Sound & Sound colour
in
Improvisational Music Therapy

A qualitative research by Kathinka Poismans
2006

“When I hear the sound of a wind-wood and bras band, my feet start automatically to walk in that direction”*

CONTENTS

* (Smeijsters 2005b)

1. Preface

Once I had a client. He was an autistic man and could at times become very stressed and agitated. He expressed his agitation by hitting himself and making loud noises with his voice. I tried to relax him and played on the flute because I knew he liked that sound. I played a long note: the man sat down and stopped hitting himself. I continued playing this note: the man became quiet. I added another long note and varied the two notes. The man still looked and behaved less agitated. I added another note. The man jumped up from his seat, started making a lot of noises and hit himself. I was taken by surprise and my impulsive reaction was to go back to two notes: and it worked. I was intrigued so I repeated the process a second time. And the same thing happened; when I added a third note the man became agitated again. I had to believe that it made a difference; two or three notes, at least for this man. It made me think about all the musical material we, as music therapists, use. How much influence do we exercise by that? And I started to look differently at every decision I made concerning the musical material I offered, added or left out.
The wonder of that moment became a leading question for me in my work as a music therapist. What do we bring about by offering and using all the different appearances and combinations of musical material? What does it mean when a client chooses "his" musical material? Can we make general statements about the effects of the different appearances of musical material, like rhythm or harmony or a-tonal or melodic music?

For many years I observed my own way of working and thought after a while that I could distinguish some general lines concerning the dominance of particular types and organisation of musical material in a music-therapeutic intervention. I asked my music-therapist colleagues if they used specific musical material to guide the intervention in a chosen direction or to create musical possibilities for the client. And I asked them how they thought about the specific characteristics of the different musical material and the parameters that define the music. I wanted to check my own experience and hoped for some consensus on the main lines I could distinguish. This appeared, however, to be a difficult theme. I noticed that many music therapists worked very intuitively and found it difficult to put into words why they did what they did. So I became even more determined to find answers to my questions. It became an imperative for me to be able to motivate and express in words my own actions as a professional music therapist.

The requirement of the Masters degree for "Art Therapies" (Sittard, the Netherlands), which I am following, to carry out a research project provided me with the opportunity to investigate some of my questions concerning the use of musical material in music therapy intervention.
"Sound and Sound Colour in Improvisational Music Therapy" is a research project in which I investigated a particular and elementary musical material: Sound colour, as it appears to be the most diffuse and impalpable parameter.
I had an idea of what sound was and how it could be used. I asked other music therapists and musicians, during a long and intensive discussion, what sound is and how they used it. I studied the literature about sound in improvisational music therapy and I had a discussion with a recognised expert in the music therapy world. This

revealed two important things. The first was that it made me aware of my own preconceptions concerning the musical material “sound”. The second was that music therapists use sound in particular techniques for specific goals and one can say something in general about it.

Acknowledgments

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2. Introduction

The following chapters contain a report of the current research and an attempt to place it into a wider context.
Chapter 3 contains a description of the topic investigated, the research approach used and an introduction to the method of Grounded Theory used. In this method the initial literature study is limited and purely used for orientation. A chronological review of the project including data gathering and processing techniques is also included.
Chapter 4 presents the results; the grounded theory of “The sound in improvisational music therapy”. This grounded theory is a distillation of the experiences and thoughts of responding music therapists, concerning “sound” in their music-therapeutic practice. The grounded theory of “The Sound & Sound colour in Improvisational Music Therapy” developed from a reflection upon the relationships between the main observations of the current work.
Chapter 5 discusses various perspectives concerning “sound” in improvisational music therapy. I review three points of view; a Gestalt and psychoanalytic point of view that is unfolded by Fritz Hegi, a music-analytic point of view from Kenneth Bruscia and a morphological point of view from Han Kurstjens. These point of views are reviewed in the abstracts of literature (Hegi and Bruscia) and in the abstract of the expert interview (Kurstjens). Then the grounded theory of “The sound in improvisational music therapy” is compared with this triangulation of theoretical perspectives and differences and conformities are discussed.
Chapter 6 presents the conclusions that can be drawn and suggests some new questions which may be addressed in the future. A short summary of the research and its conclusions is also given.

3. The research

3.1 Formulation of problem

How do Music Therapists Select the Material they want to Use?
The choice of the musical material and the way it is organised constitutes one of the most important choices in non-verbal music-therapy interventions.
In discussions amongst music therapists, all working with improvisational music therapy, questions frequently arise concerning the analysis and directed use of various types of musical material in the course of a music-therapeutic intervention. The motivation leading to the use of or emphasis upon a certain combination or organisation of musical material appears for many music therapists however to be intuitive: it is difficult to articulate why a choice for certain types of material is made. The difficulty already arises when we attempt to describe the material used: the terms used to indicate the specific characteristics of musical material are ill defined and confusing. The literature is also unclear about the terms to be used: for example Hegi (1998) speaks of the component “Sound” whereas Bruscia (1987) uses “Timbre” when referring to sound quality.

In this research the term “musical material” is chosen quite specifically and interpreted as described by Gieseler (1975). All acoustic phenomena (meaning everything that one can hear) can become musical material, but not all acoustic phenomena are musical material. Acoustic phenomena can become musical material; one only needs to manage the phenomenon. The one who perceives the acoustic phenomenon needs to focus or intentionally open up to it: the acoustic phenomenon becomes musical material only at the moment that one experiences it as such. For example; the sound of a slamming door can become musical material when one approaches it as such; one can make a music piece for doors and the slamming of doors is one of the sounds that is used for the piece.
In its most elementary form, we can consider sound to be “unorganised”: we can think of a note struck from a musical instrument or the sound of a stone falling into water. We might consider these sounds to be elementary building blocks. We can organise these elementary building blocks in an infinite variety of different ways. When we make music from these elementary building blocks we organise them according to a number of parameters. Gieseler has proposed a system of independent parameters by means of which this process can be described (Gieseler 1975). There are parameters, which can be possessed by an individual building block; these include volume, pitch and timbre (which we will refer to as “Sound Colour”) and there are parameters, which can be possessed only by a group of building blocks; these include rhythm, melody and harmony.

Sound Colour
The most characteristic and independent quality of the elementary building block is the sound colour, also known as “Timbre” (Gieseler 1975); one recognizes the sound and the sound-body (the object from which the sound is coming) by the colour of it. The existence of all other parameters and of all other ways of organizing sound imply the presence of sound colour. Nonetheless “Sound colour” has always been regarded as one of the most difficult musical parameters to describe in words or in musical notation (Gieseler 1975).
There are three aspects to sound colour. 1. Looked at objectively one can describe the sound produced by a sound body in terms of its “spectrum”: this expresses the sound in terms of a base frequency and its overtones and undertones. The spectrum also describes how the sound starts and how it decays with time. 2. When we use a musical instrument, for example, the player also influences the way the sound is formed. The player “colours” the sound. 3. Finally we may assume a listener. The listener hears the sound, experiences and interprets it. He also hears a given “sound colour” but this is now a subjective rather than an objective experience.

Sound and Sound Colour in Improvisational Music Therapy
The work reported here concerns sound and “sound colour”. Whilst, in some cases, the use of rhythmically ordered material in music-therapeutic interventions has been well argued and described, this is clearly more challenging for interventions based upon sound colour.
Recent literature investigates all possible methods and techniques in improvisational music therapy very closely as Tony Wigram’s book (2004) shows us, but very little light is shed on the subject of “sound colour”.
The implicit, but hidden, knowledge, which guides the intuitive use of sound colour, must be made explicit before any objective statements can be made about how and why music-therapists use sound-colour in a music-therapeutic intervention.
This research takes as its subject a broad approach to sound in the music-therapeutic intervention avoiding any pre-selection of clients, problems or fields of work where the sound dominated intervention is or could be used. Premature pre-selection on such a basis could lead to a distorted conclusion. The aim is to discover if sound has specific qualities, which suit it for use in a given intervention with a given objective. It is recognised that the research may eventually indicate that certain qualities of sound are very useful in interventions with specific purposes and /or for specific clients.

3.2 Research question and sub-questions

The initial question behind this research was:

“How do music therapists deal with emphasising the use of sound in the therapeutic intervention?”

Given the difficulty of describing sound and sound colour noted above (see 3.1), one was immediately confronted with the question:

1. What do music therapists understand by the word “Sound”?

In the course of the research the focus was led specifically on “sound colour” which led automatically to the question:

2. What do music therapists understand by the term “sound colour”?

To investigate the use of “sound colour” further the following question has to be asked:

3. Are there specific characteristics of sound colour; what makes sound colour different from, and in its own way useful, compared to the other parameters of sound?

Furthermore the application of sound colour in a music-therapeutic intervention was considered:

4. In which music therapeutic situation or for what music therapeutic purposes, does a music therapist choose for a sound colour dominated intervention?

5. What qualities of sound colour make sound colour useful for achieving specific purposes?

Directly related to question 4 is the next question:

6. How does the music therapist do that? How does the music therapist manage a sound colour dominated intervention?

3.3 Aim of the research

Describing the way sound is used in music therapy, describing the purpose for which it is used and elucidating the theory behind the interpretation of the use and production of sound contributes to the development of effective music-therapeutic techniques. Since many techniques are used intuitively but nonetheless successfully, it is supposed that there exists a body of hidden knowledge in the minds of music therapists, the so called “tacit knowledge”. The aim of this research is to make this implicit knowledge explicit so that it can be analysed, and treated theoretically.
Recording these techniques and theories should make them accessible for other music therapists, enable them to be tested and made the subject of further research developed to test there effectiveness.

By fostering a better understanding of how and why music therapists act as they do and at the same time contributing to the development of improved approaches this work will contribute to the further professionalisation of music therapy.

3.4 Surveying qualitative research, developing research

If we want to know how music therapists think about emphasising the use of sound in the therapeutic intervention and to seek answers to the sub-questions that we have derived from this question, we need to ask music therapists. As Migchelbrink (2005) describes it; “Essential for surveying qualitative research is the investigation of what is the matter. One forms a notion of the present state of affairs”. This research therefore takes as its starting point the music therapists who work in the present day and use sound in their interventions. Music therapists were asked to provide descriptions of the music therapeutic interventions, dominated by sound, which they had used, and to share the related knowledge and thoughts that motivated their actions. To maintain as much as possible the “reality” of their experience, thoughts and implicit and explicit knowledge about the use of sound in their music therapeutic practise, a qualitative data gathering technique, as described below, has been chosen. The role of researcher in this part of the project consists of collecting data, and the main concern is to collect good (meaning really concerning the subject) and rich information.

The research question is not about how an individual music therapist argues but about how music therapists in general argue. The objective is therefore to distil some patterns from the larger body of information that may lead to the development of a generally applicable theory. A generally applicable theory describing why and how music-therapists emphasise the use of sound should also lead to the development of more effective music-therapeutic techniques.
Research, which aims to develop or improve methods, instruments or techniques, is called “developing research” (Migchelbrink 2005). The role of the researcher here is to analyse the data gathered in such a way that underlying causal relationships become apparent.

3.5. Literature

It is not a common habit to study literature broadly before the start of a research that uses the grounded theory method (the method used for this research see 3.6 Method). Therefore just an orientation on literature is gone before the collection of data.
The main purposes for the orientation on literature were:

1. to review what already has been written on the subject sound in improvisational music therapy
2. and to determine the terms that would be used for the research

For this orientating review Kenneth E.Bruscia (1987) *Improvisational models of music therapy*, Fritz Hegi (1998) *Übergänge zwisschen Sprache und Musik, die Wirkungskomponenten der Musiktherapie* and Tony Wigram (2004) *Improvisation. Methods and Techniques for Music Therapy clinics, Educators and Students*, were used. These three books represent three different theoretical perspectives on the subject sound in improvisational music therapy. In the book from Wigram the use of

sound in improvisational the music therapy is not discussed at all, although he lifts out all other ways of sound organisation, which can dominate an improvisation (melody, harmony, rhythm, tonality, a-tonality etc).
Since there was no consensus found in the terms used in these books to refer to the organisation of musical material, another book, the book from Walter Gieseler (1975) *Komposition im 20 Jahrhundert*, was consulted (see 3.1 Formulation of the problem).

At the end of this research report, when the grounded theory of "sound & sound colour in improvisational music therapy" has been exposed there will follow a comparison with theoretical perspectives. The perspectives from Hegi and Bruscia will there be discussed more broadly.

3.6 Method

Given the nature of the material which is to be investigated (see 3.4 above) it is clear that a method is required which can record individual practical experience and at the same time lead to a more general statement about the use of "sound" in music-therapeutic interventions. "Grounded Theory" is a research methodology, which meets these requirements. The concept "Grounded Theory" was first launched by Glaser en Strauss (1967, in Charmaz K. edited by Jonathan A. Smith 2003) and further developed by Strauss en Corbin (1990, also in Smeijsters 1997). The key characteristic of the method is that it deduces a theory from a body of practical observations. Experiences and phenomena are described (eventually recorded on tape or video) without reference to any previously selected theory or vision. Analysis of the data and the subsequent conclusions which are drawn lead to a fundamental answer to the question: "What is the essence of the story", which is found in the core categories (Strauss & Corbin 1990, also in Smeijsters 1997. Grounded theory is developed out of the relation and (causal) connections between these core categories. Grounded Theory provides tools for both collecting and analysing the data (see next section).
In a final step the developed grounded theory, is compared with existing theory. The grounded theory of "sound in improvisational music therapy" developed in the course of this research is compared to three existing theoretical perspectives: a process known as "triangulation". Triangulation (Smeijsters 1997) entails the use of several observers, various techniques of collecting data, or (as in the case of this research) diverse theoretical models.

In addition to Grounded Theory the method of "Naturalistic Inquiry" (Lincoln & Guba 1985) has also been used. Here data gathering and data analysis are combined in one technique, (Smeijsters 2005) Naturalistic Inquiry has also been applied to questions of "trust worthiness" (Lincoln & Guba 1985). "The basic issue in relation to trustworthiness is simple: How can an inquirer persuade his or her audience (including self) that the findings of an inquiry are worth taking account of? …"(Lincoln & Guba 1985). A characteristic of Naturalistic Inquiry is the constructivist starting point that THE truth does not exist. Everyone constructs his or her own image of truth and reality and thus the naturalistic inquiry investigates the subjective truth of a specific client or a specific problem or a particular situation. The worth of a

naturalistic inquiry can nevertheless be enhanced by using techniques that guarantee a certain quality. The techniques used in this research project; member checking, peer debriefing, repeated analyses, triangulation and auditing (Smeijsters 1997), will also be discussed in the coming paragraphs.

3.7 Data gathering

If we want to know how music-therapists think about emphasising the use of sound in the therapeutic intervention we need to look “inside” the music therapists themselves. They are the ones that can provide answers to this question.

A “focus group” was organised to gather data on “the sound in improvisational music therapy”. A focus group discussion (or interview) is a discussion about one specific object. The respondents were selected on the basis of their experience and knowledge with regard to the subject discussed. It is important that the members can feel free to talk, a process, which is encouraged when there is, shared interest and experience (Migchelbrink 2005). The aim of the discussion is to generate as much information on the subject as possible; group discussions are particularly effective since one can inspire the other and bring others to new thoughts and insights. Therefore enough room must be created to reflect on the subject and to expose experiences and thoughts about the subject. In this research project it was extremely important to create this room since implicit knowledge had to become explicit; a process that needs room and an informal atmosphere.
On the other hand the discussion has to be guided since the subject has to be watched over. The discussion needs nonetheless to be structured to ensure that it remains “on the subject”. A list of “guiding questions” was made.

This is the questionnaire of the discussion:

1. What do you think when you here the word SOUND? What associations do you make? (in general)
2. Can you describe what you think that SOUND is? (in general)
3. Can you say something about the different aspects of SOUND?
4. How do you think about SOUND in a music therapy context?
5. When and in what music-therapy situations do you use or do you focus on SOUND?
6. When you offer specific instruments to your client, does the SOUND colour play a role in your decision?
7. Are there specific reasons for focusing on SOUND in a music therapy intervention?
8. What do you think; can or do specific sounds have specific effects?

The discussion lasted for almost 2 hours and was recorded on a mini disc.

3.8 Sampling of the data

In a focus group selected respondents are put together. The sampling is done intentionally so that rich containing information can be brought up (Migchelbrink 2005). 10 respondents were selected based upon their specific expertise and experience in the field of music and music therapy (see 3.11 above). The respondents were either music therapists or musicians acquainted with health care and music therapy. It was anticipated that this combination would supply both a variety of views and approaches to the concept of "Sound" and a specific focus on its use in music therapy.

In order to achieve a variety of inputs, which would be, both wide and balanced (especially critical in qualitative research (Migchelbrink 2005)) respondents were selected from different countries, with different levels of practical experience and from a variety of different healthcare fields.
Participants came from Canada (the majority), Denmark and Germany, had from zero to fifteen years of work experience and worked in fields, which included; children with Autistic Syndrome Disorder, people with dementia, people with cerebral palsy, children with special needs and people in nursing homes.

3.9 Processing of the data

The recorded interview was written down in a manuscript. Changes of speaker, silences and laughter, everything was written down irrespective of whether it was "on the subject" or not.

After reading the manuscript carefully, the procedure of Strauss and Corbin (Strauss & Corbin, 1998) was followed. This involved the following steps.

- Coding.

  While reading the transcript, passages are marked which seem to address certain subjects. Each subject may be highlighted with its own colour. In this way groups of words or phrases start to form groups, which refer to given concepts; labels placed on discrete happenings, events and other instances of phenomena (Smeijsters 1997). That part of the text, which had no bearing on, the subject of sound in improvisational music therapy remained uncoloured and was easily recognized as not relevant to this research subject.
- Categorizing

  "A category is a classification of concepts, discovered when concepts are compared against each other and appear to pertain to the same phenomenon" (Smeijsters 1997). This is an inductive method of analysis by which codes and categories develop out of the data and are not settled before (Huesser, 1999, see also Wheeler 2005). By looking at the groups, which were formed during coding and comparing them with each other, it became clear that a number of them dealt with the same or similar subject matter. Categorizing is an attempt to summarize the content of one or more of these groups into concise statements of a concept or idea.
- Repeated Analysis

Repeated Analysis is a technique adopted from Naturalistic Inquiry (Smeijsters 2005). As each category is formed its “essence” is checked against the original data set to ensure that the interpretation is appropriate and that no contradiction exists with the original data set or with other categories.

- Member Checking.

Having defined and named the categories, this summary is submitted to all participants in the focus group in order to check that their original input has been appropriately interpreted and used (Smeijsters 2005).

- Definition of Core Categories.

Core categories can be identified by drawing schemes, which make main lines, causal relations and central phenomena visual. “A core category is a central phenomenon around which all he other categories are integrated (Smeijsters 1997).” And at the same time hypotheses about relationships between the categories emerge.

- Peer Debriefing.

An analysis of the core categories led to the development of the grounded theory of sound in improvisational music therapy. The theory was submitted for critical review to an expert in the field of music therapy, Hans Kurstjens.

- Comparison with existing Theoretical Perspectives.

The “Grounded Theory of Sound in Music Therapy” was compared with three existing viewpoints, which dealt with this subject. These three viewpoints formed a so-called “Triangulation”.

Paragraph 3.11 describes the processing of the data in chronological order.

3.10 Criteria of quality

“Criteria of Quality” are developed to guarantee the validity and trustworthiness of research data. The criteria of quality used in quantitative research differ from those used in qualitative research. In qualitative research these criteria are (Smeijsters 2005):

- Credibility, which means that the results must be credible for the respondents, “were the data analysed in the right way, is this what was meant?”
- Dependability, the results must be as complete as possible, “was everything collected and included? ”
- Conformability, an outsider must be able to follow how the results have been derived, “what is the chain of evidence?”
- Transferability, the results are elaborated in such a way that it is possible to judge whether they can be transferred to another situation?
- Authenticity, the respondents had a fair chance to expose there opinion, or the researcher was able to perform without inhibition in the role of a researcher.

Techniques derived from the method of Naturalistic Inquiry (Smeijsters 2005) have been developed to satisfy theses criteria. In this research the following techniques were used:

Credibility

- Member checking by the respondents who were asked to check the data analyses
- Member checking of the expert interview; the expert was asked to check the abstract of the interview
- Repeated analyses of the data; each new step in the process of analysing the data requires a new comparison with the original data

Dependability

- Member checking by the respondents who were asked to check the data analyses
- Repeated analyses of the data from the focus group discussion
- Prolonged engagement (Lincoln and Guba 1985); by investing time and attention in the situation in which the respondents provided the data a free atmosphere was created and richer data could be expected.

Conformability

- Auditing; the data analyses was submitted to an independent expert who checked the chain of evidence and whether the research methodology had been applied in the correct way (Smeijsters 2005)
- Peer debriefing; data analyses and first results were submitted to an independent expert

Transferability

- Peer debriefing.
- Triangulation; the use of several observers, various techniques of data collection and diverse theoretical models. Triangulation improves the reliability. In this research project it satisfies on the condition of transferability as it also can be used data gathering (Smeijsters 1997)
- Presenting the research report in English; made it possible for more people to judge if the results are transferable and useful

Authenticity

- Of the respondents; prolonged engagement, member checking
- Of the researcher; repeated analysis, auditing

The application of these techniques for ensuring trustworthiness is described in paragraph 3.11 which also gives a chronological description of the research process. Next to these techniques a logbook was maintained in which all steps taken during the gathering and analysis of the data are described as well as the thoughts and considerations, which led to the development of the final theory. By this means the unfolding of the process can be verified (Baarda, De Goede en Theunissen 2005).

3.11 Research Process

The following relates the steps taken in the research programme chronologically. The highlighted text refers to the Quality Criteria described in 3.10.

Data Gathering
After the definition of the research objective and the general approach the first step was a focus group discussion. The discussion was held during a two-day training session for music therapists and musicians with experience in health care (sampling of data). Musicians and music therapists were combined because it was anticipated that they would inspire one another because of their (partly) different as well as related perspectives towards musical material and thus towards sound (dependability). On the day preceding the focus group the participants had worked on analyses of and reflection on the musical parameters and the various musical organizations like harmony, melody dynamics etc. The respondents and the author therefore had the opportunity to become well acquainted with each other before the focus group discussion took place (prolonged engagement). An atmosphere was created in which the participants felt able to discuss freely (dependability & authenticity of the respondents). During the discussion it became apparent that the assumption that sound was just one of the parameters was stretched; the output of the focus group challenged the hypothesis which it was set up to elucidate (authenticity of the researcher).

Data Analysis and Development of the Theory
The first step in the analyses was coding of the manuscript. All apparently significant sentences were coloured, each color referring to an “issue” and the number of main issues developing as coding progressed. Text with similar colours was grouped together into 16 different rows which became the first rough categories. By describing and reflecting upon the categories it became apparent that some of the text fitted better into another category than that where it had originally been placed. It was also discovered that some categories actually dealt with the same topic and could be combined. Combination only took place after reading the original manuscript again and again (repeated analyses). The finalized list of categories (see the enclosure) was sent to the respondents who were asked to read it and check if the descriptions really conveyed what they originally intended (member check for credibility & dependability& authenticity of the respondents).

Relationships between the Categories
Given the approval of the participants for the content of the categories, the next step was to look for relationships between the various categories. The most significant ideas could be identified as “Core Categories” and the relationships, which could be found between the core categories, led to the development of the “grounded theory of sound & sound colour in improvisational music therapy”. During development of the theory, frequent reference was made to the original categories (repeated analyzes) to ensure that the text had been accurately interpreted (authenticity of the researcher).
The completed grounded theory was sent to Han Kurstjens for a peer debriefing. He looked critically at the reasoning leading to the grounded theory and at the theory itself (credibility & conformability).

Triangulation of theoretical perspectives

Two different perspectives were initially selected from the literature; those of Hegi (1998, 2005) and of Bruscia (1987). The grounded theory of sound in music therapy was sent, along with abstracts of the work of both authors, to Han Kurstjens for a peer debriefing. During the discussion of this material, however, Kurstjens also made a comparison with his own morphological perspective and with his own music-therapeutic experience. At the end of the discussion there a new perspective had been added, that of an expert in music therapy (transferability). The intended peer debriefing had also become an expert interview. The abstract prepared from this expert interview and peer debriefing was sent back to Kurstjens for a member check (credibility).

A comparison could now be made between the grounded theory of sound in music-therapy and this triangulation of theoretical perspectives (Hegi, Bruscia, Kurstjens). A further discussion, on base of this comparison was performed by telephone with. Kurstjens. This discussion constituted the final peer briefing (authenticity of the researcher). During the course of this discussion a number of differences between these 4 approaches was underlined but the overall similarities were also emphasized (transferability). The texts were refined and a new question for a next research was formulated.

Henk Smeijsters witnessed the research process and provided guidance where necessary (auditing).

4. Results of the research

In this chapter the results of the research will be exposed on two different levels. The core categories (4.1) are derived by selecting and merging the most important of the categories described in "The descriptions of the categories" (see the enclosure). These 16 described categories emerged out of the coding of the manuscript.

Finally the "Grounded theory of sound & sound colour in improvisational music therapy" (4.2) describes how the core categories relate to each other and lead to a theory of how sound colour can be used in improvisational music therapy.

4.1 Core Categories

The "core categories" were derived by a further process of comparison and merging and selection from the basic categories (see enclosure). They represent the most important ideas captured in the focus group.

Sound, the word, the material

Sound is a very broad concept. Sound is described as an all-embracing acoustic perception. It is so essential and "all around us" that it's even associated with "the Lord".

In the word "sound" there is no judgement; it is a word used to express an objective experience. For example hearing the sound of a motor informs us that a motor is in our environment. One can say: "I hear a motor". The sound also carries a specific quality, a timbre, a colour, and that is the experience of the sound; "I hear a screaming motor and it hurts my ears".

Sound is a phenomenon that can reveal and transfer inner aspects of people. That is a characteristic of great importance where it concerns music therapy.

Sound is an entity that can present itself in many different ways and combinations, and it can have many different functions.

Sound is an all around substance, a material that can be formed, that can be manipulated as well as it can exists on it's own, existing just pure as sound, without being formed, without being put in patterns. In music therapy it is used in both forms; "unorganised sound" which, amongst other things, exhibits sound colour and "organised sound" which is built up from unorganised sound.

The words sound, timbre and sound colour are not uniquely defined. In music therapy it is desirable to use the words in a specific way because "sound colour" is much more specific than "sound". Sound colour describes the quality of the sound; it says "how it sounds" and "what is sounds like". In music therapy sound colour is used for specific reasons and purposes. Sound colour is always the basis, the substance, the stem of whatever shape, appearance or organisation in which sound shows itself. No sound appears without a colour.

The colour of sound
The colour of a sound, the "sound colour" has specific emotional value; one can feel connected, related, find an association with the sound colour, or one rejects it, is not connected with the sound, the sound colour. In that case the sound is called noise.

Whatever feeling one has about a sound colour, the feeling is very strong. As one music therapist said: *"Certain pitches hurt my teeth and certain sounds resonate in my gut. They place themselves so differently in my being"*. The way sound colour is qualified is very individual. A sound colour that one person experiences as a nice warm and soothing sound is experienced by another as suffocating and unpleasant. One experiences sound colour physically (as the quotation shows very clearly) and when the individual describes how he feels about the sound colour or how he judges it, (and these descriptions of it are often very detailed), one notices that affinity or aversion are felt very strongly.
In a music-therapeutic intervention sound moves in two directions: "incoming sound" moves from the therapist to the client and "outgoing" sound moves from the client to the therapist, revealing internal aspects of the client. This applies equally to the sound colour. The focus group laid most emphasis on the "incoming aspects", particularly those aspects focussed on "sound colour" although the questions and the discussion left room for every approach and all aspects.

Noise
Noise can be considered as sound that one cannot feel connected to. Not feeling connected can have two different causes;

- The first is that the sound colour is rejected; one does not like the sound colour and does not find the sound interesting, appealing or aesthetically pleasing to the ear.
- The second is that the sound is organised in a way that one cannot "understand", one cannot interpret the sound as one is used to (the tonal system, rhythms or harmonies may be foreign to one's experience) and the acoustic perception becomes a wall of sound. Or one may not be able to process the excessive amount of musical material that is offered.

The perception of noise is a very individual matter but is also culturally dependent.

The Partnership of Sound & Silence
Sound and silence are strongly related to each other, they have to co-exist in order to differentiate themselves; without silence there's no sound and without sound there is no silence. Silence is present in musical pauses; it allows one to anticipate which sound will follow and helps in appreciating that sound.

Silence
With silence one creates a void or a resting point. It's a moment of absent sound and thus it can become part of the sound.
Pure silence does not exist: there are always some sorts of background or interior body noises. The perception of silence is very individual and relative. It's an abstract term that is classified by everyone in a different way. It can be classified as stillness, because of the feeling of peace that can be in the silence or the silence may also

carry the energy and vibrations of the music. Silence is not a vacuum; it is not just nothing but is a very critical time.

Organised sound
Simple sounds are often organised into more complex patterns. We have preferences for the different kinds of organisation and differentiate and connect specific ways of organizing sound to different states of being. When somebody feels like expressing himself he may choose to sing along with a song: the melodic organisation takes on the role of expressing the self. When the same person seeks a calm and soothing atmosphere he may look for music with many harmonies of a specific kind; the harmonies calm his mood. One might in general characterise one's self as being somebody with an overall preference for a specific type of sound organisation. One might be a "harmonic" person; always looking for harmony and feeling really at home and complete in harmony or one may characterise one's self as a "melodic" person; always focussing on and playing the melody and having little affinity for harmonic schemes.
Whilst music therapists are very cautious about generalising on the functions and effects of musical material they clearly find the personal preferences for the different ways of organising sound very important. They are also very aware of the separate functions, which the various ways of organising sound may have.

4.3 The Grounded Theory of Sound & Sound colour in improvisational music therapy

Abbreviated: The grounded theory o. s & s.c. i. M. Th.

Sound is the fundamental substance in a music therapy session. Sound is the medium through which exchanges between the therapist and client take place. Sound can be organized on different levels but whatever one does with sound there cannot be sound without sound colour. Sound colour implies a direct physical experience with a consequent emotional reaction: directly connecting with or rejecting the physical experience.

Given that sound colour is the most fundamental vocabulary used for exchanges between the therapist and the client it is of great importance that music therapists immerse themselves in the individual preferences or aversions of the client for different sound colours. As one therapist said: *"if anything is going to quickly be a negative sound it would depend on the timbre for that client. I see it so fast"*.

The use of sound colour by the music therapist
The output of the focus group discussion indicated that sound colour forms the basis of the following four techniques in music therapy, each used by the therapist for a specific purpose:

- Awakening the Client.

In most therapy sessions the music therapist's first objective is to make contact with the client, to make the client notice the presents of the therapist and to establish a channel of communication. By choosing the right sound colour (a sound colour which is appreciated by this particular client, provoking positive feelings and not being rejected), and offering this sound to the client (this is the technique), the therapist **awakens** the client (the purpose).

- Creating a Comfortable Acoustic Environment.

An appropriate sound colour establishes an acoustic environment (the technique) in which the client can feel **comfortable**. Feeling comfortable is a necessary condition for feeling free to express oneself and to create.

- Provide a Starting Point for Musical Play.

The adoption by the music therapist of the characteristic sound colours of the client (e.g. by adopting the sound initially produced by the client) forms a common place to **start** a musical play or improvisation (the purpose). It provides a starting point that could be said to be "in" the client. This technique reinforces and consolidates the client as the person he is at that moment and establishes a connection with the client right from the start.

- Challenge Frontiers.

Since an appropriate sound colour can create a feeling of comfort for starting a musical play and can connect the client and the therapist, it also can maintain the feeling of comfort and safety (the technique) and supports the client even when the musical play develops in a slightly uncomfortable way. The therapist can take the client with him to the verge of safety and comfort (the purpose), by leaning on the **support** that the sound colour offers.

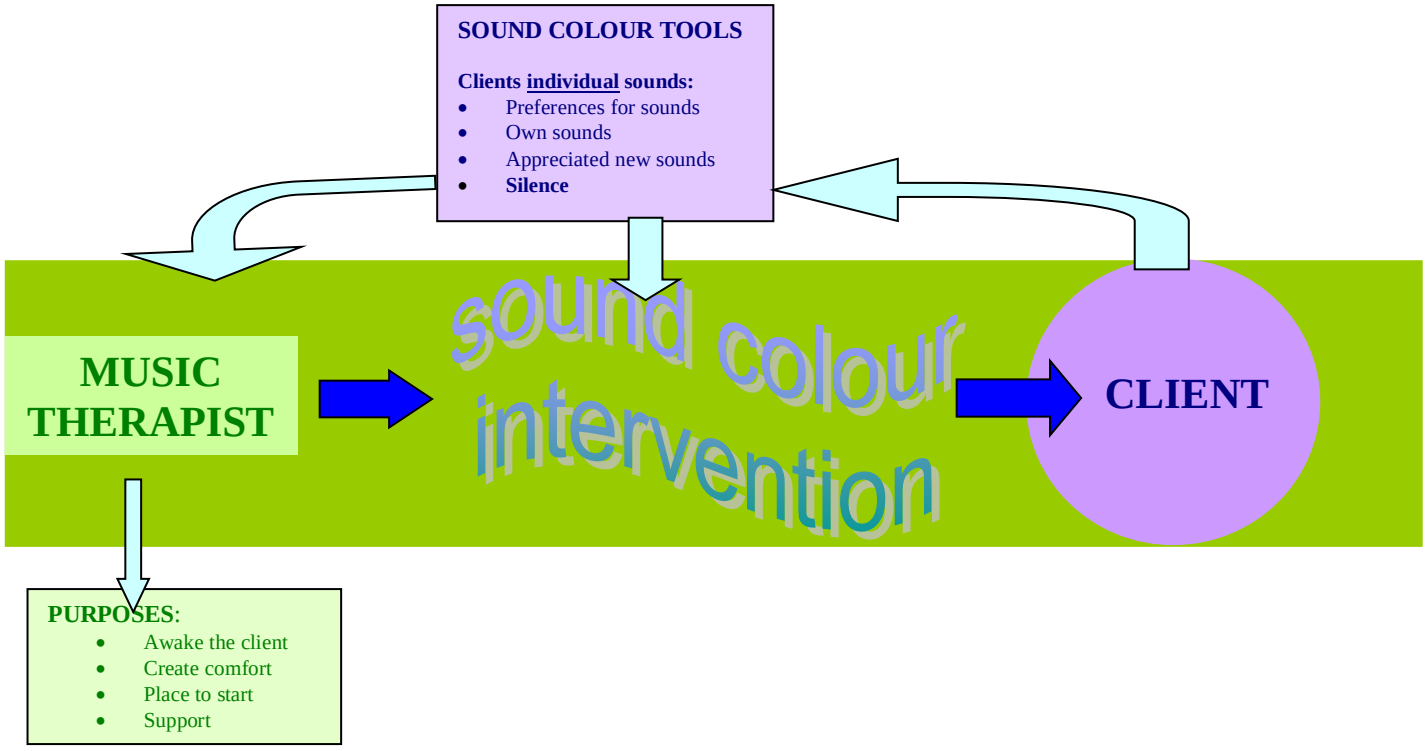
Taken together, these four techniques allow us to progress from the initial contact (awaken the client) through to the level on which client and music therapist play together and explore new ground (support the client).

The Use of Silence in Music Therapy

Silence is an important tool in music therapy performing various functions concerned with processing the music. When sound colour is emphasised in the music therapy session silence takes on a particularly important role.

Silence provides a pocket of space in which the sound just heard can be processed and the sound colour can be consciously appreciated.
It is in a moment of silence that one also fully appreciates the intentionality of what has been "said". The listener understands that he is being singled out and "spoken to". The moment of silence is also his opportunity to react, to give something in return.
Silence can also be used for anticipating what comes next. It propagates the energy of the music and sound that has just been heard and can leave you hungry, desiring more sound and music.

Sound colour, the client and the music therapist.
The following scheme attempts to show how sound colour functions as the medium between client and music therapist. It helps us to appreciate the main direction of the sound intervention by the music therapist but it regrettably cannot convey the swinging, resonating quality of the sound colour and the play with sound colour.



In music therapy sound is the medium between therapist and client (or clients). The colour of the sound has its special quality. It can create openness from the client on a very basic (physical) level, create comfort, be a safe point to start and can support the client while he plays.
It is the task of the therapist to find out what timbre, sound colour(s) fits the client best. He has to detect the client's preferences for sound colour, he can use the client's own sounds (humming, handclapping, sniffing etc) or he can offer new sounds and see if the client appreciates them. It is imperative that the music therapist gets to know his client very well. For the processing of the sounds and the emotions and feelings, which are evoked, the therapist creates space by means of moments of silence. These moments of silence also leave room for the client to react.
Sound colour can also transports inner matters, feelings, and reveal conscious and unconscious thoughts. These "revealing" aspects of sound colour, which imply the interpretation of the client's sound colour, are not dealt with in the grounded theory o. s & s.c. i. M. Th.

The individual theme
The subjective experience of sound colour, noise, silence and organised sound is a fundamental pillar of the grounded theory o. s & s.c. i. M. Th. It is one of the main concerns in the music-therapeutic practice of the therapist to detect these individual preferences or aversions, in order to make their interventions effective.

4.3 Conclusion

This research takes as its objective an investigation into how music therapists handle sound colour in a music-therapeutic intervention. Both the literature and music therapists discuss the use of organised sound but there is little available material on the use of sound colour. The process of working with sound colour appears to have been based to date on an intuitive approach and this research is an attempt to make this implicit knowledge explicit so that it becomes available to all persons working in the field. Although the music therapists and musicians who took part in this research were conservative in generalising the functions and effects of specific musical material some techniques have been defined in which sound colour is the predominant parameter.

In general sound colour is the most basic material in music and music therapy. It directly provokes emotional affinity (which also implies a feeling of neutral acceptance) or rejection. It is directly related to basic, physical perception.
The conscious use of sound colour enables the music therapist to establish and keep contact and to develop a constructive interaction with the client. Four techniques have been identified which enable the music therapist to awaken the client, create comfort, establish a place to start and provide support while taking the client to “uncomfortable musical places’.

5. Triangulation of Theoretical Perspectives

The “grounded theory of sound & sound colour in improvisational music therapy” was compared with two other theoretical perspectives in improvisational music therapy found in the literature dealing with “sound in music therapy” namely *“Improvisational models of music therapy”* Bruscia, K. E.(1987), *“Das Klangraumgefühl”*, Hegi, F. (2005) and *“Übergänge zwisschen Sprache und Musik, die Wirkungskomponenten der Musiktherapie”,* Hegi F. (1998). In all these publications the subject sound was selected and analyzed according to

1. the definition of sound; what was meant exactly with the word “sound” and the expression “sound colour”; how does sound and/or sound colour relate to the other parameters of sound?
2. similarities with the grounded theory o. s. & s.c. I M. Th.;
    - What is written about silence and noise in relation to sound and/or sound colour?
    - Do sound colour and/or sound have specific characteristics?
    - Is a differentiation made between “unorganised sound” and “organised sound”?
    - How and for what is sound and/or sound colour used in music therapy? What purposes and techniques are discussed?
3. specific approaches to sound that differ from the grounded theory o. s. & s.c. I M. Th.

In addition to the literature comparison the morphological perspective was considered in an expert interview with Han Kurstjens MA. His point of view was unfolded while discussing the developed grounded theory of sound in improvisational music therapy.

Thus a triangulation of three different perspectives, arose:

1. The Gestalt psychological, and psychoanalytic perspective of Hegi
2. The music-analytic and, where it concerns the interpretation of the analyzed music, a psychoanalytic and existentialistic perspective from Bruscia
3. The morphological perspective from Kurstjens.

The ensuing sections comprise a critique of the literature and a report of the expert interview. In the final section of this chapter the comparison of the grounded theory of sound in music therapy with the Triangulation of theoretical perspectives is made.

5.1 What Does Fritz Hegi Say About Sound?

In *“Übergänge zwisschen Sprache und Musik, die Wirkungskomponenten der Musiktherapie”* (1998) and in *“Das Klangraumgefühl”*, (2005).

<u>The components</u>

Fritz Hegi distinguishes 5 components as the operational elements of music. These 5 components are:

- Sound

- Rhythm
- Melody
- Dynamics
- Form

Every component has its own characteristics and its own directed way of working and effect.
Hegi developed a music-therapeutic method, a component analysis on the basis of the characteristics of each of the five components.

Sound, the word, the component

Hegi defines Sound in a very broad way. In fact he sees Sound as a complex of acoustic and even pre-acoustic phenomena. He calls harmony, disharmony, rustle, noise, dissonance, consonance, aspects of "sound events". Although he mentions sound colour, he does not approach it as a specific aspect of sound. Sound is the word that he uses to point to an "over-all" acoustic experience (even when it is experienced in silence) that evokes an emotional impression. Sometimes he calls it the "sound image". That can be for instance one cry, but it can also be a whole of sound placed in time and at the same time. For Hegi noise is also part of sound; it is sound that is not received, not accepted, sound that you cannot stand.
In his essay "das Klangraumgefühl", meaning the "sound-space emotion", he says: "Sound extends from absolute silence to an ear-splitting scream, from cosmic emptiness to earthly crash. In between there lie the possibilities of music" (musiktherapeutische Umchau 26,3 (2005), S. 293-297)
In his descriptions of sound made by clients, it can be noted that Hegi describes the sound colour as well as the time, the pauses which appear in between the sounds (rhythmical component). The dynamics, crescendo's decrescendo's and abrupt starts are also part of his sound descriptions (dynamic component). This exposes his view that the different components together form a whole. But nevertheless his component theory underlines the individual musical life of each component and the specific qualities of each of these components.

Sound is emotion

Hegi discusses the translation of inner matters through sound. He associates certain qualities of noise and sound with certain psychological conditions. He underlines the way children make their primary feelings heard and seen.
Hegi makes a very clear statement about the meaning of sound. His hypothesis is "Klang ist Gefühl" (1986, also in Hegi 1998) which means "Sound is emotion". Sound, in all its appearances, is a direct reverberation of the inner state of being, the physical state as well as the psychological state. Hegi notes in one of his case descriptions that he could hear the laughing of pleasure, the weeping of pain, the crying of anger and the petrification of fear. All of his descriptions are very detailed: one notices that affection is felt very strongly.
The connection between sound and emotion for which he refers to Stern's vitality affects (1992) is emphasized very strongly, especially the phase in which the child starts to be aware of its own feelings, of the own self of his own person distinguished from his environment and other persons. This developing awareness is attended by sound; the child investigates his internal and external world by experimenting with sound qualities. Hegi therefore draws attention to the possibility of regression that

can occur when working with “sound-images”, “noise-sources” and “noise-attacks” in the therapeutic situation.

Sound and body

Hegi also points at the old and deep connection between sound and being a whole: being “sound” (note the pun), being healed. Again this concerns the psychological as well as the physical whole. Since organs themselves are sound-bodies they can be influenced by external sound. It is the resonance in these sound-bodies that can have healing qualities.

Sound-fields

In music therapy there are fields of sound that are of great importance, although all aspects of sound have the right to exist; “In der Therapie sind Klänge wertfrei und haben, gerade wenn sie Gefühlen in sich tragen, einen Grund”. “In therapy sounds are free of value and, especially when they carry emotions, they have a reason”. These three sound-fields are: dissonance, resonance and “desonance”. Hegi also discusses harmony and consonance. These 5 aspects are the 5 main fields to qualify sound.

Desonance is a new word invented by Hegi and indicates sound that is strewn about, that is scattered aimlessly and unpredictably. It is sound that can be qualified as a mixture of sounds, dissonants, as rustle, noise and scatter. Unsettled tension, un-stilled needs, impulsive reactions and contradiction sound desonant.

Resonance concerns all sounds that produce a reaction, which is in direct relation to the stimulating sound. Hegi notes that the psychological transfer and counter transfer is called “resonance” in music therapy. Resonance implies the possibility to be in and to be aware of one own sound-body as well as the potential to resonate with and answer to another sound-body. In resonance hidden moods and the unconscious backgrounds of a person are heard.

Dissonance or disharmony refers to tension. The rubbing and wringing intervals provide relations of tension between organisation in consonants and the chaos of rustle. The sound quality of the second provides moods of transition and contradiction and amongst them the tension erotism, of limitation of curiosity and adventure.

In these three sound-fields lies the therapeutic question and also the improvisational freedom. The “music industry” is mainly concerned about harmony and consonance whilst “art-music” engages with all 5 fields of sound.

5.2 What Does Kenneth Bruscia Say About Sound?

In *“Improvisational models of music therapy”* (1987)

Bruscia developed The Improvisation Assessment Profiles (IAP’s) as an instrument, a model, to assess a client’s musical improvisation.

The musical analysis takes place on the basis of 6 profiles. These profiles do not directly concern musical material, elements and components but they focus on particular musical processes within the musical improvisation. The profiles describe

how a client deals with the different musical elements in the context of these particular processes. The profiles are:

- Integration
- Variability
- Tension
- Congruence
- Salience
- Autonomy

Bruscia has arranged the various musical elements and components, and also various extramusical elements and components, into scales. The scales are grouped together according to the type of element:

- The “Rhythmic” scales deal with the components of pulse, tempo, meter, subdivision and pattern, and may be analyzed according to figure-ground or part-whole relationships.
- The “Tonal” scales deal with the components of modality (scale), tonality, harmony, and melody and may be analyzed according to figure-ground or part-whole relationships. Musical style is also included in this category.
- The “Texture” scales deal with the overall fabric of the improvisation, pitch registers, voicing configurations, musical roles of each part, and phrasing.
- The “Volume” scales deal with sound intensity and mass, or what is commonly called dynamics.
- The “Timbre” scales deal with sound quality, attack, resonance, and instrumentation.
- The “Physical” scales deal with the motor action of playing and the various expressive uses of the body.
- The “Programmatic” scales deal with lyrics, stories, programs, verbal reactions or interpersonal relationships associated with the improvisation.

Analysis

Each scale can be analysed within a particular profile (e.g. rhythm integration, melodic integration etc) but one particular scale can also be analyzed across all profiles. In the next paragraph such a “cross analyses will be made on the element” Timbre.

Interpretation

After the analysis of the improvisation an interpretation can be made. The level of interpretation depends upon the extent to which the therapist goes beyond the immediate musical data and makes inferences and generalizations pertaining to other non-musical areas of development and functioning.

Bruscia interprets from both psychoanalytical and existential perspectives.
“When taking a psychoanalytical perspective, a major assumption is that one’s music is a symbolic projection of unconscious aspects of the self. That is, the musical elements and the processes through which they unfold and interact within the improvisation (i.e., integration, variability, tension, congruence salience, autonomy) are symbolic representations of unconscious elements of the self and the processes through which the elements unfold and interact within the personality. Thus, each musical element symbolically represents a particular aspect of personality, and each

musical process corresponds to a psychological process". The next paragraph focuses on Timbre and its symbolic representation.

When taking an existential perspective Bruscia notes: "At the most basic level of interpretation, the IAP's provide opportunities to understand the individual's "being-in –the-world". This can be understood in three contexts: being in the physical world of objects (Umwelt), in the psychological world of the self (Eigenwelt) and in the social world of the others (Mitwelt).
In an improvisational context, being-in-the-world of physical objects (Umwelt) is revealed through intramusical relationships (those within and between the musical elements and sound objects) and through intrapersonal physical relationships (between the music and the improviser's body). Being-in-the-world of self (Eigenwelt) is revealed through intrapersonal relationships (between the client's music and his/her thoughts, and among his/her thoughts, feelings and traits, etc.). Finally being-in-the-world of the other (Mitwelt) is revealed through intermusical and interpersonal relationships found between the client's music, thoughts, and feelings and those of the other.
"Being in the world" involves experiencing space, time matter and causality of the client within the Umwelt, Eigenwelt, and Mitwelt. Thus interpretation of the client within an existential framework is an attempt to reconstruct and understand the client's experiences of space, time, material and causality as they occur in the world of physical objects, self, and other."
Bruscia points out that among the IAP's there are specific profiles that are suitable to investigate the different manifestations/forms of a client's "being-in-the-world". Interpreting one's experiences of space focuses on who/where questions, time on who/when questions, matter on "what" questions and causality on "why" questions. For instance, among the IAP's, the integration, salience, congruence and autonomy profiles provide the most relevant metaphors for spatial processes.
However, one does have to keep in mind that experiencing the different ways of "being-in-the-world" cannot be separated from one another. It is merely a matter of choosing a different starting point for reconstructing the entire inner experiences of the client. The next chapter will focus on Timbre and what it can tell about the client's "being-in-the-world".

Timbre in AIP's.
Bruscia does not imbue the element timbre with a specific meaning or value. The way in which timbre is used, or not used, and it's relation to the other musical elements in a specific improvisation from a specific client, give timbre its meaning.
The questions that are asked in the analysis of the improvisation when focusing on Timbre are;

- In the Integration profile:
  "To what extent are the intensity and amount of sound manipulated to form figure-ground, part-whole and solo-accompaniments relationships?"
- In the Variability profile:
  "What is the range of sound qualities used, and the amount, frequency, and abruptness of changes made in them?"
- In the Tension profile:

"How much tension is generated and released through sound medium, instrument sound production techniques and sound vocabulary, and how often is timbral tension varied?"

- In the Congruence profile:
  "To what extent is timbre congruent with tension levels and role relationships in the other elements?"
- In the Salience profile:
  "How prominent is the timbre, and to what extent do sound medium, instrument choice, sound production technique and sound vocabulary control the other elements?"
- In the Autonomy profile:
  "What role relationships do the client and/or partner develop in determining the sound medium, instrument, production techniques and sound vocabulary to be used in the improvisation?"

After making the analysis, an interpretation is made. This interpretation reveals patterns in the client's abilities, feelings and relationships.
As noted before, the interpretation can be made from both psychoanalytic and existential perspectives.

Psychoanalytic perspective:
Timbre represents the identity of the player. It tells us "who" is playing. It tells us also "how" the player is, in what state of being he is. Is he physically or emotionally tensed or just full of energy? The produced sound reveals this inner state of being.
An instrument's timbre, visual image and physical relationship with the player can be a symbolic representation of the inner self.

Existential perspective:
In the existential point of view, Timbre is evaluated for salience only there where it concerns the experience of matter. The investigation of the client's use of timbre tells us something about how the client experiences "matter" as a part of his "being in the world".
Although in this existential point of view Material is considered to be the actual content of the musical experience; "It is the substance of music", timbre (as an element of the material) is not separately treated. Timbre (together with volume and texture) conveys the physical qualities of the Music (Umwelt) while rhythmic and melodic scales reveal its emotional and ideational substances ("inspirational sources") for the improviser (Eigenwelt).

Techniques in improvisational music therapy

Bruscia provides a review of 64 clinical techniques. These techniques are grouped under headings according to the primary application or use within an improvisational session.
The headings are:

- Techniques of Empathy
- Structuring Techniques
- Elicitation Techniques
- Redirection Techniques

- Techniques of Intimacy
- Procedural Techniques
- Referential Techniques
- Techniques of Emotional Exploration
- Discussion Techniques

Every heading discusses different kinds of techniques. Many techniques make use of or are based on musical elements and material (e.g. in “Structuring techniques”: rhythmical grounding, or in “Referential techniques”: pairing, which involves the therapist improvising different musical motifs to select client responses and then playing the motif every time the client emits the response). It is striking that timbre and sound colour are not explicitly mentioned in any of the 64 techniques.

“Techniques of Empathy” are generally used for matching with the client, serving to convey empathy, establish rapport and elicit interactive responses. The following three techniques are noteworthy:

1. Imitation: The therapist echoes or reproduces a client’s response, after the response has been presented. It is used to focus the client’s attention on his own actions, to reinforce the client for reacting or communication (…), to convey acceptance of the client’s offering (…).
2. Synchronizing: The therapist does what the client does as the client is doing it. It is used to support, stabilize (…) and to promote the clients self-awareness.
3. Pacing: The therapist matches the client’s energy level, by using the same intensity and speed of effort as the client. It is used to increase the client’s physical relatedness to the environment, to establish rapport, to increase comfort, to promote self-awareness, (…).

In “Elicitation techniques” Bruscia describes:

1. “Making Spaces”: The therapist improvises and provides frequent spaces within the structure of the improvisation for the client to respond or inject sounds.

In “Techniques of Emotional Exploration” Bruscia discusses, amongst others, the following technique:

1. “Holding”; holding is a combined use of several techniques, including reflecting, pacing, grounding and centering. By providing a sympathetic musical structure in the background, the therapist offers a safe container for the client’s feelings. Because the structure is not imposed on the feelings but rather gleaned from them, it provides a point of reference rather than an organizing or grounding force.

It is very clear that Bruscia does not have any preconceptions with regard to specific qualities and possibilities that musical material and elements have: the meaning of a client’s music can only be revealed by analysing the way that he processes musical and extramusical material.

5.3 Abstract of the expert interview Han Kurstjens; the morphological point of view

In a discussion lasting 1 ½ hours, Han Kurstjens critically reviewed the grounded theory o. s. & s. c. I M. Th.. He reflected upon this theory from a morphological perspective.

The discussion began with a comment over the ambiguous use of the word “sound” Referring to the definition of “sound colour” used in the grounded theory o. s. & s. c. I M. Th. the question was raised whether one spoke of the technical aspects of sound colour, e.g. which harmonics are present, or of the affective, i.e. psychological interpretation of an acoustic experience.

Kurstjens states that in music therapy one is largely concerned with the affective interpretation of an acoustic experience. In other words a sound has a specific significance for the listener; it creates an “atmosphere”. An “atmosphere” implies experiencing a latent identity both of the person and of the surroundings.
Morphologists make use of the “descriptive method”, a language without specific jargon, which bridges the gap between pre-linguistic and linguistic expression. The term “peri-verbial” is used: it implies a function like poetry, which suggests or provides pointers to an experience. “Sound Colour” is an unconscious, unarticulated experience of sound, which is provoked by a given sound.
Dr. Kurstjens also suggests a connection with the development of vitality affects proposed by Stern (1992). “Sound Colour” connects with pre-linguistic experience just as pre-linguistic experience expresses itself in sound colour.

Seen from the morphological perspective every sound produced is considered as formation, an expression with a meaning. This includes chance noises and silences. The experience of sound colour is a diffuse, few unarticulated act of formation. In a continuum of articulation it is the least sophisticated. . The direct relationship can be seen here with the development of identity. Via the process of “registration” (in which there is already recognition even when it cannot be expressed verbally) articulation develops towards the stage of “encoding” in which sound colour can be verbally qualified. In this process there is a development of articulation in the formative process.
”Formation” describes how one articulates the sound colour; how that person “sounds”. This can be either poorly or well articulated. For instance one can produce loud, short, abrupt sounds (articulation of a personality) and may at the same time utter unintelligible words in an unconnected melody (chaotic, confused expression) but one may also make the same loud, short, abrupt sounds and order them into comprehensible words following a logical melody (logical, structured expression). Sound Colour, being the least articulated form of expression, is the basis of this process. It gives expression the most vital impulses, emotions that are felt but not yet articulated. In the first instance this experience is physical, visceral. Here one can also see a connection with the “vitality effects” proposed by Stern (1992).
The fact was underlined that sound colour is always a part of a greater whole and never can be considered as an isolated musical component. The different components interact with each other; for instance dynamics can intensify the experience of sound colour.

Since it is situated in an unconscious, few unarticulated phase of the formative process, it is not hard to understand that sound colour has sometimes received less attention than it deserves. The focus is easily shifted to more articulate, more conscious formation where sound colour is placed in organised patterns.
For music-therapists, but equally for musicians, it is important to pay attention to sound colour; it provides us with information, particularly about the atmosphere in which we find ourselves.
In a music-therapeutic intervention sound colour can be used to make contact with the client. Especially where a client does not produce any sound spontaneously the therapist will try to provoke him into producing sound by using sound colours which match the client's own atmosphere. In this way a "shared atmosphere" can be created in which the client can be "seduced" into producing his own sounds.

Where this is successful the sound produced by the client implies an immediate psychological interpretation by the therapist: the sound colour used by the client informs the therapist about the client's identity.
Growth in sound articulation means, in a psychological sense, growth in the identity, individuality and personality. From this point of view sound colour can be regarded as very important for the music therapist.

5.4 Comparison of "A grounded theory of sound & sound colour in music therapy" and the Triangulation of theoretical perspective

The grounded theory of "Sound in improvisational music therapy" was compared with a triangulation of the theoretical perspectives described in the preceding abstracts.

Sound, the word.
The word sound is frequently used but is poorly defined and therefore not very useful for a comparative study. "Sound" has been used to refer to a total sound impression (see Hegi 1998), a particular acoustic phenomenon or an acoustic perception (the definition used in the grounded theory). Bruscia does not define it at all but dissects it directly into intensity and quality of sound (dynamics and timbre). Kurstjens also immediately questioned the use of the word "sound".

<u>Sound colour</u>
The word sound colour is much more specific (see 3.1). Whilst sound colour tells us something about the objective nature of the sound it also tells us about how a sound is made (and thus something about the person making the sound) and about how the sound is experienced. Sound colour therefore tells us about the inner life of the producing or receiving sound body (an instrument, a person or more importantly both person and instrument).

The Personal Aspect of Sound Colour

The involvement of the individual in producing and experiencing sound colour means that sound colour is subjective and derives its meaning only from the individual who is producing or experiencing the sound colour.

This view of sound colour can be found in Hegi ("In therapy, sounds are free of value and have meaning only when they embody a feeling" 1998) and in the psychoanalytical interpretation of Bruscia where this element is not imbued with a specific meaning but is interpreted in relation to the total improvisation. Kurstjens also considered that the affective interpretation of sound colour was of most relevance to music therapists.

The existential interpretation proposed by Bruscia takes a somewhat limiting point of view assigning to sound colour a specific role. In this case sound colour, as an aspect of the musical material, tells us something about how the client experiences "matter" as a part of his "being in the world". Sound colour (amongst volume, body use, instruments, medium and texture) reveals physical relationships between the player and the surrounding world, which comprises material and persons. The way someone deals with his surrounding world nonetheless also tells us something about his inner world.

The grounded theory assumes the personal significance of sound colour. It proposes that the first priority of the music therapist is to immerse one's self in the sound colour vocabulary of the client and to understand what significance given sound colours have for the client.

Sound Colour and Fundamental Feelings

Kurstjens proposes that sound colour is the least articulated of musical forms and that it therefore conveys the least articulated of human emotions. He suggests a connection with the "vitality affects" described by Stern: a relationship, which is also suggested by Hegi. Whilst Bruscia says that sound colour tells us about the identity of the player and "how he is", Hegi, suggesting that "sound colour is feeling" and conveys inner experience associates sound colour specifically with the least articulated of human emotions (the vitality affects). The grounded theory o. s & s.c. i. M. Th. makes this assumption also and uses sound colour to make contact with clients who exhibit low levels of articulation in their communication.

The Possibilities of Sound Colour in Music-Therapeutic Interventions

Kurstjens suggests that the low level of articulation which can be associated with sound colour makes it especially suitable for making an initial contact with a client and for provoking him to make a response. This particular insight as such cannot be found in Hegi but is similar to the concept of "pacing" found among the "Techniques of Empathy" proposed by Bruscia. Bruscia speaks of using intensity and speed to establish common ground with the client but sound colour would seem to provide an equally valuable vocabulary. The grounded theory o. s & s.c. i. M. Th. proposes using sound colour to make the initial contact with the client.

Once contact is established, the "personal nature" of sound colour enables the therapist and client to build their own "atmosphere". Hegi uses the word "resonance" for this mutual contact within the sound experience. This possibility is inherent in approach of Bruscia, once again within the "Techniques of Empathy" he speaks of imitation and synchronization to establish a feeling of comfort and self-awareness. In

the grounded theory o. s & s.c. i. M. Th. the adoption of the sound colour of the client is used to capture the client's attention and to reinforce his sense of security leading to enhance self awareness.

Bruscia also speaks in his "Elicitation Techniques" of "creating spaces" in which the client can respond or inject his own sounds whilst this is not explicitly dealt with by Hegi. The grounded theory similarly makes use of "silence" but now with two functions in mind; to allow the client to become consciously aware of what he has just heard and also to invite him to give a response.

Bruscia also speaks of "Techniques of Emotional Exploration", one of which is "Holding", which attempts to provide a musical structure to serve as a "safe container" in which the client can feel safe to express himself. The grounded theory makes use of a similar concept based upon the development of a comfortable atmosphere constructed of sound colours derived from the client's own vocabulary. This comfortable atmosphere should allow the therapist to guide the client through new experiences leading perhaps to higher levels of articulation.

The direction of sound colour

In all three theoretical perspectives there is consensus about sound (and thus sound colour) being the medium between client and therapist in music therapy.

Bruscia the revealing aspect of sound. By analyzing and interpreting the client's improvisation (using the AIP's) patterns in the client's abilities, feelings and relationships are revealed. "The musical elements and the processes through which they unfold and interact within the improvisation (…) are symbolic representations of unconscious elements of the self and the processes through which the elements unfold and interact within the personality". By interpreting the client's way of managing timbre, as being part of the material world (existentialistic point of view) the therapist tries to reconstruct and understand the client's experiences of space, time, material and causality, as they occur in the world of physical objects, self, and other. In the first place Bruscia analyses the client's improvisation and questions what role sound colour plays (compared with the other musical and extra musical elements) in forming figure-ground, part-whole and solo-accompaniment relationships. Sound colour is not considered more or less important than the other musical and extramusical elements. The importance and the revealing quality lie in the (possible) salience of the use of sound colour.

The exchange between therapist and client can however take place in two directions. This exchange in both directions at the same time is described by Hegi as "resonance". Hegi emphasizes the mutual reverberation between the sound body of the therapist (that can be his psychological and physical body that sounds or that sounds through an instrument) and the client (again that can be his psychological and physical body that sounds or that sounds through an instrument). It is the reverberation of personality. This is the area of transfer and counter transfer.

Hegi also endorses the revealing quality of sound colour. The sound fields Desonance and Dissonance (see for both terms the abstracts) are here of special importance because together with resonance, they carry the therapeutic question.

Kurstjens also emphasises the revealing quality of sound in the morphological approach. Sound colour is considered an articulation of the self. It represents the self and makes it audible. Development of sound articulation (seen from the psychological perspective) reflects a growing identity. That in itself may be a part of the therapeutic process.

The grounded theory o. s & s.c. i. M. Th. concentrates specifically on the “incoming” direction of sound, that is the sound offered to the client. The grounded theory uses sound colour to enable the therapist to move towards the client and to match the client. It is particularly used to “enter”, to “open up” and to support the client. It is clear that the resonance of which Hegi talks also makes itself felt; a client will only “open up” and react when the sound finds a “sounding-board” within the client. For this to happen the client must feel connected with the sound and the sound must have a colour that appeals to the client. This resonance is brought about by adopting the client’s own characteristic sounds in order to create a “common place to start”
It is striking that Bruscia does not mention the “incoming” quality of sound colour in his 64 clinical techniques (as he mentions for instance the centering quality of the tonal element). The techniques suggested in the grounded theory o. s & s.c. i. M. Th. would form a fitting complement to the techniques he describes.

Sound colour; a possibility in music

In his work on music-therapy Hegi starts from the broadest possible definition of sound: “Sound extends from absolute silence to an ear-splitting scream, from cosmic emptiness to an earthly crash. In between there lie the possibilities of music” (1998). Hegi proceeds to split music up into five essentially independent components: sound, rhythm, melody, dynamics and form. He regards each component as having its own mode of operation and effects. Hegi places sound colour within the component “sound”. For Hegi it is sound that can “transfer inner aspects of people and in this way becomes the carrier of emotions.” Hegi also makes the connection with Stern’s “vitality affects” suggesting strongly that Hegi also considers sound to be the medium for transferring very fundamental, hardly articulated feelings. Sound and sound colour are clearly important in Hegi’s treatment and are considered in his interpretation as an important component within the totality of sound and music (in the broadest definition).
Bruscia also considers the totality of sound and music and analyses it using a methodology that shows some basic similarity to that of Hegi but which concentrates more on the process of formation. In his psychoanalytical approach Bruscia assumes that one’s music is a symbolic projection of unconscious aspects of the self. Bruscia does not however impute any specific meaning to sound colour but considers that sound colour derives its meaning from the way it is used in a specific improvisation in relation to the other musical elements.
In the morphological interpretation proposed by Kurstjens, the focus is placed upon “formation” and since sound colour represents the least articulated act of formation, it cannot takes a very significant role in this approach.
It can be seen that in all of these theoretical approaches sound colour tends to occupy a minor role in a larger pattern in which much more sophisticated structures, such as rhythm, melody or the “process of formation” receive the most attention. And although the sound colour of the client is regarded as important, sound colour in the

intervention by the therapist is not always regarded as having its own specific function.
The grounded theory o. s & s.c. i. M. Th. contrasts with these three approaches to the extent that the grounded theory places sound colour in the foreground and does consider it to have its own unique role. Sound colour, although receiving its specific meaning from each individual client, is nonetheless the medium by which the therapist is able to make contact with the client on the most basic, almost unarticulated level. The grounded theory does not however exclude more sophisticated ways of organizing sound. On the contrary, the grounded theory proposes that sound colour, by enabling the client and therapist to create an atmosphere in which they can interact without anxiety or withdrawal, may permit the client to participate in the process of formation and move on to higher levels of articulation, to develop and unfold his identity. The grounded theory also assumes that other musical elements may be present in an intervention but it nonetheless derives its specific effectiveness (making contact on a basic almost unarticulated level) from the concentration on sound colour.
The grounded theory does not dwell on the interpretation of sound colour in a music-therapeutic intervention; it does not attempt to translate sound colour into psychological meaning. The grounded theory stresses the direct relation between sound colour and the inner self (physical and emotional). Feeling connected with the sound colour is feeling connected with the inner self.

6. Discussion

Although the title of this research uses the word “sound” the research itself emphasized the colouring quality of sound; “sound colour”. During the peer review, Kurstjens proposed that we should talk about “colouring the sound” rather than “sound colour”. Being a verb “colouring the sound” suggest immediately the processing of sound, it suggests movement and action: the experience of sound color is in the action. This is of central importance in music therapy.
The emphasis upon sound colour was not immediately evident, however. In the focus group discussion it became apparent that most of the time sound (and thus sound colour) is arranged into patterns; musical patterns like melody, rhythm, a dialogue form, a well known song etc.. It was only a remark from one of the music therapists participating in the focus group suggesting that by omitting as much as possible these “usual” patterns and modes of organisation, one would be able to focus on sound colour in an improvisation. The surprise with which this suggestion was received served only to underline how little awareness there was of the role of sound colour and how little conscious attention it normally received. The pre-verbal experience of sound colour may partly be to blame for this but maybe also the dynamic nature of the process of colouring sound makes it difficult to capture and to reflect upon.

During the development of the grounded theory it was possible to make implicit knowledge explicit and to reveal possibilities for the purposeful use of sound colour in music therapy.
By focussing on the colouring quality of sound the grounded theory suggested a number of specific purposes for which a sound colour dominated intervention can be used: awakening the client, creating comfort, creating a place to start and providing support while taking the client to “uncomfortable musical places”. It also suggested specific techniques for achieving these purposes;

- looking for and choosing the right sound colour (in the sense of being appreciated by this particular client, not being rejected and perhaps provoking positive feelings) and offering this sound to the client,
- providing an acoustic environment by choosing the appropriate sound colour,
- adoption by the music therapist of characteristic sound colours that are made by the client him/her self,
- after creating a feeling of comfort for connecting to the client and starting a musical play, maintaining the feeling of safety and comfort.

Placing the grounded theory within the context of the triangulation of theoretical perspectives generates a broad view on the application of sound colour dominated interventions.
The literature hitherto has principally discussed the “out-coming” quality of sound: it reveals inner matters of the client, it articulates the inner self and makes identity audible. And thus a client’s progress in articulating sound colour in the process of music therapy is the acoustic rendering of a growing identity.
The grounded theory, on the contrary, focuses on the “incoming” quality of sound that makes it possible to contact the client and to make him aware of the presence and/or action of the therapist.
When both qualities, the “incoming” and “out-coming”, are experienced at the same time we speak of resonance. Resonance implies also the “out-coming” aspects of the

sound colour of the therapist. Neither in the grounded theory nor in the literature is the music therapist him/her self a subject of discussion. What is true for the sound colour to or from the clients is equally true for the sound colour to and from the therapist. Here lies an area for further investigation.
Resuming; the grounded theory of sound in improvisational music therapy together with the triangulation on the same subject, gives a proper and complete image of how music therapist use and think about sound dominated interventions.

There remains an area which has not yet been significantly discussed and which was not addressed in the current research: namely the impossibilities of sound colour dominated interventions. What might be the “traps” of sound colour dominated interventions? Hegi warns for the possibility of regression that can occur when working with “sound-images”, “noise-sources” and “noise-attacks” in the therapeutic situation (and which is not always desirable). Working with autistic people, the “incoming” quality of sound colour is a very important tool however sometimes it appears to be an excellent means by which the client can isolate himself. The client surrounds himself with sound colour: it is clear from his face that he is enjoying himself but contact is no longer possible.

When comparing the grounded theory of sound in improvisational music therapy with other theoretical perspectives it can be seen that sound colour can be used in different directions and for different purposes. The grounded theory focuses specifically on the “incoming” aspects of sound colour. It regards sound colour as a tool, which is particularly effective in enabling a therapist to “match up” with a client on a physical, pre-verbal level and to connect with the inner self and a dawning identity. The question may now be raised: “for which particular types of problems and disorders, or for which specific clients should sound colour play the dominant role?” This question could equally form the basis of a subsequent research project.

7. Summary

How do music therapists choose and use (organise) musical material? This is a professional question concerning the arguments for using specific music-therapeutic techniques. Well-articulated arguments can be made for the use of some of these techniques. Although sound is the basis of all music-therapeutic interventions choices concerning the use of sound in music-therapeutic techniques are more often made on an intuitive basis. A professional approach to music-therapy requires that the implicit knowledge upon which this intuition is based be made explicit.
This research started by enquiring how music-therapists manage the emphasis of sound in the therapeutic intervention. The objective was to trace this tacit knowledge concerning sound and its use.
The author proceeded by questioning music therapists, by getting them to talk about sound in music therapy. This investigation of sound in music therapy led us to conclude that sound is the fundamental material of the music therapeutic intervention. When sound dominates an intervention it is the sound colour quality of the sound that counts. Sound colour makes the sound specific and makes the sound appealing or repulsive. Sound colour in music therapy can be used to match up with the client, to reveal inner matters and to resonate with the client. These are processes, which take place on a non-verbal and physical level although the experience may later become conscious. The most important consideration is that the experience of sound colour is a pre-verbal and physical experience.
By using appreciated sound colour(s) the music therapist can accomplish and keep contact and interaction with the client. And there are clearly some general music therapeutic techniques which imply the focus on sound color and which are used for; awakening the client, create comfort, create a place to start, support while taking the client to “uncomfortable musical places’.

The author also reviewed other theoretical perspectives on the topic. These included a perspective from Gestalt psychology and psychoanalysis, an existentialistic perspective, a music-analytical perspective and a morphological perspective.
The research reported here has shown that there are differing points of view on the role, importance and use of sound colour in music-therapy. While the grounded theory of sound & sound colour in improvisational music therapy regards the meaning that sound colour acquires to be subjective, assigned to the sound colour by the client, some points of view attempt a more objective interpretation associating some musical elements, including sound colour, with specific symbols or meaning.

It was considered important to question how music therapists manage the use of sound. A fundamental result of the current enquiry is the observation that there is agreement on one important point; the experience of sound colour is a pre-verbal and physical experience. In a subsequent research project the intentional use of this quality of sound colour in a variety of music-therapeutic application areas and for different clients and conditions will be investigated.

Enclosure

Descriptions of categories

The following were the thoughts and insights, which constituted each category.

1. Description of Sound

Sound was described as an all-embracing acoustic perception. It is so essential and "all around us" that it's even associated with "the Lord". Sound is recognized as vibrations within us as well as in the world around us. In the word "sound" there is no judgement; it is a word used to express an objective experience. Sound is a phenomenon that can reveal and transfer inner aspects of people.
Sound is an entity that can present itself in many different ways and combinations. It is an all around substance that can exist in its own right but which can also be formed and manipulated. Existing as "sound colour", unformed, it is always the basis, the substance, the stem of whatever shape in which it reveals itself.

2. Description of "Sound Colour" or Timbre

Sound can appear as an unformed acoustic perception; in this case we can only describe the quality of the sound: "how it sounds". "Timbre" and "Sound colour" are words used to describe this particular, raw appearance of sound. Technically, the amount of over and undertones determines the quality (colour) of the sound. Different instruments have different timbre and also every human voice has a unique timbre. The way we use and place the voice and the way we play an instrument influences the timbre.
Differences in timbre are also described in terms of "being of a certain kind of energy", meaning that a particular timbre carries a certain amount (high or low) of energy.

3. Perception of Sound colour: Feeling "Connected" or rejecting unorganised Sound

Although one cannot touch, see or taste sound, one can feel it very strongly, in a negative or a positive way: "Certain pitches hurt my teeth and certain sounds resonate in my gut. They situate themselves so differently in my being".
The way "sound colour" is qualified varies from individual to individual. One often uses detailed descriptions to qualify the sounds, for instance; "pleasing to the ear", "harmonious", "discordant", "nice and full", "low energy", "agitated", or "relaxed". When the individual describes how he feels about the timbre or how he judges the sound, one notices that affinity or aversion is felt very strongly. One can feel connected, related, or find an association with the timbre, or one rejects it, is not connected with the sound, the timbre.

4. Description of Noise

Sound that is not experienced as positive, pleasing to the ear, is called "noise". The word "noise" includes a judgement; a negative judgement. Noise is something undesirable. If one does not feel connected, does not feel related to the sound then it is regarded as noise or a wall of sound. Again the judgment about any given sound, whether it is found attractive or repulsive, varies from individual to individual.

5. Sound can become Noise if it is not organised in some way

It seems to be very important to feel comfortable with a sound or sounds. We like sounds that are organised; when a sound is broken down one can interpret it. The patterns in which the sound is organized often exhibit kind of familiarity. For instance the recognition of tension and release in a harmonic chord patterns, deliberate spaces of silence or a pattern that is in a cadence that feels rhythmic. Silence can also be organized in a pattern of time that allows the sound to be processed in such a way that one can hear what's going on. The sound can also be organized by using other sounds that are to be distinguished; the other sounds take care of the organisation, for instance the long companying tones of a bagpipe that are imbedded in the rhythmical organisation of the melody tones.

When there is no recognizable structure, the sound becomes a wall of sound and the sound will not be enjoyable. For instance, music from other cultures is not always appreciated so easily because there are other structures and patterns to be recognized than those to which one is accustomed (the instruments and voices may also have totally different timbres).
Sounds, which enter into our "sphere" accidentally, can also be experiences as unpleasant. They come from out side the musical situation and are very oppositional to the musical situation, distractive to the attention and processing of the music.

6. The Partnership of Sound & Silence

Sound and silence have a very strong relationship, they need to co-exist in order to differentiate themselves; without silence there's no sound and without sound there is no silence. One can find silence in all pauses in music; it allows one to anticipate the following sound, and to appreciate that sound

7. Silence

With silence one creates a void or a resting point. It's a moment of absent sound and thus it can become part of the sound.
Pure silence does not exist; there are always some kinds of background or interior body noises.
The perception of silence, just like that of sound, is very individual. "Silence" is an abstract concept that is classified by everyone in a different way. Silence is not a vacuum. It is not just nothing. It can be classified as stillness, because of the feeling of peace that can be in the silence but can also carry energy and the vibrations of the music.
A moment of silence is therefore a very critical time.

8. Ways of organizing sound

There are many ways and combinations in which sound can be organised. In music there are some general ways of organizing sound. Sound can be organised horizontally in a melodic way or a vertically in harmony and, accords. One can organize sound in rhythmical patterns, by using moments of silence, by organizing it in time so that one creates period, or by putting the sound in a tonal pattern and using dynamics.

9. Personal preferences

Individuals show strong preferences for the different ways in which sound is organised. It is of great importance that music therapists immerse themselves in the personal preferences of their clients.
Music therapists may allow their own personal preferences to affect the way they hear music; for some the harmony may dominate and for others the melody.

10. General functions of sounds organized in a specific way.

Overall, music therapists are careful about making generalisations on functions and effects. They strongly emphasize the individual aspects of processing sounds and music. Nevertheless there seems to be one way of organizing sounds about which there is some consensus, namely: Rhythm.
Rhythm is the common denominator, especially when it comes to making music in groups. Rhythm provides a grounding, or foundation upon which musical play can be built. It is the centre of the play that brings everyone together.

11. Individual functions

Music therapists are more forthright where it concerns the individual effects and functions of the specific ways in which sound can be organized. For one of them melody the best way to express his “self” while harmony has a more soothing effect on this person.
Individual functions of the way sound is organised are in a certain way related to preferences. Organising sound according to personal preference can lead to the experience of new musical events. On the other hand; hitching on to personal preferences makes someone feel comfortable and helps him to open up. A specific way of organizing sound can be important in creating a whole from the different musical material to which one is exposed; in an improvisation an added harmonic pattern can connect the rhythm and the melody.

12. Sound in Music Therapy

Sound colour is the fundamental substance in a music therapy session. It is seen as the medium or the currency by which exchanges between therapist and client happen.
Choosing the sound, timbre or sounds colour for that particular client in that particular situation depends on the client, on what appeals to him, on what will be experienced as sound and not as noise. The sound that is to be chosen has to match with the client, with his energy. The therapist is very aware of how a client perceives the music, which is being played and heard. When sound is immediately experienced as negative, which the client shows directly in his behaviour, this will be due to the sound colour.
A practical consideration in choosing the timbre is how the instrument that produces the sound allows the therapist to approach the client. When for instance the piano is placed next to the wall obliging the therapist to sit with his back to the client then the therapists will choose a different instrument, with a different timbre, because proximity to the client has priority at that moment.
Ultimately client preferences can only be revealed by experimentation, by trial and error.

13. Purposes

By immersing themselves in the client’s personal preferences for timbre, and by choosing the “right” and “fitting” timbre, music therapists try to awaken the client. The

timbre and the way it is used by the therapist, especially in combination with silence, functions as a cue and it invites the client to open up. The client's preferred is the common place to start.
The "right" timbre also provides a level of comfort so that the client feels at ease, safe and confidence. It can maintain the feeling of comfort and safety and supports the client even when the musical play develops in a slightly uncomfortable way. The therapist can take the client with him to the verge of safety and comfort, by leaning on the support that the timbre, the sound colour offers.

14. Techniques in music therapy

There are several techniques to be distinguished in musical play focussed on timbre. When focussing on sound (the colour and timbre) and on the experience of it, one often avoids as much as possible all ways of organizing the particular sound. One avoids the familiarity of a melody, rhythmic pattern or harmonic scheme.
When one tries to link up to clients, as is often the case when working with autistic people, the therapist starts by copying the sound of the client. This can be, for instance, hand drumming or typical humming sounds. Subsequently one tries to develop the play by putting the sound in certain patterns, for instance creating different pitches on a drum.
Working on the basis of the personal timbre preference of the client is generally such an individual matter that music therapists don't apply it in group sessions. When working with a group as a whole they choose rhythm as the main organisation of musical material because that works better in a group. In such cases the client's personal preferences for those ways of organising sound, which enable him to express himself, lose their priority.

15. Using Silence in Music Therapy

Silence is an important tool in music therapy. It creates possibilities of different kinds. It seems to have different functions in the processing of music.
Silence itself is described as the carpet on which the music takes place but within the music moments of silence can have different functions:
Silence provides a pocket of space in which the music, which has just been heard, can be processed and the sound colour can be appreciated. It is a moment in which we can become aware of things that have just happened.
It is also the moment and space in which transfer takes place; an aspect of what's just happened externally returns back internally for both parties, for the therapist and the client. What actually happened externally becomes, in the moment of silence, very intentional. At the same time the silence leaves space in which to react, to give something in return. It gives the client "a voice".
Silence can also be used for the anticipation of what is coming next. It carries on the energy of the music and sound that has just been heard and played, and it can leave you wanting, desiring more sound and music.

And as a whole silence can organise the sound. It breaks up the sound, gives it form and thus makes it understandable. Without silence the sound and music would just be steady streamers.

16. Sound & The music therapist; It's all about matching it to where they are

In music therapy sound is the medium between therapist and client. It transports inner matters, feelings, and reveals conscious and unconscious thoughts. It's the task

of the therapist to find out which timbre, sound colour fits the client best in order to get into contact with him. It's the task of the therapist to find out which way the sounds should be organized to enable the client to express himself and reveal these inner aspects. Getting to know the client in a musical way is absolutely vital. Questions must be answered such as;

"how much musical material can the client process at the same time?" Or;

"which way of organising the sound, which musical material is suitable for this client to express himself?

Or very basically;

"with which sound can I awaken my client?".

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