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An exploration based on microanalysis of therapeutic interplay

Johns, Unni Tanum

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**MUSICAL DYNAMICS
IN TIME-LIMITED INTERSUBJECTIVE
CHILD PSYCHOTHERAPY**

AN EXPLORATION BASED ON MICROANALYSIS OF
THERAPEUTIC INTERPLAY

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DENMARK

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PhD supervisor: Prof. Lars Ole Bonde
Aalborg University

Assistant PhD supervisor: Associate Prof. Bjørg Røed Hansen
University of Oslo

PhD committee: Associate Professor Ulla Holck (chair.)
Aalborg Universitet

PhD Katarina Mårtenson Blom
Psychotherapist, music therapist and
supervisor in private practice

Professor, PhD Leslie Bunt
University of the West of England

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CV

Unni Tanum Johns is a music therapist (Guildhall School of Music with Juliette Alvin and advanced clinical studies with Paul Nordoff and Clive Robbins), an authorized psychologist (University of Oslo) and specialist in clinical child- and adolescent psychology (NPF). She currently has a clinical position at Akershus University Hospital HF, Furuset child and adolescent outpatient Clinic. She is Associate Professor at The Department of Psychology, University of Oslo. She participated in establishing the Music Therapy education program in Norway, and in developing an interdisciplinary Specialist Program in Intersubjective Child and Adolescent Psychotherapy at the Regional Centre for Child and Adolescent Mental Health, Eastern and Southern Norway (RBUP) (Svendsen et al., 2012; Johns, 2012b). She has additional studies in the treatment of trauma in children and adolescents (Johns, 2017), and has been teaching and supervising music therapy and psychology to students and professionals for many years. Her clinical and academic focus of interest is the integration of empirical knowledge with creative approaches to development and change processes in psychotherapy with children, adolescents and their families, taking as a starting point their individual experiences, needs and contexts. During many years of clinical practice, the significance of non-verbal intersubjective meetings came to the forefront (Johns, 1993, 1996, 2012a). From 2002, she participated in initiating and implementing a research project on time-limited child psychotherapy with children experiencing difficult family situations (Haugvik & Johns, 2006, 2008; Johns, 2008; Haugvik, 2013). This led to further development and writing on the subject (Svendsen & Johns, 2013; Johns). The present research builds on the previous research study, and findings from this study comprise the background knowledge for further analysis and research proceedings in the present study.

PUBLICATIONS LEADING TO THE PRESENT STUDY

- Haugvik, M. & Johns, U. (2006). Betydningen av felles fokus i tidsavgrenset psykoterapi med barn: En kvalitativ studie av psykoterapi med barn som opplever vanskelige familieforhold. [The significance of a shared focus in time-limited psychotherapy with children experiencing difficult family situations]. *Tidsskrift for Norsk Psykologforening*, 43 (1), 19-29.
- Haugvik, M. & Johns, U. (2008). Facets of structure and adaptation: A qualitative study of time-limited psychotherapy with children experiencing difficult family situations. *Clinical Child Psychology and Psychiatry*, 13(2), 235–252.
- Haugvik, M. (2013). Structured parallel therapy with parents in time-limited psychotherapy with children experiencing difficult family situations. *Clinical Child Psychology and Psychiatry*, 18, 504-518.
- Haugvik, M. & Mossige, S. (2017). Intersubjectively oriented, time-limited psychotherapy with children: how does the therapist evaluate the therapeutic process and what are the therapist's tasks? *Journal of Child Psychotherapy*, 43 (3), 353-368.
- Johns, U. (1993). Intersubjektivitet som grunnlag for utvikling [Intersubjectivity as a foundation for development]. I G. Trondalen & E. Ruud (Eds.). *Perspektiver på Musikk og Helse. 30 år med Norsk Musikkterapi* (pp. 67-84). Oslo: NMH-publikasjoner 2008:3. Skriftserie fra Senter for Musikk og Helse (vol. 1).
- Johns, U. (1996). *Stemmen som formidler av følelser og kommunikasjon: Et utviklingspsykologisk og et psykodynamisk perspektiv*. [The voice as conveyer of emotions and communication: A perspective from developmental and psychodynamic psychology]. (Master thesis, Cand. Psychol., University of Oslo).
- Johns, U. T. (2008). 'Å bruke tiden – hva betyr egentlig det?' Tid og relasjon i et intersubjektivt perspektiv. ['To spend the time – what does it really mean'? Time and relations in an intersubjective perspective] In G. Trondalen & E. Ruud (Eds.). *Perspektiver på musikk og helse. 30 år med norsk musikkterapi* (pp. 67-84). Oslo: NMH-publikasjoner 2008:3. Skriftserie fra Senter for Musikk og Helse (vol. 1).
- Johns, U. T. (2012). Vitalitetsformer i musikk. I G. Trondalen & K. Stensæth (Eds.), *Barn, musikk, helse* (pp. 29-44). Oslo: NMH publikasjoner 2012:3. Skriftserie fra Senter for musikk og helse, (vol.3).
- Johns, U. T. (2012). Terapeututvikling: Musikken i det terapeutiske samspillet. [Therapeutic development: The music in the therapeutic interaction]. I Svendsen, B., Johns, U., Brautaset, H. & Egebjerg, I. (2012), *Utviklingsrettet intersubjektiv psykoterapi med barn og unge*. Bergen: Fagbokforlaget.
- Svendsen, B., Johns, U., Brautaset, H. & Egebjerg, I (2012). *Utviklingsrettet intersubjektiv psykoterapi med barn og unge*. [Developmentally directed psychotherapy with children and adolescents]. Bergen: Fagbokforlaget.

ENGLISH SUMMARY

The aim of this PhD study is to explore the influence of non-symbolic microprocesses in time-limited intersubjective child psychotherapy through a musical frame. It builds on microanalytic research, from infant development and music therapy, demonstrating how musical elements can describe and illuminate variations in emotional expressions and relationship qualities. There are until now few studies applying a microanalytic ‘musical’ approach to investigate therapeutic interplay with children referred to mental health services.

Problems with emotion regulation are found in a wide range of diagnoses, affecting the quality of children’s lives. Therefore, the facilitation of emotion regulation is a central goal for child psychotherapy. Knowledge from developmental research shows how affective, non-symbolic reciprocal moment-to-moment interplay underlie and organize self-developmental processes.

Based on previous research findings and knowledge from infant research with reference to musical parameters, such as vocalizations, timbre, pitch, melodic contour, intensity, rhythm and tempo, as concrete descriptions of intersubjective exchanges, this PhD study aimed at investigating the following three main research questions through a phenomenological hermeneutic approach:

1. Can musical parameters be useful to capture intersubjective exchanges between therapist and child – and if so, how?
2. Can a description of musical parameters, within a multilayered frame, illuminate intersubjective microprocesses – and if so, how?
3. Can a phenomenological description and a hermeneutic interpretation of musical parameters, clarify therapeutic interplay and basic developmental processes such as emotion regulation in child psychotherapy – and if so, how?

Two emotion regulation samples of therapeutic interplay with six children, from an early and a late therapy session, are analysed. Applying a qualitative explorative approach, a multi-layered research procedure was firstly developed, including a musical framework as well as a psychological (Johns, 2018). The musical frame is a registration of vocal, rhythmical, dynamic and temporal changes as concrete descriptions of the specificity of therapeutic exchanges, as these unfold. The concept of musical dynamics is suggested as a description of lived relationship experiences over time.

Data were drawn from a mixed-method multicentre study, taking place at the Norwegian University of Science and Technology in Trondheim and at a child- and youth psychiatric outpatient clinic at Akershus University Hospital in Oslo. Research target was changes in emotion regulation in children 9-13 (36) with diagnoses within the internalizing spectrum. Controls (28) were recruited from local schools in Trondheim. Participants were assessed before and after therapy with multiple methods, including psychophysiological measures, which are not a topic for this PhD. Assessment with the Affect Consciousness Interview (ACI) were administered before and after therapy, to obtain objective measures of affect integration. These measures were applied as validation of findings and are described in article 2 in the PhD.

The qualitative multi-layered microanalysis revealed some patterns across samples which demonstrate how a musical dynamics-based description embody and clarify the child's activity, emotional expressions and intentions as well as illuminate intersubjective exchanges.

Findings from the Affect Conscious Interview (ACI) for each of the six children in the study, compared to the non-clinical control group, indicate increased affect integration and development of emotion regulation capability towards an age adequate status. These findings support an understanding of time-limited child psychotherapy as a frame for developmentally directed intersubjective microprocesses.

This PhD study contributes to clinical research and practice within child psychotherapy by showing how a musical dynamics-based description, as part of a multi-layered microanalysis, can clarify the specificity of both the child's and therapist's activity, enabling intersubjective sharing and self-development. A focus on the musical dynamics of therapeutic activity can further contribute to therapeutic development by sensitizing therapists to qualities in their own activity, which promote responsiveness to the child.

The thesis consists of two articles. The first describes the development of the microanalytic research procedure, and the other paper presents and discusses findings. A short summary of articles is given in sections 1.6.1 and 1.6.2. As part of the multicenter study, a handbook was written on the treatment method, integrating research findings and is included together with a linking text. A summary of the handbook is written as part of the description of the therapy method in section 1.2.3.

LIST OF PHD PUBLICATIONS

Article 1

Johns, U.T. (2018). Exploring musical dynamics in therapeutic interplay with children: A multilayered method of microanalysis. *Nordic Journal of Music Therapy*, 27 (3), 197-217.

Article 2

Johns, U.T. (submitted 2018). A study of musical dynamics in therapeutic interplay with children: 'The important thing was to be understood through tone of voice and movements'.

Treatment manual

Johns, U.T. & Svendsen, B. (2016). *Håndbok i Tidsavgrenset Intersubjektiv Barneterapi (TIB). Kunnskapsgrunnlag, behandlingsprinsipper og eksempler*. [Handbook in Time-Limited Intersubjective Child Psychotherapy (TIC): Knowledge base, Treatment Principles and Examples]. Bergen: Fagbokforlaget.

NORSK SAMMENFATNING

Denne PhD studien har som mål å utforske non-verbale mikroprosesser i tidsavgrenset intersubjektiv barneterapi gjennom en musikalsk tilnærming. Den bygger på mikrostudier fra spedbarnsforskning og musikkterapi, som viser hvordan musikalske elementer kan beskrive og belyse kvalitative variasjoner i emosjonelle uttrykk og i relasjoner. Det er til nå få studier som anvender en mikroanalytisk 'musikalsk' tilnærming for å undersøke terapeutisk samspill med barn som er henvist til psykisk helsetjenester.

Problemer med emosjonsregulering er relatert til en rekke forskjellige diagnoser, og innvirker på kvaliteten i barns liv. Derfor er utvikling av emosjonsregulering et hovedmål for barneterapi. Kunnskap fra spedbarnsforskning viser hvordan mønstre i affektive, ikke-symbolske og gjensidige mikroprosesser organiserer selvutviklingsprosesser.

Basert på funn fra en tidligere forskningsstudie sammen med kunnskap fra spedbarnsforskning som refererer til musikalske parametre, som vokaliseringer, klangfarge, tonehøyde, melodisk kontur, intensitet, rytme og tempo som konkrete beskrivelser av intersubjektive utvekslinger, har denne PhD studien hatt som mål å utforske tre hovedforskningspørsmål gjennom en fenomenologisk-hermeneutisk tilnærming:

1. Kan musikalske parametre være nyttige i å fange opp intersubjektive utvekslinger mellom terapeut og barn – og i så fall, hvordan?
2. Kan en beskrivelse av musikalske parametre, som del av en flerlags ramme, belyse intersubjektive mikroprosesser – og i så fall, hvordan?
3. Kan en fenomenologisk beskrivelse og en hermeneutisk tolkning av musikalske parametre, klargjøre terapeutisk samspill og grunnleggende utviklingsfenomener som emosjonsregulering i barneterapi – og i så fall, hvordan?

To samples på emosjonsregulerings samspill, fra en tidlig og en sen terapitime med seks barn 9-11 ble analysert. På basis av en kvalitativ eksplorerende tilnærming, ble det først utviklet en flerlags mikroanalyse metode bestående av en musikalsk og en psykologisk ramme (Johns, 2018). Den musikalske rammen er en registrering av vokale, rytmiske, dynamiske og temporale endringer, som konkrete beskrivelser av spesifikk aktivitet hos barnet eller terapeuten fra øyeblikk til øyeblikk. Begrepet 'musikalsk dynamikk' ('musical dynamics') er foreslått som en beskrivelse av levde relasjonelle opplevelser over tid.

Data kommer fra et multisenter prosjekt, ved Norges Teknisk Vitenskapelige Universitet (NTNU) i Trondheim i samarbeid med BUP Furuset, Akershus Universitetssykehus HF. Forskningsformålet er å studere endringer i emosjonsregulering hos barn 9-13 med internaliserende vansker. Kontrollgruppe er rekruttert fra lokale skoler i Trondheim. Deltagere ble målt før og etter terapi med multiple metoder, inkludert psykofysiologiske mål, som ikke er tema for PhD studien. Affektbevissthetsintervju ble foretatt før og etter terapi, for å få objektive mål på affektintegrasjon. Disse målene ble brukt som validering av kvalitative funn, og er beskrevet i artikkel 2 i studien.

Gjennom de kvalitative mikroanalysene fremkom det noen mønstre på tvers av eksempler som viser hvordan en musikalsk dynamisk beskrivelse av det terapeutiske samspillet med barnet inkorporerer barnets aktivitet og belyser barnets emosjonelle uttrykk og intensjoner, så vel som å belyse intersubjektive utvekslinger.

Funn fra affektbevissthetsintervjuene for hvert barn, sammenlignet med kontrollgruppen, indikerte økt affektintegrasjon og utvikling av emosjonsregulering i retning av aldersadekvat status. Funnene støtter forståelsen av intersubjektive tidsavgrenset barneterapi som en ramme for utviklingsrettede mikroprosesser.

PhD studien bidrar til klinisk forskning og praksis gjennom å vise hvordan en beskrivelse av den musikalske dynamikk i det terapeutiske samspillet kan bidra til å klargjøre spesifikke bevegelser hos barnet eller terapeuten som bidrar til intersubjektiv deling og selvutvikling. Fokus på musikalske elementer og kvaliteter i terapeutisk aktivitet kan bidra til terapeutisk utvikling gjennom økt sensitivitet og oppmerksomhet på kvaliteter som fremmer responsivitet overfor barnet.

PhD studien består av to artikler, den første omhandler utvikling av en flerlags mikroanalysemetode og den andre presenterer og diskuterer funn som fremkommer gjennom analysene. En håndbok som beskriver behandlingsmetoden og som integrerer funn fra studien er også inkludert sammen med kappen.

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This project has been a long journey full of winding new roads of challenges, learning and surprises and I am immensely glad and grateful to have reached the end. Many are those who have inspired, supported and contributed along the way.

Firstly, I want to thank the children and parents who have taken part in the study, and without whose participation, sincerity and valuable comments I would have been much poorer in both knowledge and outcome.

The study could not have been fulfilled without the support and enthusiasm of two leaders at the Furuset child- and adolescent outpatient clinic during the research period, Gro Traavik and Marianne Kveldstad. Their confidence in the significance of qualitative clinical research and the courage to participate in a multicentre study has been priceless. Also, I want to thank my colleagues, who have participated as therapists and collaborators in the mixed method study. Marianne Haugvik, with whom the first study of time-limited child psychotherapy was initiated, has been very important in the work to broaden the scope of opportunities for clinical research.

A very special thank goes to my supervisor Lars Ole Bonde! Your creative and knowledgeable mind, wise questions and often surprising ideas, your combination of endless patience and impatience with everything that got in the way – all of this has made the project and me develop – and I am deeply grateful!

I will be forever grateful to my wise supervisor on child psychotherapy research Bjørg Røed Hansen. She has been my teacher and supervisor since 1991, when she was the co-founder of the first child psychotherapy seminar at the University of Oslo. She brought Daniel Stern to Oslo, and intersubjectivity to psychotherapy. Without her pioneering work, this study might not have had the solid developmental and psychological theoretical fundament to make meaning out of therapeutic microprocesses.

Another key person to this study is Birgit Svendsen, who took the initiative to a mixed method multicenter study of child psychotherapy, the first in Norway to apply psychophysiological measurements in addition to qualitative method. Birgit's methodological skills, courage, global enthusiasm and talent in involving collaborators has been crucial.

The first person who eagerly supported an integration of music and psychology to study nonverbal communication in child psychotherapy was Tony Wigram, psychologist, musician, music therapist and researcher at the doctoral school at Aalborg university. He made me believe that it was possible, worthwhile and fun to research! Years later when I finally decided to pursue the project, I have had the privilege of being a part of the international Aalborg research family. I am grateful to Hanne Mette Ridder for always being attentive to practical, social and professional issues, and to the other teachers on the program for the many unformal gatherings and valuable exchanges. Presenting my ideas to a group with teachers and students of such diversity in cultural and professional backgrounds has been enriching.

Invaluable backing from the beginning came from my friend and colleague Gro Trondalen, whose continued support in everything from technical data challenges to discussions about research issues has been of vital importance for which I am grateful.

Thank you to my children Jonas, Ingrid and Niklas, who has always broadened my perspectives and brought pleasurable distraction, and to my husband Erling who has been there the whole time with patient and endless support and care.

Björg and Birgit both passed away much too early, Birgit in 2016 and Björg in 2018. Their enthusiasm for child psychotherapy never ceased to exist and they followed the research project to the end of their lives with the same passion and persistence. I dedicate this work to them.

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Figure 1. Graphic overview of microanalytic research study

Figure 2. Flowchart of multicenter mixed method research study

CHAPTER 1. INTRODUCTION

This study initiated in a previous research project on time-limited intersubjective psychotherapy with children in difficult family situations (Haugvik & Johns, 2008). After therapy ended, parents described the children as being clearer about their needs and with increased ability to share both positive and negative feelings, as well as symptom reduction. I wanted to study the method further, to search for hallmarks and enabling conditions of therapeutic interplay facilitating self-regulation and affect integration. The present study explores the non-verbal therapeutic dialogue in child psychotherapy through a ‘musical frame’ as part of a microanalytic approach (Tronick, 1998, 2007; Trevarthen, 2001; Stern, 2004; Harrison, 2013).

The primary aim is to illuminate and clarify features of dialogical exchanges, which promote self-development in the child. The study is an integration of knowledge from several areas:

Firstly, empirical infant research has opened doors into the possibilities of microanalysis of moment-to-moment interplay and in this way has contributed with knowledge about the intersubjective foundation of human development (Stern, 2000; Trevarthen, 1980). Specifically, the study draws on the thinking of Daniel Stern and his contributions on the relevance of infant research to clinical work and on the work of Colwyn Trevarthen, whose microstudies has greatly contributed to acknowledge the significance of musical vocal and rhythmical features for relationship qualities.

Secondly, knowledge from music about central and specific features of different musical parameters and from music therapy, about the role of musical improvisation in therapeutic work with different client groups, mainly adults.

Thirdly, a study of child psychotherapy needs to include child-specific knowledge (Hansen, 2012; Johns, 2012). This includes child-specific emotional, cognitive and somatic reactions. Children are different from adults, and such knowledge from developmental psychology is necessary to communicate meaningfully and help children and parents to make sense of their experiential world. Empirical infant research has so far played a small part in child psychotherapy research and practice.

Children’s experiential world come to the forth, firstly through somatic, emotional nonverbal expression. Therefore, psychotherapy should address such signals both clinically and as a focus for research.

1.1. CONTEXT OF STUDY

The research context is a multicenter study in child psychotherapy, which has been taking place from 2014 at the Norwegian University of Science and Technology in Trondheim, Norway, and at the Akershus University Hospital's Child and Adolescent Mental Health Clinic at Furuset, Oslo. The head of research is Professor Karl Jacobsen, NTNU.

The project initiated in research on emotion regulation, influencing the understanding of emotion regulation as a basic phenomenon across a variety of children's diagnoses. This has inspired an increased focus on the regulation, organization and integration of affects in clinical work and research, which is also the background for the multicentre study. The study applies several measures, both quantitative, such as psychophysiological measures and qualitative, where this PhD represents a qualitative video microstudy of emotion regulation interplay. On the background of comparative findings from previous studies on psychophysiological measures, it was decided to include children presenting with symptoms in the internalizing spectrum (anxiety, depression or somatization).

The treatment context is Time-limited Intersubjective Child psychotherapy (TIC), which has been developed in Norway for the past decades as a frame, for intersubjective processes directed at self-development (Hansen, 1991a, 1991b, 2012). It merges individual work with the child and parent therapeutic work. Theoretically, it originates in a psychodynamic approach and has integrated knowledge from infant research and creative arts.

Time-limited intersubjective child psychotherapy has been subjected to research since the beginning of this century and the second clinical research background is a previous research project on time-limited intersubjective therapy (Haugvik & Johns, 2008; Haugvik, 2013; Haugvik & Mossige, 2017; Johns, 2008). Findings here showed that parents, after therapy ended, described the children as being clearer about their needs and having increased ability to share both positive and negative feelings. Findings were supported by symptom reduction on symptom scales.

These findings inspired a further study on the impact of this treatment approach on children's emotional development, within the context of a musical frame, as a well-used context in infant research to describe intersubjective microprocesses.

The clinical context and site of research is a natural clinical setting in an outpatient mental health clinic for children and adolescents in Oslo and at a university student clinic in Trondheim. Measurements and treatment procedures were carried out on these sites. Three of the therapists are experienced specialists in clinical child and adolescent psychology, the author being one of these also being an experienced music

therapist. Two of the therapists are advanced clinical psychology students under close supervision.

1.2. PERSONAL MOTIVATION

My personal motivation for this PhD study comes from clinical experience with children in psychotherapy, together with a background as music therapist. Clinical work with children has shown me the potentiality and richness of the therapeutic dialogue, both implicitly and explicitly, and of the significance of the child's contribution to that dialogue. Meeting a child in the here and now and sharing the child's story from the child's perspective, has had developmental value for me as a child therapist. It has encouraged an interest in further knowledge about phenomena influencing change processes from a dialogical micro perspective. My training, as a child psychologist, has been within an intersubjective approach, which supports a developmental view on child psychotherapy and emphasize the significance of microprocesses in the therapeutic dialogue. Meeting children who struggle emotionally, has shown me the therapeutic strength in children's immediate implicit and explicit signals to what goes on in the relationship. This has greatly inspired a broadening of my understanding of the therapeutic relationship.

My background as a music therapist has influenced the way I experience encounters, whether non-verbal or verbal, from a musical perspective, in which variations in rhythm, tempo, silences, vocal tonality etc. play an important part in influencing subjective experiences of an encounter. Children in therapy sometimes spontaneously comment on what I think of as musical, non-verbal affective qualities in therapeutic dialogues. In working with children who do not play, either because of traumatic background or emotional neglect, it always makes an impression on me that when they develop the capability to play through therapy, singing or humming often accompany playing, with increased vitality. I have asked myself if it is also an expression of increased emotional regulation, integration and flexibility, and I have been motivated to explore these aspects further in child psychotherapy, combining a musical with a psychological approach to microprocesses in the therapeutic interplay, inspired by similar studies in infant research.

Beside the above sources of motivation, there are two more issues, which concern me as a child psychologist: Firstly, the right of children to express their feelings and needs, independent of grown-ups, as formulated in the United Nations Convention on the Rights of the Child. For this to happen, they dependent on the support from the

adult world. Secondly, since children seldom seek therapeutic help on their own account, therapy must be understandable and meaningful from the perspective of the individual child. Since children express themselves mainly in the here and now and the non-verbal domain has priority above the verbal, psychotherapy with children must favour a further understanding of non-verbal emotional communication.

1.3. PURPOSE OF THE STUDY

Summarized, two broad fields of knowledge from research inform the background for the formulation of research questions that have guided the analysis of the present study:

Firstly, research documenting how emotional disorders have serious impacts on the lives and development of children and is an important area for research and knowledge. There are several fundamental differences between children and adults, implying that knowledge from adult research cannot be transferred directly to children (Kazdin, 2000). Children communicate their difficulties mainly non-verbally due to lack of verbal skills, making them more difficult to discover and understand for their surroundings (ibid.). Kazdin encouraged more studies considering children's developmental perspectives. There is a need for studies in naturalistic clinical settings with actual children who experience emotional disorders (Weisz, 2000). Midgley et al. (2017) recommend that the research base for child psychotherapy includes more studies, in the future, which focus on *how* a treatment works, in addition to whether it works. Based on a developmental research perspective (Lyons-Ruth, 2006) and the role of intersubjectivity, more knowledge about developmental change processes in child psychotherapy is an important contribution (Hansen, 2012). A growing body of knowledge indicates that therapeutic change involves basic developmental processes, such as attention and emotion regulation (Saarni, Mumme & Campos, 1998; Schore, 2003; Campos, Frankel & Camaras, 2004; Jacobsen & Svendsen, 2010; Braarud & Nordanger, 2014). The multicenter study, from which the data for this microstudy comes, aims at a broad mixed method study of changes in emotion regulation.

Secondly, knowledge from infant research, which this microstudy part of the multicenter research builds on and which shows how such basic self-developmental processes take place in micro interplay from the start, being influenced by relationship qualities. Taking a developmental research perspective (Lyons-Ruth, 2006) on child psychotherapy, the focus is on studying therapeutic interplay between therapist and child second by second in small emotion regulation samples. From infant research, knowledge about the role of intersubjective microprocesses for human development has shown how musical parameters help to clarify key aspects of such microprocesses.

Infant research has, to a large degree applied fundamental musical parameters, such as rhythm, timing, vocal tonality and intensity to clarify significant intersubjective aspects for development.

There is until now, little research on the significance of microprocesses in promoting developmental change in children with emotional difficulties. There is also less research on internalizing difficulties in children than in adults. The purpose of this microstudy is to explore and illuminate therapeutic exchanges between therapist and child, applying a research procedure, which includes a moment-to-moment description of musical qualities.

1.4. CONCEPTUAL FRAMEWORK AND TERMINOLOGY

In the following, central theoretical concepts and framework in the thesis are defined. In addition, terminology is defined in the articles and the thesis to clarify theory. Intersubjectivity being a central conceptual framework, I will start by describing my pre-understanding and conceptual theoretical background influencing the study.

Intersubjectivity is a relatively new concept within psychology and psychotherapy (Hansen, 1991a, 1991b, 2012). It has its roots in philosophy and phenomenology. Especially Husserl and Merleau-Ponty have contributed to an understanding of the significance of human sensory and bodily sensations for awareness of subjective phenomena (Hansen, 2012). I will describe the philosophical influence more in detail under the method section under a phenomenology. Within psychotherapy, the concept of ‘object relation’, as part of a psychoanalytic understanding, was challenged by Jessica Benjamin (1990) who claimed that mutual recognition of subjectivity in the therapeutic relationship is at the bottom of therapeutic development. Trevarthen’s research made a major contribution to the understanding of intersubjectivity, leading to an understanding of intersubjectivity as an inborn human motive for social engagement. Intersubjectivity thus lie at the bottom of making sense of bodily sensory experiences of vocal tonality, rhythm and tempo together with the facial expressions of others, referring to a primary sharing of experiences underlying developmental processes (Trevarthen & Hubley, 1978; Trevarthen, 1992; Stern, 2003) which take place in microprocesses from moment to moment. Both emotional and cognitive development are in this perspective embedded in a shared world of actions and meaning, something which has led to increased respect for children communication as something which transcends later cognitive development. It supports a developmental perspective on psychotherapy, implying that the child’s self-development is embedded from birth in intersubjective dialogue (Stern, 2000). From this dialogue, relational patterns and representations of self-with others are continuously developed, constructed and are subject to reconstruction. This view is

embedded in an intersubjective perspective child psychotherapy, together with therapy as an arena for reconstruction and development. The intersubjective understanding of child psychotherapy, which is presented here, is that experiences of subjectivity, mutuality and reciprocal exchanges are decisive for self- and self-with-others development, also in psychotherapy.

Different theoretical traditions, which also influence my understanding, links intersubjectivity to *forms for interactive regulatory patterns* (Beebe, Knoblauch, Rustin & Sorter, 2005), *development of mentalization* (Fonagy, Gergely, Jurist & Target, 2002) and *sharing of mental worlds* (Stern, 2000, 2003, 2004, 2005). Stern's view is that we are part of an intersubjective matrix, which both contains and gives form to our mental lives through continuous interacting with each other. Stern understands the therapeutic process as the regulation of the intersubjective field between therapist and child in the service of development. Both Trevarthen (1980) and Stern (2000, 2004) emphasize how the experience of mutuality arises from subjective positions, implying therapeutic development as an expansion of both intersubjectivity and subjectivity, as well as tolerance of separateness.

The following are definitions of concepts relating to the study, placed alphabetically:

Affects will be applied, in the study, as the main term in describing processes relating to expressing and sharing affective information. Affect is understood as an overarching concept to describe anything related to emotions or mood (Gross, 1998). In the literature, affects and emotions are both applied to describe human experience and processes such as emotion regulation. I will therefore use both terms according to relevant literature and research. Daniel Stern emphasize that in describing subjective experiences, he uses the word feelings, considering it to be the closest to personal, subjective emotional experiences.

Affect attunement refers to an intersubjective process, characterized by a cross modal matching of the child's expression. The attention is thereby on the feelings quality being shared. Misattunement is when the feeling intensity is either too strong or too weak and does not match the child's. If a child's feeling is not attuned to over time, the consequence is serious for the child's inner world of feelings, often resulting in withdrawal or loss of contact.

Affective scaffolding (Tronick, 1998, 2004) refers to how the therapist organizes the affective regulating dialogue with the child to support expansion and development.

Dyadic expansion of consciousness model (Tronick, 2005) views therapist and child as self-organising systems, which expands and reorganises through new relational experiences. When mental balance in the child breaks down because of an **interactive** error (for instance when the therapist misunderstands, mismatches or overhears), there

is an opportunity for dyadic expansion following an **interactive repair**. In this model, the improvisational *sloppy* character of therapeutic dialogues guarantee episodes of miscoordination, with the potential of developing interactive meaning into greater complexity, from repeated experiences of restoring mutual coordination.

Forms of vitality is linked to dynamic subjective experiences and the understanding of vitality affects as profoundly intersubjective and refers to a more precise description of human capability to share mental worlds (Stern, 2010).

Imitation of the other's action has a key role in establishing mutual attention and discover similarities between self and others (Meltzoff & Moore, 1998). Imitation takes place in relation to dynamic, rhythmical and temporal qualities in movements, gestures, facial expressions and vocal tonality (Fernald, 1985).

Implicit relational knowing (Stern, 2004) is non-verbal, non-symbolic, procedural and non-conscious processes, which develops parallel with explicit knowing throughout life (Stern, 2004, p. 113).

Internalizing disorders in children, such as depressive and anxiety disorders, has been less researched than other areas of psychopathology, such as overtly, disruptive behaviour (Tandon, Cardeli & Luby, 2011) mainly due to these children being easier to handle for the environment. Nonetheless, for children suffering with internalizing disorders, such as anxiety and depression, and have limited ability to describe internal feeling states the need for clinical research and help is imperative.

Intersubjective consciousness has been proposed by Stern, as a description of a form of dyadic consciousness arising in the here-and-now from a mutually created intense dyadic experience. It involves an overlap of subjective consciousness, partially including the consciousness of the other and an awareness of sharing the same mental landscape in the present.

Intersubjective field involves intersubjective motives directing and organizing activity (Stern, 2004). Such motives are 1) A need to read the intentions and feelings of another to orient in the intersubjective field (p.106). 2) A need to define, maintain and re-establish self-identity and self-cohesion. The understanding is that self-identity, continuity and meaning emerges from intersubjective experiences (ibid.)

Joint (mutual) attention is considered a basic intersubjective sharing and crucial for the experience of togetherness and development of social skills.

Mentalization refers to the ability to interpret meaning from other's behaviour by evaluating their underlying mental states and intentions, and at the same time have the capability to understand implications of one's own affects and actions on others (Fonagy & Target, 1996, 1997).

Microprocesses. Infant research, which has inspired the study, has contributed to empirically based knowledge about the significance of **microprocesses** and about forms of micro interplay, which are at the heart of the subjective experience of sharing activity and meaning. Microprocesses direct focus to what is going on here-and -now in the therapeutic interplay with the individual child, and to how this interplay can attain developmental potential.

Modulation is also a musical concept and refers to an intersubjective process whereby the child is helped to move from one emotional experience to another and is part of the development of emotion regulation when the experience is internalized in the child. Modulation may interweave and coincide with synchronization.

Musical parameters refer to aspects of musical sound, which can be varied and described independent of each other and the traditional elements of music; such as rhythm, melody, harmony, timbre and form. Such aspects are pitch, duration, intensity, tempo, attack and vocal tonality etc. These aspects play an important role in the present microanalytic study, where they are applied to describe dynamic subjective experiences, such as dynamic forms of vitality.

Self-agency refers to the basic experience of being an agent capable of influencing one's own life through influencing the feelings and activity of others. It is considered a key sense of self, embedded in the domain of core sense of self (Stern, 1985/2000) and crucial for self- and self-with-others development as well as mentalization (Midgley et al., 2017).

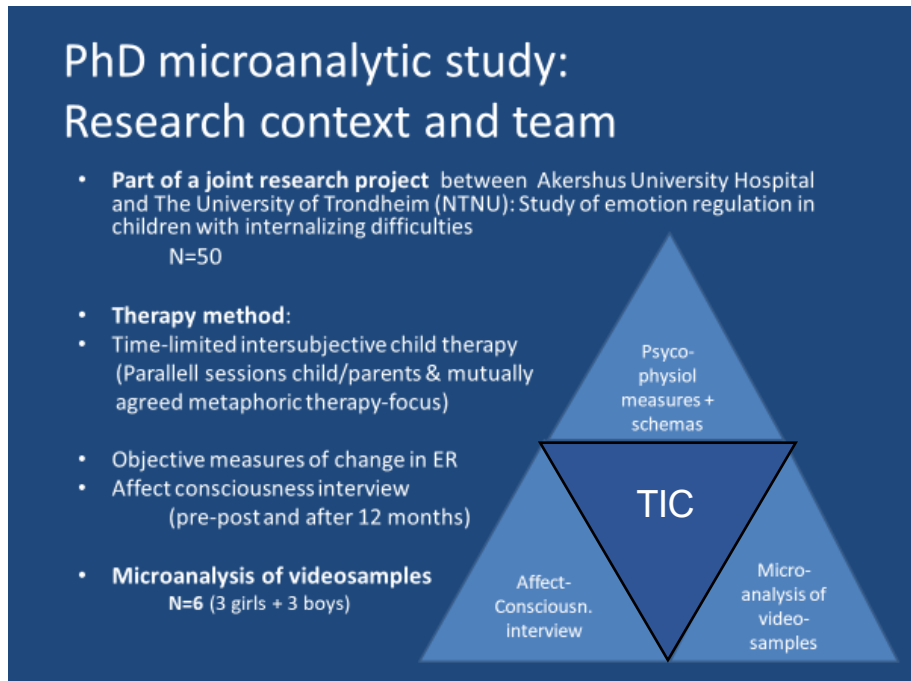
Synchronization means to adjust one's activity to create and establish mutuality and dialogue. It is considered a primary form of communication to establish intersubjectivity (Trevarthen, 1979; Stern, 1985/2000).

Vitality affects (Stern, 2000) refers to the continuous, dynamic and changing flow characterizing all mental life, as something more than categorial emotions as described by Darwin. It is significant for the understanding of communicative microprocesses in the study.

1.5. OVERALL STRUCTURE OF THE STUDY

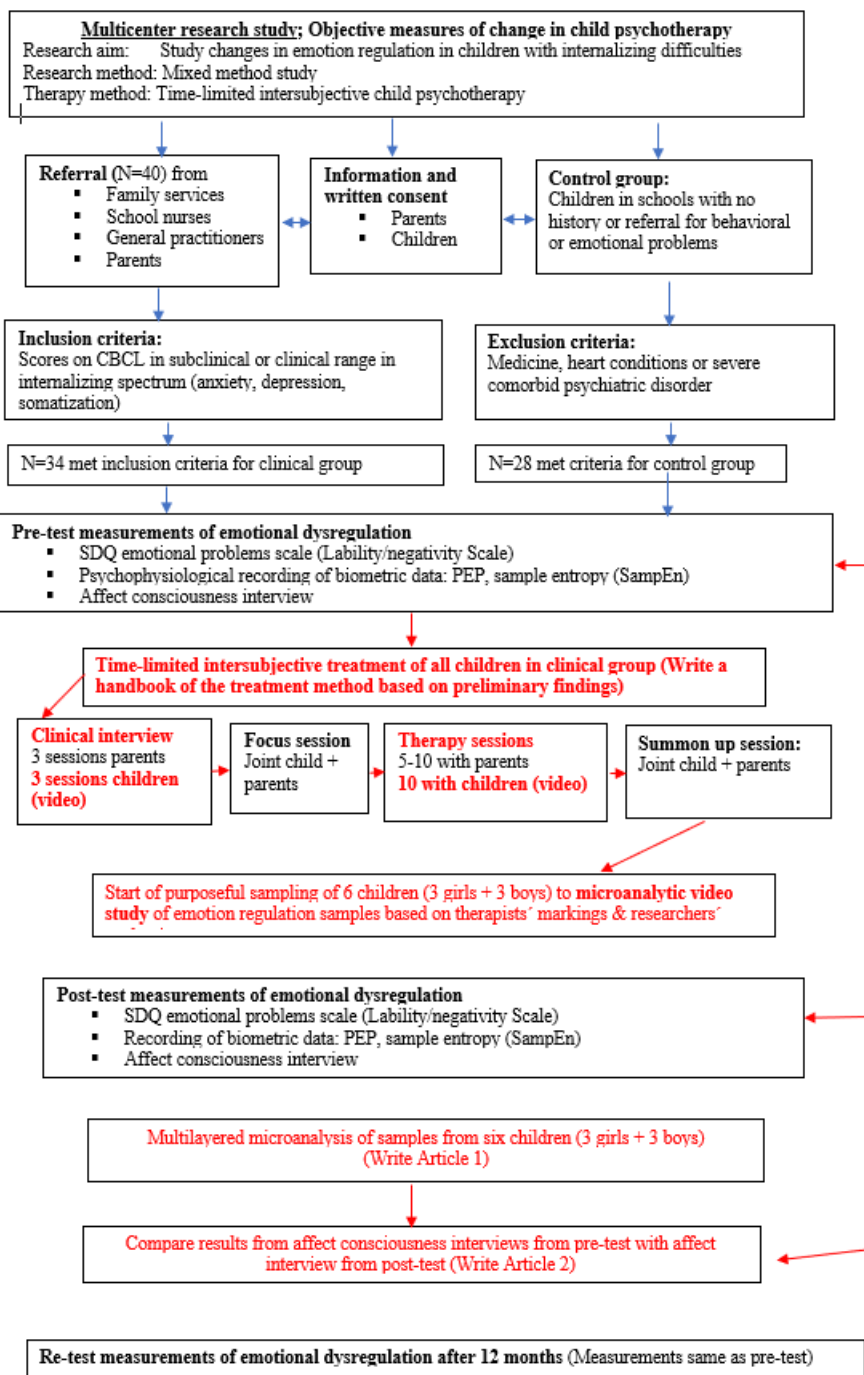
The following figure shows an overview of the context for the present microanalytic study, within a multicenter mixed method study. N here indicates the aimed for number, not the resulting number of children.

Figure 1. Overview of microstudy



1.5.1. FIGURE 2. FLOWCHART OF THE MULTICENTER RESEARCH STUDY

The following flowchart describes how the PhD study is part of the multicenter study as a separate qualitative part. Text in red indicates the specific elements and steps of the present microanalytic study.



1.5.2. THERAPY METHOD/TIME-LIMITED INTERSUBJECTIVE CHILD PSYCHOTHERAPY

The therapy method applied in the multicenter study is time-limited intersubjective therapy (Svendsen & Johns, 2012; Johns & Svendsen, 2016), which is developed as a method for children, from a psychodynamic approach (Proskauer, 1969, 1971; Peterlin & Sloves, 1985; Sloves & Peterlin, 1986). It has later been developed as a mentalization based method (Midgley et al., 2017) in addition to an intersubjective method. The latter is applied in this study, integrating knowledge from infant research (Haugvik & Johns, 2008; Hansen, 2012) and combining structure and flexibility through three distinct criteria: 1) Establishing a clear time-frame, 2) parallel sessions with parents and 3) a mutually agreed shared therapy focus (Haugvik & Johns, 2008; Johns & Svendsen, 2016). The concept of time-limitation represents two aspects of time (Johns, 2008): 1. An overarching time structure of the number of weekly sessions aimed at therapeutic alliance and 2. Predictability and repetition aiming at a restoration of the sense of continuity and integration of emotional experience in children who have reduced sense of continuity and affect-integration (ibid.).

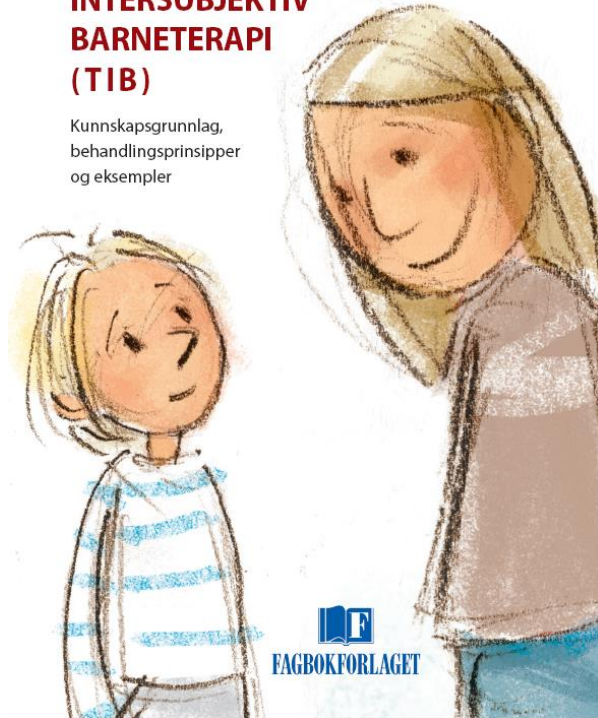
The focus comprises an understanding of the child's developmental needs. Formulating an understandable therapy focus is intended to facilitate recognition in the child and parents of their own experiential world as significant in the therapy process. Gaining the parents' consent and commitment, as well as creating curiosity about themselves and the child has priority. Within a musical frame, the focus can be compared to one or more 'leitmotifs'; a reminder of central themes to be elaborated (Johns, 2008). The goal for parental work is increased mentalization capability (Haugvik, 2013; Midgley et al., 2017). The therapy process with the child is a flexible, mutually created process from what emerges in the dialogue and directed at self-development. Taking the child's perspective in the here and now is in the forefront. Children have a shorter time horizon than adults, and their life form takes place to a larger degree in the present (Lyons-Ruth, 2006). This implies an intersubjective perspective directed at sharing attention, intention and affective states on a microlevel, where the child's history emerges implicitly and explicitly (Hansen, 1991a, 1991b, 2012). The therapist has an active role through the sessions in exploring the child's feelings, intentions and thoughts, as these are expressed implicitly and explicitly, and from there creating new meaning. As part of the multicentre research study, from which the data in this study originates, a handbook was written, describing theory and principles of the therapy method, based on research so far (Johns & Svendsen, 2016).

1.5.3. SUMMARY OF HANDBOOK OF TIME-LIMITED INTERSUBJECTIVE CHILD THERAPY (TIC)

UNNI TANUM JOHNS og BIRGIT SVENDSEN

HÅNDBOK I TIDSAVGRENSET INTERSUBJEKTIV BARNETERAPI (TIB)

Kunnskapsgrunnlag,
behandlingsprinsipper
og eksempler



The following is a summary of the content of the Handbook of Intersubjective Child Psychotherapy which was written as part of the PhD study and based on preliminary findings in the multicenter project (Johns & Svendsen, 2016). The purpose of writing a handbook of the therapy method was to give a thorough description of the knowledge base and treatment principles which the therapy method builds on and give examples to clarify. The acronym (TIB) is translated to TIC in English. We thought that clear guidelines would serve as a helpful tool in the training of therapists. Also, that it would clarify treatment procedures in clinical research using this therapy

method, as in the present study. The following is a short summary of the five chapters of the handbook (a detailed table of contents in English can be found in Appendix*):

Chapter one is an account of the theoretical knowledge base underlying time-limited intersubjective child psychotherapy (TIC). The theoretical foundation is described within four areas:

1. Developmental psychology.

This section describes developmental psychopathology which builds on an understanding of how children are developed from birth, via the interaction with others. This is called a transactional model of development which illustrates the significance of reciprocity and interactional, contextual embeddedness for the development of disorders (Sameroff, 2009).

2. The intersubjective perspective on developmental- and change processes.

This section describes the main conceptual understanding, together with central concepts which can be used as therapeutic relational tools and gateways to therapeutic change (Hansen, 2012). Each of the concepts are described, with examples from child psychotherapy. Such concepts are: Turn-taking, imitation and mutual attention. Next, the role of affective communication in development is described and discussed, including basic nonverbal forms, such as communicative musicality, narratives, dyadic regulation and expansion, implicit relational knowing, forms of vitality and affect attunement. All conceptual understanding is exemplified from child psychotherapies. The five different intersubjective forms of relating/'being together' which can be found and created in psychotherapy are.

1. Implicit sense of mutuality through affect synchronization and mutual regulation and includes early imitation and turn-taking (primary intersubjectivity).
2. Mutual focus of attention involving something which the child or therapist can draw attention to as a source for interaction (secondary intersubjectivity).
3. Intersubjective sharing and feeling understood through affect attunement and selective attunement.

4. To express oneself through symbols, language and shared meaning-making. Play is an important part of this way of being together.
5. To attribute feelings, intentions and thoughts to oneself and others (mentalizing). This process implies a perspective on mental life which creates possibilities for reflecting upon the motives and intentions of oneself and others - outside the here and now (tertiary intersubjectivity of second order (Bråten, 2007)). It comprises the ability to integrate experience and create self-biographical meaning.

Stern's model of development of self domains is presented after this, as a way of formulating areas that a child needs to develop. The different domains of self-development are also linked to the formulation of therapy foci, which is described later in the book.

3. Emotion regulation as a dyadic regulation system is described, with reference to research.
4. Creative expressive art forms – play, music and drawing are presented with examples from child psychotherapy.

In Chapter two the frame and structure of the therapy method is introduced, with a detailed description of the three distinct elements of time-limitation, a shared therapy focus' and parallel work with parents. As mentioned before, the combination of structure and flexibility is found to suit the work with children and parents. In the following section on the role of metaphorically formulated therapy foci, with examples of such formulations are provided. Examples very often emerge from the work with individual children and from their individual way of expressing nonverbally or verbally their inner world, inspiring various metaphors. Formulations are organized in the handbook in the following way, here providing one example (The book gives several examples):

- The therapy focus is directed towards development of self-regulation and self-agency.
 - *We are going to be together and explore ways in which you can become 'just strong enough'. This is related to the child becoming either 'too strong', implicating losing control or having to pretend*

to be stronger than is the case and therefore not being able to express authentic feelings of insecurity or ask for help.

- The therapy focus is directed toward emotional areas that the child does not have contact with. The child needs help to direct attention to the inner world to be able to express emotions and experience intersubjective sharing.
 - *We can be together here to help you to 'sing all of your tones loud and clear'*. This focus was used in therapeutic work with a girl, who showed very little emotions, especially anger and sadness, which inferred with her daily life. The suggested focus was inspired by the girls love for singing.
- The child needs help to experience coherence and continuity in self-biography.
 - *Here we can try to get to know both the big and the little girl, to try to find out what it is like to be seven years and having experienced so much.* The focus points to overwhelming and potentially traumatic events, effecting development and that the child takes on too much responsibility. The focus is a recognition of children's right to be children.

Parallel work with parents is described in detail, with the perspective on parent work as an arena for developing mentalization. For such development to take place, the parents' feelings, expectations and needs must be understood and acknowledged.

Chapter 3 and 4 give a step by step description and overview of the whole therapeutic process, with clinical examples to illustrate each of the steps. In chapter 3, the first meeting with the family and the following three parallel meetings with the child and parents, called clinical interviews, are described. These meetings are summarized with all participants, in a joint meeting called the focus meeting, in which the suggested therapy focus is discussed and agreed on. In chapter 4, overarching relational themes of the three phases in the therapy process are described: 1) *To create a helping relationship*. This formulation represents findings from a research project on what therapists do in the first therapy sessions with children, to create a working alliance (Svendsen, 2007). To present oneself as a helper, was considered a key factor of alliance building, and Svendsen found two distinctive domains of *helping maneuvers* across therapists with different theoretical orientations (ibid.). The first domain comprises implicit maneuvers and the second comprises explicit maneuvers, which are described in the handbook (p. 88). 2) *Now we are working together* describes the second phase of therapy, and 3) *To keep each other in mind* is the name of the last phase, referring to the developmental bearing underlying this therapy method. Each phase includes descriptions of both child-directed and parent-directed work.

Chapter 5 describes the therapy processes with two children, in detail. The first therapy process takes place during twelve therapy sessions. The second therapy process is an example of a long-term therapy, with three sequences of twelve sessions, being compared to ‘chapters’ within the child’s self-biography. Parallel work with parents, schools and other significant persons and institutions in the child’s life are described, according to the principles in the handbook of time-limited intersubjective child psychotherapy.

1.6. SHORT SUMMARY OF THE ARTICLES OF THIS PHD

This PhD study is article-based, according to the structure for PhD studies at the Aalborg University doctoral program. The two articles, which will be presented under, aim at answering research questions, the first by addressing methodological issues and the second by presenting and discussing findings from the microanalytical study.

1.6.1. ARTICLE 1 (PUBLISHED)

Exploring musical dynamics in therapeutic interplay with children: A multi-layered method of microanalysis

This article describes how a research procedure was developed, with the research aim of exploring, describing and illuminating therapeutic exchanges with children at a microlevel. The research task was approached from a musical perspective, inspired by how infant research apply musical parameters, such as rhythm, tempo and vocal tonality to describe relationship qualities. The background is psychotherapy research, which validates the significance of relationship factors for change processes, independent of any therapy method (Orlinsky, Rønnestad & Willutski, 2004). Relevant infant research is presented, as well as knowledge from music therapy, indicating the significance of a musical foundation of affective communication. This is in accordance with clinical experience from child psychotherapy and how the inner worlds of children are expressed through dynamic, vocal, rhythmical and temporal changes. Musical parameters were applied in the article as concrete descriptions of the specificity of therapeutic intersubjective exchanges with children as these unfold. Concepts which bridge an intersubjective and ‘musical’ understanding of intersubjectivity, such as forms of vitality, are included. Data were taken from a multicenter research study, with which the author collaborated and comprised six

children 9-13 with poor emotion regulation capability (see Figures 1 and 2 above). The overall research aim of the multicenter study was to study changes in emotion regulation in children with internalizing difficulties, receiving time-limited intersubjective psychotherapy. This is a developmentally informed therapy method applying intersubjective knowledge and adopted to the individual child. Foreknowledge about emotion regulation and the therapy method is described in the article.

The article goes on to describe the procedure which were followed for purposeful sampling according to finding emotion regulation samples to include in the development of the research method for microanalyses. The result was a multilayered method for microanalysis, including three layers in the research procedure of selected video samples: 1) A detailed description of moment-to-moment therapeutic exchanges, organized in units across a time-line to integrate and make comparisons. 2) Description of musical parameters which emerged in the therapeutic interplay and 3) Psychological description which was made based on a constant comparison between the three levels, applying concepts from a developmental intersubjective perspective. Sequences of change in emotion regulation were identified during the sample. Lastly dyadic themes from intersubjective theory were identified based on interactive exchanges within and across units. During the constant comparison process the concept of *musical dynamics* emerged as a synthesis of musical parameters and forms of vitality. The article includes an example from therapy of how the method is applied.

In the discussion it is argued that a multilayered approach to understanding therapeutic change processes, such as changes in emotion regulation, has a potential for a complementary understanding of implicit and explicit processes. Musical dynamics is discussed as a useful concept, with the potential of clarifying micro interplay with the child. During procedures of microanalysis, musical dynamics stood out as facilitators of change. It is proposed that a focus on musical dynamics promote attention to signals in the children's expressions, indicating subjective intentions, feelings and therapeutic needs. This again may promote the therapist's responsivity and involvement in therapeutic microprocesses, bearing importance for therapeutic development. In the conclusion, a focus on musical dynamics, as part of a multilayered microanalytic procedure, is seen as a useful concept for illuminating features of break-downs and repairs of intersubjective sharing, which is at the heart of an intersubjective developmental perspective on therapeutic change.

1.6.2. ARTICLE 2 (SUBMITTED)

A study of musical dynamics in therapeutic interplay with children. ‘The important thing was to be understood through tone of voice and movements’

Samples of emotion regulation from the course of time-limited intersubjective child psychotherapy with six children were analyzed within and across samples. Two samples, from an early and a late session with each child, were analysed according to the multi-layered method of video microanalysis, including a musical frame as well as a psychological. The musical frame is a registration of vocal, rhythmical, dynamic and temporal changes as concrete descriptions of the specificity of therapeutic exchanges, as these unfold. The research questions guiding the microanalysis presented in the article was 1) How can a description of musical dynamics, within a multilayered frame, illuminate intersubjective microprocesses, and 2) How does a description of musical dynamics, applied together with psychological knowledge, clarify therapeutic interplay and basic developmental processes such as emotion regulation in child psychotherapy.

Data came, as described in Figure 2 above, from six children taking part in a mixed method multicenter research project on changes in emotion regulation. All therapy sessions were videotaped, which was the total data material for the present qualitative micro study. Emotion regulation was measured in the multicentre research project with quantitative measures, before and after therapy, including symptom scales, psychobiological measurements and the Affect Consciousness Interview. The goal of the present microanalytic study described in article 2 was to explore how an analysis of musical dynamics can elucidate therapeutic interplay facilitating self-development.

The multi-layered microanalysis of data resulted in identification of eight overarching patterns of therapeutic interplay involved in emotion regulation samples: Four described musical dynamics in the therapists’ activity: (1a) *Therapists regulating the child’s lack of coherent rhythm by slowing down tempo and providing more space can promote intersubjective sharing and continuity*; (1b) *Vocal tonality and vocal contour of therapists can serve as invitation and support for the child to share a wider feeling range*; (1c) *Therapists’ mismatches can be associated with therapist’s eagerness to explore difficult feelings*; (1d) *Therapists adjusting rhythm and tempo towards establishing, keeping and using a ground rhythm can enhance intersubjective sharing*. Two patterns described musical dynamics in the child’s activity: (2a) *High correspondence between tempo and dynamics can foster an impression of intentionality*; (2b) *Distinct changes in the child’s musical dynamics can be associated with dyadic synchronizing opportunities of significant feelings*. Two patterns described dyadic synchronization patterns: (3a) *Rhythmical flow in dyadic synchronization can render the child clearer and more expressive and enhance self-*

agency; (3b) *A musical dynamics description can contribute to clarify processes of interactive errors and repairs.* Examples from microanalysis of samples were chosen to illustrate each pattern and represented a condensation of the raw material, which had been integrated into a narrative based on the multilayered microanalysis.

The affect consciousness interview, which has been adopted for children was described. Measurements from pre- and post-tests with the affect consciousness interviews with all six children were presented in detail. The measurements indicate increased affect integration and development of emotion regulation capability towards age adequate status for the age group. Findings suggest that adjustments or sustainment in rhythm, tempo, vocal tonality, intensity and pauses, play a significant part in microlevel change processes, and to the multilayered understanding of these. Specifically, a musical dynamics description brought out patterns in subjective contributions in the interplay. Also, increase in vitality and affect integration indicate improvement in self-regulation capacity.

Implications of findings in relation to research questions are discussed and elaborated. From an intersubjective perspective it is questioned whether a musical dynamics description, in addition to having a potential for illuminating the child's expressions, also brings attention to therapeutic qualities as perceived by the child. How a child is met and understood psychologically bears significance on alliance building, trust and involvement in the therapeutic process. This is experienced directly by the individual child, not primarily because of good therapeutic techniques, but because of the therapist's emotional availability and developmental empathy. It is suggested that a musical dynamics perspective helps the therapist in bringing awareness to her/his way of attuning and synchronizing to the individual child. More empirical research on microprocesses in therapeutic interplay with children is warranted, to clarify phenomena influencing therapeutic development.

CHAPTER 2. LITERATURE REVIEW AND THEORETICAL BACKGROUND

2.1. AN OVERVIEW OF EMPIRICAL STUDIES IN CHILD PSYCHOTHERAPY

I will firstly give an overview of some data on psychological disorders in children, and on the main internalizing disorders of depression and anxiety, as a background for empirical studies. Data from studies in Norway (Heiervang et al., 2007; Wichstrøm et al. 2012) shows that 7 percent of Norwegian children suffer from symptoms of a psychological disorder. 5 percent of children 0-17 receive treatment in outpatient clinics (ibid.). Depression occurs in all age groups, with an increase from 1,6 percent before adolescence to 14.3 percent for adolescents. For younger children numbers indicate that depression is not discovered or diagnosed due to children's lack of verbal skills for emotions. For anxiety, the percentage is up to 3.2 for preadolescents, increasing to 6.9 percent for adolescents (Wichstrøm et al., 2012). As mentioned earlier, internalizing disorders have lagged behind compared to research on other psychological disorders, supposedly because these are children with less presenting challenges for their surroundings (Tandon et al., 2009). Children with internalizing problems usually appear withdrawn, shy and fearful. None the less, depression and anxiety have a profound impact on the lives of children, with experiences of helplessness/hopelessness, intense fear, irritability, worry and uneasiness, representing emotional, social and cognitive challenges in their everyday life.

There are today many evidence-based treatments for children and families (Kazdin, 2004; Midgley et al., 2017). Mostly these treatments have been developed for specific diagnostic populations, and as Midgley points out (2017, p. 4), it is unrealistic for child therapists to be trained in all. An additional problem is that many children either drop out of treatment or are not able to profit from available treatments (Shirk, 2002). There is also research which shows that for many children and parents a lack of emotion regulation capability makes them unable to follow treatment procedures (Scott & Dadds, 2009).

A search in the Psycinfo Database [250718], using the keywords *psychodynamic psychotherapy + children + intersubjectivity* resulted in identifying a very limited number of studies. Especially empirical studies are rare. The most important studies are described in the following. In referring empirical studies in child psychotherapy, I am limiting myself to studies with children and adolescents, bearing relevance for the present study. I will therefore not include empirical studies on CBT. Most of the

described empirical studies are therefore within psychodynamic psychotherapy. Since this term covers many different approaches, I will quote the definition of Kegerreis and Midgley (2014), which comes close to the definition of intersubjective child psychotherapy: "...the central idea.... that behaviour, emotions and responses, have an inherent logic and meaning – a way in which the child's problems, despite apparent unhelpfulness, make some kind of emotional sense. Their roots lie in the internal world of the child that has been built up from his/her earliest experiences and relationships" (p. 38). During the last decades, psychodynamic psychotherapy has developed and integrated ideas from several areas of research, such as infant research, attachment theory and neuropsychology (Lanyado & Horne, 2009; Kegerreis & Midgley, 2014). This has led to an increasing number on short-term/time-limited approaches which integrate developmental theory and research, such as mentalization-based time-limited treatment for children (Midgley et al., 2017) and intersubjective time-limited psychotherapy for children which is applied in the present study (Haugvik & Johns, 2008). As of now, there are few empirical studies on these approaches. Considering knowledge so far from empirical studies on child psychotherapy, this supports findings from adult psychotherapy that therapy has an effect (Kazdin, 2002; Shirk & Karver, 2003; Weisz & Kazdin, 2017) and that relational qualities are related to outcome (Shirk & Saiz, 1992; Shirk & Karver). The therapeutic relationship has been regarded as a *common factor* within adult psychotherapy, across different interventions and patient groups (Orlinsky, Rønnestad & Willutzki, 2004). A meta-analytic review (Shirk & Karver, 2003) indicated that the therapeutic relationship impact outcome across different types of child and adolescent therapies. Their conclusion is to view relationship qualities as a central and effective factor also in child psychotherapy. Shirk and Russel (1996) have for long emphasized the importance of being able to gain "a more precise understanding of the change process embedded in therapeutic relationships" (p. 184).

In 2017 Midgley et al., made an updated narrative review of a former critical review (Midgley & Kennedy, 2011) of the evidence base for psychodynamic psychotherapy for children and adolescents. It is worth mentioning that findings in the first review suggested that child psychotherapy without parallel work with parents might have negative effect on family functioning (Midgley et al. 2017: 309). Also, that children with internalizing disorders responded better than children with externalizing disorders (ibid). Of critical remarks concerning the quality of the available data base, the authors point out how heterogeneous clinical populations, large variability in interventions and methodological limitations made it difficult to make conclusions. They also point out that studies made very few references to other studies, or built on previous research, limiting the cumulation of knowledge from research. Before 2011, almost no treatment procedures have been manualized within individual psychodynamic psychotherapy, which have added uncertainty regarding the

procedures of interventions and potential similarities potent for comparison. However, since then several treatment manuals have been published, making the treatment design more transparent and eligible for evaluation. In the 2017 review (Midgley et al., 2017), the authors follow the same methods as in the earlier review: Inclusion criteria are children and adolescents between 3-18 years, short and long-term treatments specified as psychodynamic and with a focus on evaluation treatment outcomes as well as met criteria for inclusion. RCT studies were regarded as providing stringer evidence of effectiveness. A total of 23 studies met inclusion criteria, 5 being RCT studies, and are described in relation to groups of psychiatric diagnoses. I will shortly describe findings concerning children with internalizing disorders: The largest outcome study on psychodynamic psychotherapy (Goodyer et al., 2017), is an RCT study comparing treatment with a psychodynamic short-term approach (STPP) and CBT with a brief psychosocial intervention. Results showed equal effectiveness and maintenance in reduction of depressive symptoms one year after treatment ended. Improvements in the STPP group included a larger percentage of reduced symptoms at the long-term follow up. Also, there was a relapse of 4 percent, compared to 16.5 in the CBT group, indicating long-term effectiveness. The review of studies on anxiety disorders show few studies. In one, ten participants from 8-16 received a manualized weekly treatment of 12 sessions. After treatment they no longer met criteria for an anxiety disorder with improvements across all outcome measures and in general functioning. Improvements were still present after six months. However, the study showed a limitation in methodological requirements, such as small sample sizes and lack of control group, which call for more research.

A meta-analysis of short term psychodynamic psychotherapy (STPP) models for children was carried out by Abbas et al. (2013). They claim this to be the first evaluation of treatment effectiveness, although such approaches are widely used for a range of psychiatric disorders in children. Their findings indicate that STPP can have positive outcomes across a wide range of psychiatric disorders, and that there is a tendency that treatment improvements increase during follow-ups. However, more systematic studies are needed. Out of the treatment approaches which build on knowledge from attachment theory and empirical studies on mentalization, mentalization-based treatment for children (MBT-C) is currently the most widely used. A thorough and comprehensive treatment guide was written in 2017 (Midgley, Ensink, Lindquist, Malmberg & Muller). The approach aims at promoting the development of mentalization and resilience in children and parents (ibid). Peter Fonagy puts words on the status of treatment approaches for children when he states that 'It is somewhat paradoxical that the maturity of an approach should have as its marker the extension to the world of children' (ibid, p. vii).

The Erica Process and Outcome Study (EPOS) (Odhammar et al., 2011) was an observation study without a control group. The research aim was to investigate whether global functioning improved after treatment with short-term psychodynamic psychotherapy. Sample size was 33 children with AD/HD or behaviour problems between 4-10 years and their parents. When measured after treatment with CGAS (Children's Global Assessment Scale) and HCAM (Hamstead Child Adotion Scale) effect size was 1.80 and 1.98. The study supports that parallel treatment with children and parents can have positive effects, but the authors conclude that more research are needed to identify which factors contribute to the change (Odhammar et al., 2011).

Empirical studies researching the outcome of time-limited intersubjective psychotherapy with children are to my knowledge limited to the one conducted at the Akershus university hospital outpatient child and adolescent clinic, Furuset with 9 children experiencing difficult family situations (Haugvik & Johns, 2006, 2008; Johns, 2008; Haugvik, 2013; Haugvik & Mossige, 2017). In this study a wide range of symptom scales were applied to measure outcomes after therapy and at a three-months follow-up, in addition to parent interviews and video analysis. Results from symptom scales showed an effect-size of 0.66 right after therapy and 0.74 three months after therapy ended, which were in accordance with improvements reported by parents. The second known study is the present collaborative research study between this outpatient clinic and the Norwegian University of Science and Technology in Trondheim (Fiskum et al., 2017; Johns, 2018) which the thesis is a part of. The time-limited intersubjective therapy method applied in this research has been developed from psychodynamic theory, primarily the theories of Winnicott (1971) which impacted an integration of a metaphorically formulated therapy focus from the child's perspective (Haugvik & Johns, 2006). Later, the treatment has integrated knowledge from infant research, the significance of microprocesses for therapeutic change, mentalization theory and a dynamic systems perspective (Hansen, 2012).

To summon up the status of empirical studies, Midgely et al. (2017) states that meta-analysis of the research base indicates a need for more methodological good trials into the beneficial effects of psychodynamic child psychotherapy. Specially RCT studies which warrant an investigation not solely *whether* treatment works, but into the circumstances of *how* it works (Midgely et al., 2017). RCT studies have no doubt been decisive in validating clinical work. One may ask how qualitative research can contribute to knowledge which strengthens the evidence base for child psychotherapy. The Norwegian researcher Per Einar Binder sees qualitative research as essential to acquire knowledge about the phenomena which cannot fully be quantified, whilst having an impact of alliance building and relational change processes (Binder et al., 2016). These are subjective and relational experiences and meaning making.

Microprocess research, within an intersubjective perspective, has for long been applied within infant and attachment research to gain knowledge about the circumstances which promote or disturb a healthy development in children, as well as giving direction for therapeutic interventions (Stern, 2000; Trevarthen & Aitken, 2001). Microanalysis is becoming of growing interest as a means of exploring the therapeutic relationship (Harrison & Beebe, in press). It implies studying therapeutic interplay at “the local level” (Lyons-Ruth, 2006), within a psychological understanding of the child’s history. Through video analysis, micro exchanges in the here and now and developmental patterns across single sessions can be illuminated (Trevarthen, 1989; Stern, 2000; Holck, 2007; Wosch & Wigram, 2007; Trondalen, 2007). Within music therapy, there has been an increase, during the last years, in the interest in and research on microprocess studies on improvisational music therapy, from different methodological approaches (Wosch & Wigram, 2007): I will mention two examples here: Holck’s ethnographic approach to videoanalysis of therapeutic musical interplay with children with autism (Holck, 2002, 2007) and a study of significant moments in improvisational music therapeutic work with young people suffering from anorexia nervosa (Trondalen, 2004). From her integration of infant research in child analysis, Harrison has written two articles on a study of microprocesses in child psychoanalysis and encourages a focus on the micro-level interaction, in addition to a psychoanalytical, to understand the process of change. Beebe (2014, 2017) also encourages a more differentiated understanding of this part of the therapeutic relationship, based on research.

2.2. A PERSPECTIVE ON CHILD PSYCHOTHERAPY AS A PROCESS OF DEVELOPMENT AND INTEGRATION

A developmentally oriented perspective on child psychotherapy builds on a transactional model for development (Sameroff, 2009; Zeanah, 2009; Smith, 2010), implying that the child’s development is embedded from birth in a transactional process with continuous interaction between inner and contextual factors. Developmental psychopathology is a concept which describes maladaptive development from maladaptive transactions over time (Sroufe & Rutter, 1984). The understanding is inspired by dynamic systems theory, emphasizing that the individual must always be defined as part of a system and that a child’s psychological problem does not represent something in the child or the system alone (ibid.). The concept of *equifinality* describes how different developmental paths can lead to the same symptoms, while *multifinality* describe how the same risk factors can give different symptoms (ibid.). This implies that attention must be directed to the complexity in the

child's psychiatric disorder, and that symptoms must be understood as disturbances within a system, implying a lack of developmental support for the child.

The implications of a developmentally oriented perspective on child psychotherapy is to integrate empirical knowledge about basic developmental processes influencing a child's development, to know what developmental processes psychotherapy should be directed at. In this perspective the therapeutic goal can be described as 'helping the child back on its developmental track' (Hansen, 2012; Johns & Svendsen, 2016; Midgley et al., 2017). Infant research has contributed to empirically based knowledge about the dialogical foundation and reciprocal microprocesses for development. A child's development takes place in a mutually shared and constructed world of actions and meaning, being continuously influenced via interacting with others (Trevarthen, 1989; Stern, 1985/2000; Zeanah, 2009). Depending on the development of such interaction, patterns of inner representations of others are formed, which again can be subject to reconstruction through new relational experiences, such as psychotherapy. Lyons-Ruth points out the therapeutic implication, in emphasizing the developmental importance of the intersubjective field shared by therapist and child (Lyons-Ruth, 2008).

Psychotherapy can be understood as a frame for intersubjective processes and to how subjective experiences of mutuality are decisive for self-developmental processes in the child (Hansen, 2012). Tronick's model for therapeutic change is in line with Stern (2004) in that therapeutic encounters can represent new ways of *being-with* another (ibid.) with the potential of reconstructing previous relation implicit knowing embedded in *representations of experiences that are generalized* (RIG) (Stern, 1985/2000). It implies a therapeutic focus on the child's activity and signals in the here and now and to the therapist's capability to be responsive to those signals. Directing attention to the child's focus for attention becomes a central therapeutic task, to establish shared attention and contact (Nakamura et al., 1999). In a neuropsychological perspective, several parts of our neural networks that are activated when humans are emotionally activated, also become activated when we observe another's emotional activation (Gallese, 2003). *Limbic resonance* is a metaphor for implicit sharing of emotions (Hart & Kæreby, 2009). The process of affective synchronization incorporates the automatic adjustment to each other's emotional tone, enabling and promoting affective sharing.

2.2.1. AFFECTIVE DIALOGUE; A MATRIX FOR SELF-DEVELOPMENT

Stern's view is that we are part of an intersubjective *matrix*, which both contains and gives form to our mental lives through affective subjective experiences throughout life of how the interaction with others proceeds (Stern, 2004). Affective communication plays a central role and humans adjust their responses from infancy to affective nonverbal actions from others, such as facial expressions, vocal intonation or variations in movements. Affective, nonverbal communication is found as the primary way of seeking, experiencing and maintaining mutuality and the basis for development of senses of self (Trevarthen, 1993; Stern, 1985/2000). For example, that contingent responses to specific affective signals of infants are found to promote self-agency, a core sense of self (Stern, 1985/2000; (Fonagy, Gergely, Jurist & Target, 2002). Contingent responses take place in time, as good timing, and infants' sensitivity to such responses is understood as a primary need for meaning at a bodily/somatic level (Tronick and Perry, 2015). Therapeutic approaches can build on such knowledge. To support development of mentalization, contingent coordination with the child is recommended, if only in small moments, as a primary way to promote trust in the therapeutic relationship (Midgley, Ensink, Lindqvist & Muller, 2017). The authors recommend that therapy with children draws on nonverbal modalities since such modalities have the potential to influence attention, processing information and modulate emotions prior to the capacity to mentalize (p. 146).

Knowledge from infant research has led to an understanding of a micro level impact on the formation of self-development, in that the experience of intersubjectivity is an evolving process with continuous reciprocal adjustments of moment-to-moment interplay. The nature of this process, being co-created in the here and now, is named *moving along*, with *sloppiness* as a marker of co-creativity (Stern, 2004). In line with this, Stern brings attention to the temporal aspects of affective sharing, together with dynamic subjective aspects (1985). He proposes that therapy for long has been time-blind, giving too much attention to the content of therapy at the expense of the process, both as it unfolds in micro events and in constructing self-biography (2004). Based on her own infant research and clinical application, Bjørg Røed Hansen (1991, 1996, 2000, 2010) describes microprocesses in the affective dialogue as the 'choreography' for later development and therapy. Both Stern (2004) and Røed Hansen (2012) suggest that the time perspective of affective communication, evolving in the present, gives little or no room for conscious thinking and therefore promote authenticity.

Two self-developmental models emphasize specifically the significance of the affective dialogue in development and in therapeutic changes processes: The first is Daniel Stern's *model of self-development*, formulated as a continuous construction process, where the child's self- and self with other experiences represent parallel developmental and interacting poles (Stern, 1985/2000). This model of parallel and

interacting development implies that clinical issues such as dependence and independence are recognised as life themes, being influenced by relationship experiences throughout life (ibid). Stern talked of socio affective skills, accumulating progressively through five layers called *the emergent self, core self, intersubjective self, verbal self and narrative self*. These domains are described in detail in the Handbook of the therapy method in the study. I will present some central forms, relating to the musical properties of reciprocal exchanges and affective sharing, under (2.3.1.). The way Stern conceptualizes the organization of self-development is linked to the concept of *implicit relation knowing* (Stern, 2004). This is non-conscious, implicit and automated experiences, influencing how it feels like to be oneself with another. Such experiences are formed from real relationship episodes, where patterns of variation or invariants across episodes, play a part. They are referred to as *representation of interaction episodes generalized* (RIG) (Stern, 2000) or ‘ways of being with another’ and are patterns which will manifest in psychotherapy through the child’s activity and ways of relating to the therapist. Such patterns are also part of different attachment patterns, where recent research demonstrate that intersubjective microprocesses play a decisive part (Brandtzæg, Smith & Torsteinson, 2011). The formulation of a theory for development of mentalization (Fonagy & Target, 1996, 1997; Fonagy, Gergely, Jurist & Target) is the other model for self-development building on developmental and attachment research, emphasizing the quality of the child’s affective primary relationships and cognitive capacity. Their model formulates a progressive development of reflective functioning leading to mentalization capability, where the development of self-agency is decisive. Allen and Fonagy (2006) describe how mentalizing at its most meaningful, is ‘suffused with emotion’ (p. 8). Mentalizing capacity is seen as crucial to a healthy self-development and promoting the capacity for mentalizing have therefore become a key therapeutic method. When a child’s reflective functioning develops in order that the child understands that emotions can be adjusted and modulated in different contexts, the child’s vitality and presence will increase (Fonagy et al., 2002). The child will then become clearer to both itself and others. A child who does not receive adequate help will be left to him/herself to self-regulate, with potential negative developmental consequences.

2.2.2. DEVELOPMENT OF EMOTION REGULATION

Psychotherapy research shows that difficulties with emotion regulation is an independent factor across several psychological disorders (Anastoloulos et al., 2011; Ehring, Fischer, Schnülle, Bösterling & Tuschen-Caffier, 2008; Rodebaugh & Heimberg, 2008; Shore & Shore, 2008). In persons suffering from depression, emotion regulation difficulties are present also outside depressive periods. Vasilev et

al. (2009) found that poor emotion regulation capability was related to neuropsychological findings and that internalizing, externalizing and comorbid diagnoses in children and adolescents share an underlying dysfunction in emotion regulation that can be measured with objective neurophysiological measures and in self-reports. Neurobiological research implies knowledge about the biological foundation for affective processes and the significance of non-verbal communication for expressing emotions and for emotion regulation. Prefrontal cortex and the autonomous nervous system are found to play an important role in the psychophysiological regulation of emotions (Baumeister & Vohs, 2004). Prefrontal cortex moderate activation in limbic structures involved in emotional processing (ibid.). Research has shown differences in autonomous reactivity in children with internalizing and externalizing difficulties, in that there is low reactivity in externalizing children and high reactivity in internalizing, compared to control groups. There also seems to be specific differences regarding emotions in the two groups in that externalizing children manifest decreased sensitivity in relation to anger and joy (approach system), whereas internalizing children show increased sensitivity to fear and sadness (avoidance system) (Fortunato, Gatzke-Kopp, & Ram, 2013).

Emotional and cognitive processes are integrated through development and such integration is dependent upon the child's increasing capability to regulate emotions (Jacobsen & Svendsen, 2010). Sufficient age adequate emotion regulation indicate that the processes have been well integrated towards adequate functioning. Low scores indicate a lack of integration of emotional and cognitive processes and that the child is at risk for developing a psychological disorder (Baumeister & Vohs, 2004; Ochsner & Gross, 2004). Psychotherapy research shows a combination of neuropsychological networks in limbic and cortical areas. Emotion regulation is shown to be structurally and functionally distributed in several areas, and poor emotion regulation can therefore be manifested as various difficulties across different diagnoses (Baumeister & Vohs, 2004; Campos, Frankel & Cameras, 2004). In a transactional perspective, emotion regulation is seen as a crucial factor for the development and maintenance of psychological disorders (Sameroff, 2009). An improvement in emotion regulation capability will therefore represent an important element in therapeutic change (Jacobsen & Svendsen, 2010).

Psychotherapy research and treatment has focused primarily on treating specific diagnoses targeting symptomatology. The risk is that underlying mechanism and developmental processes are not fully understood or addressed. Also, that a lack of emotion regulation capability in parents makes it difficult for them to make use of treatment procedures (Scott & Dadds, 2009). Shirk & Russel (1996) claims that understanding children's psychological disorders as inadequate developmental processes is more useful than placing them in diagnostic categories. An alternative or

supplementing treatment approach is to regard the therapeutic dialogue as an affective regulating therapeutic dialogue, aiming at development and integration. This implies a focus on the underlying mechanisms and bringing these implicitly and explicitly into treatment goals (Svendsen & Johns, 2014), and that the main goal for treatment is to promote emotional, cognitive and social development in the individual child.

2.2.3. AFFECT INTEGRATION

When a child has little sensory experience of emotions, therapy must be directed to joint attention with the child to such experiences, whilst a child who directs all attention inwards to bodily activation needs help to direct attention outwards to contextual circumstances which can give meaning to the activation (Campos, 1998). Affect integration is defined as the functional integration of affect, cognition and behaviour and plays a key role in mental health and self-development, such as reflective function (Solbakken, Hansen & Monsen, 2011). Affect integration is related to vitality, in that affect consciousness is defined as an individual's capacity to consciously perceive, tolerate and express basic affective activation both non-verbally and verbally (Monsen, Eilertsen, Melgard & Odegard, 1996). Affect integration comes from increased flexibility to be able to direct attention both inwards and outwards and be able to express and share feelings. Affect integration is also linked to differentiation of emotions, which organize and gives meaning to experiences (ibid.). It leads to a greater understanding of oneself and the world. Most research on affect integration has been performed within adult psychotherapy. This implies a need for more research on the mechanisms which promote integration of affects within child psychotherapy.

2.3. A MUSICAL FRAME FOR UNDERSTANDING THERAPEUTIC INTERPLAY WITH CHILDREN

A research focus on a musical frame for understanding therapeutic interplay is based in knowledge from infant research which has shown how musical parameters can clarify interaction on a microlevel. The theoretical support for a parallel endeavor within child psychotherapy can only be qualified in theoretical assumptions from this research that microprocesses continue to be significant for the development of children, also in psychotherapy. Further, that a study of microprocesses can inform the development of emotion regulation. Intersubjective psychotherapy takes as its

starting point that developmentally directed therapeutic dialogues can influence children's development on a microprocess nonverbal level. Beebe (2002) has pioneered microprocess analysis in adult psychotherapy, adopting an infant research approach. Without an explicit musical analysis, she found that nonverbal aspects relating to rhythmic, vocal and turn-taking patterns, brought attention to and clarified aspects in the therapeutic interplay. In her work, Beebe brings attention to what she describes as process dimensions of words, conveyed through facial expression, gesture, vocal tone and rhythm (Beebe et al., 2005). Such dimensions are usually out of awareness or conscious intentions, however are part of goal-directed action. As part of intersubjective regulatory patterns, they convey a moving process, rather than a discrete moment (p. 745). Inspired by Beebe, Harrison (2014) carried out a second-by-second microprocess analysis of episodes of interplay with a five-year old boy attempting to integrate infant research with a psychoanalytic approach. She refers to Boston Change Process Study Group (2010), agreeing with the authors' view that a part of therapeutic action cannot be explained by psychoanalytic theory (Harrison, 2014, p. 314). She names this part as the 'music and dance' of therapeutic action, involving coordination of vocal rhythms, turn-taking and duration of actions and pauses of the child and therapist. She found that the micro-level interaction and meaning making process as crucial for the course of therapeutic development, with an increase in coordination of 'music and dance' between herself and the child. Of interest in the context of this study, is that she found a relationship between increased level of coordination and increased management of emotional intensity and stress in trying out new ways of relating. Also, that nonverbal microprocess interplay supported self-agency in the child at the same time as the therapist was reorganizing her own sense of agency (p. 336).

There is little systematic research on patterns of interplay in the therapeutic relationship with children (Kazdin, 2002, 2004; Midgley and Kennedy, 2011). However, clinical child psychotherapy studies indicate that a positive emotional bond and alliance is significant for positive therapeutic development (Shirk, Carver & Brown; Svendsen, 2007), which implicate further research into enabling conditions for positive alliance with the individual child. When investigating questions like 'how does a therapist become responsive to the child' (Svendsen, 2007), and 'how does increased synchronization between therapist and child promote emotional expressiveness in the child' (Harrison, 2014) call for studies on a microanalytic level. These are questions about the *how* of therapeutic interplay as opposed to *what*. Descriptions must be understandable to expand our knowledge and be useful clinically. Both previous questions are relational. The different theories and models for self-development describe the relationship with a receptive person as a necessary condition for self-development (Stern, 2000). This indicates therapeutic involvement in the therapeutic relationship as a necessary condition in search for opportunities for

intersubjective sharing. Also, the intersubjective foundation of therapeutic development emphasizes therapy as a largely child-led process, adjusted to the child's signals and needs. Since children in psychotherapy express themselves mostly nonverbally, there is a need for a language for nonverbal signals that can bring attention to different features, variations and repeated patterns, which can be recognized. Applying a musical frame is such an attempt.

2.3.1. AN INFANT RESEARCH PERSPECTIVE ON RECIPROCAL 'MUSICAL' INTERPLAY

Infant research has for long described infant conversation as musical and in musical terms (Papousek and Papousek, 1981; Trevarthen, 2008; Stern, 2000, 2002). The term *musicality* in this context, was firstly used to my knowledge by Papousek & Papousek (1981), describing intuitive musicality of parenting and in parent-infant interaction. Several researchers have demonstrated the inborn sensitivity to finely attuned rhythms, tempi and vocal dynamics (Papousek & Papousek, 1981, 1996; Mumme, Fernald & Herrera, 1996; Trevarthen, 2008; Delafield-Butt & Trevarthen, 2013). In this way, they have not only brought awareness to the interrelatedness of musical and social communication from the start, but to musicality as a basic human communication (Trevarthen & Malloch, 2017). Beside clarifying infants and caregivers' actions and nonverbal signals in different situations and contexts, descriptions of rhythmical, temporal, vocal and dynamic features has facilitated intersubjective knowledge and research.

Colwyn Trevarthen made detailed analysis of interaction patterns, which led to his understanding of *primary intersubjectivity* (Trevarthen, 1979). His concrete descriptions of reciprocal interplay, in which the main goal is involvement, are concrete descriptions of how rhythm, vocal intonation, tempo and dynamic changes play a crucial role in establishing and maintaining intersubjectivity (ibid.). Trevarthen brings attention to vocal features in the first communication of parents with infants, in a high tonal registrar with characteristic prosody and rhythm, which implies a musical adjustment to the infant's capacity, and how communication breaks down if these vocal features are lost, for instance because of caretaker's depression. Also, he demonstrates the significance of establishing a ground rhythm for turn-taking in the dialogue. Turn-taking in infancy is normally characterized by a high degree of reciprocity (Trevarthen 1989; Stern, 2000). Trevarthen compares this finely tuned communication to the interplay between musicians (1989). Another dialogical feature, which is 'musically' illuminated, is the narrative structure and organization of sequences with a clear beginning, continuation with increased intensity and ending in

a pause. Jaffe et al have given additional information of the role of pauses in turn-taking exchanges (2001). The most usual way of exchanging turns is when the active partner stops and the other begins seconds after, which the authors describe as *switching pauses*. *Interruptive switches* take place when the second partner interrupts before the first has completed her/his turn. A *simultaneous switch* is an immediate exchange, which implies very fine sense of coordination (Jaffe et al., 2001).

Several researchers describe evidence of a rhythmical foundation of human activity and communicative abilities. Wolff (1968) points to the implication of rhythms being organized in patterns from the start, facilitating interactive adjustment. Mary Catherine Bateson's description of proto conversations in infancy (1979) referred to a shared rhythmic foundation for turn-taking. Schaffer (1984) accordingly accentuate rhythmical features of children's dialogue as an essential social feature. There is much research on the function of rhythm (Trevarthen, 1979, 1989; Jaffe et al.). A rhythmical perspective on affect attunement is described by Hopenwasser (2008) in her article on dissociative attunement. Using a metaphor from music, she compares therapists' emphatical attunement to microtonal tuning forks. It will not function, however, if the client is not able to be attuned to in the here and now. When the client is dissociative, this is contradictory to being present, resulting in dissociative, unrhythmical attunement.

Similarities are found across cultures in mothers' vocal intonation and rhythmical features in sharing intentions and feelings with the child, and in children's responses (Fernald, 1992). Commonly mothers use a low tonal registrar together with falling melodic contours in soothing her child, whilst trying to catch attention is attained by a rising melodic line. When the intention is to keep the child's attention, mothers commonly use a clocklike melodic line (ibid.). From listening to the vocal and rhythmical exchanges when communicating Stephen Malloch (1999) suggested the model of *communicative musicality*, pinpointing the co-creative nature and the goal of creating contact. The model consists of the three components of pulse, quality and narratives (Malloch, 1999, 2017). These are ways of transporting emotional experiences from one person to the other; "Narration allows two persons to share a sense of passing time, and to create and share a particular experience which evolves through this shared time" (Malloch, 1999, p.45). 'Musicality' is defined by Malloch and Trevarthen as "expression of human desire for cultural learning, our innate skills for moving, remembering and planning in symphony with others that make our appreciation and production of an endless variety of dramatic temporal narratives possible.....It is our common musicality that makes it possible for us to share time meaningfully together, in its emotional richness and its structural holding...." (2009, p. 4 & 5).

Drawing on infant research, researchers have integrated a clinical view in describing central dyadic themes and forms of reciprocal interplay which promote self-development (Stern, 1985/2000, 2004; Tronick, 1989, 2005). Stern indicates in his writings how these reciprocal forms of interplay can be described in terms of musical parameters. *Dyadic regulation of vitality affects, affect-attunement, joint attention, imitation, synchronization* and *modulation* are examples of such forms of reciprocal interplay, which are also considered as essential for understanding therapeutic microprocesses in the study. Intersubjective sharing through affect attunement, (1985/2000), includes both a temporal and a dynamic quality of matching. This was firstly described by Stern as vitality-attunement, relating to his concept of vitality affects as manifestations of how emotions are mobilized, experienced and shared from birth (Stern, 1985/2000, 2010). He emphasizes the temporal aspect together with the dynamic aspects.

All through his writing, Stern has suggested that human behavior, thoughts, feelings, actions and development involve musical qualities and features and a time contour (Stern, 1977, 2002, 2004, 2010). With reference to microprocesses in ‘moving along’, with emergence of opportunities for ‘moments of meeting’ (2004), he has brought attention to the significance of temporal dynamics (1977/2002). In Stern’s view the experience of temporal dynamics is inextricably linked to microprocesses: “As an experience unfolds, there are micro shifts in the quality and intensity of the act, and the feeling evoked in you. The shortest meaningful chunking has a contour in time” (Stern, 2002, p.13). He claims that, for the most part, psychology has been ‘time blind’, ignoring temporal dynamics. This implies that looking at reciprocal regulation processes at a micro level, musical parameters describing temporal dynamic features of interplay may clarify features and contexts of regulatory patterns involved in interactive errors and repairs (Stern, 2010; Tronick, 1989). This has developmental implications. When a child has a new intersubjective experience in the therapeutic relationship of an interactive repair, this affects a development towards better coping and self-agency. Importantly, self-agency as Stern sees it implies the child’s experience of the therapist being moved to see events from the child’s point of view and adjusting accordingly (2010). He has suggested several conceptualizations and understanding, from integrating knowledge from infant research and clinical experience, as well as different theoretical fields of knowledge. His work is inspirational for exploring microprocesses through a description of dynamic musical parameters.

One of Sterns latest and most integrative concepts, bearing significance for description and understanding of dynamic subjective experiences and intersubjective exchanges, is his concept of forms of vitality (2010). *Forms of vitality* refers to the special way that we encounter dynamic experience in space and time, which influence

how we perceive, evaluate, regulate and share mental states. Stern proposes that such experiences represent the integration of five basic elements; movement (which is primary and includes mental movement), time, space, intensity/force and intention. In his view, dynamic forms of vitality explain, from an intersubjective perspective, how humans can access the mental activity of others. Subjective experiences of musical parameters, such as *accelerando*, *crescendo*, *fading* etc. define how constantly changing forms of vitality feel like in our bodies.

2.3.2. PERSPECTIVES FROM MUSIC THERAPY

Music therapy covers a wide field of research and clinical approaches to patient groups of all ages and applies music in many forms. In this context, I will limit myself to a few selected examples of research and clinical perspectives within music therapy with children and adolescents, which relate to the subject of this thesis. Research shows that participation in music therapy, such as musical improvisation, have the potential for helping children to become more expressive and promote social interaction (Bunt, 1994). Ken Bruscia (2004, in Wigram, 2004) writes that: 'Improvisation is the process of continually creating my life anew' (p. 18). He thereby points to the potentiality of music to reconstruct experiences and self-biography through playing. Taking as a starting point the patient's individual way of expressing music, whether by vocal sounds, rhythmic activity or other, the task is to bring these musical expressions into meaningful communication which can improve the patient's life psychologically, physically, socially etc. (Ruud, 1998, 2010; Trondalen, 2016).

Approaches applying clinically directed improvisation have transported valuable knowledge and aspects to this research (Nordoff & Robbins, 1977; Alvin, 1978; Pavlicevic, 1990; 1997; Bunt, 1994; Holck, 2002; Wigram, 2004; Wosch & Wigram, 2007; Trondalen, 2004, 2005, 2011, 2016; Trondalen & Skårderud, 2007; Trondalen & Wosch, 2018; Ansdell et al. 2010; Pavlicevic, 1990, 1997). One method which used improvisation to invite a musical response from the child, has been developed by Nordoff and Robbins, often called Creative Music Therapy (1979). They thought of the child's individual musical expression as an expression of the child's inner world, to be enhanced and developed through musical interplay with the therapist (*ibid.*) Improvisation in music therapy emphasize the therapeutic potential in establishing and making use of reciprocal musical sharing (Bunt, 1994; Wigram, 2004, Trondalen, 2012), and this may be regarded as a common factor across many differences in techniques and theories. Also, predictability and coherence in time, place, musical instruments and musical themes are described in the literature (Jones & Oldfield, 1999; Trondalen, 2012; Johansson, 2017). Coherence and continuity can be

experienced by the client through a 'leitmotif', a small musical motif emerging in the interplay which becomes a reminder of qualities in the music and in the relationship (Wigram, 2004; Agrotou, 2017). Wigram (2004) describes how 'leitmotifs' become material for establishing and beginning musical engagement. Holck (2002, 2004) describes in her research, how identifying 'interaction themes' becomes important to the development of interplay with children with autism. Alvin (1978) talks of 'signature tunes', which are typical and individual musical patterns associated with that person, an understanding which points to Sterns concept 'identity signature' (2010) expressing a person's forms of vitality. Through engaging in improvisation, individual patterns in which different patients relate to music, the therapeutic situation and the therapist, can be used diagnostically (Pavlicevic & Trevarthen, 1989; Wigram, 1999; Jacobsen & McKinney, 2015) to assess both difficulties and resources.

The significance of relational patterns in musical improvisation has been microanalysed by Ulla Holck, based on an ethnographic approach (2002). Her research focus was what she called the interactional field ('interaktionelle felt') in music therapy with children with severe communication disorders (2002, 2004). In evaluating the meaning of musical interactions, gestures, mimics etc. were included in addition to musical patterns, which is not always the case in the analysis of music therapy interaction. The microanalysis enabled reciprocal adjustments in the children's responses to stand out in the improvisation. In the same way that infant research has looked to musical parameters to illuminate and clarify intersubjective exchanges, music therapy improvisation theories have integrated intersubjective knowledge and theories into their understanding. Inspired by intersubjective theory and research, Pavlicevic (1990), explored the basic dynamic, amodal features of the concept vitality affects and transferred into a theory of clinical improvisation. Her formulation of *dynamic form* brings attention to how the patients' musical improvisation may disclose personal themes. She elaborates on how different dynamic forms may provide the therapist with a musical profile and understanding of the patient's musical needs, and thus give meaning to and direction for various interventions in the music towards improving the interplay in therapy. Pavlicevic suggested that the experience of meaning in musical improvisation is created based on social and cultural context (2009). Trondalen (2009), developed a method for microanalysis of therapeutic interaction in music therapy with young people in mental health care. In her research on 'significant moments' in music therapy with young people suffering from anorexia nervosa, with little or no musical skills, Trondalen (2004) found that characteristic features of 'significant moments' in therapeutic interplay, involved rhythmical break-downs, increased intensity and repetition of musical themes, primarily initiated by the client but supported by an underlying mutual musical frame.

In his book on methods and techniques in musical improvisation, Wigram's (2004), descriptions of different ways to relate in improvisation come close to Sterns understanding of vitality forms. In his book on vitality forms, Stern refers to Wigram's improvisation methods as examples of how vitality forms can be enhanced through nonverbal therapies (2010, p. 139). Among such basic musical methods are *mirroring*, implying an exact imitation of the client's actions and *matching* (Wigram, 2004, p. 83), which Wigram describes as the most useful way to validate clients' actions and emotional expression. His description of matching (Wigram 2004, p. 84) is close to Stern's description of affect attunement, as being not identical but in the same style and quality which leads to an experience in the client of his/her music being shared by the therapist; 'fits together and matches' (Wigram, 2004, p.84). In describing the method of *grounding, holding, and containing*, creating a basic beat is suggested as a useful anchor and framework, which can be rhythmical, tonal or harmonic, to help the client to organize his/her own activity (Wigram, 2004, p.91). *Dialoguing* can have two forms, either as turn-taking dialogue or 'free-floating', which is mostly continuous. Wigram thus brings in time in relation to the experience of continuation. He also mentions gestural cues as significant means of promoting dialogue. *Accompanying* implies to provide music which is different from and 'dynamically underneath the client' (Wigram 2004, p.106). *Empathic improvisation* is inspired from the pioneering music therapist Juliette Alvin, who was originally a cellist.

Not much research, to my knowledge, has been carried out in music therapy concerning emotion regulation in work with children and adolescents, however I will account two: The Norwegian psychologist Ingvill Sannes carried out a qualitative study of music and emotion regulation in mental health care (Sannes, 2012). She interviewed six music therapists, with more than ten years of experience, on how they used music to promote emotion regulation capability in their patients (children, adolescents and adults). Thematic analysis identified two main themes, which were representative for data material, 1. Mutual regulation and 2. Development of tolerance. The findings are discussed considering knowledge from developmental research of how affective, nonverbal interaction promotes emotion regulation and its implication for therapeutic processes. Katrina Skewes McFerran and colleagues did a mixed method study (2018) to investigate the effects of a brief music-based intervention on psychological distress in adolescents, aged 13-23. Previous studies show a tendency in adolescents to use music to feel better, however unconsciously choose music which intensity depressive symptoms (McFerran & Saarikallio, 2013). There is evidence from adult studies that music therapy which aid in using music in a helpful way, reduces depressive symptoms of depression in adults (Maratos, Gold, Wang & Crawford, 2008). In their study, McFerran et al. used qualitative interviews and symptom scales. Findings showed some decrease in distress and that reflecting

on their choices of music together with a music therapist had a positive effect on their 'sense of personal agency' (2018, p. 11).

2.3.3. INTEGRATING PERSPECTIVES FROM MUSICOLOGY

'Musical parameters' refer to aspects of music which can be varied and described independently of each other and independent of the traditional elements of music, such as rhythm, melody, harmony, timbre and form. Such aspects are pitch, duration, intensity, tempo, attack and vocal tonality. Another important aspect of musical parameters are their dynamic qualities: tempo can slow down (*ritardando*) and speed up (*accelerando*); intensity can diminish (*diminuendo*) or increase (*crescendo*), a voice quality can be soft (*dolce*) or firm (*marcato*). When searching for ways to describe phenomenological qualities of relational experiences, Stern was from early on inspired by the philosopher Susanne Langer (1967, in Stern 1985). She suggested that vital processes of life can be described as 'Forms of feelings' (Stern, 1985, p. 54). Stern elaborates on the infant as being 'immersed in feelings of vitality' and goes on to write: "Examining them further will let us enrich the concepts and vocabulary, too impoverished for present purposes, that we apply to nonverbal experiences" (p. 54). Stern has, as many infant researchers, incorporated musical parameters to his vocabulary of nonverbal experiences. Accordingly, he describes forms of vitality by referring to musical parameters, such as rhythm, intensity (*crescendo-decrescendo*), form and attack as markers for how relationships are created and evolves from moment-to-moment exchanges (Stern 2010; Johns, 2012). From a musicological perspective this relates to the first ways humans performed music, not as an esthetic art form, but as exchanges of dynamic forms (Pavlicevic, 1997; Trondalen, 2004; Dissanyake, 2009).

Langer was the first to postulate a close connection between emotions and art forms, such as music, from an experiential perspective (Langer, 1942; Bonde, 2009). Bonde (2009) elaborates on dynamic forms of vitality in music, dividing them into three groups (p. 137): The first has to do with dynamic terms describing changes in intensity and nuances. The second are terms describing changes and variations in tempo, and the third relates to the character of the music. Bonde specifies the musical terms within each of the three groups (p. 138) and sees parallels to the human experience of qualities in music and forms of vitality as expressions of senses of self. Eighteenth century music theory described 'affekt' as the foundation of musical performance (musictheory.org.uk/res-musical-terms/Italian-musical-terms.php), relating to the ability of music to express and influence emotions. Hence, directions in the music aimed at a detailed description of aspects of music related to changes in character,

affections and emotions. Most of these musical terms are Italian and allow for a detailed description of changes in qualities related to aspects of dynamics, temporality and form.

In Ken Bruscia's model for assessing improvisational profiles (*Improvisational Assessment Profiles* (IAP) (Bruscia, 1987), he formulated a relationship between human existence and qualities in musical elements (Bonde, 2009). The six IAP profiles are the result of this attempt to cover musical as well as psychological qualities and characteristics (Stige, 2000). Such qualities relating to elements of music are rated according to scales for each profile of specific musical elements, including *timbre, volume, tempo, meter, rhythm, melody, harmony, tonality, texture, phrasing, etc.* The six profiles are *Integration, Variability, Tension, Congruence, Salience* and *Autonomy* (Bruscia, 1994 pp. 401-496). Although these profiles describe musical improvisation, without including, as far as I know, aspects of other nonverbal or verbal actions in the therapy situation, such as gestures, it is possible to apply his ideas to a broader understanding of therapy processes (Bonde, 2009). Thus, Bonde has explored further the different qualities of musical parameters as metaphors for human existential issues to be seen in relation to psychological and existential questions.

In the present study, I propose that musical parameters can be examined as descriptions of subjective actions and intersubjective exchanges, not as metaphors for such actions, but as *concrete* physical properties. In the following I will describe some influential sources underlying this thinking: The research and thinking of Colwyn Trevarthen has contributed largely to the understanding that humans are born with complex musical sensibilities, which are based in primary motives, movement and emotions that are essential for what goes on within and between us (Trevarthen, 1979, 1989, 2008). Trevarthen & Malloch (2017) thus describe 'a musical self' with a primary human motivation for intersubjective and cultural experiences and meaning, communicated through affective dynamics. The communicative potential of such inborn musicality, which was experienced through various musical parameters of rhythm, vocal tone, dynamics etc. led to the formulation of 'communicative musicality' (Malloch & Trevarthen, 2009). An important theoretical point is that the affective dynamics of musical expressions comes before and impact later symbols and reflection. (Bullowa, 1979; Trevarthen, 2001, 2008, 2009a, 2009b; Stern, 2000, 2010; Trevarthen & Malloch, 2017; Reddy, 2008).

This knowledge has also inspired the thinking of Daniel Stern. In his last book (2010), he describes how ideas from music perception has been one of several sources informing his thinking. Referring to studies on the associations between musical parameters, bodily motion and space, he questions and discusses musical changes in for instance amplitude, pitch contour, pitch intervals, attack rate, articulation and tempo as related to aspects of human motion. He considers that all human activity

traces some dynamic forms, and his ideas about ‘intensity contours’ comes from this thinking (Stern, 2010, p. 46). In elaborating on clinical implications of forms of vitality in emerging knowledge about the therapeutic relationship, the role of forms of vitality in intersubjective sharing, implicit processes in communication, whether verbal or nonverbal, and therapeutic change processes related to time is in the forefront (Stern, 2010). In considering verbal communication he says: “The listener feels the ongoing action of the intention through the vitality forms of the expression” (p. 122), and he thus recommends that we give special attention forms of vitality in the clinical setting.

CHAPTER 3. METHOD

3.1. EPISTEMOLOGICAL AND ONTOLOGICAL PERSPECTIVES

The previous section on music makes it clear that my understanding of music belongs to a phenomenological-hermeneutic paradigm. Ontologically, I see music as an interpersonal and relational phenomenon, an expression and sharing of vitality forms. The same is the case with my understanding of (child) psychotherapy, influenced as it is by especially Daniel Stern's paradigmatic transformation of psychodynamic theory and psychotherapeutic practice from the early 1980es (Beebe, 2017). As described previously, the present research builds on a former qualitative research study investigating time-limited intersubjective psychotherapy. The aim was to gain knowledge about how the therapy method was experienced by children and parents, and to evaluate and measure change. In the study, some quantitative measures were applied, to triangulate qualitative knowledge which generated from qualitative analysis. Taking an interpretive stance, triangulated with quantitative measures, places both the former and this study within a pragmatic phenomenological-hermeneutic approach. The pragmatic approach to research phenomena favors broad and mixed or multiple methodology. In the multicenter research, a mixed method study was applied, with opportunity to triangulate quantitative and qualitative findings, and reflection on implications of quantitative data. My own part of the study – this PhD research – is a purely qualitative study and belongs to a phenomenological-hermeneutic paradigm.

A phenomenological approach to data means being mindfully sensitive to the type of data being researched (Giorgi & Giorgi, 2003, Giorgi, 2009). In the present research, the theoretical underpinning of the therapy method is the therapeutic encounter as a frame for intersubjective processes. This implies that my perspective as a researcher on therapeutic communication and change, is that this can only be achieved through actively engaging in the individual child. Also, that engaging in interaction not only provide information about mental lives, but creates them (Stern, 1995, 2004, 2010; Reddy, 2008). By emphasizing that knowledge is attained by subjective interacting with phenomena, phenomenology has opened a door to the challenge of understanding the human mind, and therefore has relevance for psychotherapy (Hansen, 2012). Giorgi (2009) stated that knowledge about subjective phenomena includes the use of the researcher's senses; feelings, bodily experiences, hearing, attention etc. This perspective has been further developed by Merleau-Ponty, who placed bodily perception through our senses in the center for subjectivity. His theory describes how objects, events, oneself and others have *emergent* qualities, representing patterns and structure in our experiences in relation to the world. Husserl's phenomenological

philosophy has greatly influenced this study and the understanding of intersubjective processes (Hansen, 2012; Husserl, 1982). He formulated a theory of intentionality, where meaning is constructed in pre-predicative perceptual experiences of object and the world, which places intentionality and subjective experiences in a central position for how humans perceive and make meaning of phenomena. Intentionality thereby becomes an aspect of time, in that experiences are continuously constructed in the here and now from past experiences. The hypothesis of a *present moment* at the heart of therapeutic change (Stern, 2004), as well as the formulation of a subjective experience of time (*Kairos*) are inspired by Husserl. Husserl compared the subjective experience of time to a melodic line, where every note must be perceived for the melody to be experienced (Stern, 2004).

When interpreting the research data, the study is inspired by hermeneutic theory and methodology, using basic principles of interpretivist research (Gardstrom, 2016). Reflections on the time perspective, considering knowledge and data material, has been a significant aspect in the analysis process (Johns, 2008, 2018). Two philosophers have been influential to my thinking, beside Husserl: George Herbert Mead questioned the relationship between time and existence and proposes that time only exists in the present, whereas the past exists in the present as reconstructions (Mead, 1934). His philosophy has connotations to Stern's understanding of therapeutic development being constructed by new experiences reconstructing the past in the present (Stern, 2000). The philosopher Bergson formulated a similar, however slightly different view of time (Kolstad & Aarnes, 1993). Time and consciousness are linked together in his concept of 'La Durée' (duration). The experience of duration/time is an aspect of consciousness, and the past exists in the present through memory.

Both the former and the present study search to gain knowledge about clinical implications of relationship qualities for therapeutic development. This is situated in qualitative empirical knowledge about the significance of relationship factors for therapeutic outcome (Orlinsky, Rønnestad, & Willutzki, 2004; Wampold, 2010) and especially implications of this knowledge for research on children. At the same time the study builds on the theory that not all relationship experiences are available for verbal and conscious reflection, such as implicit nonverbal processes.

Elliott, Fischer and Rennie (1999) emphasizes that the aim of qualitative research is to understand and represent experiences and actions of individuals within a certain context, which knowledge is based on. This favors naturalistic settings for research. The qualitative aim is to describe and interpret the qualities of a phenomena, not establishing causal explanations (McLeod, 2001). To capture as many aspects as possible, as rich descriptions as possible of phenomena is called for. The decision to introduce musical parameters as a frame and source of knowledge about

intersubjective phenomena was based on my ontological stance that musical parameters can inform the study of qualitative relationship experiences. The connection with the multicentre study enables triangulation of the qualitative results with quantitative results from the mixed-methods study.

3.2. RESEARCH QUESTIONS

Based on previous research findings and knowledge from infant research with reference to musical parameters, such as vocalizations, timbre, pitch, melodic contour, intensity, rhythm and tempo, as concrete descriptions of intersubjective exchanges, this PhD study aimed at investigating the following three main research questions:

4. Can musical parameters be useful to capture intersubjective exchanges between therapist and child – and if so, how?
5. Can a description of musical parameters, within a multilayered frame, illuminate intersubjective microprocesses – and if so, how?
6. Can a phenomenological description and a hermeneutic interpretation of musical parameters, clarify therapeutic interplay and basic developmental processes such as emotion regulation in child psychotherapy – and if so, how?

3.3. RESEARCH METHODOLOGY

In the following the research methodology, including design specifics for the microanalytic study will be presented. The design, the database (multicenter research study), the sample (children and therapists) and detailed descriptions about how the analysis were conducted are accounted for in articles 1 and 2. In this section I will therefore present this briefly, as well as recruitment of participants, before concentrating on describing and discussing qualitative methodology, including sampling procedures, transparency, reflexivity and ethical considerations.

3.3.1. A NATURALISTIC SETTING

Research design was guided by the research questions, aiming at an exploration of therapeutic interplay in time-limited intersubjective child psychotherapy. Accordingly, the research design was planned to take place in a naturalistic setting in

a child and adolescent outpatient clinic as well as a university student's clinic. The main data were video recordings of all therapy sessions and therapists' notes about therapeutic interplay involving emotion regulation in single sessions. This was accounted for in specific notes and in journal notes, all of which were considered. Video recordings followed the usual procedures in the clinic, implying the use of a fixed camera in an upper corner of the therapy room, with a clear overview of the therapy room. Affect consciousness interviews were conducted before and after in the setting of the clinics, familiar to the children, with the same researcher who was a part of the multicenter research study but did not take part in the microanalytic study.

3.4. THE DATABASE – PART OF A MULTICENTRE STUDY

The database was an overarching multicenter research project *Objective Measures of Change in Child Psychotherapy* taking place at the Norwegian University of Science and Technology in Trondheim and at a child- and youth psychiatric outpatient clinic at Akershus University Hospital in Oslo. Research target was changes in emotion regulation in children who received time-limited intersubjective psychotherapy. Children 9-13 presenting internalizing symptoms (36) were recruited, based on scores on the Child Behaviour Checklist in the subclinical or clinical range in the internalizing spectrum (anxiety, depression or somatization). Controls (28) were recruited from local schools in Trondheim. Participants were assessed before and after therapy with multiple methods, including psychobiological measures, which are not a topic for this study. Assessment with the Affect Consciousness Interview (Taarvig et al., 2015), to obtain objective measures of affect integration, was completed by a researcher not familiar with the therapy method. All therapy sessions were videotaped.

3.5. RECRUITMENT AND COLLECTION

Most of the children were recruited from either family services, school nurses, general practitioners or parents. Children could be referred directly by these to the university student clinic, where they would be subject to evaluation by a specialist in clinical child and adolescent psychology. At the university mental health clinic in Oslo, children were referred through a general practitioner to be placed on a waiting list. During recruitment, the clinic had difficulties finding enough children with internalizing disorders and contacted schools in the area to find out whether any children with such disorders for some reason had not yet been referred. It was discovered that several children with internalizing difficulties had not been referred

because of skepticism as to whether they would be accepted for treatment considering the majority of referred children with externalizing difficulties. After direct contact with schools, some of these children were afterwards referred to the clinic for diagnostic assessment and treatment and could be considered as participants in the multicenter study.

3.5.1. MIXED METHOD STUDY

The overarching multicenter study consisted of quantitative and qualitative methodology, the qualitative part being the microprocess study of this PhD. Psychobiological studies were undertaken by two PhD students, examining emotion regulation in clinical and control groups regarding aspects of emotion regulation as attention and heart rate flexibility (Fiskum et al., 2017, 2018), measured by several psychobiological instruments and procedures. Parents were asked to fill out various symptom scales individually at all points (before, after and one year after therapy). One of the head conductors of the multicenter study and researcher, Birgit Svendsen, carried out focus interviews with parents at the university students' clinic, on their expectations before therapy started and their experience of the therapy process after therapy. At the NTNU also parent sessions and joint sessions with parents and child were videotaped, in addition to children's sessions.

Placing the microanalytic study in the context of a multicenter mixed method study of quantitative and qualitative parts was considered decisive in gathering multiple results which can add to knowledge and promote necessary critical reflection. Although I acknowledge that the design is complex, I believe the findings will stand out clearer by being integrated into a body of differential results. In the present study this is attained by bringing in a specific quantitative method, targeted at the research phenomena, but performed by a researcher who has not been a part of the microanalytic study.

3.5.2. AFFECT CONSCIOUSNESS INTERVIEW

The Affect Consciousness Interview, which was applied in the multicentre study, has previously been validated as a measure of affect integration in children with internalizing disorders (Taarvig et al., 2015). It is a semi-structured interview and consists of an evaluation of four integrating aspects: Degrees of *awareness*, *tolerance*, *emotional (nonverbal) expressivity* and *conceptual (verbal) expressivity* (Monsen, et

al., 1996; Solbakken, Hansen, Havik & Monsen, 2011). The adapted version for children (Taarvig et al., 2015) measures these aspects in relation to scores from 1-9 on 10 discreet affects: (1) Interest/Excitement, (2) Enjoyment/Joy, (3) Fear/Panic, (4) Anger/Rage, (5) Disgust/Contempt, (6) Shame/Humiliation, (7) Sadness/Despair, (8) Envy/Jealousy, (9) Guilt/Remorse and (10) Tenderness/Care. The Affect Consciousness Interview was carried out before therapy and after therapy, as well as one year after therapy. It was decided to apply the results as triangulation of findings in the microanalytic study (see article 2).

3.6. THE PARTICIPANTS

In the following is a short description of participants in the microanalytic study. A prerequisite for children participants were ages between 9-13, that the referral described internalizing difficulties and that such difficulties were confirmed according to symptom scales and assessments.

3.6.1. THE CHILDREN

The sample of children consisted of three girls and three boys with internalizing disorders, aged 9-11. Symptomatology including anxiety, depression and somatization were represented among the children.

3.6.2. THE THERAPISTS

Three of the therapists were experienced clinical child psychotherapists, the author, who is also an experienced music therapist, being one of these. Two of the therapists were advanced psychology students in internal clinical practice under close supervision from experienced child psychotherapists. The therapists met regularly to discuss and share data material.

3.7. DATA ANALYSIS - A QUALITATIVE METHODOLOGY

The choice of research methodology was guided by the research aim of gathering dense, contextualized information about details and complexity involved in therapeutic exchanges. The combination of grounded theory methodology (Strauss & Corbin, 1998; Charmaz, 2006), a phenomenological approach (Giorgi, 1985) and

consensual qualitative method (Hill et al., 2005) aimed at attaining rich information about data to generate hypothesis and understanding. Glaser & Strauss's (1967), advocated a method based on grounded theory called the "constant comparing method of analysis (pp. 101-116), which informed the study by emphasizing the continual re-examination and modification of data. The consensual elements of the research were provided for by having two researchers who did not take part in the study, look at parts of the video material. In addition, discussions with members of the research team brought forward important questions, informing the data analysis.

3.7.1. A PHENOMENOLOGICAL - HERMENEUTICAL APPROACH

In the present study, a phenomenological-hermeneutic approach was applied, implying a research process whereby comprehensive understanding gradually emerges through an evolving process of continuous examination and interpretation of phenomena (Giorgi & Giorgi, 2003). A 'phenomenological' approach to data involves the description of phenomena as they are experienced (Giorgi & Giorgi, 2003), whereas 'heuristics' involves the interpretation of data. Rennie (2012) defines heuristics as the process whereby data and theory, interpreter and interpreted are viewed in light of each other. He views grounded theory as hermeneutical, involving abduction and induction which are grounded in data and includes pre-knowledge and contextual frame. He further proposes that the process of abduction reconciles phenomenology and hermeneutics (ibid.). As previously mentioned, the phenomenology of Husserl implied the study of the phenomena "as it presents itself". The theories of Merleau-Ponty and Heidegger have added important descriptive characteristics from existential phenomenology, which have influenced the analytic method. Merleau-Ponty argued for experiences to include bodily experiences and phenomena. Also, bearing significance for this present research is the philosophy of Heidegger, who placed experiences as being situated in a world/time. Basic principles of interpretivist methodology and theory (Gardstrom, 2003; Charmaz, 2006) were also considered as part of a grounded theory approach to data analysis. According to Charmaz (2006), interpretive theory "calls for the imaginative understanding of the studies phenomenon", offering an imaginative interpretation (p. 126). She relates to Herbert Mead's (1932) symbolic interactionism, where the analysis of actions includes the imagined understanding of persons involved. The process of interpreting the participants meanings and actions is linked to constructivism as well as phenomenology.

3.8. MICROANALYSIS

Microanalysis is considered as the qualitative method which is most often used to analyze video data (Ratcliff, 2003). The method emphasizes the *how* rather than the *what* of human interaction (Erickson, 1992, in Ratcliff, 2003). Microanalysis involves tracing, examining and describing phenomena in detail, noting key features and differences and commonalities and distinctiveness. The researcher can then evaluate findings and conclusions within and across contexts (ibid.). In the present study, there was a specific research focus on the study of microprocesses in therapeutic interaction, aiming at coming (even) closer to phenomena which had emerged through video analysis in the first study (Haugvik & Johns). This research aim created a challenge to find an appropriate methodology. Several sources and considerations have been influential in the development of the final microanalytic procedure. An important consideration was how analysis of data material could safeguard a holistic perspective on interaction, where both verbal and nonverbal signals and actions were included (Holck, 2007). It was therefore decided that the description of therapeutic interplay must encompass a detailed description of all nonverbal and verbal actions which were exchanges between therapist and child. Procedures of microanalysis vary from studying second-to-second interaction, as in infant research and some explorative studies of therapeutic interaction (Beebe, 2002; Harrison, 2013), to periods of one to several minutes, as in music therapy (Ratcliff, 2003; Wosch & Wigram, 2007). Microanalytic procedures involving various methodological approaches to video microanalysis in music therapy research studies have been an important source for the present study. Within the field of music therapy, video microanalysis lends itself to capture details of musical interaction between therapist and client or between child and parent (Holck, Oldfield & Plahl, 2004; Ridder, 2007; Trondalen, 2007).

Microanalysis as a research method can be theory driven or not, as in common constructivist grounded theory in the interpretive tradition (Charmaz, 2006). This microanalytic study is theory driven, in the sense that it builds on knowledge derived from research, which clearly demonstrates change processes as emerging features of microprocesses which are interactionally constructed. For example, the case of interactive errors and repairs, an understanding which emerged from a qualitatively different level of analysis than that of *therapeutic alliance ruptures*, within a different and larger time perspective (Safran & Muran, 2000). Considering the time aspect has been essential, bearing significance for the present data analysis procedures. Time, in microprocess research which informs this study, is imperative to the study of therapeutic processes (Fonagy, 1998). One consideration which I had to do as a researcher, was the duration of units in the processing of data, on the background of previous studies from microanalytic studies within psychotherapy and music therapy. As the target of units in my study was intersubjective microprocesses, taking place in

a naturalistic setting, I started watching video recordings of sessions with an open focus to the complexity of features and patterns in therapeutic interplay before starting to organize the data material. The process of watching video samples over again as part of the microanalytic process (article 1), also manipulating the speed, made interactional units emerge in the interplay as part of a free-floating creative process, as the units emerged (Johns, 2018, p. 204).

3.8.1. VIDEO METHOD

Main research method was video analysis of lived experience. According to Ratcliff (2003) an increasing number of qualitative research studies use video data. The main reason for using video recording as a method, is that video recording of therapy sessions gives the researcher (s) opportunity to watch lived experiences unfolding in a naturalistic setting. Camic, Rhodes and Yardley (2003) describes the complementarity of quantitative and qualitative research metaphorically, where quantitative research is portrayed as the process of producing a map of a place, whereas qualitative research is the process of producing a video of that place. A video, in contrast to a map, shows the multitude of details in the changing perspective of observers. This capacity of qualitative research to gain partial access to the subjective perspectives of others, as Camic, Rhodes and Yardley see it, therefore makes it an ideal method for research into subjective meaning (p. 10). As described in the microanalysis part, it is a close link between the research method involved in microanalysis and the use of video recording as part of the research design, underlining data analysis in the present study.

3.8.2. SAMPLING PROCEDURES

The design was a post hoc design, analyzing existing material which had been purposefully sampled according to the overarching study design. The use of the term *purposeful* and how purposeful sampling was carried out will be accounted for. Bearing in mind research questions, data analysis aimed at getting rich information about two key dimensions being the target of research; intersubjective exchanges and therapeutic interplay involving emotion regulation. This is reflected in sampling procedures. After careful consideration of methodological options, there was consensus between researchers to choose purposeful sampling of data. *Purposeful Sampling* was applied here, as a sampling procedure, with the intention to address initial research questions (Charmaz, 2006). This allowed units to be selected according to the key dimensions, to acquire as rich information on phenomenon

that is being studied as possible (Patton, 2002). Sampling followed recommended procedures for purposeful sampling (Patton, 2002), which are described in detail in article 1 (Johns, 2018), carefully considering how representative samples could be attained. Accordingly, data was first narrowed down to selected samples where explicit manifestations of emotion regulation appeared. This implied guiding therapists towards the key dimension of emotion regulation, which is a dimension without any clear boundaries. In this respect, sampling procedures included theoretical *sampling* (Glaser & Strauss, 1967), in respect to emerging abstractions and understanding of data guiding further sampling according to perceived relevance to the study.

3.8.3. DEVELOPING A MULTILAYERED METHOD FOR VIDEO MICROANALYSIS

The development of a multilayered method for microanalysis as the final procedure for microanalysis of data is the theme of the first article. The development of this method was based in the need for a systematic research procedure, in which interactional processes could be noted down in detail to capture microprocesses in such interaction and a frame for musical parameters could be incorporated to be examined and analyzed as parts of therapeutic interaction. It was important that the musical parameters part appeared as separate to the interaction yet allowing for constant comparison. A procedure which included psychological implications was essential, regarding research questions pertaining to aspects of emotion regulation but must also be transparent to findings from data analysis. *Transparency* is recommended by Elliott et al. (1999) in the analytic process by providing clear descriptions of examples of how analysis was carried out and which impact research findings. I was very much aware, in embarking on this study, that applying musical parameters to the analysis of therapeutic interaction in therapeutic play was untraditional and required as clear microanalytic procedures as possible, together with examples. I therefore decided to strive to arrive at a procedure which made data analysis, as well as my assumptions and hypothesis as a researcher transparent.

When embarking on data analysis of all the six children, with these considerations in mind, I aimed at clarity in describing differences between musical parameters and subjective and intersubjective actions and signals. As a part of this process, a list was made of emerging musical parameters concepts and concepts from psychology describing emerging intersubjective exchanges. This was one of several steps to guide the reader in the challenging task to ‘translate’ therapeutic interplay into musical parameters (Johns, 2018). At the same time a flexible approach was adopted, being

mindfully sensitive to the type of data being researched and not reduce the complexity (Giorgi & Giorgi, 2003). The exploration process in developing a method for microanalysis, was carried out as a free-floating creative process, named impressionistic (Strauss & Corbin, 1998). Finally, a multilayered method for microanalysis was developed, enabling juxtaposition and integration of the two layers of intersubjective and musical microprocesses in therapeutic interplay with the third payer of psychological understanding (Johns, 2018, p. 205).

3.8.4. ETHICAL CONSIDERATIONS

The multicentre study was approved by the Norwegian Regional Committee for Medical and Health Research Ethics (REK: Ref.nr.: 2014/683) and complies with the Helsinki Declaration (World Medical Association, 2013). The microanalytic study was approved by REK 08.05.2015, as a subproject named: “Microprocesses in emotion-directed time-limited child psychotherapy” (see appendices). The parents gave a written consent to participation in the research project and finally both parents and children must want to enter treatment. An important ethical consideration, indorsed by REK, was that children were thoroughly informed about procedures and goals of the study, asked about reactions to procedures and consented orally. In addition, that none of the procedures are harmful. Findings from the former study indicated that parents’ support was essential for participation and follow-up (Haugvik, 2013). Videotaping of therapy sessions followed the usual procedures in the clinic, and with the video material being kept in a safe room which was locked.

In discussing ethics in child psychotherapy research, it is important to emphasize specific ethical considerations and responsibility when children are involved. Children’s motivation to participate and be understood is easily mobilized, however they are not in the position to withdraw permits when dissatisfied, as adults can. Also, they have limited capability to understand written information about the research. This means that researchers must be respectful towards children’s signals and behavior and have an extra responsibility in informing children verbally.

CHAPTER 4. FINDINGS

4.1. SUMMARY OF FINDINGS

In the following is a short summary of findings, based on the two articles in which they are shown and discussed in detail, in relation to research questions. I will summarize findings related to each of the research questions, which are the themes for the articles and which will be discussed in the next section.

In the first article (Johns, 2018), the development of the multilayered method for microanalysis was developed to answer the first research question (p. x). In this, the question is put forward of whether musical parameters can be useful to capture intersubjective exchanges between therapist and child and if so, how. Summarized, findings indicated that a multilayered research approach affords the possibility of gaining a rich, concrete and precise phenomenological description and hermeneutical interpretation of reciprocal exchanges and events which stand out as significant. Also, that such an approach relates directly to the affective dialogue channeled through the therapist's body language, and how one speaks 'musically' to the child client, whether the dialogue is non-verbal or verbal. These are some of the main findings, supporting this hypothesis:

- Melding the various bodies of knowledge, musical dynamics stood out as facilitators of change by co-creating new meaning on an implicit microlevel.
- Musical based dynamics were found to illuminate breakdowns in intersubjectivity and microprocesses leading to intersubjective sharing.
- Constructing meaning in therapeutic interplay may be experienced as a musical process.
- A Selective attunement to a child's feeling state can be promoted through the child's nonverbal activity expressed 'musically' (as for instance humming in the service of self-regulation).
- The more analysis was narrowed down to the smallest interaction units, the more concepts of musical parameters emerged as helpful conceptualizations of significant events and themes involved in changes in therapeutic interplay.
- A musical based description of microprocesses led to illumination and formulation of *episodes of dyadic synchronizing opportunities*. They are episodes with increased focus on exploration from both therapist and child, which appear to promote subjectivity.

- Musical parameters emerged as a helpful way to explore how forms of vitality initiate and influence lived relationship experiences over time, to understand therapeutic interaction.
- Looking at therapeutic interplay within a musical framework suggests that it can be a valuable way to construct meaningful narratives of mutual exchanges in micro sequences. (This is illustrated in the article through a detailed analysis of an *intentional emerging process*).

In the multilayered analysis process, applying musical parameters as focal points within a multi-layered analysis, such parameters seemed to embody the child's feelings and intentions as well as organize intersubjective exchanges. The concept of *musical dynamics* was suggested as a description of lived relationship experiences over time.

In the second article (Johns, submitted), the second research question was pursued (p. x). The question is whether a description of musical parameters, within a multilayered frame, illuminate intersubjective microprocesses – and if so, how. Findings were identified through a phenomenological-hermeneutic approach to data analysis and were identified as eight overarching patterns of therapeutic interplay involved in emotion regulation samples: These are presented in article 2, with examples to illustrate each pattern. Patterns are formulated as hypothesis and organized into the following categories of patterns:

1. Patterns of musical dynamics in therapist's activity:
 - a. *Therapist's regulating the child's lack of coherent rhythm by slowing down tempo and providing more space can promote intersubjective sharing and continuity*
 - b. *Vocal tonality and vocal contour of therapists can serve as invitation and support for the child to share a wider feeling range.*
 - c. *Therapist's mismatches can be associated with therapist's eagerness to explore difficult feelings*
 - d. *Therapist's adjusting rhythm and tempo towards establishing, keeping and using a ground rhythm can enhance intersubjective sharing*
2. Patterns of musical dynamics in the child's activity:
 - a. *High correspondence between tempo and dynamics can foster an impression of intentionality*
 - b. *Distinct changes in the child's musical dynamics can be associated with dyadic synchronizing opportunities of significant feelings*

3. Patterns of musical dynamics in dyadic synchronization:
 - a. *Rhythmical flow in dyadic synchronization can render the child clearer and more expressive and enhance self-agency*
 - b. *A musical dynamics description can contribute to clarify processes of interactive errors and repairs*

The 3rd research question asks whether a phenomenological description and a hermeneutic interpretation of musical parameters can clarify therapeutic interplay and basic developmental processes such as emotion regulation in child psychotherapy – and if so, how? The above findings indicate that this is the case. One indication is the ability of musical parameters to illuminate the affective dynamics of mutual interaction patterns as they unfold, together with the role of nonverbal affective exchanges in human development and psychotherapy.

4.2. SUMMARY OF AFFECT CONSCIOUSNESS INTERVIEWS

In article 2 all results from the affect consciousness interviews are described for all children, taken before and after therapy. As described earlier, interviews were taken also one year after therapy. However, since data collection of psychophysiological measures reached saturation before therapies were completed at the outpatient clinic in Oslo, not all participants were interviewed after a year. This was also due to practical reasons, because of the long distance between Trondheim and Oslo, and the cost of transporting all equipment and researchers involved in the qualitative research part of the multicenter study. It was therefore decided to use measurements before and after therapy, which had been taken for all participants, and look at results on all profiles in the interview, evaluating the four integrating aspects: Degrees of *awareness, tolerance, emotional (nonverbal) expressivity and conceptual (verbal) expressivity* (Monsen, et al., 1996; Solbakken, Hansen, Havik & Monsen, 2011). The adapted version for children (Taarvig et al., 2015) measures these aspects in relation to scores from 1-9 on 10 discreet affects: (1) Interest/Excitement, (2) Enjoyment/Joy, (3) Fear/Panic, (4) Anger/Rage, (5) Disgust/Contempt, (6) Shame/Humiliation, (7) Sadness/Despair, (8) Envy/Jealousy, (9) Guilt/Remorse and (10) Tenderness/Care.

Results are described in detail in article 2. The scores in the clinical group were compared to scores in the control group. Findings from each child in the clinical group, compared to age adequate status of affect integration, represented by the control group, indicated increased affect integration and development of emotion regulation capability towards age adequate status.

CHAPTER 5. DISCUSSION

The overall aim of this study was to explore non-symbolic microprocesses in child psychotherapy and the role of such microprocesses for self-development, with a research focus on the development of emotion regulation capability. Building on developmental knowledge within infant research, the research was based on the three research strands of intersubjectivity, microprocesses and music. The overall aim was specified in three research questions: (1) Can musical parameters be useful to capture intersubjective exchanges between therapist and child – and if so, how? (2) Can a description of musical parameters, within a multilayered frame, illuminate intersubjective microprocesses – and if so, how? (3) Can a phenomenological description and a hermeneutic interpretation of musical parameters, clarify therapeutic interplay and basic developmental processes such as emotion regulation in child psychotherapy – and if so, how? As pointed out in the summary of findings, the development of a multilayered method for microanalysis indicated that a description of musical parameters can capture intersubjective exchanges between therapist and child. Applying this method of microanalysis on all samples from the six children brought out some patterns of interplay, which were formulated as hypotheses about the therapeutic interaction.

How the above three research questions may be illuminated and given tentative answers, in relation to findings and the overall aim of the multi-center study, are shown and discussed in the two articles and summarized in the thesis. In this discussion, I will therefore evaluate and reflect on aspects of findings, in relation to overarching theoretical issues in view of research questions. I will also point out findings which were surprising. The third research question needs to be extended and elaborated further in view of findings which are presented in the papers, before discussing methodological questions.

5.1. EVALUATION OF FINDINGS IN A THEORETICAL PERSPECTIVE

Firstly, I will discuss the choice of microanalysis to study therapeutic interplay with children, in view of findings. As stated before, researching microprocesses in therapeutic interplay is directly linked to an intersubjective theoretical stance, being first and foremost informed by the researchers who have integrated empirical research with clinical understanding, such as Stern, Tronick, Beebe and Harrison. Researching child psychotherapy, within an intersubjective perspective, means integrating empirical studies, whilst bearing in mind this specific context and research goals. Developing a multilayered microanalytic approach to look for details of hallmarks and enabling conditions in therapeutic interplay with children, aimed directly at such integration. Also, applying musical parameters representing a microlevel description, enabled descriptions of microprocesses in therapeutic interplay. In describing the need for more specific relational knowledge underpinning psychoanalysis, Stern says, with reference to infant research, that: “Unless we know the specific maternal and infant behaviors involved, we remain at a level of generalization which is no longer fruitful (Stern 1971, p. 501). He therefore argued that such knowledge must inform adult treatment. I will agree that it is the same within child psychotherapy. Several theoretical aspects of intersubjectivity came to the fore in microprocesses and in the findings.

One aspect, which stands out as distinctive, is the aspect of *temporality*. A multilayered understanding showed the impact of time in distinct ways. Firstly, time was found to facilitate mutual organization in microprocesses and the child’s continuous self-expressions, with the potential of structuring self-biography. This was also the case in processes involving interactive errors. Theoretical conceptualizations of the process of ‘moving along’ in the local level of therapeutic interaction (Stern, 2004; BCPSG, 2010) and the mutual regulation model (Tronick, 1989) provide clarifications. In an article on time (Johns, 2008), describing findings from the previous clinical study of children experiencing difficult family situations, I suggested that time can be understood as qualitative relationship experiences, in accordance with the above. Another aspect of time is related to developmental processes. Descriptions of musical dynamics illuminated knowledge from empirical studies, that the child’s subjective expectations about the therapeutic relationship can be evaluated from the child’s activity in reciprocal microprocesses (Stern, 2000, 2004). This was clarified, through multilayered microanalysis, as changes in attention or self-agency, being illuminated in musical dynamics. A child’s expectations about the therapist’s

responsivity is an aspect of time and mutuality which can promote clearness in the child's expressions, as findings indicate.

According to Beebe (2017), the bidirectional regulation process is not yet sufficiently understood, neither in infant research nor in adult treatment. The same is certain to be the case in child treatment. This, as Beebe sees it, is due to lack of research and that research tends to neglect either the therapist's influence, or more often, the client's influence and only evaluate the therapeutic process from one direction. One major implication of findings in this study is the potential of musical parameters to clarify details of reciprocity in intersubjective exchanges. In evaluating findings, however, I found it interesting that of the final eight overarching patterns from the data analysis process, four patterns describe therapist's actions, whereas two describe the child's actions and two patterns describe dyadic synchronization. Patterns of therapists' actions seemed to be primarily directed at the child, in either regulating or enhancing the child's expressions, while children's actions were understood as self-expressions of intentionality, self-agency or as signaling significant feelings. One way of understanding findings in therapists' actions is related to the therapists' role in intersubjective psychotherapy (Johns & Svendsen, 2016). The point is not whether to take an active or passive role, but to facilitate so that the child can express her/himself, which infers self-regulation of activity and agency (Harrison, 2013). Patterns may accordingly reflect intersubjective theory, underlying the therapy method. Patterns describing the activity of the child, may reflect two related perspectives. One is a theoretical perspective linked to the intersubjective turn, which resulted in new understanding of children's self-development being constructed from microprocesses at the local level, reflected in new concepts (Hansen, 1991a, 1991b; Stern, 2004; BCPSG, 2010; Beebe, 2017). Concepts like intention, self-agency and intersubjective sharing became psychologically significant, impacting perspectives on what is relevant in child psychotherapy (*ibid.*). The other perspective is related to the method of video analysis. Beebe's (2017) remarks on how the researcher's own visceral feedback facilitates the comprehension of interactional moves and the child's experiences when analyzing video recording of interaction sequences are relevant for findings. In the present study, my pre-knowledge as a researcher also impact how I comprehend data and the child's expressions.

Reciprocity, as stated already, is a key feature of intersubjectivity and an evaluation of the smallest units of reciprocal interplay were necessary in deciding how to organize therapeutic interaction units across a time-line, for microanalysis procedures. I acknowledged that the way I thought about such units, conceptually, influenced the organization and ultimately, findings. An array of concepts emerged in the aftermath of putting reciprocal interaction on the map and several have been adopted and developed within different approaches as previously described (Holck et al., 2004,

Trondalen & Wosch, 2016). Stern introduced early on the concept of *mini plots* to brief interaction scenarios across time. Both this concept and his concept of *narrative envelopes* are related to empirical microstudies of interaction as building blocks for development over time (Stern, 1985/2000, 2004). Whereas these concepts described salient features of infant interaction, in split-second interactions, units in this study describe salient features of therapist-child interactions. Interaction at the local level is described in terms of affect, intention and meaning (Boston Change Process Study Group, 2002, 2010). My final approach, not as a strict second-to-second analysis but as descriptions of therapeutic interplay units, was inspired by this view and guided by a grounded theory's free-floating creative process (Article 1).

Being influenced also by a musical approach, the units could be 'felt' as musical phrases. I was surprised to find, during the multilayered analysis, that all units could be understood in terms of clearly defined dyadic themes, such as 'sharing of intentions', 'interactive error', 'interactive repair', 'mutual synchronization of movements' etc. These themes were clarified through musical parameters of rhythms, tempi, dynamic changes, vocal tonality etc. In the description of a two-minute excerpt of an emotion regulation sample, called an 'intentional emerging process' (Johns, 2018, p. 206), the units lasted between four and nine seconds, which is very close to Stern's description of the duration of a 'now' (Stern, 2004, p. 24). However, now-moments are thought to be distinct moments coming forward from the moving-along process (ibid.), whereas the units in this study represent a way of organizing the moving-along process, as interactional process units.

The methodological choice of applying musical parameters was motivated by the fact that psychological concepts come short in describing psychological experiences and do not have the same density and nuances as can be found in musical parameters. Musical parameters have the potential of describing micro changes and can therefore be a useful analogy to therapy. Therapeutic change processes in intersubjective child psychotherapy have been described as 1) *dyadically expanded states of consciousness* (Tronick, 1998), 2) gradual change emerging from microprocesses of relational interweaves in the *moving-along process* (Stern, 2004; BCPSG, 2010), and 3) as critical *now moments* in a pivotal space in the moving-along interaction (Stern, 2004). I will begin with the latter. I have asked myself why now-moments were not noted specifically in the multi-layered microanalysis process of samples. In defining such moments, Stern (2004b) compared them to musical interludes, as events inserted between the parts of a longer composition. Such interludes have the potential to create new meaning and serve as transformative journeys (Stern, 2004b). One answer may be related to the contextual background and that Stern's now-moments were

researched within an adult context. Being in the presence of a child pulls the therapist's attention to processes in the her-and-now more than with adults. When now-moments have been registered in previous clinical studies, it was their character of surprising 'newness' in the session, not the duration, that made an impact (Article 1). Also, musical parameters have the potential of detecting changes as parts of a moving-along therapeutic interplay, which can illuminate emerging qualities for change in this process.

Processes of interactive errors and repairs were illuminated in detail, through a musical dynamics description. Therefore, a multi-layered microanalysis gave greater clarity to the understanding of reciprocal processes of interactive errors and repairs, and to the potential developmental outcome for children (Article 1; Article 2). Examples are described and discussed in both articles. An analogy can be made between dyadically expanded states of consciousness and Winnicott's (1975) concept of potential space, in that both processes involve a creative view on psychotherapy, as a process of improvisation in which the child can create her/himself through experiences of mutuality. Whereas Winnicott talked of playing as transitional, the child's subjective experience of her/himself as an agent is implied as transitional in dyadically expanded states of consciousness. Similarly, the description of intersubjective consciousness (Stern, 2004a, p. 125) involves a new form of consciousness. In the study, I try to grasp the musical dynamics of how interactive errors and repairs feel like as subjective experiences of 'where we are in our mutual endeavour of making sense'. One implication of findings is a more detailed understanding of interactive errors and repairs through the significance of sensory, musical synchronization processes. One thorough description can be found in the example of an 'intentional emerging process' (Article 1, p. 206). The concept of *synchronizing opportunity* grew directly out of the detailed microanalysis of intersubjective exchanges.

I have given examples, in both articles, of how the five different musical parameters (rhythm, tempo, vocal tonality, intensity and pauses) were applied to describe therapeutic interaction. Musical parameters were found to possess potentials for becoming features of interplay which contribute to the interpretation of interplay, both on a cognitive and emotional level. Findings from the multi-layered microanalysis of samples indicated that the parameters related to rhythm and tempo were related to and illuminated temporal processes of interactive errors and repairs, as well as contributing to continuity in therapeutic interplay (Johns, Article 2). Vocal tonality and intensity were found as essential musical parameters in affect attunement.

One distinctive finding, across dyads, was an *increase in pauses* in the second example, towards the end of therapy. Psychotherapy research on clients' pauses form

adult treatment (for example Levitt, 2001), find pauses to be indicators of a variety of processes, from transference struggles and resistance to insight and positive outcome (ibid.). As far as I know, pauses have not been researched in relation to child psychotherapy. In therapeutic work with children with internalizing disorders, one would expect silences to occur as part of the disorder. I have therefore chosen to mark specifically those pauses which emerged in and were understood as (shared) pauses in the dialogue. I found that when pauses emerged in the beginning of the therapeutic dialogue, they appeared to regulate closeness and distance in that dialogue. The increase in pauses found towards the end of therapy seemed to represent expressions of something new in the relationship, with the emergent quality of new meaning. To be receptive to intersubjective sharing and reconstruct subjective meaning is an emotional and cognitive leap in a child. Increased and prolonged pauses may represent increased attention and emotion regulation, together with an increase in the experience of mutuality and dyadic expansion.

Another distinctive finding was how *'individual characteristics' of each of the therapeutic dyads stood out* through a musical dynamics description. Differences in rhythmicity, vocal tonality, temporal dynamics etc. in therapeutic micro exchanges contributed to this impression of the co-creation of distinct musical styles within each dyad. Although expected because of the improvisational character of the therapy method, the *'musical mood'* were surprisingly different, creating individual identity signatures (Stern, 2004a).

Detailed descriptions of sensory musical synchronization processes were found to illuminate developmental integrative processes, such as emotion regulation. Emotion regulation implies to increase the child's level of tolerance. Such regulation takes place as intersubjective micro adjustments in the affective dialogue and was demonstrated in findings through micro-changes in musical parameters. I have asked myself why the therapy focus formulated as *'becoming just strong enough'*, appeals to so many children. From a subjective experiential perspective, this may reflect meaning at a sensory level (Merleau-Ponty, 1962; Tronick & Perry, 2015). Tronick & Perry claim (ibid.) that the vitality of self depends upon meaning-making. Findings demonstrating increased emotion regulation may indicate that it is possible to tap into a child's sensory experience of her/himself through subjective musical dynamics, thus creating meaning. The co-creation of new meaning based on microlevel interaction is at the heart of therapeutic change (Harrison, 2013). Harrison emphasizes the significance of not neglecting intense bodily excitement (ibid.), while respecting the child's *agency* (Stern, 1985/2000; Bruner, 1990; Sander, 2008). This is especially significant with children suffering from psychological disorders, which impact emotion regulation and affect integration. I will add that the increase in measured affect integration may be a direct result of direct sensory musical micro experiences

of being understood. Lack of affect-integration makes the non-verbal affective interaction essential, implying direct sensory experience of intersubjective sharing and being understood. central implication, supported by findings, is that a focus on variation and changes in the child's musical dynamics can help in findings ports of entry into experiences of agency.

As stated earlier, the concept of 'forms of vitality' (Stern, 2010) is regarded as central to an understanding of findings in this study, in that it hypothesizes a relationship between music and vitality. The concept of *musical dynamics*, which is accounted for in the first article in the thesis (Article 1) and is suggested as a description of lived relationship experiences over time, comprises dynamic forms of vitality (Stern, 2010). If findings clarify the intersubjective perspective through a musical parameter-based description of therapeutic exchanges, how do these findings illuminate the relevance of the concept of forms of vitality? Microanalysis shows how forms of vitality emerge in musical parameters, being explicated both through temporal and dynamic affective features. For example, that intentionality, one of five basic elements of forms of vitality, emerges as a high correspondence between tempo and dynamics in the child's activity. Correspondence is described by Stern, in relation to vitality affects (1985), as linked to the human capacity of transposing amodal information as "a way to communicate feelings about important perceptions" (Stern, 1985, p. 155). Stern et al. (1985) use the concepts of timing, form and intensity to define dimensions of correspondences. Their research interest, and my own, is in the *how* of dynamic shifting patterns and activation of behaviors. The concept of affect-integration includes both explicit and implicit processes. Forms of vitality, as Stern defines the concept (2010), is involved in all aspects of mental life. Accordingly, forms of vitality in the data analysis, seemed to emerge through musical dynamics as aspects of children's non-verbal and verbal expressions of thoughts, wishes, intentions etc. in the constant therapeutic interplay (Article 1), being experienced as 'going somewhere'. Intersubjectivity and forms of vitality imply dynamic forms of being moved.

One implication of the third research question is how the present study can contribute to the understanding of dynamic forms of vitality in therapeutic interplay and development of vitality in the individual child? I have argued (Article 1) that in exploring subjective experiences of forms of vitality, a musical parameters-based description of therapeutic interplay emerged through data analysis as being closest to the subjective experience of movement, time, space, intensity/force and intention (p. 210). Changes in rhythm, tempo, intensity, vocalizations and silences stood out as concrete descriptions of lived relationship experiences over time, which I have conceptualized as musical dynamics. Stern suggests (2010) that vitality is grounded in the mental process

of integrating internal and external events (p. 4). Affect-integration is one such process of integration, resulting in increased vitality. Stern goes on to say (2010, p. 4) that vitality must be traceable, as a phenomenal reality, to specific physical actions and mental operations. By tracing specific phenomenological actions which emerge in therapeutic interplay with the child, through a musical parameters-based description of evolving micro-exchanges, and from there clarifying these through hermeneutic interpretations based in empirical knowledge, increased knowledge about the specificity of developmental processes in child psychotherapy may follow.

5.2. DISCUSSION OF METHODOLOGICAL ISSUES

As discussed previously, my choice of methodological approaches to data, was related to epistemological and ontological perspectives of a constructivist grounded theory methodology, a phenomenological-hermeneutic approach and a consensual qualitative methodology. Also, the research background for this study was a former qualitative study, which this study builds on and has influenced methodological choices from personal experiences with previous research methods. Such a qualitative methodology, involving continual co-construction of new meanings requires transparency in the researcher's own theoretical stance, values and preconceptions as these must be constantly questioned and reflected upon during the process of data analysis. When starting out by revealing my theoretical view on child psychotherapy, the phenomenological injunctions of being mindfully sensitive to the particular type of data being researched is called for, otherwise the risk is premature closure to other potential aspects and to end up with confirming preconceptions without criticism. The question about how such transparency can be attained is related to the question about validity in qualitative research. Internal validity captures how the study addresses what it is meant to (Malterud, 2001). One way of facilitating qualitative validity and credibility is to let the reader have access to examples of both data and the relationship between data and the researcher's interpretations and reflections underlying hypothesis and conclusions (Elliott et al.,1999). This I have tried to provide in the articles (Article 1; Article 2). Since the research aim of this study is to gain knowledge about microprocesses, the challenge has been to describe this data so that they can be potentially perceived, and the researcher's interpretations be understood. This is an extra challenge when the research lenses involve musical parameters, applied in an untraditional way. This makes exemplifications and explications essential for readers to be able to evaluate credibility in this research context.

5.2.1. REFLEXIVITY: PRECONCEPTIONS AND HOW THE RESEARCHER AFFECTED THE STUDY

I have presented the multicentre research context and therapy method in the introduction, being situated in time-limited intersubjective child psychotherapy. It is a new field, being informed by developmental knowledge. I have engaged in the development of the therapy method, both as a clinician, teacher and as researcher. On this background there is a risk that reflexivity may be reduced in favour of proof of the suitability of the treatment method. Also, this is a clinical approach which aims at integrating the child's perspective and subjectivity, in addition to the parents'. This appeals to me personally and professionally and has affected me as a clinician and researcher. The present study's naturalistic design was partly conducted at the out-patient clinic where I work. I have tried to maintain an open and reflective attitude by being part of two research teams, one in Trondheim and one which was established at my work place in Oslo, where I was one of several therapists in the study. Additionally, continual discussion and feed-back from my two supervisors helped to maintain reflexivity. Their diverse professional backgrounds, as respectively experienced clinical child psychotherapist (BRH) and musicologist/music therapist (LOB), contributed to valuable input and critical reflections from a broad field of knowledge.

Another factor which enhanced reflexivity was the decision to not only participate as a child therapist, but also as a parent therapist for two of the children, one of which is included in the present study. This served both as important correctives to interpretations of developmental implications in the analysis of data, and to be able to triangulate intersubjective perspectives.

Lastly, I will discuss the contribution of a multi-layered research method as a means of maintaining an open reflective attitude to data. Of the three layers, the first and the second are phenomenological, in that they describe lived relationship experiences as these unfold. One way of incorporating reflexivity in grounded methodology is by pursuing accurate and concrete examples which forces the researcher to "be with" the data (Finlay, 2002, 2008). This again implies being continually influenced by the material in the co-creation of new meaning. Also, to gain an interrater perspective by involving other interpreters in discussions to reach consensus, was significant. The third layer in the multi-layered model is hermeneutic, in the sense that psychological interpretations in this layer derive and are co-created from continually reflecting and discussing with the other layers. Reflexivity and transparency in the research process also pertain to discussions between different fields of knowledge. Different readers can be influenced by different research cultures and interpret data differently. Several

researchers encourage a playful attitude towards theories and hypothesis and to allow oneself to be surprised in the discourse of the analysis process. Bryant and Charmaz (2007) write that: "making theoretical comparisons not only means knowing something about theory (...) but also means being able to play with theoretical ideas before becoming committed to a single theoretical interpretation" (p. 17).

My background as a music therapist has inspired a creative attitude to the analysis process of data, influencing data analysis through implicit, non-conscious processes and an intuitive attitude to what 'feels' right. This attitude, which I think is valuable for attaining new insights in qualitative research, must be balanced with conscious reflections, making them explicit.

5.2.2. STUDY LIMITATIONS

This study has several limitations. One limitation comes from the lack of previous microprocess research in child psychotherapy and specifically research applying musical parameters to the study of therapeutic interaction. Therefore, the study had to a large extent to lean on knowledge from infant research, which cannot be directly transferred to child psychotherapy. Another limitation is the researcher's pre-understanding. This was embedded in the research questions and the design and it also, as discussed in the previous section, impacted interpretation of data. Although this was dealt with by having a research team and bringing in different perspectives and triangulation data, it nonetheless must be considered as a possible limitation. I have previously pointed to the small number of participants and their particular difficulties as a limitation to making general assumptions. On the other hand, the method favours individuality, independent of psychological disorder, and I have therefore named findings as hypotheses about possible patterns related to musical parameters, not as evidence. The last limitation also concerns the research design, leaving room for the therapists in the study to evaluate individually representative emotion regulation episodes, although there was shared knowledge about emotion regulation and continual discussions in the research team on this subject.

5.3. IMPLICATIONS AND RECOMMENDATIONS

5.3.1. IMPLICATION AND RECOMMENDATIONS FOR CLINICIANS

The study demonstrates that therapeutic change processes can be found in therapeutic interplay taking place in microprocesses, and that being sensitized to this 'local level' can promote developmental change in child psychotherapy. Musical parameters are suggested as tools for illuminating this level of therapeutic interplay. Therapeutic interplay will always involve this level of interaction, regardless of the therapy method, however an explicit intersubjective approach offers conceptualizations of therapeutic microprocesses. Through a musical parameters-based description, the study illuminates how responding and synchronizing to the child's signals and activity can promote self-development, subjectivity and self-agency. The capability of containing and regulating the child's emotional material, which comes to light during therapy, is found to be central to therapeutic change. Data analysis in the study supports the intersubjective view that such containment consists of interactive errors and repairs, where the most important is to continue to adjust to the child's affective signals. Video analysis is useful to be able to detect and reflect on relational moves and a musical dynamics approach was found to be a helpful tool as concrete descriptions of both therapist's and child's responses to sensitize oneself as a therapist. One contribution of this study is to encourage clinicians to be sensitive to specific qualities of musical parameters, such as tempo, rhythm, intensity and vocal tonality as a compass and information, as descriptions of qualities in children's activity in psychotherapy. Musical parameters have the potential of influencing the therapists' attention to the regulatory needs of children by directly influencing therapists' affects. Thus, the study can contribute to therapeutic development by illuminating the significance of therapists' sensitivity towards their own bodily reactions and rhythmical, vocal, dynamic etc. responses to the child, both on an implicit and explicit level, to be able to adopt and synchronize to the child's musical dynamics. Such responsivity enhances meaning-making in detecting musical port of entries to shared implicit and explicit meaning. Musical concepts as modulation, decrescendo, ritardando can be useful concepts for processes of therapeutic interplay and can be applied as useful tools in therapeutic supervision and education.

5.3.2. IMPLICATION AND RECOMMENDATIONS FOR HEALTH POLITICS

A major challenge for health politics and institutions, is how to have increased focus on not only finding children with internalizing disorders but see to it that they and their families receive appropriate help. As stated in the introduction, internalizing disorders represent a risk factor in development. During the recruitment period, we discovered that children with internalizing disorders sometimes were not referred to psychotherapy. The impression from the contact with schools was that children with externalizing disorders were prioritized. Children with internalizing disorders also normally present less problems, although this differs. Internalizing disorders impact the lives of these children and their social and emotional development. It is therefore important to the mental health of these children that they are seen and given the opportunity for psychological help together with parents to prevent a negative development. Also, findings in this study emphasize the child's role as a participator in his/her own life, and that a healthy development in children is related to the receptivity in adults towards children's expressivity and providing arenas where children can be met and understood according to individual needs.

5.3.3. IMPLICATION FOR RESEARCH AND FUTURE PERSPECTIVES

Research has shown that relationship factors are decisive for therapy outcome. Accordingly, there is a need for further research into such factors. The present study builds on developmental research, demonstrating that mechanisms of interactional microprocess impact children's development. There is an increasing body of research which shows how basic developmental processes, such as intersubjectivity, emotion regulation, affect-integration and mentalization must be targeted in child psychotherapy. Also, that such development is embedded in interactional microprocesses, specifically targeted at affective communication. Research must be designed to capture significant and relevant mechanisms underlying therapeutic change, to contribute to knowledge development. A musical dynamics approach is an example of a research approach to capture and untangle the complexity of therapeutic micro interactions, to clarify and enhance knowledge development. Also, this is an example of the integration of different fields of knowledge, which can also contribute to expansion of single fields, in future research. Inspired by infant research and findings in the study, I suggest that the psychobiological understanding of musicality as an inherent human feature, continues to be relevant for the exploration of

microprocesses in child psychotherapy. Also, that this implies an expansion of the conceptual understanding of music and musicality.

Microprocess analysis, as it is described in the present study, indicates one way of contributing to method development within microanalytic procedures and to theory building. The method encourages a description of reciprocal interaction, in that both the client's contributions and therapist's responses, as participating subjects, as well as bidirectionality are described in detail. There is little research of non-verbal communication in child psychotherapy. By applying a multi-layered method, psychological and developmental interpretations can be clarified, and different layers of knowledge, including quantitative measures and qualitative elements, can be triangulated, such as intersubjective, developmental, psychodynamic and musical.

The importance of further research into children's experiences of processes in psychotherapy is supported in APA's policy statement about evidence-based practice, recognized by the Norwegian Psychological Association in 2007, where the significance of knowledge about 'the context of patient's values, characteristics and culture' is the 3rd of three strands of evidence. This also implies more child-directed research, in addition to adult-directed, to develop theoretically and empirically based concepts which can support therapeutic adjustments to the characteristics of the individual child.

5.3.4. CONCLUSIONS

I will conclude by summarizing implications of findings in relation to research aim and questions, with some final comments and reflections. The following implications may be drawn from data analysis:

1. Musical parameters can describe evolving bi-directional processes between therapist and child.
2. A focus on musical parameters can bring attention to qualitative changes in the child's or therapist's activity which become ports of entry to intersubjective sharing.
3. Qualities of musical parameters in therapeutic exchanges appear to regulate the intersubjective field. Thus, there are indications that the musical dynamics of human actions have potentially regulating functions.
4. A description of musical parameters, within a multilayered frame can illuminate microprocesses involved in therapeutic development.

5. Musical parameters can clarify individual differences between therapeutic dyads, reflecting that all relationships are mutually constructed in a specific way from the way they construct shared meaning.
6. Responsiveness to the child's musical dynamics can have developmental implications.
7. Forms of vitality and musical dynamics are intertwined, and thus musical dynamics can illuminate forms and dynamics of vitality.

The point of departure for this study was a previous study of time-limited intersubjective child psychotherapy, where parents after therapy described the children as clearer about their needs and with increased ability to share both positive and negative feelings, as well as symptom reduction. My quest was to search for hallmarks and enabling conditions in therapeutic interplay, facilitating self-regulation and affect-integration. Findings in this study indicate that answers can lie, not in a specific correct intervention, but in attentiveness, awareness and responsivity in the here and now to 'the musical dynamics' of what is going on in the relationship, to enhance self-development. Also, that the clarity of children's responses is related to their emotional expressions being attuned to, shared and regulated. The child's emotional expressions, as they emerge in the here and now are authentic expressions of the child's inner world. Stern points out, that defining a child's emotional experiences before the child can relate them to her/his own authentic feelings, implicates a risk that authentic contact is lost.

The aim of therapy is self-development and integration. As stated in the introduction, the impact of lack of emotion regulatory help is that the child is left to self-regulate. In illuminating microprocesses of therapeutic interaction, musical parameters clarify the continual dynamic micro-level exchanges as potential steps in the process of reconstructing formal implicit 'programs'. Development of emotion regulation and the capacity for intersubjective sharing is harvested from experiences of being in relationships, which direct attention to the child's emotional expression and self-agency. Integration and vitality comprise the experience of it all falling into place.

LITERATURE LIST

- Abbass, A.A., Rabung, S., Leichsenring, F., Refseth, J. S. & Midgley, N. (2013). Psychodynamic Psychotherapy for Children and Adolescents: A Meta-Analysis of Short-Term Psychodynamic Models. *Journal of the American Academy of Child and Adolescent Psychiatry*, 52 (8), 863-875.
- Alan, J. G. & Fonagy, P. (Eds.) (2006). *The Handbook of Mentalization-based Treatment*. New York: Wiley.
- Alvin, J. (1978). *Music Therapy for the Autistic Child*. Oxford: Oxford University Press.
- Anastopoulos, A. D., Smith, T. F., Garrett, M. E., Morrisey-Kane, E., Schatz, N. K., Sommer, J. L. & Ashley-Koch, A. (2011). Self-regulation og Emotion, Functional Impairment, and Comorbidity Among Children with AD/HD. *Journal of Attention Disorders*, 15 (7): 583-592.
- Ansdeell, G., Davidson, J., Magee, J & proctor, S. (2010). From 'This****ing Life' to 'That's Better' ...in four Minutes: An Interdisciplinary Study of Music Therapy's 'Present Moments' and their Potential for Affect Modulation. *Nordic Journal of Music Therapy*, 19 (1): 3-28.
- Bateson, M. C. (1979). The epigenesis of conversational interaction: A personal account of resrach development. In M. Bullowa (Ed.), *Before Speech: The beginning of human communication* (pp. 63-77). London: Cambridge University Press.
- Baumeister, R. F. & Vohs, K. D. (2004). *Handbook of Selfregulation: Research, Theory, and Applications*. New York: Guilford Press.
- Beebe, B., Sorter, D., Rustin, J., & Knoblauch, S (2005) *Forms of intersubjectivity in infant research and adult treatment*. New York: Other Press.
- Beebe, B. (2017). Daniel Stern: Microanalysis and the Empirical Infant Research Foundations. *Psychoanalytic Inquiry*, 37:4, 228-241.
- Binder, P. A., Scanche, E., Holgersen, H., Nielsen, G., Hjeltnes, A., Stige, S. H & Moltu, C. (2016). Why do we need qualitative reserach on psychological treatments? The case for discovery, reflexivity, critique, receptivity and evocation. *Scandinavian Psychologist*, 3:e8.
- Bonde, L. O. (2009). *Musik og menneske. Intruktion til musikpsykologi*. København. Samfundslitteratur.
- Boston Change Process Study Group (BCPSG) (2002). Explicating the implicit: The local level and the microprocess of change in the analytic situation. *International Journal of Psychoanalysis*, 83, 1051-1062.
- Boston Change Process Study Group (BCPSG) (2010). *Change in Psychotherapy: A Unifying paradigm*. New York: W. W. Norton.

- Brandtzæg, I., Smith, L & Torsteinson, S. (2011). *Mikroseparasjoner: Tilknytning og Behandling*. Bergen: Fagbokforlaget.
- Bruner, J. (1990). *Acts of Meaning*. Cambridge, MA: Harvard University Press.
- Bruscia, K. (1987). *Improvisational Models of Music Therapy*. Springfield, IL; Charles C. Thomas.
- Bruscia, K. (1994). IAP – *Improvisation Assessment Profiles*. Kartlegging gjennom musikkterapeutisk improvisasjon. Sandane: Høgskulen I Sogn og Fjordane.
- Braarud, H. & Nordanger, D. Ø. (2014). Regulering som nøkkelbegrep og toleransevinduet som modell i en ny traumepsykologi. *Tidsskrift for Norsk Psykologforening*, 51 (7): 530-536.
- Bråten, S. (2007). *Dialogens Speil i Barnets og Språkets Utvikling*. Oslo: Abstrakt Forlag.
- Buelow, G. J. (2001). Affects, theory of the
- Bullowa, M. (Ed.) (1979), *Before Speech: The Beginning of Human Communication*. London: Cambridge University Press.
- Bunt, L. (2004). *Music Therapy. An art Beyond Words*. London & New York: Routledge.
- Bunt, L. & Stige, B. (2014). *Art beyond Words*. London & New York: Routledge.
- Camic, P. M., Rhodes, J. E. & Yardley, L. (2003). *Naming the stars: Integrating Qualitative Methods Into Psychological Research* (pp. 3-17). In P. M. Camic, J. E. Rhodes & L. Yardley (Eds.). *Qualitative Research in Psychology: Expanding perspectives in methodology and design*. Washington D C: American Psychological Association.
- Campos, J., Frankel, C. & Camaras, L. (2004). On the Nature of Emotion Regulation. *Child Development*, 75 (2): 377-394.
- Charmaz, K. C. (2006). *Constructing Grounded Theory. A Practical Guide Through Qualitative Analysis*. London: Sage.
- Damasio, A. (1999). *The Feeling of What Happens*. New York: Harcourt Brace & Co.
- Delafield-Butt, J. & Trevarthen, C. (2013). Theories of the development of human communication. In: *Theories and Models of Communication. Handbooks of Communication Science* (pp. 199-222). Mouton De Gruyter, Berlin.
- Dissanayake, E. (2009). Root, blossom, or bole: Concerning the origin and adaptive function of music. In S. Malloch & C. Trevarthen (Eds.), *Communicative Musicality* (pp. 17-31). New York: Oxford University Press.
- Eisner, E. W. (2003). On the Art and Science of Qualitative Research in psychology. In P.M. Camic, J. E. Rhodes & L. Yardly. (Eds.), *Qualitative Research in Psychology: Expanding perspectives in methodology and design* (pp. 17-31). Washington DC: American Psychological Association.

- Ehring, T., Fischer, S., Schnülle, J., Bösterling, A. & Tuschen-Caffier, B. (2008). Characteristics of emotion regulation in recovered depressed versus never depressed individuals. *Personality and Individual Differences*, 44 (7): 1574-1584.
- Elliott, R., Fischer, T. & Rennie, D. (1999). Evolving guidelines for publication of qualitative research studies in psychology and related fields. *British Journal of Clinical Psychology*, 38, 215-229.
- Fernald, A. (1985). Intonation and communicative intent in mother's speech to infants: Is the melody the message? *Child Development*, 60, 1497-1510.
- Fernald, A. (1992). Human Maternal Vocalizations to Infants as Biologically Relevant Signals: An Evolutionary Perspective. In I Barkow, J. H. Cosmides & L. Toby (Eds.), *The adopted Mind. Evolutionary Psychology and the Generation of Culture* (pp. 391-428). New York, NY, US: Oxford University Press.
- Finlay, L. (2002). "Outing" the researcher: The provenance, process and practice of reflexivity. *Qualitative Health Research*, 12, 531-545.
- Finlay, L. (2008). A Dance between the Reduction and Reflexivity: Explicating the "Phenomenological Psychological Attitude". *Journal of Phenomenological Psychology* 39 (1): 1-38.
- Fiskum, C., Andersen, T. G., Asleksen, P. M., Svendsen, B., Flaten, M. A. & Jacobsen, K. (2017). Cardiac complexity and emotional dysregulation in children. *International Journal of Psychophysiology* 121, 38-45.
- Fiskum, C., Andersen, T. A., Bornas, X....Jacobsen, K. (2018). Non-linear Heart Rate Variability as a Discriminator of Internalizing Psychopathology and Negative Affect in Children With Internalizing Problems and Healthy Controls. *Frontiers in Physiology*, 9.
- Fonagy, P. & Target, M. (1996). Playing with reality: I. Theory of mind and the normal development of psychic reality. *The International Journal of Psychoanalysis*, 77(2), 217-233.
- Fonagy, P., & Target, M. (1997). Attachment and reflective function; Their role in self-organization. *Development and Psychopathology*, 9, 679-700.
- Fonagy, P. (1998). Moments of change in psychoanalytic theory: Discussion of a new theory of psychic change. *Infant Mental Health Journal*, 19 (3), 346-353.
- Fonagy, P., Gergely, G., Jurist, E.L., & Target, M. (2002). *Affect regulation, mentalization, and the development of the self*. New York: Other Press.
- Fortunato, C. K., Gatzke-Kopp, L. M., & Ram, N. (2013). Associations between respiratory sinus arrhythmia reactivity and internalizing and externalizing symptoms are emotion specific. *Cognitive, Affective & Behavioral Neuroscience*. 13 (2): 238-251.
- Gallese, V. (2003). The roots of empathy. The shared manifold hypothesis and the neural basis of intersubjectivity. *Psychopathology* 36:171-180.

- Gardstrom, S. & Sorel, S. (2016). Reading, Writing, and Submitting Interpretivist Research. In B. Wheeler & K. Murphy (Eds.), *Music Therapy Research, 3rd edition* (pp.720-731). Barcelona Publishers.
- Giorgi, A. P. (Ed.). (1985). *Phenomenological and psychological research*. Pittsburgh, PA: Duquesne University Press.
- Giorgi, A. (2009). *The descriptive phenomenological method in psychology: A modified Husserlian approach*. Pittsburgh, PA: Duquesne University Press.
- Giorgi, A. P. & Giorgi, B. M. (2003). The Descriptive Phenomenological Method. In P. Camic, J. E. Rhodes & L. Yardley (Eds.). *Qualitative Research in Psychology. Expanding Perspectives in Methodology and Design* (pp. 243-275). Washington DC: American Psychological Association.
- Glaser, B., & Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine.
- Goodyer, I. M., Reynolds, S., Barrett, B., Byford, S., Dubicka, B., Hill, J., Holland, F., Kelvin, R., Midgley, N., Roberts, C., Senior, R., Target, M., Widmer, B., Wilkinson, P. & Fonagy, P. (2017). 'Cognitive behavioural therapy and short-term psychoanalytical psychotherapy versus a brief psychosocial intervention in adolescents with unipolar depressive disorder (IMPACTP: a multicentre, pragmatic, observer-blind, randomised controlled superiority trial'. *Lancet Psychiatry*, 4 (2): 109-19.
- Hansen, B. R. (1991). *Den første dialogen: En studie av spedbarnets oppmerksomhet i samspill*. (Doctoral thesis). Oslo: Solum.
- Hansen, B. R. (1996). Den affektive dialogen i psykoterapi med barn. I M. Kjær (Ed.), *Skjønner du? Kommunikasjon med barn* (pp. 79-96). Oslo: Kommuneforlaget.
- Hansen, B. R. (2000). Psykoterapi som utviklingsprosess: Sentrale bidrag fra to utviklingspsykologiske kunnskapfelt. I A. Holte, M.H. rønnestad & G. H. Nielsen (Eds.) *Psykoterapi og psykoterapiveiledning* (pp. 91-111). Oslo: Gyldendal Akademisk.
- Hansen, B. R. (2010). Affektive dialoger. Fra regulering til mentalisering. I V. Moe, K. Slinning & M. B. hansen (Eds.), *Håndbok i sped- og småbarns psykiske helse* (pp. 116-156), Oslo: Gyldendal Akademisk.
- Hansen, B.R.(2012). *I dialog med barnet. [In Dialogue with the Child]*. Oslo: Gyldendal Akademisk.
- Haugvik, M. (2013). Structured parallel therapy with parents in time-limited psychotherapy with children experiencing difficult family situations. *Clinical Child Psychology and Psychiatry*, 13 (2), 235-252.
- Haugvik, M. & Johns, U. (2008). Facets of structure and adoption: A qualitative study of time-limited psychotherapy with children experiencing difficult family situations. *Clinical Child Psychology and Psychiatry*, 13(2), 235-252.

- Haugvik, M. & Mossige, S. (2017). Intersubjectively oriented, time-limited psychotherapy with children: how does the therapist evaluate the therapeutic process and what are the therapist's tasks? *Journal of Child Psychotherapy*, 43 (3), 353-368.
- Harrison, A. M. (2014). The 'music and dance' of therapeutic action. *The International Journal of Psychoanalysis* 95:313-340.
- Hart, S. & Kæreby, F. (2009). Dialogen med det autonome nervesystem i den psykoterapeutiske proces. *Matrix*, 26:292-315.
- Heiervang, E., Stormark, K.M., Lundervold, A.J., Heimann, M., Goodman, R., Posserud, M.B., et al. (2007). Psychiatric disorders in Norway 8-10-year-olds: an epidemiological survey of prevalence, risk factors and service use. *J Am Acad Child Adolesc Psychiatry*, 46 (4), 438-447.
- Hill, C. E., Knox, S., Thompson, B.J., Williams, E. N., Hess, S. A., & Ladany, N. (2005). Consensual qualitative research: An update. *Journal of Counselling Psychology*, 52, 196-205.
- Holck, U. (2002). 'Kommunikalsk' samspil i musiketerapi: kvalitative videoanalyser af musikalske og gestiske interaktioner med børn med betydelige funktionsnedsættelser, herunder børn med autisme. PhD afhandling Institutt for Musik og Musikterapi, Aalborg Universitet.
- Holck, U. (2004). Interaction Themes in Music Therapy: Definition and Delimitation. *Nordic Journal of Music Therapy*, 13 (1), pp. 3-19.
- Holck, U. (2007). An Ethographic Approach to Video Analysis. In T. Wosch & T. Wigram (2007), *Microanalysis in Music Therapy: Methods, Techniques and Applications for Clinical Researchers, Educators and Students* (pp. 29-40). London: Jessica Kingsley Publishers.
- Holck, Y., Oldfield, A. & Plahl, C. (2004). Video microanalysis in music therapy research: a research workshop. In Proceedings of the 6th European Congress of Music Therapy (Info CD-Rom-VI, ed. D. Aldridge). Institute for Music Therapy, Universität Witten-Herdecke.
- Hopenwasse, K. (2008). Being in rhythm: Dissociative Attunement in Therapeutic Process. *Journal of Trauma and Dissociation*, 9 (3), 349-367.
- Husserl, E. (1982). *Ideas pertaining to a Pure Phenomenology and a Phenomenological Philosophy. Studies in the phenomenology of constitution*. Vol. 2. Dordrecht: Kluwer Academic Publ.
- Jacobsen, S L. & McKinney, C. (2015). 'A music therapy tool for assessing parent-infant interaction in cases of emotional neglect'. *Journal of Child and families Studies*, 24 (7), 148-166.
- Jacobsen, K. & Svendsen, B. (2010). *Emosjonsregulering og oppmerksomhet: Grunnfenomener i terapi med barn og unge*. Bergen: Fagbokforlaget.

- Jaffe, J., Beebe, B., Feldstein, S., Crown, C. & Jasnow, M. (2001). Rhythms of dialogue in infancy. *Monographs for the Society for Research in Child development*, 66 (2): 1-132.
- Johansson, K. (2018). *Gjentakelse i musikkterapi. En kvalitativ instrumentell multipl casestudie*. (Doctoral thesis). Norwegian Academy of Music, NMH-publications 2017:9.
- Johns, U. T. (2008). 'Å bruke tiden – hva betyr egentlig det?' Tid og relasjon i et intersubjektivt perspektiv. In G. Trondalen & E. Ruud (Eds.). *Perspektiver på musikk og helse. 30 år med norsk musikkterapi* (pp. 67-84). Oslo: NMH-publikasjoner 2008:3. Skriftserie fra Senter for Musikk og Helse (vol. 1).
- Johns, U. T. (2012). Vitalitetsformer i musikk. I G. Trondalen & K. Stensæth (Eds.), *Barn, musikk, helse* (pp. 29-44). Oslo: NMH-publikasjoner 2012:3. Skriftserie fra Senter for musikk og helse. (vol.3).
- Johns, U. T. (2018). Exploring musical dynamics in therapeutic interplay with children: A multilayered method of microanalysis. *Nordic Journal of Music Therapy*, 27 (3), 197-217.
- Johns, U. T. & Svendsen, B. (2016). *Håndbok i tidsavgrenset intersubjektiv barneterapi. Kunnskapsgrunnlag, behandlingsprinsipper og eksempler*. Bergen: Fagbokforlaget.
- Jones, A. & Oldfield, A. (1999). Sharing music therapy session with John. In J. Hibben (Ed.), *Client Experiences* (pp. 165-171). Gilsum, NH: Barcelona Publishers.
- Kazdin, A. E. (2002). The State of Child and Adolescent Psychotherapy Research. *Child and Adolescent Mental Health* 7, 53-64.
- Kazdin, A. E. (2004). Psychotherapy for children and adolescents. In M. J. Lamber (Ed.), *Bergin and Garfield's Handbook of Psychotherapy and Behavior Change 5th edition* (pp. 543-589). NY: John Wiley & Sons.
- Kegerreis, S. & Midgley, N. (2014). 'Psychodynamic approaches'. In *The Handbook of Counselling Children and Young people*. London: Sage.
- Kolstad, H. & Aarnes, A. (Eds.) (1993). *Den Skapende Virkelighet. En essaysamling om Henri Bergson*. Oslo: Aschehoug Forlag.
- Langer, S. (1942). *Philosophy in a New Key. A study of Symbolism of Reason, Rite and Art*. New York: New American Library of World literature.
- Lanyado, M. & Horne, A. (2009). *The Handbook of Child and Adolescent Psychotherapy*, 2nd ed. London: Routledge.
- Levitt, H. M. (2001). Sounds of silence in psychotherapy: The categorization of clients' pauses. In *Psychotherapy Research*, 11 (3) 295-309.
- Lyons-Ruth, K. (2008). Play, Precariousness, and the Negotiation of Shared Meaning: A developmental Research Perspective on Child Psychotherapy. *Journal of Infant, Child and Adolescent Psychotherapy*. 5:2, 142-159.

- Malloch, S. & Trevarthen, C. (2009). Musicality: Communicating the Vitality and Interests of life. In S. Malloch & C. Trevarthen (Eds.), *Communicative Musicality* (pp.1-11). New York: Oxford University Press.
- Malterud, K. (2001). Qualitative research: Standards, challenges, and guidelines. *The Lancet*, 358, 438-488.
- Maratos, A., Gold, C., Wang, X & Craford, M. (2008). Music therapy for depression. *The Cochrane database of Systematic Reviews*. 1, CD004517.
- McFerran, K. S & Saarikallio, (2013). Depending on music to feel better: Being conscious of responsibility when appropriating the power of music. *The Arts in Psychotherapy*, 41 (1), 89-97.
- McFerran, K. S., Hense, C., Koike, Asami & Rickwood, D. (2018). Intentional music to reduce psychological distress in adolescents assessing primary mental care. *Clinical Child Psychology and Psychiatry*, 1-15.
- McLeod, J. (2001). *Qualitative Research in Counselling and Psychotherapy*. L.A.: SAGE publications.
- Mead, G. H. (1932). *Philosophy of the Present*. LaSalle, IL: Open Court Press.
- Mead, G. H. (1934). *Mind, Self and Society*. Chicago: University of Chicago.
- Meltzoff, A. N. & Moore, M. K. (1998). Infant intersubjectivity: Broadening the dialogue to include imitation, identity and intentions. I S. Bråten (Ed.). *Intersubjective Communication and Emotion in Early Ontogeny* (pp. 47-62). Cambridge: Cambridge University Press.
- Merleau-Ponty, M. (1962). *Phenomenology of Perception*. London: Routledge.
- Midgley, N., Anderson, J., Grainger, E., Nestic-Vuckovic, T. & Urwin, C. (Eds.) (2009). *Child Psychotherapy and Research: New approaches, emerging findings*. London/New York: Routledge.
- Midgley, N. & Kennedy, E. (2011). 'Psychodynamic psychotherapy for children and adolescents: a critical review of the evidence base'. *Journal of Child Psychotherapy*, 37 (3): 232-60.
- Midgley, N., O'Keeffe, S., French, L. & Kennedy, E. (2017). Psychodynamic psychotherapy for children and adolescents; an updated narrative review of the evidence base. *Journal of Child Psychotherapy*, 43:3, 307-329.
- Monsen, J. T., Eilertsen, D. E., Melgard, T. & Odegard, P. (1996). Affects and affect consciousness: Initial experiences with the assessment of affect integration. *Journal of Psychotherapy Practice and Research*, 5, 238-249.
- Mumme, D. L., Fernald, A., & Herrera, C. (1996). Infants' responses to facial and vocal emotional signals in a social referencing paradigm. *Child Development*, 67 (6): 3219-37.

- Nakamura, K., Kawashima, R., Ito, K., Sugiura, M. & Kato, T. (1999). Activation of the right inferior frontal cortex during assessment of facial emotion. *Journal of Neurophysiology*, 82: 1610-1614.
- Nordoff, P. & Robbins, C. (1977). *Creative Music Therapy. Individual Treatment for the Handicapped Child*. New York: John Day.
- Odhammar, F., Sundin, E.C. & Jonson, M. (2011). Children in psychodynamic psychotherapy: Changes in global functioning. *Journal of Child Psychotherapy*, 37 (3): 261-279.
- Orlinsky, D. E., Rønnestad, M. H. & Willutzki, U. (2004). Fifty years of psychotherapy process-outcome research: continuity and change. I.M.J. Lambert (Ed.), Bergin and Garfield's *Handbook of Psychotherapy and Behaviour Change*. (pp. 307-389). New York: Wiley.
- Ochsner, K. N. & Gross, J. J. (2004). Thinking makes it so: A social cognitive approach to emotion regulation. In K. D. Vohs & R. F. Baumeister (Eds.), *The Handbook of Self regulation, Research, Theory, and Applications* (pp. 229-255). New York: Guilford Press.
- Papousek, M. & Papousek, H. (1981). Musical elements in the infants vocalisation; their significance for communication, cognition and creativity I: L.P. Lipsitt & C.K. Rovee-Collier (Eds.). *Advances in Infancy Research* (pp. 163-224).. Norwood N.J: Ablex.
- Papousek, M. (1996). Intuitive parenting: A hidden source of musical stimulation in infancy. In I. Deliège & J. Sloboda (Eds.), *Musical beginnings: Origins and Development of Musical Competence* (pp. 88-112). Oxford University Press. Oxford.
- Pavlicevic, M. (1990). Dynamic Interplay in Clinical Improvisation. *British Journal of Music therapy*, 4 (2): 5-9.
- Pavlicavic, M. (1997). *Music Therapy in Context. Music, Meaning and Relationship*. London: Jessica Kingsley Publishers.
- Pavlicevic, M. & Trevarthen, C. (1989). A musical assessment of psychiatric states in adults. *Psychopathology*, 22 (6), 325-334.
- Ratcliff, D. (2003). Video Methods in Qualitative Research. In P. M. Camic, J. E., Rhodes & L. Yardley (Eds.), *Qualitative Research in Psychology: Expanding Perspectives in Methodology and Design* (pp. 113-131). Washington DC: American Psychological Association.
- Reddy, V. (2008). *How Infants Know Minds*. Cambridge MA: Harvard University Press.
- Rennie, D. L. (2012). Qualitative research as methodological hermeneutics. *Psychological Methods*, 17 (3), 385-398.
- Ridder, H. M. (2007). Microanalysis on Selected Video Clips with Focus on Communicative Response in Music Therapy. In T. Wosch & T. Wigram.

- Microanalysis in Music Therapy, Methods, Techniques and Applications for Clinicians, Researchers, Educators and Students* (pp. 54-66). London: Jessica Kingsley Publishers.
- Rodebaugh, T. L. & Heimberg, R. G. (2008). Emotion regulation and the anxiety disorders: Adopting a self-regulation perspective. In A. Vingerhoets, I. Nyklicek & J. Denollet (Eds.), *Emotion Regulation: Concepts and Clinical issues* (pp. 140-149). New York: Springer Science & Business Media.
- Ruud, E. (1998). *Music Therapy: Improviation, Communication and Culture*. Gilsum, NH: Barcelona Publishers.
- Ruud, E. (2010). *Music Therapy. A Perspective from the Humanities*. Gilsum NH: Barcelona Publishers.
- Saarni, C., Mumme, D. L. & Campos, J. (1998). Emotional development; action, communication and understanding. In W. Damon & N. Eisenberg (Eds.), *Handbook of Child Psychology, Social, Emotional and Personality Development*, 3 (5): 237-309. New York: Wiley & Sons.
- Safran, J. D. & Muran, J. C. (2000). *Negotiating the therapeutic alliance. A relational treatment guide*. New York: The Guilford Press.
- Sameroff, A. J. (2009). *The Transactional Model of Development: How Children and Contexts Shape Each Other*. Washington DC: American Psychological Association.
- Sander, L. (2008). *Living Systems, Evolving Consciousness and the Emerging Person*. New York, NY: Analytic Press.
- Sannes, I. (2012). *Musikkterapi som uttrykkshjelp for følelser i terapi med barn og unge* (Master's thesis). University of Oslo.
- Schaffer, H. R. (1984). *A child's entry into the social world*. New York: Academic Press.
- Schore, A. N. (2003). *Affect Dysregulation and the Repair of the Self*. New York: Norton.
- Schore, J. R. & Schore, A.N. (2008). Modern Attachment Theory: The Central Role of Affect-Regulation in Development and Treatment. *Journal of Clinical Social Work*, 17, 36, 9-20.
- Scott, S., & Dadds, M. R. (2009). Practitioner review: When parent training doesn't work: Theory-driven clinical strategies. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 50, 1441-1450.
- Shirk, S. & Saiz, C. C. (1992). Clinical, Empirical and developmental perspectives on the therapeutic relationship in child psychotherapy. *Development and Psychopathology*, 4:713-728.
- Shirk, S. R. & Russel, R. L. (1996). *Change Processes in Child Psychotherapy. Revitalizing Treatment and Research*. New York: The Guildford Press.

- Shirk, S. R. (2002). 'What are the effective elements in child psychotherapy?' Presentation at the 18th. World Congress of Psychotherapy. Norway: Trondheim.
- Shirk, S. R. & Karver, M. (2003). Prediction of treatment outcome from relationship variables in child and adolescent therapy: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 71, 452-464.
- Smeijsters, H. (2005). *Sounding the Self: Analogy in Improvisational Music Therapy*. Gilsum NH: Barcelona Publishers.
- Smith, L. (2010). Tidlig utvikling, risiko og psykopatologi. I V. S. Moe & M. Bergum Hansen (Eds.), *Håndbok i Sped- of Småbarns Psykiske Helse* (pp. 29-53). Oslo: Gyldendal Akademisk.
- Solbakken, O.A., Hansen, R.S., & Monsen, J. (2011) Affect integration and reflective function: clarification of central conceptual issues. *Psychotherapy Research*, 21, 482-496.
- Sroufe, L. A. & Rutter, M. (1984). The domain of developmental psychopathology. *Child Development*, 55:17-29.
- Stern, D. N. (1977/2002). *The First Relationship: Infant and Mother*. 2nd ed. (with new introduction). Cambridge Massachusetts: Harvard University Press.
- Stern, D. N., Hofer, L., Haft, W. & Dore, J. (1985). Affect Attunement: The Sharing of Feeling States between Mother and Infant by Means of Inter-Modal Fluency. In T. M. Fields & N. A. Fox (Eds.). *Social Perception in Infants* (pp. 249-286). New Jersey: Ablex Publishing Corporation.
- Stern, D. N. (1985/2000) *The Interpersonal World of the Infant: A View from Psychoanalysis and Developmental Psychology*. New York: Basic Books.
- Stern, D. N. (2004a). *The Present Moment in Psychotherapy and Everyday life*. New York: Norton.
- Stern, D. N. (2004b). The Present Moment as a Critical Moment. *The Negotiation Journal* (pp. 365-372), Vol. 20 (2).
- Stern, D. N. (2010). *Forms of Vitality: Exploring Dynamic Experience in Psychology, the arts, psychotherapy and Development*. Oxford: Oxford University Press.
- Stige, B. (2000). «The Improvisation Assessment profiles Revisited». Kenneth Bruscia interviewed by Brynjulf Stige in *Nordic Journal of Music Therapy, Forum*.
- Strauss, A. & Corbin, J. (1998). *Basis of Qualitative Research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: SAGE.
- Svendsen, B. (2007). *Den terapeutiske relasjonen som ramme for utvikling i psykoterapi med små barn. En studie av de innledende samhandlingsprosessene*. (Doctoral thesis). Oslo:Unipub.
- Svendsen, B. & Johns, U. T. (2014). Psychotherapy with children. In L. E. Ottesen Kennair & R. Hagen (2014), *Psychotherapy* (pp. 301-312). Oslo: Gyldendal Akademisk.

- Taarvig, E., Solbakken, O. A., Grova, B. & Monsen, J. (2015). Affect Consciousness in Children with internalizing disorders: Assessment of affect Integration. *Clinical Child Psychology and Psychiatry*, 20, 591-610.
- Tandon, M., Cardeli, E. & Luby, J. (2009). Internalizing disorders in Early Childhood: A Review of Depressive and Anxiety Disorders. *Child Adolescent Psychiatric Clin N Am*. 18 (3): 593-610.
- Trevarthen, C. (1979). Communication and cooperation in early infancy: A description of primary intersubjectivity. In M. M. Bullowa (Ed.), *Before Speech: The beginning of interpersonal communication* (pp. 321-347). New York: Cambridge University Press.
- Trevarthen, C. (1989). Development of early social interactions and the affective regulation of brain growth. In I. C. von Euier, H. Forsberg & H. Lagercrantz (Eds.), *Neurobiology of early Infant Behaviour*. 191-216. London: Macmillan.
- Trevarthen, C. (1992). An infant's motive for speaking and thinking in the culture. In A. H. Wold (Ed.), *The Dialogical Alternative* (pp. 99-138). Oslo: Universitetsforlaget/Scandinavian University Press: 99-138.
- Trevarthen, C. (1993). The self born in intersubjectivity: An infant communication. In U. Neisser (Eds.), *The perceived self* (pp. 121-173). New York: Cambridge University Press.
- Trevarthen, C. (2001). Intrinsic motives for companionship in understanding: Their origin, development and significance for infant mental health. *Infant mental Health Journal*, 22 (1-2), 95-131.
- Trevarthen, C. (2008). The musical art of infant communication: Narrating in the time of sympathetic experience, without rational interpretation, before words. "Narrative in Music and Interaction" *Musicae Scientiae*, Special issue, 20. March. Liege: European Society of the Cognitive Sciences of Music (pp. 15-46).
- Trevarthen, C. (2009a). The functions of emotion in infancy in the regulation and communication of rhythm, sympathy and meaning in human development. In D. Fischa, D. J. Siegel & M. F. Solomon (Eds.). *The Healing Powers of Emotion: Affective Neuroscience, Development, and Clinical Practice* (pp. 55-85), New York: Norton.
- Trevarthen, C. (2009b). Human biochronology: On the source and functions of 'musicality'. In R. Haas & V. Brandes (Eds.), *Music that Works: Contributions of Biology, Neurophysiology, Psychology, Sociology, Medicine and Musicology* (pp. 221-265). Vienna/New York: Springer.
- Trevarthen, C. & Hubley, P. (1978). Secondary Intersubjectivity. In A. Locke (Ed.), *Action, Gesture and Symbol* (pp. 183-229). London: Academic Press.
- Trevarthen, C. & Aitken, K. J. (2001). Infant intersubjectivity: Research, Theory and Clinical Applications. *Journal of Child Psychology and Psychiatry*, 42 (1): 3-48.

- Trevarthen, C. & Malloch, S. (2017). The Musical Self: Affections For Life in a Community of Sound. In R. MacDonald, D. J. Hargreaves & D. Miell (Eds.). *Handbook of Musical Identities* (pp. 155-176). Oxford: Oxford University Press.
- Trondalen, G. (2004). *Klingende relasjoner: En musikkterapistudie av *signifikante øyeblikk' i musikalsk samspill med unge mennesker med anoreksi* (Unpublished doctoral dissertation). Norwegian Academy of Music, Oslo, Norway.
- Trondalen, G. (2005). 'Significant Moments' in Music Therapy with Young Persons suffering from Anorexia Nervosa. *Music Therapy Today*, 6 (3), 396-429.
- Trondalen, G. (2011). Music is about feelings: Music Therapy with a Young Man suffering from Anorexia Nervosa. In T. Meadows (Eds.), *Developments in Music Therapy Practice: Case Examples* (pp. 434-452). Gilsum, NH: Barcelona Publishers.
- Trondalen, G. (2007). A phenomenologically inspired Approach to Microanalysis of Improvisation in Music Therapy. In T. Wosch & T. Wigram. *Microanalysis in Music Therapy, Methods, Techniques and Applications for Clinicians, Researchers, Educators and Students* (pp. 198-210). London: Jessica Kingsley Publishers.
- Trondalen, G. & Skårderud, F. (2007). Playing with Affects and the Importance of 'Affect Attunement'. *Nordic Journal of Music Therapy*, 16 (2), 100-111.
- Trondalen, G. & Wosch, T. (2016). Microanalysis in Interpretivist Research. In B. Wheeler & K. Murphy (Eds.), *Music Therapy Research* (3rd ed.) Chapter 25. Dallas, TX: Barcelona Publishers.
- Tronick, E. Z. (1998). Dyadically Expanded States of Consciousness and the Process of Therapeutic Change. *Infant Mental Health Journal*, 19 (3), 290-299.
- Tronick, E. Z. (2005). Why is the connection with others so critical? The formation of dyadic states of consciousness and the expansion of individuals' states of consciousness: Coherence-governed selection and the co-creation of meaning out of messy meaning. I J. Nadel & D. Muir (Eds.), *Emotional Development: Recent Research Advances* (pp. 293-315). Cambridge, U. K.: Oxford University Press.
- Tronick, E. Z. & Perry, B.D. (2015). The Multiple Levels of Meaning-Making. The first Principles of Changing Meaning in Development and Therapy. In G. Marlock & H. Weiss (Eds.), *The Handbook of Body Psychotherapy & Somatic Psychotherapy* (pp. 345-356). California: North Atlantic Books.
- Vasilev, C. A., Crowell, S. E. Beauchaine, T. P., Mead, H. K. & Gatzke-Kopp, L. M. (2009). Correspondence between physiological and self-report measures of emotion dysregulation: A longitudinal investigation of youth with and without psychopathology. *Journal of Child Psychology and Psychiatry*, 50 (11), 1357-1364.
- Weisz, J. R. (2000). Agenda for child and adolescent psychotherapy research: On the need to put science into practice. *Archives of General Psychiatry*, 57 (9): 837-838.

- Weisz, J. R. & Kazdin, A. E. (2017). The Present and Future of Evidence-Based Psychotherapies for Children and Adolescents. In Kazdin, A. E. & Weisz, J. R. (Eds.), *Evidence-based Psychotherapies for Children and Adolescents* (pp. 577-597). 3rd. Edition. New York & London: The Guildford Press.
- Wichstrøm, L., Berg-Nielsen, T.S., Angold, A., Egger, H.L., Solheim, E., & Sveen, T.H. (2012). Prevalence of psychiatric disorders in preschoolers. *Journal of Child Psychiatry*, 53 (6), 695-705.
- Wigram, T. (1999). 'Assessment Methods in Music Therapy: A Humanistic or Natural Science Framework?' *Nordisk Tidsskrift for Musikterapi* 8 (1), 6-24.
- Wigram, T. (2004). *Improvisation. Methods and Techniques for Music Therapy Clinicians, Educators and Students*. London: Jessica Kingsley Publishers.
- Winnicott, D.W. (1971). *Playing and reality*. London, Routledge.
- Wolff, P. H. (1966). *The Causes, Controls and Organization of Behaviour in Neonates*, *Psych. Issues*, 5. Monograph 17.
- Wosch, T. & Wigram, T. (2007). *Microanalysis in Music Therapy: Methods, Techniques and Applications for Clinical Researchers, Educators and Students*. London: Jessica Kingsley Publishers.
- Zeanah, C. H. (2009). The importance of early experiences: Clinical, research and policy perspectives. *Journal of Loss and Trauma*, 14 (4): 266-279.

ARTICLES

The two articles and the treatment manual are submitted separately to the assessment committee.

APPENDICES

Appendix A. Ethical consent

REK – Regionale komiteer for medisinsk og helsefaglig forskningsetikk

Side 1 av 1

Forskningsprosjekt

Mikroprosesser i emosjonsrettet tidsavgrenset barneterapi

Prosjektbeskrivelse:

Barn med ulike symptomer på psykiske vansker kjennetegnes ofte av at de har vansker med å differensiere følelser og tilsvarende svak emosjonsregulering. Det å gi rom for at disse barna kan uttrykke og kommunisere om egne emosjoner er viktig for å forstå bakgrunnen for deres mangelfulle emosjonelle utvikling og for å kunne hjelpe dem med deres vansker. Emosjonsrettet tidsavgrenset terapi bygger på utviklingspsykologisk kunnskap hvor særlig betydningen av intersubjektiv deling, affektiv kommunikasjon og emosjonsregulering blir fremhevet. I delprosjektet er fokus derfor på å undersøke kommunikasjonen mellom terapeut og barn i emosjonsrettet tidsavgrenset terapi, gjennom anvendelse av videoanalyse. Studien vil videre undersøke barns emosjonsregulering før og etter terapi, og i løpet av terapiprosessen, gjennom bruk av affektbevissthetsintervju og intervju med terapeut.

(Prosjektleders prosjektbeskrivelse)

Ref. nr.: 2014/683

Prosjektstart: 01.08.2014

Prosjektslutt: 31.12.2016

Behandlingsstatus: Pågående

Prosjektleder: Birgit Svendsen

Forskningsansvarlig(e): Ahus, Bup Furuset

Norges teknisk-naturvitenskapelige universitet

Norges Teknisk-Naturvitenskapelige Universitet

Akershus universitetssykehus HF

Initiativtaker: Bidragsforskning

Finansieringskilder: Prosjektet er internt finansiert.

Forskningsdata: Mennesker

Utvalg: Pasienter/klinter, Personer med mangelfull samtykkekompetanse

Forskningsmetode:: Fortolkende (kvalitative) analysemetoder

Antall forskningsdeltakere (Norge): 25

Utdanningsprosjekt/doktorgradsprosjekt: Studium: philosophiae doctor (ph.d.) ved psykologisk institutt NTNU og Institutt for psykologi og kommunikasjon ved Universitetet i Aalborg, Nivå: Ph.d.

Behandlet i REK

Dato REK

08.05.2014REK nord

Appendix B. TABLE OF CONTENTS

HANDBOOK OF TIME-LIMITED

INTERSUBJECTIVE CHILD

PSYCHOTHERAPY

Knowledge base, treatment principles and examples

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For whom does it suit?

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Forms of Vitality

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Parallel work with parents

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Parallel work with parents

Disclosing comments

Recommendations

Literature

Keywords

SUMMARY

The aim of the PhD study by Unni Tanum Johns is to explore the influence of non-symbolic microprocesses in time-limited intersubjective child psychotherapy through a musical frame. It builds on microanalytic research, from infant development and music therapy, demonstrating how musical elements can describe and illuminate variations in emotional expressions and relationship qualities.

Problems with emotion regulation are found in a wide range of diagnoses, affecting the quality of children's lives. Therefore, the facilitation of emotion regulation is a central goal for child psychotherapy. Knowledge from developmental research shows how affective, non-symbolic reciprocal moment-to-moment interplay underlie and organize self-developmental processes.

The qualitative multi-layered microanalysis revealed some patterns across samples which demonstrate how a musical dynamics-based description embody and clarify the child's activity, emotional expressions and intentions as well as illuminate intersubjective exchanges.