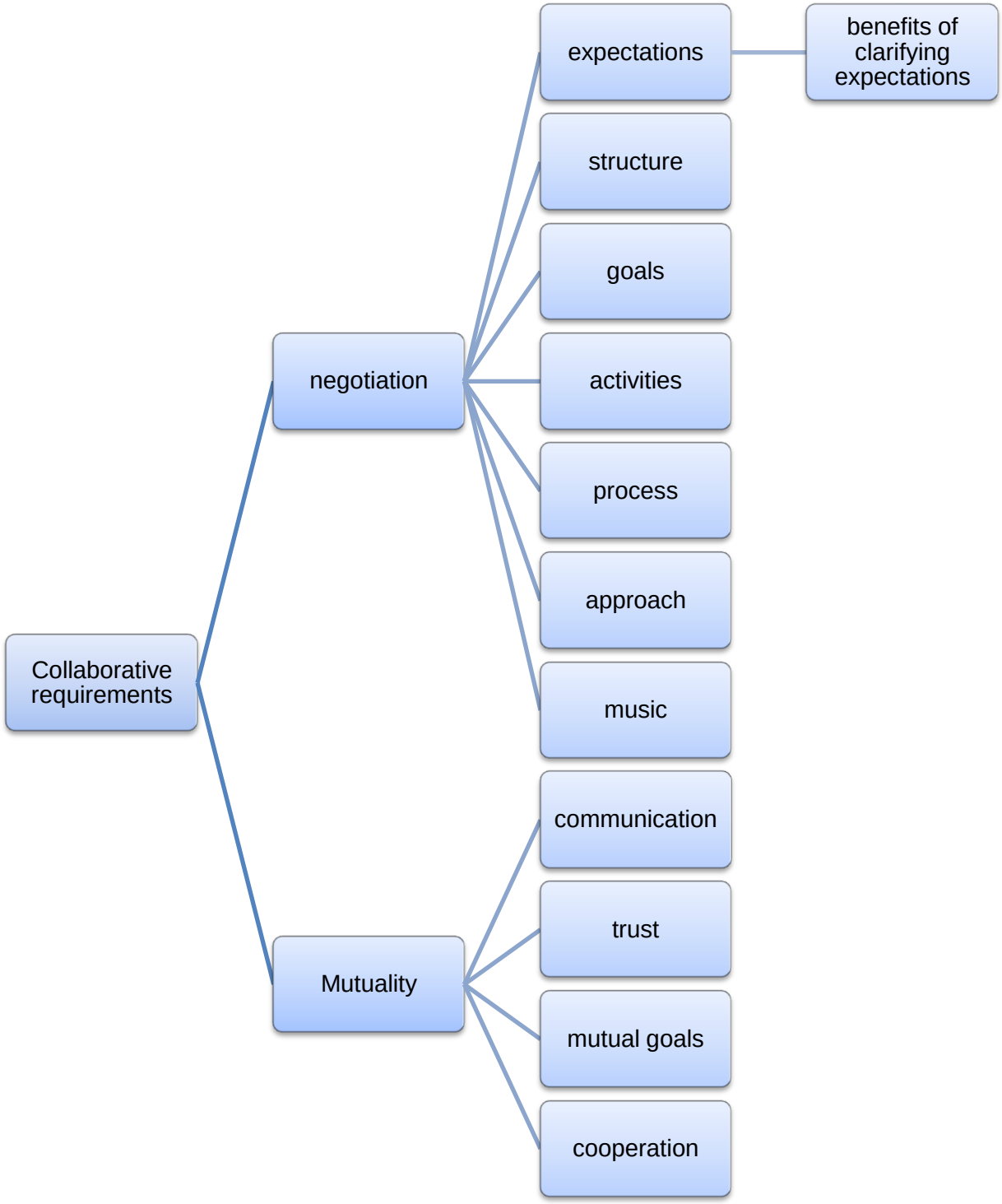
APPENDIX E: CODING HIERARCHIES

FIGURE 1: THEME 1



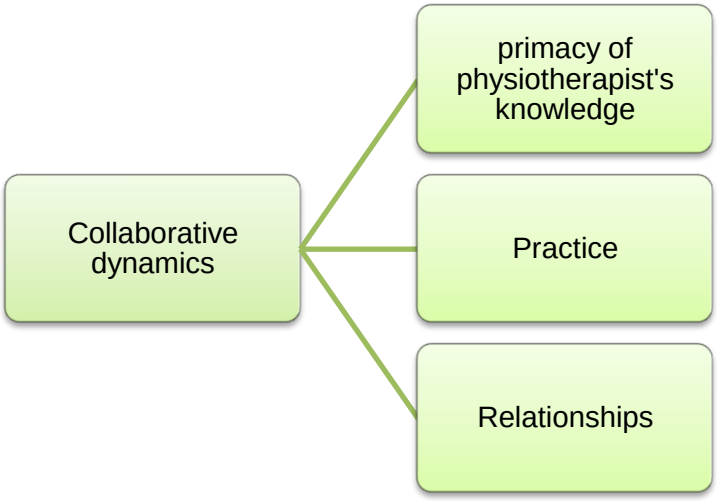
APPENDIX E: CODING HIERARCHIES

FIGURE 2: THEME 2



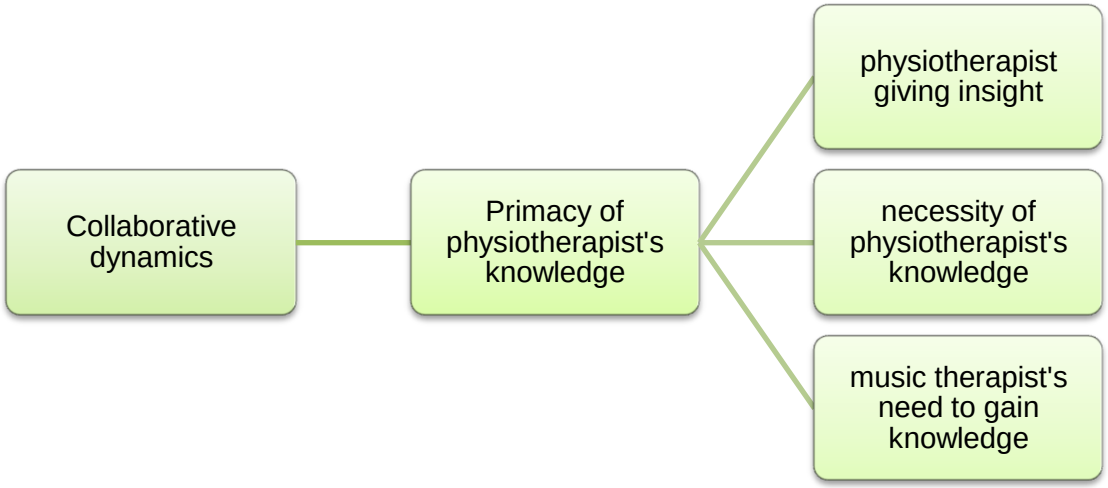
APPENDIX E: CODING HIERARCHIES

FIGURE 3: THEME 3



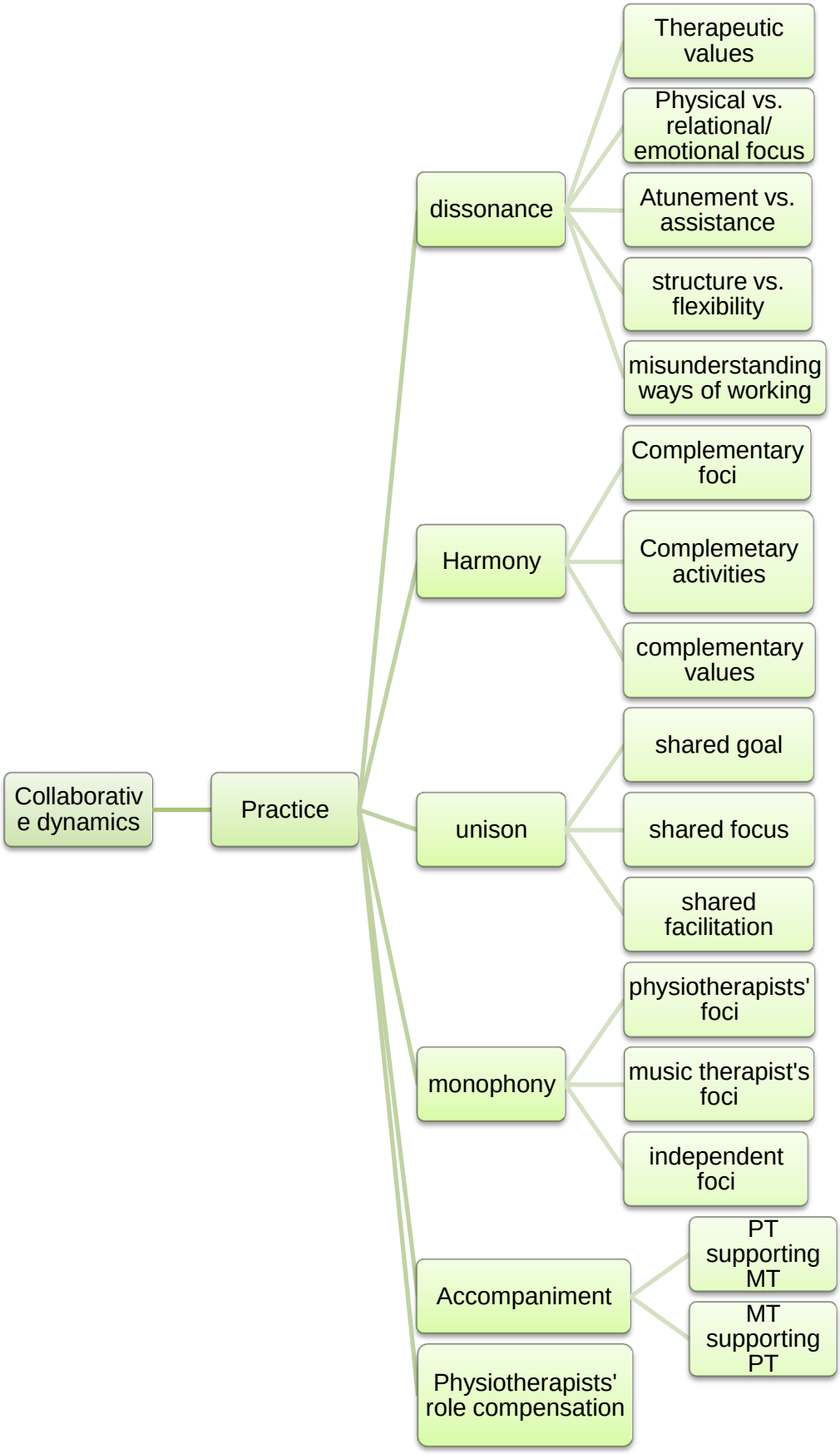
APPENDIX E: CODING HIERARCHIES

FIGURE 4: THEME 3a



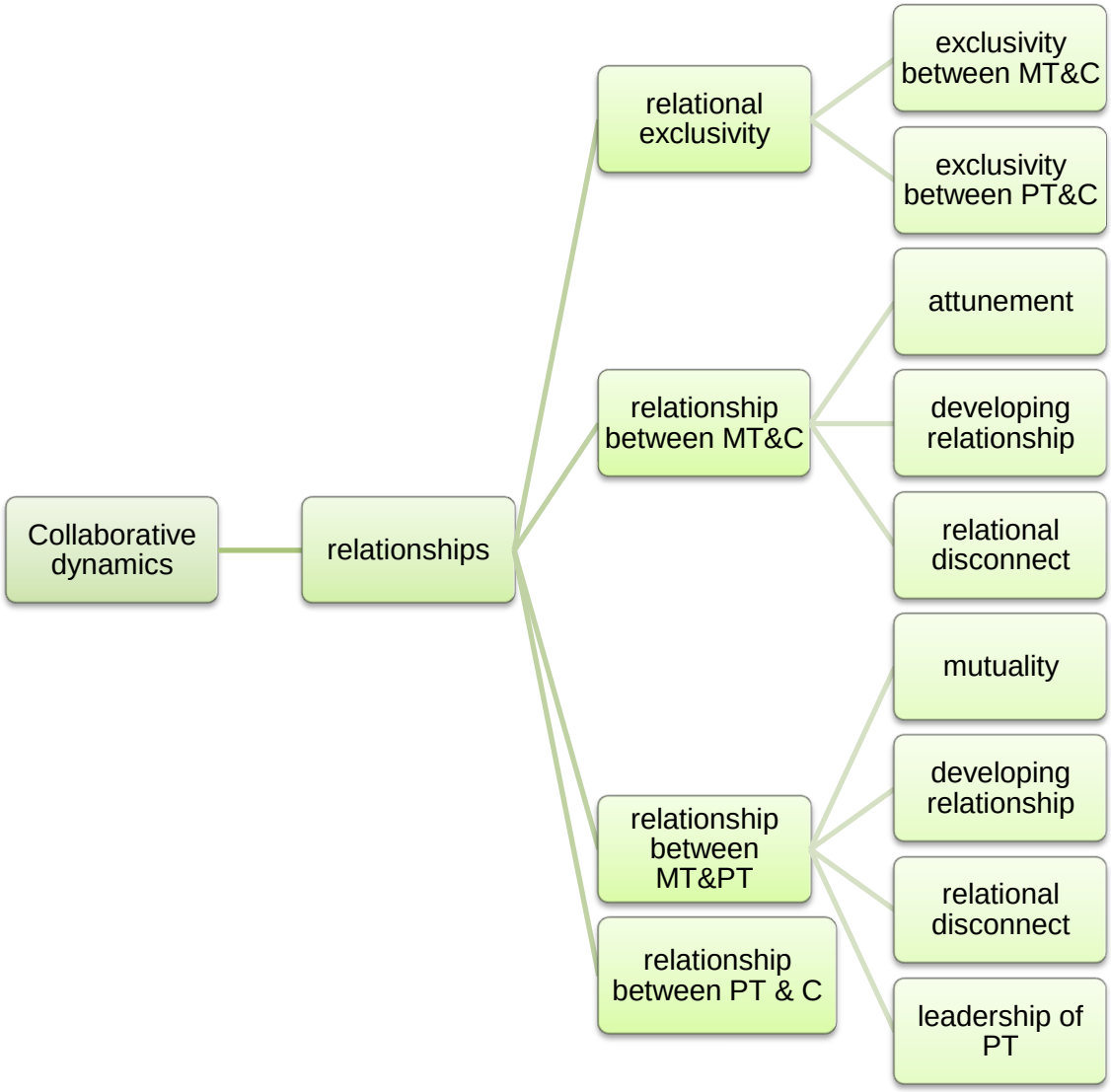
APPENDIX E: CODING HIERARCHIES

FIGURE 5: THEME 3b



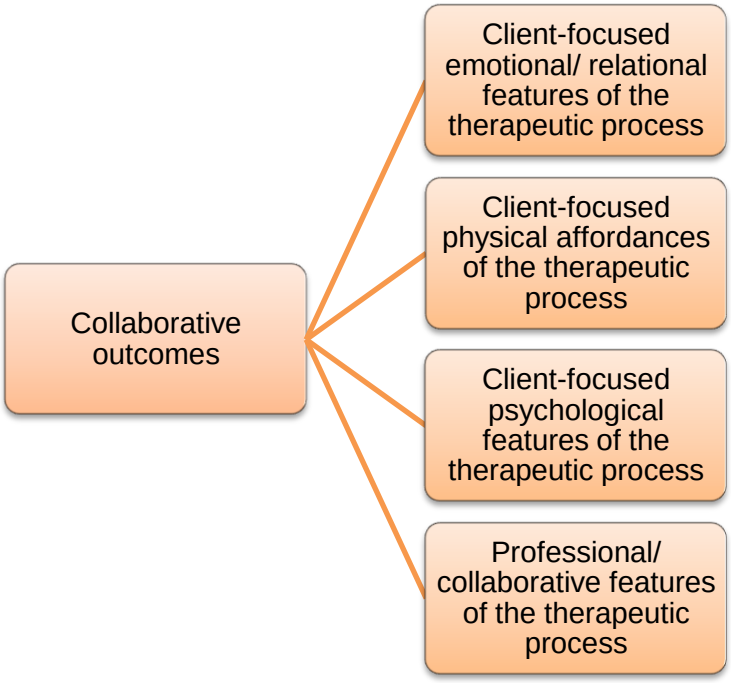
APPENDIX E: CODING HIERARCHIES

FIGURE 6: THEME 3c



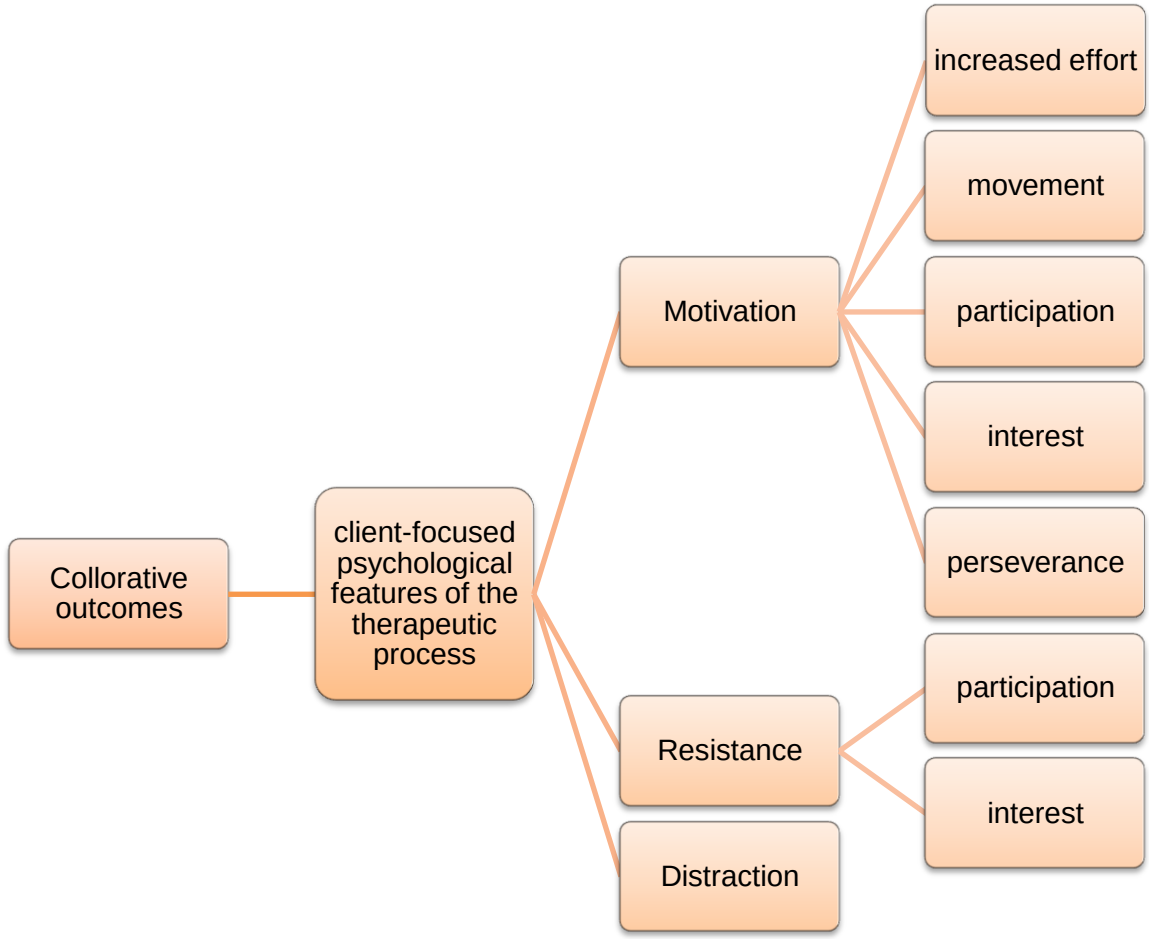
APPENDIX E: CODING HIERARCHIES

FIGURE 7: THEME 4



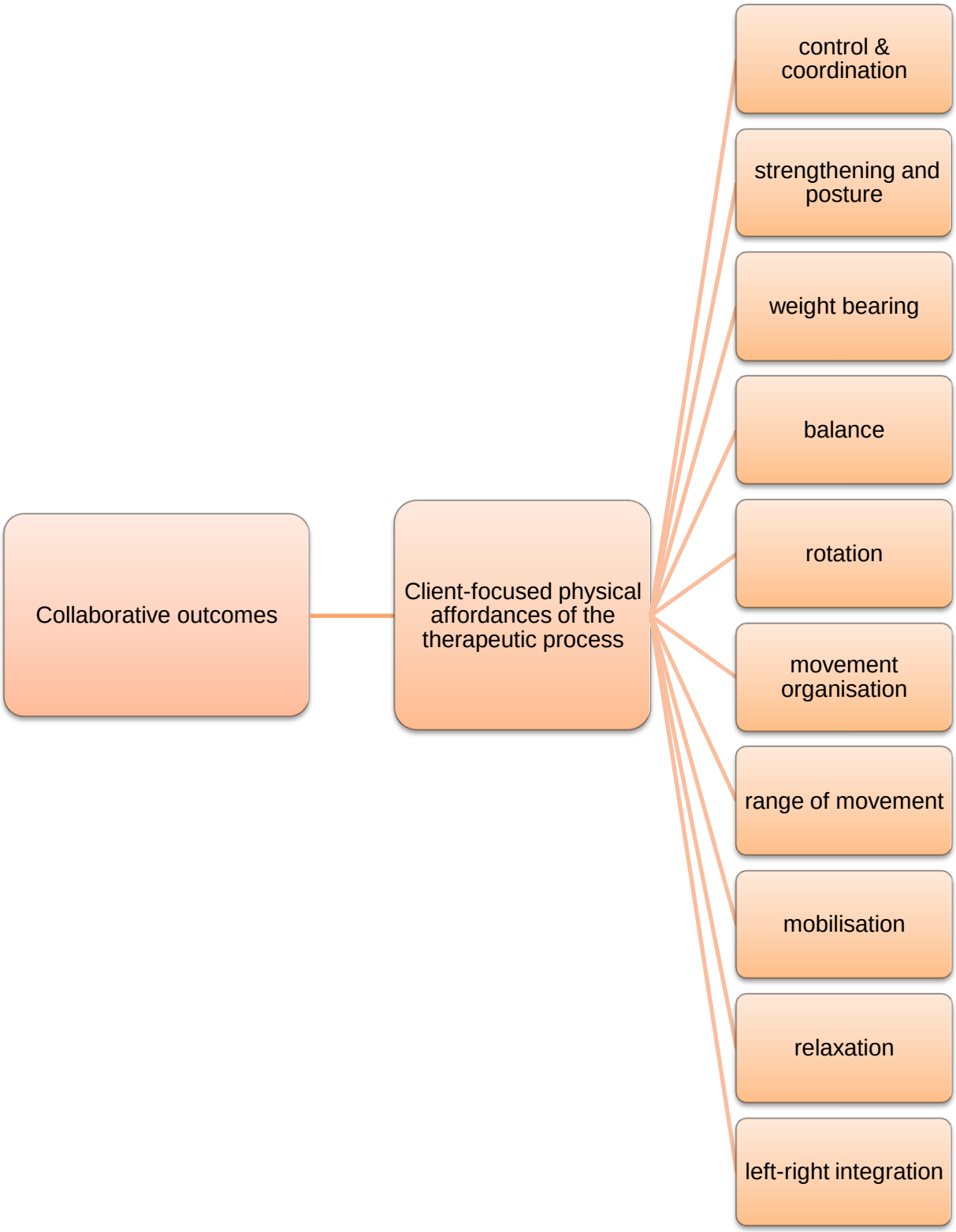
APPENDIX E: CODING HIERARCHIES

FIGURE 8: THEME 4a



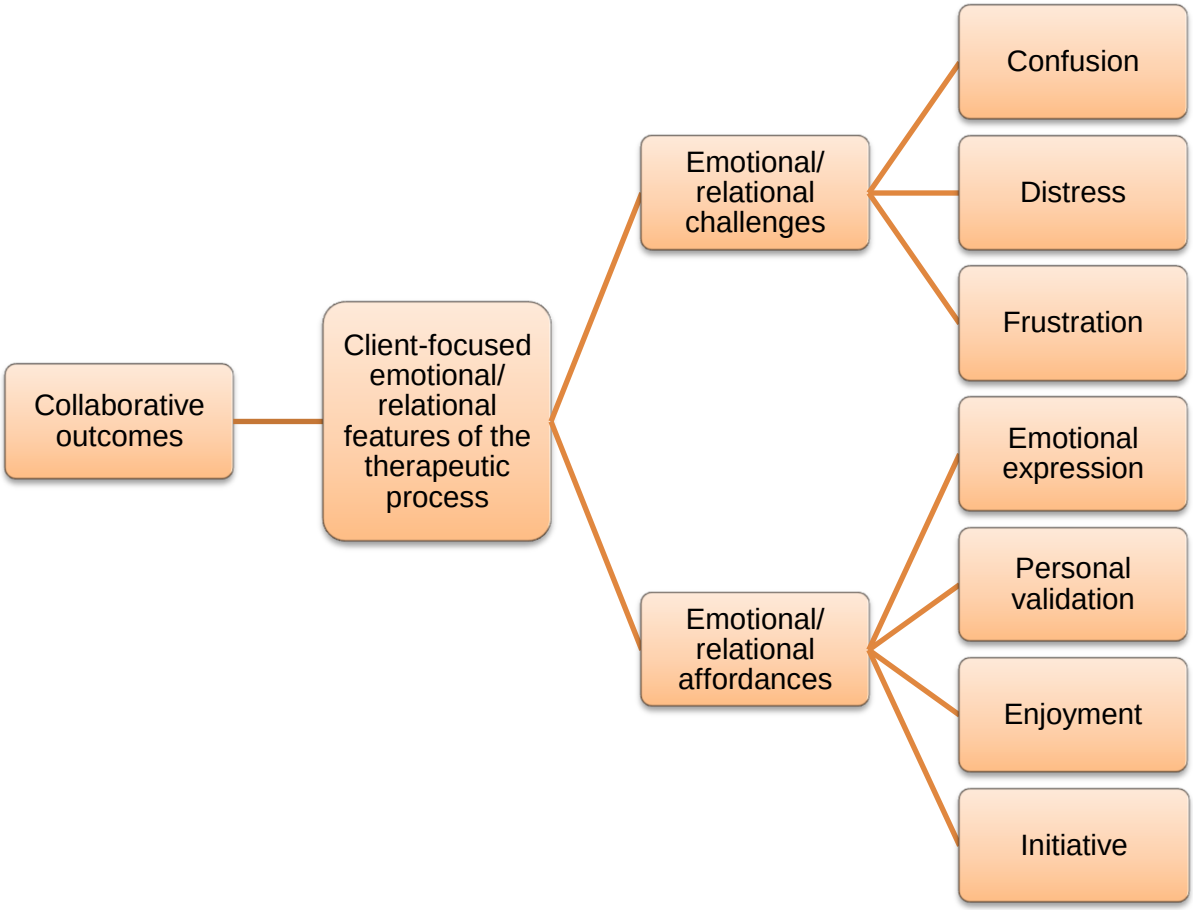
APPENDIX E: CODING HIERARCHIES

FIGURE 9: THEME 4b



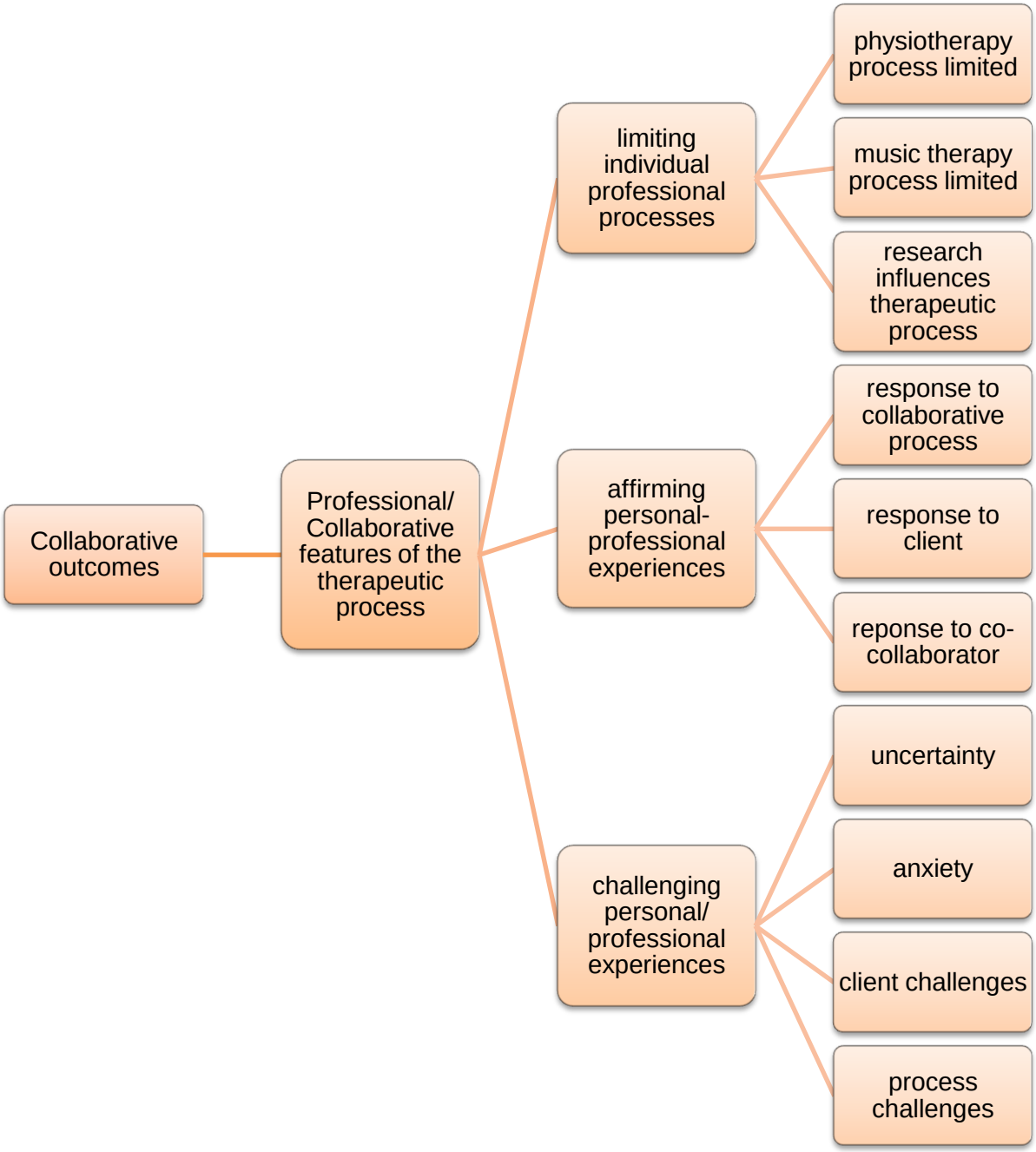
APPENDIX E: CODING HIERARCHIES

FIGURE 10: THEME 4c



APPENDIX E: CODING HIERARCHIES

FIGURE 11: THEME 4d



APPENDIX F: COMPARATIVE ANALYSIS

Table 1: Comparing Case A and Case B with regards to *personal/professional experiences*
Interview data represent PT experiences
Session note data represent MT experiences

	Case A	Case B
Affirming personal/ professional experiences (Interview data)	PT feel MT not interfering PT perception: collaboration enjoyable PT perception: MT not looking like therapy but *being* therapy PT perception: music helped C PT perception: collaboration worked	Learning experience
Affirming personal/ professional experiences (session note data)	Familiar activity: MT confidence Pride in MT 'working' in relation to PT goals PT verbally comment: C good muscle control PT encouragement give MT confidence PT pleased: C's physical performance PT impressed: C's physical progress PT gestures surprise at C's abilities MT encouraged by C's response C's responsiveness motivates MT MT encouraged by PT's surprise C's responsiveness fosters MT confidence	PT encouragement give MT confidence MT encouraged by C's response Ts encouraged by C's response MT less anxious – contribute to pt C's responsiveness fosters MT confidence
Challenging personal/ professional experiences (interview data)	PT uncertainty	Collaborative process not working for C Challenging experience Interaction was challenging C made experience difficult PT view: collaboration = challenge with severe CP MT easier: C no movement impairment PT view: collaboration = challenge when C have movement difficulties MT challenge = attuning
Challenging personal/ professional experiences (session note data)	MT Uncertainty MT unaware of PT's strain MT feel incompetent MT anxiety influence musicking MT anxiety about own music MT anxiety: shift from music supporting to interfering with PT MT anxiety: music 'not working' i.t.o. pt goals Instrumental play cause PT strain MT feel musically stuck PT gestures not pleased: posture MT feel – interfering	MT Uncertainty C's response cause MT & PT anxiety MT feel pressure to perform MT feel incompetent MT anxiety influence musicking MT anxiety: difficult session MT anxiety about own music MT anxiety: music 'not working' i.t.o. pt goals MT feel musically stuck PT influence MT: MT causing distress MT experience: difficult working with C MT feel irrelevant MT dissatisfaction with ending MT feel own presence cause C distress MT feel – interfering

APPENDIX F: COMPARATIVE ANALYSIS

Table 2: Comparing aspects of *Collaborative dynamics* in regards to *affirming/challenging personal/professional experiences*

	Case A (more affirming experiences)	Case B (more challenging experiences)
Harmony (session note data)	PT facilitate movement; MT engage musically ASN1:1:9 ASN2:1:7 ASN3:1:6 Piano playing while on physio ball ASN1:1:24 PT enhance physical value of musical engagements ASN3:1:9 Collaborative activity: relational, emotional & physical value ASN5:2:20 C&MT improvise; PT increase C muscle tone ASN6:2:21 C&MT musically engaged; PT exercise core muscles ASN6:2:22 Instrumnetal play equal significance – MT&PT ASN6:2:3 ASN6:2:8	PT facilitate movements; MT engage musically BSN2:2:22 MT play music; PT facilitate movement BSN3:2:7 Different roles but equal involvement BSN3:2:8 Instrumental play incorporate pt exercise BSN4:2:9 MT play music; PT engage in dancing BSN6:1:27 MT control music; PT control movements
Harmony (interview data)	MT provide rhythm; PT facilitate correct movements AI2:6:24 *"with the rhythm...we were doing crawling... do it the right way"*	
Unison (session note data)	Piano play: space for merging PT and MT goals ASN2:1:31 PT physically facilitate movement; MT musically facilitate movement ASN4:1:36 ASN5:1:1 ASN6:1:15 Musical & physical facilitation: same goal ASN4:1:37 MT&PT focus on C's ability ASN3:2:34 MT&PT mutual impressions: C's ability ASN3:2:32	MT & PT shared goal: engagement BSN1:2:13 BSN3:1:2 BSN5:1:12 BSN6:1:14 MT & PT shared goal: enjoyment BSN2:2:25 MT & PT reading cues BSN2:3:2
Unison (interview data)	T's together work on C's balance AI2:3:16 *"we were working on his balance as well*	
Monophony (session note data)	PT position & stabilise C ASN3:1:8 ASN4:1:3 ASN4:2:6 MT focus = therapeutic relationship ASN6:1:7 MT focus on C ASN6:2:24	Instrumental play: physio value BSN3:2:16 PT playing for C: physical value BSN4:1:24 MT focus = relational BSN4:2:12 PT facilitate muscle relaxation BSN5:1:35 PT facilitate walking BSN5:1:35 PT facilitate swaying BSN5:1:35
Monophony (interview data)	PT focus on pt goals AI2:3:25 *"we want stability, we want balance, we want rotation"* Each T focus on own exercise AI2:4:21 *"I think of just my exercises and you think of your exercises"* AI2:5:1	PT focus on pt goals BI2:3:4 *"in physio you try to get them to activate them self"* C did well from pt point of view] BI2:1:14 *"I'd like to think he did fairly well from a physio point of view"*

	"I was doing therapy my way" AI2:5:2 *"you always think of yourself first"* PT focus on pt & movement AI2:5:9 *"I was thinking about physio and movement"* Individual perspectives AI2:6:19 *"everybody looks at their specific patient in a specific way"* PT focus: how MT can aid pt: AI2:6:20 *"let's do it on his knees, because I'm battling to break up the pattern"* PT facilitate physical exercises AI2:7:8 *"the rotation; and the exercises I chose"*	
Dissonance (session note data)	Matching who? PT playing for C ASN1:1:16 Matching who? PT moving C ASN2:1:11 Meaning of matching in collaborative context ASN2:1:11 Structure of pt not allowing matching ASN2:1:17 PT interrupting musicking ASN3:2:12 PT resistiveness less physical value vs MT resistiveness emotional value ASN4:1:6 Different intentions: PT steady beat vs MT adaptable beat ASN5:1:9 ASN5:1:13 Working from different perspectives ASN6:1:4 ASN6:2:4 PT resistiveness inappropriate vs MT resistiveness valuable ASN6:1:6 ASN6:1:9 ; ASN6:1:14	PT playing for C: pt value vs MT value BSN3:2:2 Matching who? PT playing for C BSN3:2:4 BSN3:2:20 BSN4:1:25 PT playing for C: not allowing creative assertiveness BSN4:1:27 Working from different perspectives BSN4:1:30 PT: what should C do? vs MT: what would C do? BSN4:1:31 MT process focussed vs PT product-focussed BSN4:2:1
Dissonance (interview data)	Ts approach process differently AI2:4:21 *"because you think in a way and I think in a way"*	Difficulty combining mt & pt BI2:1:9 *"very difficult to combine the two"*

APPENDIX F: COMPARATIVE ANALYSIS

Table 3: Comparing Case A and Case B with regards to *MT & C relationship*
Based on data from Thick Descriptions

	Case A	Case B
Attunement	C & T engage in turn-taking MT matching C's movements (2) MT imitates C movements MT syncopation incorporates C movements (2) MT incorporates all C's movements (7) MT matching C intensity (6) MT matching C's tempo MT matching C dynamics (2) MT matching C quality MT extending C's music MT matching C unstructured beat Mt & C attuned MT & C flowing together (2) MT vocally imitates C instrumental play C's movement = musical intention (2) MT matches C (10) MT listen to C MT & C interactional synchrony C follows MT cues (3) MT follows C's cues (4) MT musically inviting C (4) C musically responds to MT invitation (4) MT provides musical structure C increased musical interaction C rhythmically matching MT	MT matching C
Developing relationship	MT & C playful interaction (12) C carefully watching MT (2) C responds to MT over-attuning: stops playing C making eye-contact with MT (5) C & MT musically relating	MT try playfully engaging C (5) C making eye-contact with MT
Relational Disconnect	MT over-attuning	MT over-attuning (9) C response suggest MT = cause of distress MT fail matching C (3) C avoiding MT (2)

APPENDIX F: COMPARATIVE ANALYSIS

Table 4: Comparing aspects of Client Outcomes with aspects of relationship between MT&C

	Case A (greater levels of attunement between MT&C)	**Case B (greater levels of relational disconnect between MT & C**
Physical affordances	Musicking fosters weight bearing C throwing tambourine: use upper body C movements becoming steady Stretching through instrumental play C musical engagement fosters strengthening (2) Instrumental play foster rotation (3) Instrumental play fosters strengthening (2) C Playing with alternating hands (2) Musicking affords left-right integration (2) Drumming affords self-stabilisation (2)	PT playing for C: left-right integration (3) PT playing for C: range of movement (2) PT playing for C: mobilisation(2) C allowing hand-over-hand
Emotional/relational affordances	C showing musical initiative (8) C's playing suggest expression of aggression/frustration (2) C enjoying control C's gestures communicate C enjoys MT reading his gestures C enjoying playful interaction (2) Process affords enjoyment	
Motivation	Musical investment fosters physical effort (5) Emotional investment fosters physical effort Shared musicking motivates physical effort C using physical effort Instruments motivate C to try hard Instruments motivate physical participation (2) MT syncopation stimulates movement Instruments motivate movement C sustained musical participation	C indicate interest
Resistance	C showing playful resistiveness (2) Less musical investment – less physical effort (5) C showing resistiveness	C uninterested (4) C not invested C avoiding instruments (3) C avoiding MT C's unwillingness (4) C's shifts in interest (2) C showing resistiveness (2)
Client Challenges		Pressure to play cause distress (4) Sudden musical stop startle C Music too forceful: C distress Inappropriate music cause distress

Table 5: Comparing aspects professional relationship between MT&PT, with aspects of client-therapist relationship between MT & C and PT & C.

	Case A	Case B
Primacy of PT knowledge	Mt works for pt but only with PT cooperation AI2:6:17 PT guidance necessary AI2:6:30 PT necessary: knows C AI2:7:6 MT trusting PT knowledge ASN3:2:11 PT knowledge of C physical needs ASN3:2:11	Necessity of MT's CP knowledge BI1:2:18 BI1:2:24 BI2:5:24 MT must understand CP to read C BI1:2:19 PT can explain CP to MT BI2:5:27 PT give MT insight BI2:5:28

APPENDIX F: COMPARATIVE ANALYSIS

		PT stops musicking: not 'appropriate' BSN4:1:35 BSN6:1:32 PT knowing C better BSN3:1:19
Leadership of PT	PT taking leadership AT1:3:20 AT1:9:16 MT follow PT leadership AT1:3:21 MT relying on PT leadership AT1:6:11	MT follow PT leadership BT2:3:12 BT1:6:15 BT1:7:8 PT taking leadership BT2:5:18 MT relying on PT leadership BSN3:1:18 BT2:5:22 MT as PT assistant BSN2:1:24 BSN3:1:29 Leader-follower therapist relationship BSN3:1:20
Role compensation		PT engage C in music BSN5:1:9 BSN5:1:23 BSN6:1:10 BT1:2:5 BT2:2:6 BT2:2:16 BT1:4:23 BT1:5:4 BT2:4:9 BT1:6:1 BT1:7:1 PT engage C in instrumental play BT2:3:17 BT2:4:2 BT2:5:8 BSN6:1:18 PT stimulate C through instrumental play BSN6:1:20 PT musically extend C's movements BSN5:1:24
Relational exclusivity: PT & C		PT facilitate while MT in background BSN1:1:16 PT & C play while MT feel irrelevant BSN6:1:15 BSN6:1:25 PT positions C: face her, away from MT BSN6:37 BT1:8:5 C&PT engaging while MT = onlooker BT2:4:6 BT2:7:9
Relational exclusivity MT & C	PT unaware of significance of MT&C ending musicking ASN3:2:15 C&MT relating while PT in background ASN6:1:35 ASN6:3:11 Focused exclusivity between MT&C AT2:4:16 AT2:6:2 Musical exclusivity between MT&C ASN3:1:10 ASN3:1:31 PT not attuned to C&MT ASN3:2:14	

APPENDIX F: COMPARATIVE ANALYSIS

Relational disconnect: MT & C	Not knowing C: superficial musicking ASN1:1:15 C avoiding MT ASN4:1:5 ASN4:1:24 MT fail matching C ASN4:1:26 MT over-attuning AT1:6:2	No authentic interaction: MT&C BSN4:2:5; BSN4:2:13; BSN6:2:2 Pressure cause lack of trust BI2:4:7 C not trusting MT BI2:4:5 C no interest in MT BSN5:1:8 C avoiding MT BT1:6:12 BT2:3:6 MT fail matching C (5) BSN1:2:3; BSN5:1:6; BT1:5:2; BT1:6:6 etc. MT over-attuning (11) BT1:2:12; BT2:2:14; BT1:3:1; BT1:3:17; BT1:5:19 etc. MT under-attuning BT2:4:4 C's playing: difficulty matching BSN2:1:27 MT trigger C anxiety BSN1:1:6; BSN5:1:29 MT&C: struggle to build relationship BSN1:2:6 MT musicking = fragmented BSN2:2:10 C response suggest MT = cause of distress BT2:2:12

Table 6:
Comparing PT perceptions in terms of client focused features pre- and post-collaboration: Case A

	Case A: Initial interview	Case A: Final interview
Emotional/psychological features	Music enlivens Music enables Music influences psychologically Music evokes emotions	MT afforded encouragement Music distracts from pt exercises Instrumental play distracts from pt Music distracts from challenge Process afforded enjoyment Musicking affords expression of frustrations MT affords emotional expression music stimulating C Music elicits more Music motivates interest MT afforded perseverance Music tapped into emotion C enjoying music Music stimulates emotion
Relational features		
Physical features	Music adds rhythm to C Music helps: relaxation Music helps: stimulation MT can increase muscle tone MT can relax muscle tone MT can stimulate movement Music facilitates movement Rhythm facilitates movement Musical activities' benefits are focused on rhythm	MT afforded strengthening MT helps: give rhythm MT stimulated movement MT enabled better movement Rhythm stimulates movement PT focus on importance of rhythm MT afforded mobilisation Balance through instrumental play Stretching through instrumental play Instrumental play fosters rotation

	Rhythm increases muscle tone Slow music relaxes Music can make C lose control Music can over-stimulate/frighten	MT afforded weight bearing Process developed posture Music stimulates movement MT allowed less movement

Table 7: Comparing PT perceptions pre- and post-collaboration: Case B

	Case B: initial interview	Case B: final interview
Emotional/psychological features	MT entails using music to elicit more MT facilitates emotional expression MT is fun Enjoyment as key to unlock C Music stimulates interest Music motivates Misreading cues can frustrate C Inappropriate use of instruments can frustrate	C distracted from pt – allows more MT affords enjoyment C enjoys music MT goal = enjoyment MT goal = enable different ways of experiencing More willing, more perseverance Music note motivating C Unfamiliar setting cause C anxiety Collaborative situation cause C distress Using music to stimulate movement at expense of enjoyment C unwillingness – less perseverance C showing resistiveness C uninterested
Relational features	MT as different channel of communication MT entails: communication skills M entails relating before doing Refer to MT C's with whom other therapists can't interact MT focuses on interaction MT goals: group interaction MT facilitates communication	Interaction was challenging C not trusting MT Pressure cause lack of trust MT trigger C anxiety
Physical features	MT goals: more movement MT as motivation for movement MT can elicit movement MT affords stability MT affords freedom Music can afford left-right integration	Process enabled relaxation MT motivates action Rhythm stimulates movement Increased interest fosters physical effort C allowed hand-over-hand Process afforded fine muscle control Process afforded fine motor control Music affords freedom Increased interest – increased movement

APPENDIX F: COMPARATIVE ANALYSIS

Table 8: Comparative analysis: *negotiation* compared with aspects of *collaborative dynamics* Interview data

	Primacy of PT knowledge	**MT support PT**	**PT support MT**
Levels of negotiation between MT&PT Case A	Mt works for pt but only with PT cooperation AI2:6:17 PT guidance necessary AI2:6:30 PT necessary: knows C AI2:7:6	Using music to support pt. Vs using music as therapy AI2:4:30 AI2:5:8 MT facilitate pt execise AI2:6:27	PT positions C for musicking AI2:7:7
Levels of negotiation between MT&PT Case B Ts must understand C's need for time BI1:2:21 Ts must understand C holistically BI1:2:22 Ts must understand CP to read C BI1:2:25 BI1:3:5 Negotiate mutual goals BI2:1:29 Adapting approach for C BI2:2:7 BI2:2:11 BI2:4:18 BI2:5:2 BI2:5:4 PT gain understanding of mt BI2:4:28 Developing process BI2:5:5 PT realise mt involves various techniques BI2:5:10	Necessity of MT's CP knowledge BI1:2:18 BI1:2:24 BI2:5:24 MT must understand CP to read C BI1:2:19 PT can explain CP to MT BI2:5:27 PT give MT insight BI2:5:28		

APPENDIX F: COMPARATIVE ANALYSIS

Table 9: Comparing levels of negotiation between MT&PT

Session note data Case A	Session note data Case B	Interview data Case A	Interview data Case B
Negotiating structure ASN1:1:3 ASN1:1:6 ASN2:1:4 Structuring session around MT activities to incorporate PT exercises ASN1:1:4 Ts clarifying expectations ASN1:1:6 Clarifying expectations: relaxation ASN1:1:7 Clarifying expectations: confidence ASN2:1:1 Clarifying expectations: facilitate reaching goals ASN2:1:3 Clarifying expectations: facilitate working relationship ASN2:1:5 Difficulty negotiating beat MT&PT ASN5:1:8 Negotiating rhythm: MT,PT & C	No planned structure: difficult MT role BSN1:1:4 BSN1:1:11 Negotiating structure BSN3:1:1 Clarifying expectations: facilitate working relationship BSN3:1:4 Clarifying expectations: relaxation BSN3:1:10 Adapting approach for C BSN2:3:9 BSN4:1:1 Ts decide: adapt approach Ts negotiate: less pressure on C BSN4:1:2		Ts must understand C's need for time BI1:2:21 Ts must understand C holistically BI1:2:22 Ts must understand CP to read C BI1:2:25 BI1:3:5 Negotiate mutual goals BI2:1:29 Adapting approach for C BI2:2:7 BI2:2:11 BI2:4:18 BI2:5:2 BI2:5:4 PT gain understanding of mt BI2:4:28 Developing process BI2:5:5 PT realise mt involves various techniques BI2:5:10

APPENDIX F: COMPARATIVE ANALYSIS

Table 10: Comparing levels of familiarity with MT with perceptions of music therapy techniques, emotional/relational affordances and links to physiotherapeutic goals

	Case A: Initial interview (lower levels of familiarity)	Case B: initial interview (higher levels of familiarity)
Techniques	MT must use music discriminately Consider individual responses	MT must use music discriminately Guard use of tempo use of tempo: feeling what works use of tempo: individual responses use of tempo: consider C's need of time importance of using tempo use of dynamics: Quiet music for slow movement use of tempo: High muscle tone – slow tempo use of tempo: Low muscle tone – high tempo use of instruments: Easy access use of instruments: Ease of piano use use of instruments: make big noise use of instruments: consider size and response use of instruments: consider C's preferences Consider individual responses Must build relationship first MT entails: following C's cues MT entails: being informed by C's level
Emotional/Relational possibilities	Music enlivens Music enables Music influences psychologically Music evokes emotions	MT entails using music to elicit more MT facilitates emotional expression MT is fun Enjoyment as key to unlock C Music stimulates interest Music motivates Misreading cues can frustrate C Inappropriate use of instruments can frustrate MT as different channel of communication MT entails: communication skills M entails relating before doing Refer to MT C's with whom other therapists can't interact MT focuses on interaction MT goals: group interaction MT facilitates communication
Links to physiotherapeutic goals	Music adds rhythm to C Music helps: relaxation Music helps: stimulation MT can increase muscle tone MT can relax muscle tone MT can stimulate movement Music facilitates movement Rhythm facilitates movement Musical activities' benefits are focused on rhythm Rhythm increases muscle tone Slow music relaxes Music can make C lose control Music can over-stimulate/frighten	MT goals: more movement MT as motivation for movement MT can elicit movement MT affords stability MT affords freedom Music can afford left-right integration

APPENDIX G

Participant Information

STUDY TITLE: Exploring the value of collaboration between music therapy and physiotherapy in South Africa in sessions with clients with Cerebral Palsy

Dear _____,

I am conducting a research study exploring collaboration between music therapy and physiotherapy in South Africa in sessions with clients with Cerebral Palsy (CP). I will therefore be collaborating with physiotherapists in sessions with a client with CP, aiming to facilitate and support physiotherapeutic exercises. This research study will be written up as a mini-dissertation, forming part of my MMus (Music Therapy) degree. I would value your participation in this study and your willingness to allow me to collaborate with you in your sessions with clients with CP. You would determine which client it would be most appropriate for me to attend sessions with. Parents/guardians of this client will also be issued with information and be requested to complete an informed consent form.

In order to conduct this research I will be taking part in six of your physiotherapy sessions with a client with CP, which will be video-recorded for research purposes. I will also be conducting interviews with you before commencing the work and after we have collaborated during the six sessions. I am aware that my participation in your sessions may influence your standard procedures of working and that this may pose a challenge. In the initial interview I intend to explore your perceptions and expectations of working with a music therapy student as well as to discuss how such collaboration could be conducted in a manner that supports your goals and clinical work with this client. Personal gain that this study may hold for you is that music therapy may facilitate your work with the client with CP and contribute towards the session with the client. This study may also create awareness of the possibilities of collaboration with music therapy, which may benefit your personal practice.

Participation in this study is voluntary and you may withdraw from participation in the study at any time and without negative consequences. In case of withdrawal from the study, all data pertaining to you and the particular client will be destroyed. It will be communicated to the parent/guardian of the client that the same applies to him/her.

APPENDIX G

I assure individual confidentiality and anonymity, and will not use the names of any participants in the study. I will also protect institutional confidentiality and anonymity, by not using the names of the institutions at which therapy sessions will take place. After this study has been completed, the findings will be made available in a mini-dissertation and will also be written up in the form of an academic journal article. Data will be stored for archiving purposes at the University of Pretoria for 15 years.

Please contact me if you have any questions or concerns.

I would greatly appreciate your participation in this study. If you are willing to do so, please complete the attached consent form.

Anine Erasmus
Researcher / Student
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Number: 082 375 4470

Andeline Dos Santos
Supervisor
Email: Andeline.dossantos@up.ac.za

APPENDIX G

Participant Consent Form

STUDY TITLE: Exploring the value of collaboration between music therapy and physiotherapy in South Africa in sessions with clients with Cerebral Palsy

I, _____, hereby give / do not give my consent to participate in this research, through collaboration with a music therapy student in physiotherapy sessions with a client with CP and through participating in two in-depth interviews, one prior to the work commencing and the other after the six sessions have been completed. I give / do not give my consent for these sessions and interviews to be video recorded.

With full acknowledgment of the above, I agree to participate / not participate in this study on this_____ (day) of this_____ (month) and this_____ (year).

PARTICIPANT DETAILS:

Participant name: _____ Signature: _____

Participant Contact No.:_____ Date: _____

RESEARCHER & SUPERVISOR SIGNATURE:

Researcher Name: _____

Researcher Signature:_____ Date: _____

Supervisor Name: _____

Supervisor Signature: _____ Date: _____

APPENDIX G

Participant Information

STUDY TITLE: Exploring the value of collaboration between music therapy and physiotherapy in South Africa in sessions with clients with Cerebral Palsy

Dear _____,

In this research study I will be exploring the value of collaboration between music therapy and physiotherapy in South Africa in sessions with clients with Cerebral Palsy (CP). I will therefore be collaborating with physiotherapists in their sessions, aiming to facilitate and support physiotherapeutic exercises. The purpose of this research study is to do a mini-dissertation forming part of my MMus (Music Therapy) degree. I would value the participation of your child as a client in six collaborative sessions between your child's physiotherapist and myself, a music therapy student. My role in sessions would include supporting physiotherapeutic exercises with specific musical activities, such as instrumental play to enhance fine and gross motor skills / range of motion, or by playing rhythmic music in order facilitate gait exercises.

In addition to taking part in physiotherapy sessions with clients with CP, I will be conducting interviews with the physiotherapist participants, exploring their expectations and experiences of the sessions. I will be interviewing the physiotherapist participants at two points during the research process. The first interview will take place before the collaboration begins and the second interview will take place after the last session, in order to explore their experiences of the collaborative therapy process. These interviews will be recorded.

Since I will be participating in sessions as well as doing research on the value of the collaborative process between music therapy and physiotherapy, I will be video-recording the sessions in order to interpret and analyze the therapeutic process.

I am aware that my participation in your child's physiotherapy sessions may influence the standard procedures and structure of the physiotherapy sessions. In the initial interview I intend to explore the physiotherapist's perceptions and expectations of working with a music therapy student as well as to discuss how such collaboration could be conducted in a manner that supports his/her therapeutic goals in work with your child. I anticipate (through my review of literature in the area) that my participation in your child's physiotherapy sessions will motivate participation in physiotherapeutic exercises, establish relaxation,

enhance exercises aimed at increasing coordination, crossing midline, joint range and hand-control, and facilitate range-of-motion exercises, muscle-strengthening exercises, postural positioning, gait pattern exercises and motor control tasks.

Participation in this study is voluntary and you may state at any time that you would like me to withdraw from your child's physiotherapy sessions. In case of withdrawal from the study, all data I may have collected pertaining to your child's case in the form of the session recordings and the descriptions thereof, as well as the interview recordings with the physiotherapist and the transcription thereof, will be destroyed.

I assure confidentiality and anonymity of both your child and the physiotherapist involved and will not use any names of any participants in the study. I will also protect institutional confidentiality and anonymity, by not using the names of the institutions at which therapy sessions will take place. After this study has been completed, the findings will be made available in a mini-dissertation and will also be written up in the form of an academic journal article. Data will be stored for archiving purposes at the University of Pretoria for 15 years.

Please contact me if you have any questions or concerns.

I would greatly appreciate your participation in this study. If you are willing to do so, please complete the attached consent form.

Anine Erasmus
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Andeline Dos Santos
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APPENDIX G

Participant Consent Form

STUDY TITLE: Exploring the value of collaboration between music therapy and physiotherapy in South Africa in sessions with clients with Cerebral Palsy

I _____, parent/guardian of _____hereby give / do not give my consent for my child to participate in this research, through allowing a music therapy student to participate in six of his/her physiotherapy sessions, understanding that the focus of research is on the value of collaboration between music therapy and physiotherapy. I hereby give / do not give my consent for these sessions to be video-recorded, understanding that these recordings will only be used in order to describe and interpret the collaborative process.

With full acknowledgment of the above, I agree to participate / not participate in this study on this_____ (day) of this_____ (month) and this_____ (year).

PARTICIPANT/ PARTICIPANT PARENT/GUARDIAN DETAILS:

Participant name: _____ Signature: _____

Participant Contact No: _____ Date: _____

On behalf of the participant: _____ Signature: _____

Relationship to participant: _____

RESEARCHER & SUPERVISOR SIGNATURE:

Researcher Name: _____

Researcher Signature:_____ Date: _____

Supervisor Name: _____

Supervisor Signature: _____ Date: _____