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ART FORM AND MENTAL HEALTH

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therapy observation
and assessment
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health

Ingrid Péntzes





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ART FORM AND MENTAL HEALTH

Studies on art therapy observation and assessment in adult mental health

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INTRODUCTION

Art therapy is an experiential treatment that consists of the interaction between the client, the therapist and the art form. The specific and systematic use of the art form – the use of art materials in an art-making process resulting in an art product – is what differentiates art therapy from other forms of treatment (Edwards, 2013; Hinz, 2009, 2015; Jones, 2005; Moon Hyland, 2010; Rubin, 2011; Schaverien, 2000, Schweizer et al., 2009). In addition to the interaction between therapist and client, as in other therapies, the art form adds a third cornerstone to the therapy context (see Figure 1).

The art form is therapeutically applied to initiate experiences that allow processes of change, development, stabilization or acceptance that support emotional, behavioral, cognitive, social, neurological or physical aspects of functioning (American Art Therapy Association [AATA], 2019; British Association of Art Therapists [BAAT], 2019). In order to therapeutically apply the art form, the therapist observes how a client uses and interacts with the art materials. Art therapy observation and assessment, before or at the beginning of therapy, is considered to be a key to estimate what the client's problem is, to determine whether a client may benefit from art therapy, to formulate treatment goals and to apply the appropriate art interventions (Gilroy, Tipple & Brown, 2012; Hinz, 2009, 2015; Malchiodi, 2012).

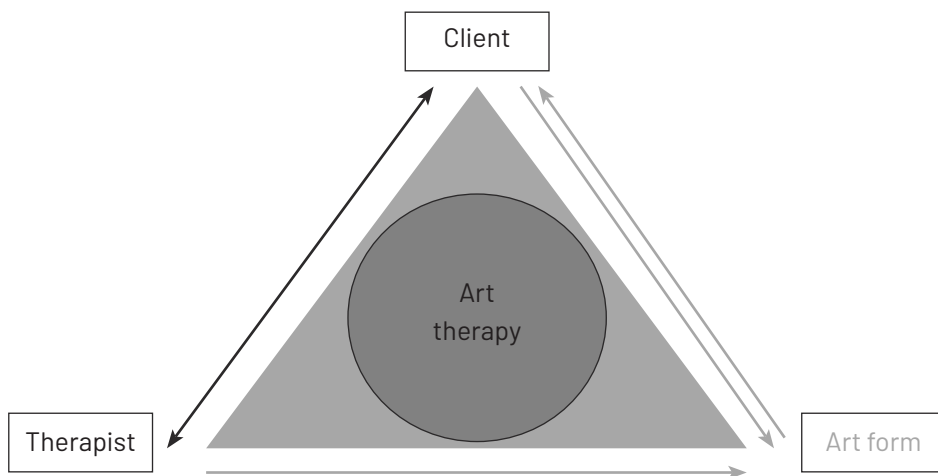


Figure 1: The art therapy triad

The art therapy triad

The art therapy triad consists of three entities: the client, the therapist and the art form.

The *client* is the main focus in art therapy assessment. Every client is a person with his or her own unique background, history, character, situation and preferences. Problems, in terms of mental health symptoms that interfere with daily functioning, are often the reason to seek help and are observed in art therapy assessment.

The *therapist* is a professional¹ who systematically applies the art form in order to initiate therapeutic processes that meet clients' individual goals. Several art therapy perspectives that originate from diverse orientations, such as psychodynamic, humanistic, behavioral, developmental and integrative approaches, influence art therapists (Jones, 2005; Rubin, 2001, 2005; Van Lith, 2016). From any approach, there are varied perspectives and rationales on art therapy as well as on art therapy observation and assessment. The art therapists' perspectives strongly influence their approach, methods and interventions regarding treatment, observation and assessment.

The *art form* refers to the use of art materials within an art-making process that result in an art product. Art materials such as pencils and paint have their own properties; some of them are resistive and controllable such as pencils and markers, others are more fluid and less controllable, such as colored ink and watercolors. Art materials can be applied with diverse drawing and painting techniques. Some of the art materials are used with a tool; most sorts of paint and ink are applied with a brush, while other materials are manipulated with hands, such as soft pastel and finger paint. The art product is the visible and tangible result of the art-making process; for example, a painting, drawing or sculpture. The visual art product distinguishes art therapy from other art therapies in which the art product – the dance, music or play – only remains when it is recorded. Instead, the visual art product continues to exist; it can be observed, analyzed and touched, and it can offer a bridge for communication (Lefevre, 2004; Moschini, 2005).

All three entities – the client, the therapist and the art form – are considered within the art therapy triad. They interact and influence each

¹ Art therapists are bachelor or master-level professionals.

other. For example, the therapist's art assignment influences the art-making process and the art product of the client. The three axes of the art therapy triad reflect these interactions (see Figure 1).

The axis *therapist – art form* represents how the therapist systematically applies the art materials and art product in order to evoke specific experiences that meet the purpose of art therapy assessment or personal and relational treatment goals (<https://www.arttherapy.org/>, 2019). This is how art therapy differentiates from the art making of, for example, professional artists.

The axis *therapist – client* is reciprocal and refers to the relationship that concerns the verbal and non-verbal communication between client and therapist and their attitude towards each other during the art-making process. It includes for example the therapist's art instructions and assignments and the client's response towards the therapist.

The axis *art form – client* is reciprocal. The first direction of this axis represents the effect of the art form on a client, and thus the way the art materials and art product could influence the client. The art materials' properties – being more fluid or resistive – may evoke different art-making experiences; more fluid materials are assumed to evoke more affective experiences, whereas resistive art materials could evoke more cognitive experiences (Hinz, 2009, 2015; Malchiodi, 2012; Moon Hyland, 2010; Schnetz, 2005; Virshup, Riley & Sheperd, 1993). It is assumed that art materials evoke clients' familiar and unfamiliar thoughts, feelings and behavior and allow exploration of new thoughts and feelings and experimentation with other behaviors (e.g. Haeyen, 2018; Keulen & Poismans, 2018). As the art materials elicit diverse cognitive and affective experiences, the art-making process is an experiential process. The art product helps the client take distance from the art-making process and the involved experiences. The visible and tangible result of the art-making process allows the client to reflect on thoughts, feelings and behaviors that they may have been previously unaware of. This may also be done in a joint verbal reflection with the therapist. Insights may enhance the client's therapeutic process. The second direction of this axis refers to the art-making process. This is the active working phase in which the client actively uses, and interacts with, the art materials in order to create art. This process involves the client's actions and movements in interaction with art materials such as pencils and paint. During this art making, the client experiences the properties of the art materials. The client's response to materials demonstrates personal

preferences and aversions towards certain materials and experiences.

The art form in art therapy assessment

The art form is specific and unique for art therapy treatment and for art therapy observation and assessment. Art therapists therapeutically apply the art form because they assume that the art form is related to the client's mental health. This is a fundamental assumption for art therapists, and diverse art therapy approaches agree that a client's mental health is expressed in the art form, i.e. the use of art materials in an art-making process, resulting in an art product. Why is that? Where does this assumption come from?

In order to answer this question, we need to consider the art-making process as well as the art product. The art-making process requires acting in the moment and responding to the art form. Art therapists assume that art making involves implicit, non-verbal and automatic processes that are analogue to processes involved in daily life functioning (e.g. Hinz, 2009, 2015; Smeijsters, 2008; Stern, 2010). For example, when clients have not used art materials for many years, the materials are novel to them. The way clients respond to this unfamiliar situation is supposed to offer insights about how someone copes with and adapts to unfamiliar tasks in life such as risk avoidance behavior, self-management, tendencies to highlight negative features, frustration tolerance, perceived levels of competence, and unwillingness or not knowing how to play and experiment (Hinz, 2009, 2015; Maner & Schmidt, 2006; Smeijsters, 2008). This could reveal healthy and unhealthy coping behaviors or thoughts and thus the art-making process could give insight into a client's mental health.

The assumption that the art product is related to a client's mental health can be traced back to Freud's analyses of art works of great artists such as Leonardo da Vinci and Michelangelo. According to Freud, the art products are an expression of the artist's unconscious. Prinzhorn (1919) has been one of the first psychiatrists that have attempted to systematically analyze the productions of the mentally ill. According to Plokker (1963), art has many merits for patients suffering from schizophrenia: 'The images are the realities itself and [...] when in our creative process we change the image, then we have created new realities.'(p.93). He is also one of the first authors to have pointed out the limitations of trying to rationally understand the art product by just analyzing its content. Nowadays, most art therapists

assume that not only the content of the art product mirrors the individual process by the personal style, but that the shaping with characteristics in line, colors and structure in the art product is in fact much more important (Chilton, 2013; Gussak & Rosal, 2016; Hass-Cohen & Findlay, 2015). The art product is considered to be the result of the art-making process. The implicit, non-verbal and automatic processes involved in the client's actions and movements during art making are assumed to become visible within the art product.

These considerations may explain why art therapists assume a relationship between the art form and mental health. There are, however, different perspectives on how exactly mental health is represented in the art form.

Perspectives on the art-making process and the art product in art therapy assessment

Several art therapy perspectives that draw from diverse approaches, such as psychodynamic, humanistic, behavioral, developmental and integrative approaches (Jones, 2005; Rubin, 2001, 2005; Van Lith, 2016), have different views and theories on how exactly the art form relates to mental health. Some perspectives emphasize the importance of the art product, of the art-making process or of both. These perspectives vary regarding how they observe and interpret the art-making process and the art product in terms of mental health.

Some perspectives, such as art psychotherapy or analytical art therapy that originate from psychoanalytical theories, interpret the art-making process as a transference relationship between the client, the therapist and the art product (e.g. Case & Dalley, 2014; Eisenbach, Snir & Regev, 2015; Gilroy & McNeilly, 2000; Schaverien, 1994, 1999, 2005). According to psychoanalytical thinking, artistic expression provides access to unconscious feelings, thoughts and memories (Hilbuch, Snir, Regev, & Orbiki, 2016). Transference during the art-making process emerges in the way clients handle the art materials provided by the psychotherapist and the corresponding client-psychotherapist interaction. The art psychotherapist is not the only object of transference: the art materials, which are located outside the therapist and client, can also act as objects of transference. Art materials are considered to play a central role in the art-making process because working with materials that are fluid, potentially messy, colorful and

bright invites the emergence of unconscious images, emotions, thoughts and memories (Hilbuch, Snir, Regev, & Orbiki, 2016). The empirical status of transferential responses to both the art materials and the psychotherapist during the art-making process is far from uncontroversial (Schaverien, 2005). As for the art product, this perspective focuses on the symbolic content of the art product, assuming that this represents the inner image revealing unconsciousness and the psychological conflicts of a person (Hacking, 1999; Naumburg, 1966, 2001; Simon, 2001; Ulman & Bernard, 2001). The art product also assumes to serve as a transactional object through which, on an unconscious level, clients negotiate their experience with themselves and with the psychotherapist, as the content may also reflect the client's unexpressed feelings and thoughts about the psychotherapist (Hilbuch, Snir, Regev, & Orbiki, 2016). For this purpose, projective drawing tests have been developed which originated as intuitive-based – as opposed to evidence-based – techniques. Empirical evidence for this assumption is weak at best. This approach has been seriously criticized because of its reliability and validity due to the subjectivity of interpreting the symbolic content of art products (Betts, 2006, 2014, 2016; Joiner, Schmidt, & Barnett, 1996; Kahill, 1986; Kaplan in Malchiodi, 2012; Motta, Little, & Tobin, 1993).

Other art-based perspectives focus on the global ratings of formal elements of art products such as line, color and movement. Authors within this perspective state that the formal elements are visual expressions of how clients make art, and they consider the rating of formal elements of the art product to be most objective (Eytan & Elkis-Abuhoff, 2013; Gantt, 2004, 2001; Kaplan in Malchiodi, 2012; Mattson, 2009; Thomas & Cody in Gilroy et al., 2012; Kim et al., 2012; Thyme et al., 2013). The formal elements are supposed to reflect the client's symptoms in line with the disorders classified in the Diagnostic and Statistical Manual of Mental Disorders (DSM) or the International Statistical Classification of Diseases and Related Health Problems (ICD) (Cohen, 1986, 1994; Cohen, Hammer & Singer; Elbing & Hacking, 2001; Conrad, Hunter, & Krieschok, 2011; Gantt & Tabone, 1998; Hacking, 1999; Schoch, Ostermann & Gruber, 2017; Stuhler-Bauer & Elbing, 2003). Several assessment instruments have been developed to rate all of these formal elements. Research on the rating of global formal elements shows promise as descriptors of clinical states (Cohen, Mills, & Kijak, 1994; Gantt & Tabone, 1998). However, it has been argued that these developed art-based assessments use poor rating methods (Betts, 2006; Nan & Hinz, 2012) and inappropriate statistical methods for measuring inter-rater

reliability (Eitel et al., 2008; Hacking, 1999 cited in Betts, 2006; Schoch et al., 2017). The final result is that the reliability and validity of these instruments is poor at best.

There are also some integrative perspectives that emphasize the importance of the client's art-making process as well as the art product in art therapy assessment. As to the art-making process, this perspective observes the client's response to a variety of art materials and to structured and non-structured assignments as an expression of mental health. How clients interact with art materials within an art-making process may reflect (more or less conscious) thoughts, feelings and behavior that are otherwise difficult to express (Conrad et al., 2011; Hinz, 2009, 2015). Based on these observations, this perspective attempts to discover the ways in which clients go about completing art tasks and the aspects of their coping skills, risk taking or frustration tolerance (Hinz, 2009, 2015; Kagin & Lusebrink, 1978; Lusebrink, 2010) and to determine whether clients may benefit from art therapy treatment (Bell & Robbins, 2007; Betensky 1973; Hinz, 2009, 2015; Kaplan in Malchiodi, 2012; Kramer, 1958, 1972, 1975; Rhyne, 1973; Rubin, 1984, 1999, 2009, 2011). As for the art product, this perspective interprets the art product in terms of formal elements. Yet, in contrast to the art-based perspective, this perspective does not directly relate the formal elements to psychiatric symptoms or disorders, but rather supposes that the formal elements are the visible traces of the art-making process (Chilton, 2013; Czamanski-Cohen & Weihs, 2016; Gussak & Rosal, 2016; Haeyen, 2017; McNiff, 1992, Rankanen, 2016; Springham, Findlay, Woods, & Harris, 2012). According to this perspective, the art-making process is related to more general aspects of a client's health. By this, this perspective integrates diverse orientations on mental health, such as humanistic, neuroscientific, developmental and gestalt orientations (Gerge & Pedersen, 2017; Hass-Cohen, Bokoch, Clyde Findlay & Banford Witting, 2018; Hass-Cohen & Clyde Findlay, 2015; Hinz, 2009, 2015; Krenge, 2015; Lusebrink, 2010; Lusebrink & Kagin, 1978). As of yet, research on this underlying rationale in art therapy is in its infancy.

All these art therapy perspectives fundamentally assume a relationship between the art form and mental health. In this research project we will question this relationship.

Problem definition

Common in all art therapy perspectives is the assumption that the art form is related to the client's mental health. Even though this assumption is so fundamental for art therapy assessment and art therapists in practice, it lacks empirical evidence. Instead of evidence, there are different points of view on the use of the art form in art therapy observation and on how to interpret it in terms of mental health. Some perspectives assume that the art product reveals psychopathology in terms of symptoms or complaints. Others claim that the art product reflects the way clients cope with their problems in daily life, including healthy strategies in addition to dysfunctional strategies. This leads to diversity in opinions about how art therapy observation should be done. Some approaches have developed standardized assessments to analyze the content or pictorial elements of the art product, such as projective drawing tests and art-based assessments. Other approaches claim that the drawings made within these assessments remove the drawings from their context, implying loss of meaning; they emphasize the importance of observing the client's interaction and response to the art materials' properties during the art-making process.

It is remarkable that our understanding of how the art form represents aspects of mental health in art therapy observation and assessment is so poor despite its claimed diagnostic value. Despite the fact that this assumption is so fundamental for art therapy, since the development of art therapy as profession, and that all art therapists – regardless their approach – agree on this. As art therapy is increasingly applied in adult mental health care, our present knowledge about the most fundamental assumption of art therapy and art therapy assessment remains tacit and questionable. Therefore, the main purpose of this study is to examine the relationship between the art form and mental health. If empirical evidence indeed shows the existence of this relationship, the next question will be how the aspects of mental health are related to the art form: are some aspects related to clients' symptoms or psychopathology? Do they concern mainly the way clients cope with them, or are other possibilities more feasible? Elaborating on this question implies analysis of how this process is done in clinical practice. Do art therapists mainly observe the art-making process, the art product, or both? And, if the therapist observes the art product, should they pay attention to the 'what', the content of the art product, or

the formal elements representing 'how' it is made?

As the purpose of art therapy assessment is also to assess whether the client may benefit from art therapy treatment, to formulate an art therapy treatment plan and to decide which art interventions are appropriate to achieve the formulated objectives, it is crucial that we gain more knowledge on the possible relationship between art form, mental health and therapeutic possibilities. We hope to provide answers to these questions that will give an empirical base for art therapy assessment.

Outline

The main research question of this dissertation is whether there is a relationship between the art form and adult clients' mental health. In order to examine this question, we will report on a research program that consists of a series of four studies existing of nine sub studies on art therapy observation. For an overview, see Table 1.

We first wanted to examine how art therapists with different training backgrounds and perspectives on art therapy observe and assess adult clients' mental health. We wanted to know whether art therapists, regardless of their perspective, agreed on some aspects of observing and interpreting the art form. **Chapter 2** will describe a qualitative study of how art therapists conduct art therapy observation and which art materials they use. The focus is on the axes *therapist – art form* and *art form – client* of the art therapy triad (see Figure 1). Then, we will examine what aspects of the art form they observe in order to formulate an art therapy diagnosis in adult mental health. The focus here is on the axis *client – art form*. Nine in-depth interviews were conducted and analyzed using grounded theory methodology.

A second study will be presented in **Chapter 3**. In this chapter we will focus on the art-making process; the axis *client – art form* of the art therapy triad (see Figure 1). Specifically, it was clients' material interaction, the way clients interact with the properties of art materials within the art-making process, that art therapists in the first study found important. The three following questions were examined: 1) is the concept of material interaction recognized as an important source of information in art therapy observation by art therapists with diverse perspectives, 2) are the categories of material interaction (inter-) related and how do they contribute to art therapy assessment, and 3) is there a relationship between material interaction

and the formal elements of art products of adult clients in mental health? Three sequential focus groups were conducted in which 47 art therapists participated. Outcomes indicated that the art product is related to clients' material interaction and mental health.

As this might imply that the art product is an important and objective source of information in art therapy observation, the relationship between the art product and clients' mental health was further investigated in the following study reported in **Chapter 4**.

In this qualitative study using constructivist grounded theory methodology, eight art therapists were interviewed in-depth to identify which formal elements they observe during art therapy observation, how they describe mental health and how they associate formal elements with mental health. These questions subsequently focus on the *art form* of the art therapy triad, the *client* and the axis *art form – client*, specifically the *art product*. Based on the results of this study, the focus further narrowed to the relationship between formal elements of the art product and adult clients' mental health.

Chapter 5 deals with the findings of four consecutive studies regarding 1) a meta-theoretical description of formal elements, 2) the operationalization of these formal elements so they can be analyzed reliably in clients' art products, 3) the establishment of reliable and clinically relevant formal elements, and 4) the relationship between formal elements and adult clients' mental health. Sub-studies 1, 2 and 3 focus on the *art form*, specifically the art product, and even more specifically on *the formal elements of the art product* of the art therapy triad. Sub-study 4 focuses on the axis *art form – client*, specifically the formal elements of the art product in relationship to specific aspects of clients' mental health.

In **Chapter 6**, the summary and general discussion, the main findings of the studies are discussed in relation to the aims of this research project. Limitations and considerations as well as the implication for clinical practice and further research will be discussed.

Table 1: Research questions, aims and methods in this dissertation

	Research question	Aim	Method
Chapter 2 Study 1	How do art therapists with diverse training backgrounds and art therapy perspectives conduct art therapy observation and what do they look for?	The study explores how art therapists with diverse perspectives on art therapy use art materials in their observation of adult clients' mental health and what aspects of the art form they observe in order to formulate an art therapy diagnosis.	Grounded theory.
Chapter 3 Study 2	Is there a relationship between material interaction and the formal elements of art products of adult clients in mental health?	The aim of this study was to develop the categories of material interaction and examine the relationship between material interaction, the art product and clients' psychological functioning.	Focus group methodology.
Sub-study 1	Is material interaction found to be an important source in art therapy observation?	The further exploration of the concept of material interaction.	Large focus group methodology.
Sub-study 2	Are the categories of material interaction (inter-) related and how do they contribute to art therapy assessment?	Theoretical development of material interaction in art therapy observation and assessment.	Focus group methodology.
Sub-study 3	Is there a relationship between material interaction and the formal elements of art products of adult clients in mental health?	Examination whether the art product is a valuable source of information in art therapy observation and assessment.	Focus group methodology.
Chapter 4 Study 3	Which formal elements observe art therapists in order to assess clients' mental health?	Identifying formal elements that are related to mental health in clinical art therapy practice.	Constructivist grounded theory.

table continues

	Research question	Aim	Method
Chapter 5 Study 4	Can formal elements be reliably operationalized and related to clients' complaints and adaptability?	Investigating the diagnostic value of formal elements of art products in adult mental health.	Mixed method.
Sub-study 1	Which formal elements can be recognized in art theories concerning the formal analysis of visual art?	Development of meta-theoretical formal elements as they are rooted in art theories.	Literature review of art theories.
Sub-study 2	Can the meta-theoretical formal elements of the art product be constructed reliably?	Testing the inter-rater reliability of formal elements.	Operationalization of the formal elements in three rounds, using 137 art products from 80 clients and testing the scores for inter-rater reliability.
Sub-study 3	Which formal elements of the art product are reliable and clinically relevant?	Comparison of the formal elements from art theories with the formal elements that art therapies found to be clinically relevant.	Comparative analysis using an expert panel.
Sub-study 4	Are the reliable and clinically relevant formal elements of the art product related to adult mental health?	Testing the relationship between the reliable and clinically relevant formal elements of the art product and adult mental health.	Testing the relationship between the formal elements of the art product of 46 adult clients and their scores on psychological measurements.

ABSTRACT

Diverse approaches to art therapy assessment agree that art materials should play a central role. However, relatively little research is done on the role of different art materials. This article describes the results of a qualitative study on the use of art materials by art therapists in art therapy assessment of adults with mental health problems in The Netherlands.

Nine qualitative in-depth interviews were analyzed using Grounded Theory, which produced a theoretical framework of the use of art materials in art therapy assessments. This study showed that the way in which a client interacts with specific properties of art materials (i.e., the material interaction) reflects aspects of the client's mental health. Methodical application of specific properties of art materials enables art therapists to observe the client's material interaction and gain insight into the client's mental health. This observation helps art therapists with decisions to offer further treatment, formulate treatment goals and choose appropriate art interventions. Material interaction links art material properties to art making, art product and mental health, and it may connect the diverse approaches to art therapy assessment.

INTRODUCTION

The aim of art therapy assessment is to gain a perspective on a client's mental health, assess a client's strengths and weaknesses and to gain an understanding of a client's functioning. Assessment assists in decisions about further treatment. There is a great variety in art therapy assessment approaches, which are rooted in diverse perspectives and draw on diverse theoretical/historical discourses (Edwards, 2013; Gilroy, Tipple & Brown, 2012).

One important approach in art therapy assessment was developed within the context of "analytical art therapy", also referred to as "art psychotherapy". This approach draws on psychodynamic or psychoanalytical theory, and it originates from the perspective 'art *in* therapy', which was initially described by Naumburg (1950). The use of this perspective in art therapy assessment emphasizes the symbolic meaning of art products by assuming that the content of an art product represents the unconsciousness, psychological conflicts of a person's mind (Hacking, 1999; Naumburg, 2001; Simon, 2001; Ulman & Bernard, 2001). The art product is seen as an object of transference and countertransference within the relationship between client and therapist (Schaverien, 1999; Wadeson, 1990). Several projective drawing tests were developed as assessment tools in the first half of the 20th century based on this perspective (Hinz, 2009) such as the House-Tree-Person Test (HTP) (Buck, 1948) and the Thematic Apperception Test (TAT) (Murray, 1943). These tests only involved drawing, and the art materials and their role in art therapy assessment were restricted.

Quantitative research became more important with an increasing emphasis on evidence-based practices in the health care system. Instead of focusing on the symbolic meaning of what clients drew, the focus of research shifted to the formal, more objective, elements of an art product, such as color, line and space. Several assessment tools and observation rating scales were developed based on this perspective, such as the Diagnostic Drawing Series (DDS) (Cohen, 1986, 1994; Cohen, Hammer & Singer, 1986), the Person Picking an Apple from a Tree (PPAT) and the matching Formal Elements Art Therapy Scale (FEATS) (Gannt & Tabone, 1998). These tests focus on the production of a particular image using specific art materials to assess a client's functioning, formulate treatment goals, assess a clients' strengths and gain a deeper understanding of a client's presenting problems (Betts, 2006). However, attention to the role of art materials in

the assessment is limited.

Another approach to art therapy assessment originated from the perspective of 'art as therapy', which was first described by Hill (1948) and Kramer (1958). This approach is called "creative art therapy", and it focuses on the inherently therapeutic nature of art making. This approach emphasizes the intrinsic healing properties of the creative process and the primary role of art and creating art in the therapeutic process (Rubin, 2009). Early art therapists wrote about art materials and the influence of these materials on the art process and product (Betensky, 1973; Kramer, 1971, 1975; Lowenfeld, 1952; Naumburg, 1966; Rhyne, 1973; Rubin, 1984, 2009; Wadeson, 1980), but theories and research on the role of art materials and art properties focused on the ongoing art *therapy* more than the initial assessment. A more eclectic approach was used in recent literature on art materials (Hinz, 2009; Moon Hyland, 2010), which integrated diverse perspectives. For example, Hinz (2009) describes the Expressive Therapies Continuum (ETC), based on the work of Kagin and Lusebrink (1978). They developed the ETC from their observations of developmentally challenged and acutely psychotic individuals. The ETC extensively describes the role of "media", which is categorized on continua from fluid to resistive. Hinz (2009) discusses the influence of media choice on image formation and information processing. The ETC describes information processes in four levels based on developmental hierarchy: the kinesthetic/sensory level, perceptual/affective level, cognitive/symbolic and creative level. The ETC can assess clients' preferred levels of information processing, but it is especially useful in decision making of media choice in art therapy to evoke diverse *therapeutic* experiences.

Despite obvious differences, these approaches agree that art therapy assessment has unique characteristics compared to other forms of assessment (Gannt, 2004; Gilroy, Tipple & Brown, 2012). These unique characteristics are reflected in the 'triangular relationship' between the client, the therapist and the art form (Schaverien, 2000; Schweizer et.al., 2009). The three axes of the triangle refer to the dynamics between client, therapist and art form. Different art therapy approaches place greater or lesser emphasis on each axis, but the role of 'art' is present in all axes. All orientations agree that the art form itself provides essential, valuable information about a client's mental health. Assessments for further treatment also involve the formulation of treatment goals and interventions. The therapeutic application of art materials is the core feature of art therapy

(Edwards, 2013; Hinz, 2009; Hyland Moon, 2010; Jones, 2005; Rubin, 2011; Schaverien, 2000; Schweizer et al., 2009), but little attention is paid to the role of the art materials in art therapy assessment research (Hyland Moon, 2010; Snir & Regev, 2013).

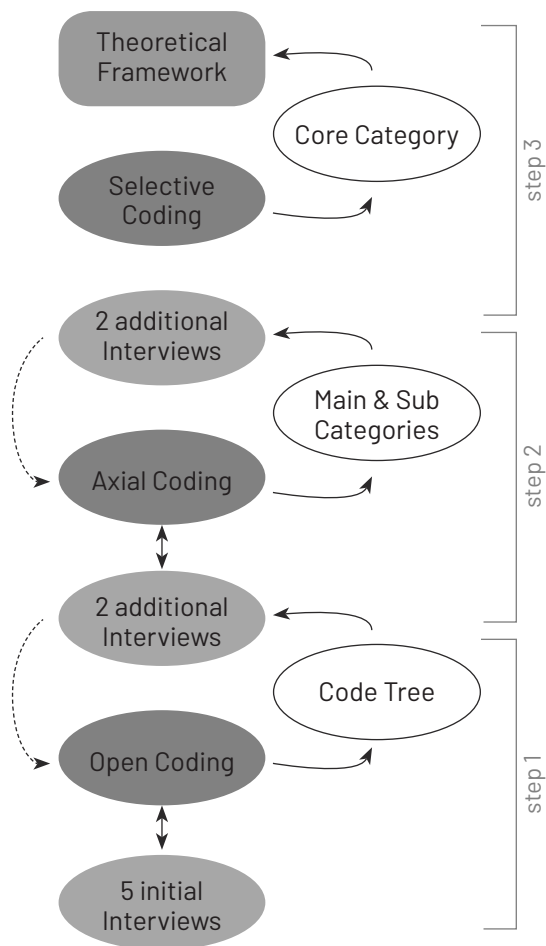
It is remarkable that our understanding of art materials and their use in art therapy assessments is so poor despite the claimed importance of these art materials in the literature. Research on this topic is scarce, which creates ample opportunity for speculation. For example, the assumption is that the use of art materials is so self-evident and taken for granted that it is simply forgotten in research (Rubin, 1999). Therefore, our present knowledge remains tacit (Gilroy, Tipple & Brown, 2012).

The current research asked experienced art therapists about their use of art materials in their assessment of adult clients with mental health problems to investigate the use of art materials in art therapeutic assessments. Our aim was to describe and to theorize the application of visual art materials in art therapists' practice of assessing adult clients with mental health problems.

METHODS

This study used the principles of Grounded Theory (Corbin & Strauss, 2008). This qualitative research method systematically generates a theory grounded in empirical data. Grounded Theory employs an iterative process of data collection and analysis. Data in this study were gathered through interviews with seven experienced therapists and analyzed using open, axial and selective coding principles (Corbin & Strauss, 2008).

Figure 1 outlines the three main steps in this study. This process required constant comparison of all interviews. Constant comparison is inherent to grounded theory, and refers to "the analytic process of comparing different pieces of data for similarities and differences" (Corbin & Strauss, 2008, p. 65). This comparison is represented by the dotted lines.



In **step 1**, five art therapists were interviewed (see interviews below). These interviews were analyzed by open coding, resulting into a code tree (see results below).

Based on theoretical sampling, in **step 2**, two more art therapists were interviewed. These interviews were also open coded. Both the five initial and the two additional interviews were analyzed by axial coding. This resulted in main and sub categories.

In **step 3**, two art therapists who had been interviewed before, were interviewed again. All nine interviews were then analyzed by selective coding, leading to the core category material interaction that linked all categories into a theoretical framework.

Figure 1. Main steps in the iterative process of the study

Participants

Sampling occurred within the existing professional network of the national research Centre for Arts Therapies (<http://kenvak.hszuyd.nl/>, KenVaK, 2014). Seven art therapists were purposely selected based on the principle of theoretical sampling (Corbin & Strauss, 2008). Participating art therapists were women with 8-25 years of working experience as art therapists. All therapists worked in adult mental health care settings (psychosocial, psychiatry daytime and inpatient, rehabilitation, special

care for clients with mild learning disability and psychiatric problems and forensic psychiatry)(Table 1).

Table 1. *Participants*

Therapist	Population (all adults)
1.	Psychosocial and Personality disorders (daytime)
2.	Rehabilitation (addiction)
3.	Psychiatric (clinical)
4.	Psychiatric (clinical and daytime)
5.	Psychiatric (daytime)
6.	Forensic
7.	Psychiatric, mild learning disability (daytime)

Interviews

The art therapists were interviewed in-depth (Charmaz, 2006) to allow art therapists to narrate their experiences and views on the use and observation of art materials in art therapy assessment. The art therapists were asked to select one or two representative clients of their clinical setting in preparation for these interviews. Selection criteria required that the client was still in treatment and the assessment had occurred recently to ensure that the therapist had a clear memory of the assessment. The art therapists were asked to talk in detail about the client's art making process based on the art products and the role art materials played during this process. Open-ended questions were asked to encourage the art therapist to fully explore the use of art materials in their assessment.

Two art therapists were re-interviewed about their clients' art making processes of clients to verify and deepen our analysis (step 3). These interviews were semi-structured and based on our current findings. Open-ended questions were asked to invite the art therapists to elaborate on the possible relationship between the art materials, the way in which a client used the art materials and the information these factors provided therapists about the client's mental health.

Analysis

Five art therapists who worked with diverse client populations in adult mental health care were interviewed in step 1. These interviews were fully transcribed. The interviews were conscientiously read and open coded after the first interview. Text fragments that were conceptually similar were assigned the same code. Text fragments that did not fit into existing codes as the interviews proceeded were transcribed and assigned a new code. Text fragments were coded using the actual words of the art therapists themselves as much as possible to stay as close as possible to the data. This method is called 'in Vivo Codes' (Corbin & Strauss, 2008), and examples are "outside-inside", "need for control", "tension", "shaping the art work", "function of the art product" or "dynamics and movement". This constant data comparison produced a *code tree*.

Open coding transformed into *axial coding* in step 2. The goal in this step was to cluster similar codes into categories. For example the codes "holding on to familiar patterns of behavior", "fixed patterns", "being bogged down by old patterns" and "openness for new ways" were grouped into the category "amount of flexibility". These categories were further developed for properties and dimensions, and several main categories and subcategories emerged. Two additional interviews were performed to examine whether therapists with a different educational background who worked with different client populations would add variety to these categorical conceptualizations. This process is called *variational sampling*, which is a form of theoretical sampling (Strauss & Corbin, 1998). This process allows the categories to relate to each other.

No new participants were included in step 3 because no new codes emerged, and no new content was added to the conceptualization of primary and subcategories.

Two art therapists were re-interviewed to verify and deepen the analyses. This method is called *discriminate sampling*, which is a form of theoretical sampling (Strauss & Corbin, 1998). The art therapists in these interviews were invited to elaborate on the possible relationship between the way in which clients used the art materials, the art materials properties and the type of information these factors provided the therapists about the client's mental health. The main categories were integrated and refined into a theory using *selective coding*. This theory was grouped around one *core category* to which all other categories were linked.

Criteria of quality

Member checking, peer debriefing, memo and diagram creation, constant comparison, theoretical sampling and repeated analysis techniques were used during the course of research to satisfy the criteria of trustworthiness (Creswell, 1998; Creswell & Miller, 2000; Denzin & Lincoln, 2005; Glaser & Strauss, 1967; Lincoln & Guba, 1985). These criteria include credibility (similar to internal validity in quantitative research), transferability (similar to external validity), dependability (similar to reliability) and confirmability (similar to objectivity).

Member checking was performed on three occasions to satisfy the criteria of credibility (i.e., the ability of informants to recognize their experiences in the results).

First, all interviewed art therapists were given the opportunity to add or correct the transcriptions. All art therapists agreed with the transcriptions. Second, findings after *axial coding* (a first-draft report) were sent for commentary to all art therapists, and comments were integrated into data analysis. Finally, the detailed theoretical framework was sent to the two art therapists that were re-interviewed again at the end of this study after *selective coding*. Their comments were incorporated into the development of the final theoretical framework.

Peer debriefing and *writing memos and diagrams* were performed to satisfy the criteria of credibility, dependability (i.e., the findings can be repeated) and confirmability (i.e., the findings are grounded in data and not biased by the investigator's motivation or interest). A senior lecturer in art therapy conducted peer debriefing during the entire analysis process.

Memo writing (Corbin & Strauss, 2008) started early in the research process, and continued throughout the entire process. Memos documented the most important considerations and decisions of theory development, the analysis in general and the examination of the role of the investigator.

Diagram creation began during early axial coding to visualize relationships between categories. Memo writing and diagram creation enhanced the *constant comparison* and directed *theoretical sampling*. These methods satisfy the criteria of transferability (i.e., the extent to which the data are applicable in other contexts).

RESULTS

The analysis provided a theory of the role of visual art materials in art therapy assessment, which is presented in Figure 2.

Figure 2 shows that ‘material interaction’ was the core category in the developed theory because it interconnects with all of the other categories. This core category will be described before elaborating on the individual categories in relation to the core category. ‘material interaction’.

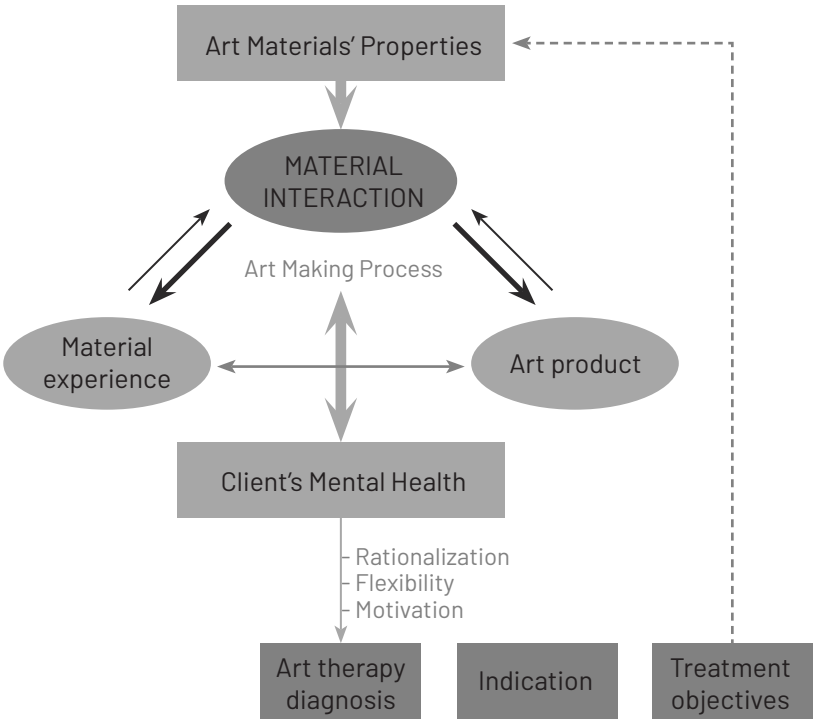


Figure 2. Theoretical framework of material interaction in art therapy assessment

Material interaction

The way in which a client uses art materials was most important and informative to gain insight in the client’s mental health according to the art therapists in this study. The way in which a client uses art materials, and

especially the properties of art materials, is called 'material interaction'.

All other aspects regarding the application of art materials in art therapy assessment were related to this concept. Therefore, we labeled material interaction as the *core category*. Material interaction refers to the "action" of the art making.

Therapist 4: "If the client doesn't use art materials, nothing will happen in art therapy."

Therapist 2: "I look at how the client uses the art materials. Is there a one-sided process in which the client either ignores the properties of the art materials or gets overwhelmed by them? Or is there actual interaction in which the client makes use of the properties and experiments with them?"

The way in which a client interacted with art materials reflected aspects of their mental health according to the art therapists, and this interaction was consequently informative in the art therapy assessment.

Therapist 1: "Based on the properties of water-based ink he could have used it in many other ways. Apparently, the interaction with the properties of art materials is client specific; he applies the material based on his personal drive. It's his way and it is his only way at this point."

Therapist 4: "The way the client uses the material, is typical and matches how he makes his way in life. Often this is more striking than anything else."

Art therapists in this study observed the material interaction in the properties movement, dynamic, space, tempo, pressure, lining, shaping, repetition and control.

These properties were expressed along a continuum from not present to explicitly present (e.g., from small, short gestures to large movements and from light pressure to strong pressure). The combination of these properties and that were observed repeatedly characterized the client's individual manner of interacting with art material properties. The art therapists recognized patterns in individual material interaction that provided information about the client's mental health. Material interaction led to material experience and finally, an art product (see also Figure 2). Therefore, material interaction, material experience and the art product were

interconnected, and together these factors formed the art making process.

Material experience

Material experience refers to the client's emotional and cognitive experience during material interaction. All art therapists linked the client's material experience to aspects of the client's mental health. For example, clients who tended to control the art materials often became anxious, angry or frustrated when working with fluid materials that are difficult or impossible to control. Clients who tended to rationalize had trouble experiencing the material at all, i.e., they had difficulties connecting the properties of art materials and their feelings. Most therapists spoke about the influence the client's experience had on material interaction, e.g., when a client was positively surprised by the experience, it motivated the client to interact more and experiment with the art materials. Therefore, the properties of art materials and the way in which a client interacted with them evoked experiences that provided additional information about the client's mental health.

The art product

All art therapists spoke about the importance of the art product in art therapy assessment. All art therapists said the art products reflected aspects of the client's material interaction, specifically in the formal elements, such as line, shape and color.

Therapist 3: "The art product is the reflection of what the client did."

The art product was used to reflect with the client on the art making process. All therapists stated that the art product created distance from the art making because of the visibility and tangibility of the art product. The art therapists often experienced that clients were surprised by what they made, especially how much it told them about themselves. The client and art therapist jointly explored different aspects of the art making, such as choices the client made, the client's material interaction and how the client experienced the art materials. This reflection allowed an assessment of the clients' ability to reflect.

Therapist 1: "The essence is that the client sees what he is doing in his art product. He can look at it with distance. The experience that comes along with that is also very important."

Six art therapists said this was important information in deciding whether to offer further treatment. Two therapists elaborated on the symbolic meaning of an art product. They assumed that the content of the art product referred to a person, event, fact or experience outside of the art material itself, and the art product only obtained meaning by interpretation. Both art therapists emphasized that the reflection of material interaction in the art product was more important than the symbolic meaning, but they also said this reflection sometimes brought clarity to very rational clients about the process of art therapy and the manner an art product helped to provide insight into what it said about themselves.

Material interaction and art materials' properties

One main category that influenced material interaction according to the art therapists was 'art materials' properties'. The art therapists conceptualized the art materials into the following properties:

- The degree of physical contact. This contact varied along a continuum of no physical contact (e.g., most graphic materials, such as a hard degree pencil), minimal physical contact (such as soft pastel when used with the fingers) or much physical contact (such as the use of the entire hand during finger painting).
- The amount of control an art material provided the client. Some materials have much intrinsic structure, such as graphic materials, but other art materials have less or no intrinsic structure, such as water ink. The tools and techniques with which the materials are used influence the amount of control the client has over the material. For example, the use of ink with an ink pen provides the client more control than the use of ink with water and a brush. Therefore, the combination of art material properties and the tool chosen determined the amount of control the client has.

Therapist 7: "In a way, there is a gradation of materials; some are more fluid or invite to physical contact, others such as the graphic materials are more structured and give a sense of control."

- The scope of technical possibilities. Some art materials are more limited in the number of possibilities and techniques than others materials. For example, a hard degree pencil has fewer application possibilities than

acrylic paint. This scope influences the material interaction. Therefore, some therapists also mentioned the reversibility of the material, such as the possibility of erasing a pencil or repainting a first picture versus the permanence of markers.

The application of art materials' properties by art therapists

Art therapists used the properties of art materials to gain as much information about the client as possible. A distinction between the beginning, middle and final stage of assessment was recognized.

Art therapists often observed that clients were very insecure about their capabilities at the beginning of the assessment period. Most clients seemed to focus only on their problems.

Art therapy was unfamiliar for most clients. The art therapists offered a clear and structured context for art making that allowed for individual input at this stage of the assessment period. All art therapists found it important to observe the amount of structure a client needed to get started because it provided therapists a first impression of the client's personality. Several issues determined the amount and type of structure that was offered:

- Familiar or client-preferred materials. These materials were pencils, markers or other graphic materials in most cases. Therapists offered several explanations, such as the client's familiarity with these materials from school and the structure and sense of control that graphic materials provided.

Therapist 6: "Most of the clients need a lot of structure and grip to even come to the making of art. Just drawing something can be difficult for many clients. But it varies, depending on the client characteristics, affinity for the arts and experience".

- The structure of the assignment. The structure of the assignment was determined by the amount of instructions and the use of materials and techniques. Art therapists often applied materials and techniques that required a specific sequence during this beginning phase of assessment. Three art therapists mentioned the use of "creative levels" of copying, imitating and experimenting to anticipate the client's needs and abilities. The level of "copying" or "imitating" usually offered more structure and guidance than the level of "experimenting" when a client was very anxious or insecure.

- Two therapists mentioned the influence of paper size. They said that a big white sheet of paper could either discourage or stimulate a client. The art therapists generally used smaller paper sizes in this assessment phase.
- All art therapists used 2D materials instead of 3D materials. According to the therapists, 2D materials provided an easier overview than 3D materials, and therefore, 2D materials provided more structure and grip.

Most art therapists found it important to observe the client's individual way of art making as the assessment proceeded, specifically patterns that characterized the material interaction. Therapists often let the client choose the art material or used art materials that were multi-faceted, such as watercolor pencils and soft pastels. The properties of these materials were characterized by a broad scope of possibilities: use of the materials dry or mixed with (a lot of) water, use of the tip for lining or the sides for shaping, keeping the colors separated or mixed with water or by rubbing them out. The observation of patterns in the way a client interacted with these properties of the material provided a perspective on the client's mental health.

The art therapists emphasized the application of art materials in the final stage of the assessment to evoke different ways of making art than the clients' authentic manner to assess the client's flexibility. The art therapists in this stage offered art materials with properties that evoked the making of art that was opposite to the client's familiar way of making art and interacting with materials. The art therapists challenged the familiar way of art making by linking the properties of art materials to typical material interaction. Therapists offered the client materials that were more fluid and difficult to control, such as ink and watercolor, during rationalization. Therapists also offered art materials that required more physical contact, such as finger paint, soft pastel and sometimes clay. Therapists challenged the client to experiment more with the properties of the art materials, which stimulated more interaction between the client and the art material.

Therapist 2: "Here, he is thinking hard, contemplating what he is going to do. As for the other assignments, I tried to offer art materials that evoked more, well just more out of his feeling, into movement, into the material itself instead of his rational analyzing and thinking. So I offered him finger paint"

Material interaction and the client's mental health

The art therapists stated that within the process of art making (besides the client's choice of art materials, the interaction with other clients and the art therapist) observation of the material interaction was most important to gain a perspective of a client's mental health, which also helped further decision-making. Material interaction reflected personal characteristics of clients, such as self-esteem, self-efficacy, perfectionism, need for control, rigidity, the ability to deal with and feel (negative) emotions, anxiety and agitation. These characteristics overlap and interconnect, but three overarching aspects emerged from the analysis as important in assessment. These three characteristic aspects of rationalization, flexibility and motivation are reflected in the material interaction.

Rationalization

The first aspect refers to the amount of rationalization. Clients often seemed to be stuck in ingrained patterns of behavior, feeling and thinking. Clients held on to these patterns because these were familiar and secure. Clients often lacked the curiosity to experiment with art materials and discover what a material could and could not do. Rationalization helped them to keep some distance. Clients tended to be very conscious of how they presented themselves.

The material interaction of clients who tended to rationalize was characterized by:

- The need for structure and control. The clients often preferred graphic materials that were easily be controlled and materials that were reversible, like pencils that could be erased, and materials that demanded little physical contact. Some of these clients even tried to control art materials that are fluid and difficult to control, which produced tension and frustration.
- Thinking and rethinking. Clients often had an idea thought through before acting.
- Initiation of art making by copying or imitating an example.
- Making the art product very important, striving for perfection.
- One-sided material interaction. The client hardly made use of the properties of art materials. The art materials often were no more than a tool to carry out a rational idea.
- Rigidity in forms, emphasizing the contours.

Clients that showed high levels of rationalization were often insecure about themselves, needed a sense of control, were anxious and/ or were perfectionist.

In addition to rationalizing as a characteristic feature of a client's material interaction, art therapists also mentioned that most of the clients on whom they reflected showed rationalization at the start of the art therapy assessment. The art therapists explained this by the fact that art therapy was unfamiliar for most clients.

Therapist 1: "That idea, that picture functioned as something to hold on to outside of himself. Considering that he worked with very fluid material (water ink), he let it flow in the direction he wanted, which is quite skillful. And then he repeatedly accentuated the contours of the shapes. He didn't allow himself to play and experiment with the material".

Therapist 3: "She was so caught up with the final result, her idea in her head, that during the art making, she didn't search for other ways or possibilities. It was like" this is the idea, this is what I'm doing and how I'm doing it and that's it".

Therapist 5: "Clients with a high level of need for direction and control [...], that becomes visible in their art making and their preference for familiar materials which are easy to control and structure such as graphic materials like pencils and crayons."

Flexibility

Art therapy is often about experiencing and using art materials to enhance the process of change, and all art therapists thought it was important to observe how rigid or flexible a client was to new experiences, the possibilities of art materials and the release of old patterns. According to the art therapists, flexibility is the client's capability and openness to try new materials or to use them in different ways by interacting with the art materials differently than the client's initial interaction. Rigidity in material interaction expressed itself by a lack of variation in the use of different art materials with different properties. Most clients in this study on whom therapists reflected tended to rationalize. However, art therapists mentioned that this was not always the case; some clients tended to be overwhelmed by the art materials, and always used them in the same manner.

Therapist 1: "She was struggling; knowing that she had to let go and feel her emotions, but being afraid of it at the same time".

Therapist 2: "He uses a very different art material with very different properties in his own typical way; he continues to also use the paint-brush like a pencil."

More interaction was observed when the client made use of the inherent properties of the art material. Playing existed when the client did not focus on the art product but enjoyed the interaction with the art materials and discovered new aspects and possibilities of the art material. Doing and experiencing then characterized the art making process.

Therapist 1: "Then, there was more room for playing with the materials. In interaction, through doing, looking, from feeling, not from the head, he found what he liked, instead of focusing on what everybody else thinks".

Motivation

Six art therapists reported that they frequently observed some form of resistance at the beginning of the assessment period. Clients often did not exactly know what to expect of art therapy and what was expected of them. Some clients were skeptical about how art therapy could help them with their problems.

Therapist 4: "He was very shallow, pretended everything was fine and he held on to that during the whole period of assessment".

All art therapists mentioned that art therapy appeals to doing and experiencing. Therefore, clients who tended to rationalize often found it hard not being able to rely on their verbalization strength and other familiar ways of rationalizing. This confrontation led to tension and reluctance for some clients.

Motivation was influenced by the client's experience during art making and their ability to reflect on the art product. The ability to see that the art product was a reflection of how they made the product and that it resembled their personal ways of functioning in daily life contributed to the client's motivation.

Therapist 1: "It was so clear, that in her art product and her art making the same happened as in her family life. Because she felt it, that sets it apart from other therapies."

Material interaction and art therapy diagnosis

Finally, art therapists formulated an 'art therapy diagnosis' based on all of the observations. Even though the term diagnosis may assume an emphasis on pathological aspects of a client's mental health, but this was not what the art therapists in this study meant. The art therapists emphasized the observation of the client's problems and strengths. In addition, they also focused on the context of these strengths and difficulties. The same aspects of mental health that caused difficulties at the current point of a clients' life, were also responsible for the clients' personal qualities. For example, clients' rationalization often made it hard to connect to their feelings, but it also enabled good functioning in jobs in which analytical and organizing skills were useful qualities.

Therapist 1: "It is important to give the client insight into the positive aspects of their present wellbeing instead of only focusing on the problem. Problems and strengths are two sides of the same medal."

Assessment of the prominent aspects of mental health contributed to gaining insight into clients' mental health, i.e. difficulties and strengths. This assessment also helped in the decision to offer further art therapy (which was called indication), in the formulation of treatment goals and the choice of appropriate art interventions. For example, when clients have developed their analytical, structuring and rational skills so deeply, their ability to contact and express feelings and emotions might never have the space or opportunity to develop. This aspect often became the focus in further treatment.

Therapist 1: "The balance between ratio and emotion is gone. When some patterns are this well developed, you almost know then which direction treatment will take. To restore or develop a new balance."

Therapist 2: "If this is an aspect the client has very well developed and is a big issue in his life, than most of the times the question for help is at the other side of it."

DISCUSSION

Art therapists in this study focused specifically on the way in which a client interacted with the properties of art materials because this interaction reflected aspects of a client's mental health. Consequently, material interaction appeared to be the most important and valuable aspect in art therapy assessment. Moreover, material interaction was also linked to other aspects of the art making process and art product. Interacting with the properties of art materials evoked material experiences, and aspects of material interaction became visible in the art product.

The interconnection of these aspects adds to current approaches of art therapy assessment as described in the introduction. These approaches can be characterized as:

- Focusing on assessments based on the formal elements of the art product (Betts, 2006; Gilroy, Brown & Tipple, 2012)
- Focusing on the symbolic interpretation of the art product and its role in the transference and countertransference relationship (Schaverien, 1999)
- Focusing on the process of art making (Hinz, 2009; Rubin, 2009)

These approaches agree that the 'art form' is the hallmark of art therapy and art therapy assessment, but they either emphasize the art making or the art product in practice and research. The art therapists in this study noted that material interaction, material experience and art product form one whole: the art making process. This finding is consistent with the ETC (Hinz, 2009) in which several aspects of the art making process and art product are integrated, especially on the perceptual level. Seiden (2001) also notes that the manner in which art material is used strongly impacts the art process and completed art product. Our study further theorized this interconnection, which created the possibility to connect the current approaches of art therapy assessment. Betts (2012, p.205) has argued: "An integration of multiple sources of information derived from the art process allows the art therapist to evaluate and translate meaning in art work, producing a more comprehensive picture of the client."

The art therapists in this study also agreed that the art form, specifically the art materials and their properties, is the most distinctive feature in art therapy assessment, which is consistent with the abovementioned approaches. Art therapists characterized these properties in terms of

the degree of physical contact, the amount of control these properties can provide and the scope of technical possibilities. This characterization is consistent with the conceptualization of art materials in the ETC (Hinz, 2009; Lusebrink, 1990, 2010; Kagin & Lusebrink, 1978) in which the intrinsic structure and qualities, in combination with task complexity and tasks structure, are related to more affective or cognitive experiences. Other authors also characterize art materials as having a more fluid or resistive nature (Malchiodi, 2012; Hyland Moon, 2010) and relate these properties to the amount of provided control and evoking affective responses (Malchiodi, 2002; Schnetz, 2005; Virshup, Riley & Sheperd, 1993).

Art therapists applied the properties of art materials in art therapy assessment to observe a client's material interaction and observe sequentially:

- The amount of structure the client needed to create art (offering a structured context with familiar or preferred materials, using mostly 2D graphic materials with much of intrinsic structure).
- The characteristic patterns in the client's material interaction and material experience (allowing the client choose the art materials or offering multi faceted art materials).
- The client's flexibility to explore different styles of material interaction (offering art materials with opposite properties to evoke material interaction in opposition to the client's familiar material interaction).

The ETC emphasizes the client's free choice of art materials to assess a client's preferred or non-preferred level of information processing, but the abovementioned three-staged assessment further theorized on the use of art material properties in several stages of art therapy assessment. The ETC also relates resistive materials to more cognitive experiences and fluid materials to more affective experiences. This relationship confirms the findings of this study.

Art therapists primarily used painting and drawing materials during these assessment stages. This use confirms the statement of Moon Hyland (2010) that these are still preferred in current art therapy practice, even though she herself advocates a broader use of "art" in art therapy based on trends and developments in a wider sociocultural context. Knowledge of the properties of the art materials allowed the art therapists to systematically apply these properties to meet the goals of art therapy assessment. This profound knowledge also enabled therapists to give meaning to the

observed patterns in material experience, the art product, and especially, the material interaction.

Art therapists observed patterns of material interaction in properties of movement, dynamic, space, tempo, pressure, lining, shaping, repetition and control and linked these patterns with aspects of the client's mental health. These properties seem to overlap with what Stern (2000, 2010) described as *vitality forms*. Vitality forms are characteristic for *vitality affects*: the time-based patterns of feelings that are formed by a combination of parameters such as movement, repetition, rhythm, tempo, intensity, shape and number. Vitality affects are expressed in vitality forms directly in the *present moment*. According to the theory of *analogy* (Smeijsters, 2008 a, 2008b, 2008c, Smeijsters, Kil, Kurstjens, Welten & Willemars, 2011; Smeijsters, 2012) the patterns of feeling (vitality affects) are analogous (identical) to the patterns of artistic form shaping (vitality forms). Based on the theory of the development of 'the self' of Damasio (2003, 2010), arts therapies are described as therapies wherein the artistic form shaping is not so much connected to the reflective, cognitive and verbal level, but to the immediate non-cognitive and non-verbal experience of the core self that expresses itself in the present moment. The concept of material interaction adds to the theory of analogy because it specifies the importance of art materials' properties and their influence on art making. Based on these patterns, art therapists formulate an art therapy diagnosis in which aspects of the clients' mental health are formulated by the clients' difficulties and strengths. Emphasizing the client's strengths as a positive approach to mental health is also mentioned in previous art therapy literature (Betts, 2012), who notes "positive psychology approaches to assessment provide a constructive framework for art therapists" (p. 208).

Methodological considerations and implications for further research

Several techniques were used to meet the criteria of "trustworthiness" during the course of this research (see Methods section). Despite these efforts to enhance the quality, this study has limitations.

Theoretical sampling led to the inclusion of art therapists from two different training backgrounds (there are four training programs in The Netherlands). Further exploration and development of the core category 'material interaction' requires the inclusion of a wider range of art therapists.

The same limitation applies to the clients who were reflected on in this study. These clients showed a wide range of mental health problems and

received therapy in different settings. Art therapists stressed the client's individual way of interacting and experiencing art materials' properties, but some similarities could be recognized. Art therapists mentioned the amount of rationalizing, flexibility and motivation as aspects they could assess through observing material interaction. However, it remains unclear whether these similarities can be generalized to clients with similar mental health issues. Consequently, it is important to systematically observe material interaction as part of art therapy assessment, but we do not know how specific patterns of clients' material interaction can best be assessed in art therapy practice.

The above-mentioned considerations suggest that future research should investigate:

- Whether the results found in this study are also applicable in a wider (international) context
- The operationalization of material interaction. How can material interaction best be observed and/ or possibly measured in art therapy assessment? This may provide direction for how material interaction contributes to the general assessment in adult mental health care
- The generalization of similarities in material interaction of clients with similar mental health issues to art therapists.

CONCLUSION

Art therapists methodically apply the properties of art materials to gain insight into the client's art making. A client's material interaction provides valuable information about the client's characteristics. Material interaction may be a strong concept in art therapy assessment because it stresses the importance of art materials in the assessment of adult clients' mental health and links the art making with the art product. Therefore, material interaction has the potential to connect different approaches in art therapy assessment. The results of this study are a firm base for further articulating and theorizing the unique properties of art therapy assessment, which distinguish it from other forms of adult mental health care assessment.

CHAPTER 3. Material interaction and Art product in Art therapy assessment in Adult mental health

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ABSTRACT

Background

Art materials have a central role in art therapy. The way a client interacts with art materials - material interaction - is an important source of information in art therapy assessment in adult mental health. The aim of this study was to develop the categories of material interaction and examine the relationship between material interaction, the art product and clients' psychological characteristics.

Methods

Three sequential focus groups were conducted, in which 47 art therapists participated.

Results

A large number of art therapists recognized that observing material interaction enabled them to gain a perspective on client's psychological functioning. Styles of material interaction could be placed on a continuum from 'affective' to 'rational' and provided valuable information about a client's affective and rational characteristics.

Conclusions

Art therapists were able to describe clients' material interaction and psychological characteristics based on the analysis of the formal elements of the clients' art product. The results provided a preliminary theoretical base for art therapy assessment in adult mental health.

INTRODUCTION

Application of art materials such as pencils and paint are the core of art therapy and described by many art therapists (Hinz, 2009; Hyland Moon, 2010; Kramer, 1975; Naumburg, 1966; Rhyne, 1973; Rubin, 2011). The central use of art materials is what distinguishes art therapy from the other arts therapies and from other psychotherapy approaches (Malchiodi, 2012). Most literature describes the use of 'art' within the context of the on-going *therapy* to enhance clients' psychological well-being (e.g. Hill, 1948; McNiff, 1992; Schaverien, 2000; Smeijsters, 2008a, 2008b, 2008c, 2011, 2012). Within this literature two perspectives can be recognized; 'art *in* therapy' and 'art *as* therapy'. The perspective 'art *in* therapy' or 'art psychotherapy' is based on psychoanalytical and psychodynamic theories and emphasizes the role of the art product as an object of transference and countertransference within the relationship between client and therapist. The perspective 'art *as* therapy' focuses on the inherently therapeutic nature of art making and the primary role of art materials.

Some authors theorize the application of art materials in *art therapy assessment* (Hinz, 2009; Hyland Moon, 2010; Malchiodi 2012). Art materials can be placed on a continuum from high to low structure based on their properties (Hyland Moon, 2010; Malchiodi, 2012). Art materials with properties that provide high structure are easier to control, whereas art materials that have low structure are more fluid and more difficult to control and evoke different art making experiences (Malchiodi, 2002; Schnetz, 2005; Virshup, Riley & Sheperd, 1993). Hinz (2009) elaborates the role of art 'media' in the Expressive Therapies Continuum (ETC), based on the work of Kagin and Lusebrink (1978). The ETC describes that art materials with high structure evoke more cognitive experiences, whereas fluid art materials evoke more affective experiences. The ETC links clients' art materials preferences to overused or blocked styles of information processing. Information processing is organized in bipolar levels, i.e. kinesthetic-sensory, perceptual-affective and cognitive-symbolic. The left 'pole' represents cognitive styles and the right 'pole' emotional styles of information processing. The way a client processes information influences psychological behaviour, emotions and cognitions that influence coping skills and attitude towards new situations and challenges in life.

Yet, *research* on the function of art materials in art therapy assessment has remained scarce. One of the main goals of art therapy assessment

is deciding whether to offer further treatment and choosing appropriate art interventions (Betts, 2006; Gilroy, Tipple & Brown, 2012). A previous study (Pénzes, van Hooren, Dokter, Smeijsters & Hutschemaekers, 2014) shows that material interaction is an important source of information in art therapy assessment. Material interaction refers to the way a client interacts with art materials, specifically with the properties of art materials that provide either high or low structure. Material interaction describes how a client constructs the art product; *what* is the client doing with the art materials and *how* does he do that? It describes the actual observable behaviour in terms of the categories movement, dynamic, space, tempo, pressure, lining, shaping, repetition and control. Observing a client's material interaction enables art therapists to gain insight into the client's amount of rationalization, flexibility and motivation. It is unknown *how* exactly art therapists observe material interaction and which information this precisely provides in order to meet the goals of assessment.

The research question of this study is how the categories of material interaction should be refined, subdivided and (inter) related and how material interaction can be theorized further. The goal of this study is to explore which information is needed in art therapy assessment and to specify how material interaction can best be observed.

METHODS

Three sequential studies were conducted to refine the initial categories of material interaction (Study 1), relate the categories (Study 2) and specify the relationship between material interaction, art products and clients' psychological characteristics (Study 3).

Data-collection

Focus group methodology was applied (Kitzinger, 2013; Liamputtong, 2011; Litosseliti, 2003). This methodology is characterized by interactive group discussions in which selected participants respond to and build on the views expressed by others in the group about a particular topic (Kitzinger, 2013; Litosseliti, 2003; Morgan, 1998). In these three studies, the focus groups participants included art therapists.

Analysis

In all three studies, data was analysed by the coding principles of grounded theory (Corbin & Strauss, 2008), commonly used in focus group methodology (Barbour, 2007).

Open coding was applied in Study 1. The preliminary categories of material interaction as they emerged in the previous study (Pénzes, et al., 2014) functioned as sensitizing concepts: movement, dynamic, space, tempo, pressure, lining, shaping, repetition and control. Sensitizing concepts are starting points to build on analysis, which deepens the perception of data (Charmaz, 2003). Codes were re-coded if they did not fit into these preliminary categories. Then, all codes were clustered into final categories by *axial coding*. Some codes referred to specific behaviour such as scratching, touching, pushing, erasing, moving. Others referred to dimensions of these specific behaviours such as gentle, precisely, withholding, cautious, large, small and forceful. These 'dimensional' codes were used in axial coding to describe these categories.

The transcribed data of the focus group in Study 2 was also *axial coded*. All input related to the definition and content of the separate categories was categorised. Attention was paid to adjustments and additions of the categories and possible new categories. This led to final categories and descriptions and the emergence of main and subcategories. *Selective coding* was used to see how main and subcategories were interconnected, which core category could be constructed and which information this provided for the art therapy assessment.

In Study 3, the categories of material interaction as developed in Study 2 were used as analysing concepts in *axial coding* of the data regarding the style of material interaction. *Selective coding* was used to analyse the relationship between the formal elements of the art product, material interaction and clients' characteristics. These findings were compared to the original case descriptions in Table 2.

Criteria of quality

To enhance the quality of research several techniques were applied to meet the criteria for *trustworthiness* (Creswell, 1998; Creswell & Miller, 2000; Denzin & Lincoln, 2005; Lincoln & Guba, 1985). *Theoretical sampling* has been applied to compose the focus groups of Study 2 and 3 to ensure that diverse perspectives on art therapy assessment have been incorporated. The participants of Study 1 were asked to answer general questions such

as age, work setting, training background and years of work experience. This information was integrated into *profile memos* of each participant and ensured diversity of backgrounds.

Member checking has taken place to minimize the interviewer effect. In preparation of the analysis in Study 1 all data was sorted by each participant and member-checked individually by email. The opportunity was offered to add new, additional or different insights about material interaction. All reactions confirmed, elaborated or added to the already given input. The focus groups of Study 2 and 3 were video taped and transcribed into text. Initial reports were sent by email to the art therapists for member checking until no further changes were suggested. This meets the criteria of *credibility*.

To make sure that the findings were grounded in data and not biased by the investigator's motivation or interest, the whole process of analysis was *peer debriefed* by a senior lecturer in art therapy who has asked questions and has provided us with critical remarks. This meets the criteria of *confirmability*.

The *in-depth exploration* of the concept of material interaction and the *comparative analysis* with the interviews of the previous study, in which several art therapists individually spoke in detail about the art making processes of clients during art therapy assessment (Pénzes et al., 2014) enhanced the *transferability*. The cases of Study 3 were based on the descriptions of the psychologists and art therapists working with these clients. This meets the criteria of *authenticity*.

STUDY 1

A large exploratory focus group (Bloor, Frankland, Thomas, & Robson, 2001) was conducted to explore *if* material interaction could be used as a source in art therapy assessment and to refine the categories that were already developed in the previous study (Pénzes, et al., 2014).

Method

Participants

Thirty-eight art therapists working in diverse mental health care settings and with different training backgrounds participated. They were recruited at

an art therapy congress initiated by KenVaK, the Dutch Research Centre for the Arts Therapies (<http://kenvak.hszuyd.nl/>) in collaboration with the Dutch Association of Arts Therapists (<http://www.vaktherapie.nl/>). At the start of the congress, art therapists signed up to participate in the focus group.

Procedure

The group was divided into two consecutive sessions with 19 art therapists in each session. In each session material interaction was introduced as 'the individual way a client uses the art materials which provides information about the client in the context of art therapy assessment'. All participants were asked to note key words they found characteristic for material interaction on coloured post-its. All participants received their own coloured post-its so that all input could be traced back to the individual. All post-its were put on large paper sheets on the wall. Next the participants were asked to cluster these post-its into categories based on their content. Each session ended with a general group discussion.

Results

All participants confirmed and recognised material interaction as an important source in art therapy assessment. The coding process showed that the preliminary categories encompassed almost all open codes of the focus group. To these ten categories, four new categories were added: 'contact', 'dialogue', 'use of colour' and 'handling the art product'. Three of the initial categories were renamed based on the codes used by the participants: 'dynamic' became 'intensity', 'repetition' became 'rhythm' and 'control' became 'structure'.

This led to fourteen categories of material interaction: movement, intensity, pressure, structure, tempo, grip, contact, rhythm, dialogue, space, line, use of colour, shaping and handling the product.

Based on these results we concluded that material interaction was found to be an important source in art therapy assessment. Despite differences in training background, work experience and work settings of the participants, similarities occurred in describing material interaction and the categories which are perceived to be informative in art therapy assessment. Because we did not know whether these categories were interrelated, whether some categories were more important than others and which information could be gathered by observing them, a second study was necessary.

STUDY 2

The second focus group aims to deepen and develop the theory of material interaction in art therapy assessment. We want to know whether and how the categories of material interaction developed in Study 1 are (inter)related and how observing material interaction contributes to the aims of art therapy assessment: the decision to offer further treatment, to formulate treatment goals and to choose appropriate art interventions.

Method

Participants

Eight art therapists were invited to participate in a focus group. Focus groups of this size enable the exploration of complex topics (Litosseliti, 2003). The group was purposively sampled with the aim to include diverse theoretical and methodological perspectives of art therapy (Barbour, 2007; Litosseliti, 2003). Diversity among participants was obtained regarding working experience (both in number of years and client population), training background (training program and level of education) and additional expertise (researcher, lecturer or author in art therapy).

Procedure

The focus group met once, followed by two email rounds for member checking. In preparation for this focus group, the art therapists received a written introduction to the concept of material interaction based on the findings of Study 1. The focus group had an open character allowing all participants to give their view on the concept of material interaction and to respond to each other's views (Morgan, 2002). The researcher started the focus group with a general introduction of the research project. In order to keep the discussion on track without inhibiting the flow of ideas, the moderator asked open-ended questions related to a predetermined topic guide. The guide consisted of the concept of material interaction in the therapists' practice, the separate categories of material interaction as developed in Study 1, and the possible interrelatedness of the categories of material interaction.

Results

Categories of material interaction

The participants agreed to discuss the categories of material interaction related to two-dimensional art materials (i.e. drawing and painting materials) as they were most used in art therapy assessment. Based on the analysis, twelve of the initial fourteen categories of material interaction were further specified (see Table 1). The category ‘handling the art product’ was not seen as strictly ‘material interaction’. The participants associated the category ‘intensity’ with a client material experiences during art making. Even though they found ‘intensity’ important in art therapy assessment, it was not a category of material interaction. Some categories were slightly adjusted: ‘contact’ became ‘physical contact’ and ‘line’ became ‘lining’.

Table 1: Final categories of material interaction

CATEGORY	CONTENT
Movement	Movement is described by the dimensions <i>size</i> (small or large motions), the <i>direction</i> of the movement (outwards or towards themselves) and the <i>type</i> of movement (curved or straight, vertical or horizontal).
Pressure	Pressure is described by the dimensions amount of physical <i>power</i> that is applied (light or strong) and by the amount of <i>focus</i> (alert and attentive or non-directed).
Grip	Grip refers to the way a client holds the materials/ tools. This can be loose or firm from the wrist and fingers.
Structure	Structure refers to the way a client organizes his actions and art product. Structure is described by the dimension amount of <i>organisation</i> (well-organized, systematic, thoughtful or chaotic, impulsive). Also by the dimension <i>activity</i> (passive, coincidentally or active, initiating).
Tempo	The tempo of the action is described by the dimension <i>speed</i> (slow or fast).
Physical contact	Physical contact refers to the contact that fingers and hands make with art materials (to smear, squeeze, rub). It is described by the dimension <i>extensiveness</i> of physical contact (using the whole hand or more or using no fingers, or just the fingertips). Physical contact can be avoided, but can also lead to withdraw or increase.

table continues

CATEGORY	CONTENT
Rhythm	Rhythm of the action refers to the time aspect. It is described by the dimension <i>continuity</i> (repetition or variety).
Space	Space refers to the amount of space the action takes, related to the size of canvas or paper and the amount of <i>material</i> that is used.
Lining	The action of art making can have a large or a small amount of lining, which is described by the dimension <i>type</i> of lines (sketching or outlining/contour).
Use of colour	The use of colours refers to the amount of <i>mixture</i> of colours during the art making (a lot of mixture (mixing until a brown mass), mixing nuances or no mixture (where colours are used separately)).
Shaping	Shaping refers to actions that lead to removing art materials and adding art materials in order to create shapes. It is described by the dimension <i>cumulation</i> (only add art material or add and remove repetitively). The <i>consistency</i> of shapes is another dimension.
Dialogue	This category refers to the amount of <i>exploration</i> : searching for acknowledging, using, experimenting and playing with art materials' properties

Organisation and interconnection of categories of material interaction

Through axial and selective coding, *two main categories* and *one core category* emerged (see Figure 1). The first main category concerned *physical expression*, which included the subcategories 'movement', 'rhythm', 'tempo', 'grip', 'pressure' and 'physical contact' as these were all directly related to physical action. This main category was conditional; without it, there was no material interaction. According to the participants the subcategories were always present during art making and showed a lot of interrelatedness. The second main category concerned *design expression*, and included the subcategories 'structure', 'lining', 'shaping' and 'use of colour'. According to the participants this main category was not conditional. The subcategories resulted from a combination of physical categories. They showed less overlap and could be observed separately. The category 'dialogue' – making use of art materials' properties – was the *core category* as it overarched the two main categories and interconnected all other categories. The participants stated that it provided information about the capability of the client to tune in and adjust to the art materials' properties. The amount of

dialogue was determined by physical, cognitive and affective characteristics of the client that led to different styles of material interaction.

According to the participants, material interaction led to an *art product*. Therefore, the formal elements of an art product such as 'line', 'shape', 'composition' and 'colour', reflected material interaction.

The participants agreed that all categories could only be understood in relationship to the *art materials'* properties. For example, 'lining' is very fitting to graphic materials, based on their properties, but not so obvious when using water paint.

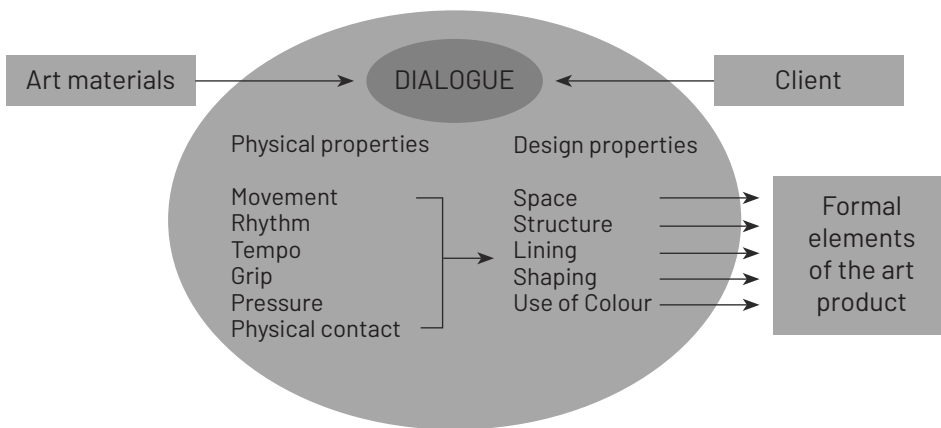


Figure 1: *material interaction*

Styles of material interaction

As the categories of material interaction were strongly interconnected, the combination of these categories formed a style of material interaction. Participants mentioned that observing these styles enabled a perspective on the level of rationalization and flexibility of the client and consequently the assessment of possible benefits of art therapy for the client.

Participants stated that even though the style of material interaction varied between individual clients, most clients demonstrated a tendency for either a *rational* or *affective* style of material interaction. Therefore styles of material interaction could be placed on a continuum from extreme rational to extreme affective material interaction.

According to the participants, clients who showed a more rational style of material interaction tended to have a high need for control; were often

very conscious and thoughtful of what they were making; were often precise with perfectionistic focusing on the final result of the art product and had difficulty recognizing, experiencing and expressing emotions or tried to avoid them.

Clients who showed an affective style of material interaction could easily become overwhelmed by emotions, had difficulties in regulating emotions and structuring their impulses and might have had difficulties with regard to boundaries.

According to the participants, the clients' style of material interaction indicated the way they organized their lives. Most often they seemed to be stuck in a certain way of doing this. As art therapy assessment focuses on doing and experiencing, rather than thinking, it provides information about the client's flexibility to explore and change their emotional and behavioural palette. Because the style of material interaction reflected the way clients organized their life, observing this style enabled the art therapist to decide whether to offer further art therapy or not, to formulate treatment goals and to choose art materials with properties that met the treatment goals. Results of our previous study of Péntzes et al. (2014) and this focus group study indicated that material interaction could provide valuable information in art therapy assessment and that material interaction was reflected by formal elements of the art product. However, it is not clear which elements reflect which categories of material interaction and which information about the client this provides. Therefore, we conduct a third study to examine the relationship between the formal elements of art products, material interaction and clients' characteristics more precisely.

STUDY 3

The aim of the third study is to verify the assumption of a relationship between the formal elements of the art product, material interaction and the client's psychological characteristics. This relationship could mean that the art product is a valuable source in art therapy assessment.

Method

Participants

Four art therapists from different backgrounds were included in a small

focus group. Three of them also participated in Study 2.

Procedure

The participants were asked to sequentially analyse three photographed art products of three clients. All products were made in one of the first art therapy assessment sessions. Table 2 shows case descriptions provided by the clients’ art therapists based on the descriptive diagnosis of the principal psychologist or psychiatrist.

Table 2: case-descriptions

Case 1	Case 2	Case 3
<i>Descriptive diagnosis</i>		
The cliënt is a 37-year-old man with depressive complaints. He is a widower and father of a six year old twin girls. He has a new partner since a year. Depressive complaints started after the pregnancy of his first partner. His childhood and yought were already marked by adjustment and perfectionism. After the birth of the twins, he worked part-time as his wife wanted to work full-time. During this period there was a lot of tension in the relationship and eventually he wanted to divorce. At the same time, his wife got sick and died after a long sickbed in which he took care of her 24/7 with no or little support of friends and family. He seems very kind and friendly, but also tensed and insecure. Beneath this kindness, there is underlying anger about the course of his life.	The client is a 50-year-old female lawyer. She started treatment with a psychotherapist after a burnout. The client had difficulties with trust and when she eventually opened up in the therapy, the therapist got sick and died. She was very shocked and had difficulties dealing with this loss. This intense reaction was explained by the fact that she never learned to feel and express emotions. As a child she learned to be strong, work hard and avoid emotions. She could see clearly that the emotions triggered by the loss of this therapist had more to do with her difficulty to feel and express emotions.	The client is a 26-year-old woman. She already had a long history of psychological treatment in which she was diagnosed with Borderline Personality Disorder, drug addiction and ADHD. As a child she was sexually abused at home. Relationships in her adult life, including a marriage at 19, were problematic and characterized by violence and abuse. She started working at an early age but is not able to keep jobs due to difficulties in her social contact. She is verbally aggressive and has boundaries issues.

table continues

Case 1	Case 2	Case 3
<i>Observation of material interaction during art therapy assessment</i>		
The client has a strong need for security, clarity, structure and control. He is insecure and does not rely on his own judgement. Instead he seems to rely more on a benchmark outside of himself; he draws from example and even tries to make it prettier. He is perfectionistic, works slowly and organized. He focusses on shapes by outlining them. He tries to control the art materials using ink like a pencil. He works from the wrist. There seems to be little space to play with and make use of the art materials. By trying to control he creates a paradox; instead of creating a sense of control he creates distance from his own feeling and needs leading to more tension.	The client is very tensed. She distances herself from the therapist by talking a lot. She is reserved in what she presents in her art and how the therapist might "judge" that. She wants to please the therapist and tunes into expectations. She has difficulties contacting and expressing her own feelings. During art making she either uses forms that represent her emotions, ideas or thoughts or immerses so deeply in the art making that she loses contact with her emotions. In these cases she gets overwhelmed and does not remember that she made some of these art products.	The client is verbally and physically very present. Yet, during art making she withdraws, not making contact with the art materials and therapist. She thinks she is not "creative", revealing low self-esteem. She has a high need for grip and control; tries to create a structure which she tries to hold on to rigidly. However, she loses control/ structure during art making. She is incapable of using the art material properties, has no adequate problem-solving skills and gets frustrated when things go different from what she expects. She tends to externalise.
<i>Treatment goals in art therapy</i>		
- Letting go of control - Making space for attuning to and make use of the art materials - Focusing on doing instead of rationalizing - Making contact with feelings - Making decisions based on own opinion and need - Paying attention to the qualities and strengths such as being attentive and caring	- Reducing the fear to present herself and being judged - Allowing herself to feel and express her emotions in a constructive way based on own needs. - Find a balance between ratio and expressing emotions.	- Taking responsibility to finish an art product - Dealing with challenges in art making by looking at other possibilities of the art material - Trusting and accepting own art making skills

The participants received information about the size of the original art product, the used art materials and that the client received minimal instruction by the art therapist. Each case was discussed separately and the participants were asked to discuss (in this order): 1) what formal elements they could observe, 2) how they thought the client made the art product (the material interaction), 3) what this information told them about the client's psychological characteristics and 4) which information was important in art therapy assessment.

They did not receive a list of formal elements or the categories of material interaction, as we wanted to examine how the participants answered these questions based on their own perspective. The answers to these questions were analysed and compared with the information in Table 2.

Results

The four participants used the following formal elements in describing all three art products: style, shape, line, colour, rhythm and dynamic (see Table 3). 'Used space', 'suggestion of space' and 'front/background' were mentioned twice.

Based on the observation of the formal elements the participants were able to deduce the clients' material interaction in line with the categories of material interaction as developed in Study 2 (see Table 1). No input was given that could be related to the category 'grip', probably because 'grip' is hard to determine based on formal elements. Only Case 2 provided input that could be related to the category 'physical contact', probably because this was very prominent in this art product. The categories 'tempo', 'rhythm' and 'space' were mentioned in Case 1 and 2. All other categories of material interaction were related to the participants' descriptions of all three cases. The descriptions of material interaction show great overlap with the description of the art therapists of the clients in Table 2.

Based on the material interaction the participants could describe the clients' rational and affective characteristics. Even though the descriptions of the art therapists in this study were not as extensive as the descriptions in Table 2, the key elements were mentioned. According to the participants, to observe a client's dialogue with the art materials' properties was important to gain insight in a client's flexibility.

Table 3: Analysis of inter-relatedness of formal elements, material interaction and clients' characteristics

Case and Art product	Formal elements	Categories of Material interaction	Client characteristics
1 	Style Figurative, realistic painting. Shape Both pictorial shapes and lines, outlines are prominent. The tree branch is interrupted. The painting shows detail, especially in the flowers. Line Line quality varies; some are sketchy, mainly fluent Colour Ink is used; there is relatively little mixing of colours. In the tree branch colour is mixed with water, causing different shades of colour. Colours are idiosyncratic Colour saturation varies More than 4 colours are used Front/background There is no background Suggestion of space The image shows some perspective by using light-dark contrasts	Movement Controlled and small movements Cautious, attentive, normative "Investing" in the product Pressure No pressure is used Structure Probably used an example, added with own normative use of forms. Started drawing, filled in and then outlined the shapes. The interrupted branch looks somewhat clumsy Making it as beautiful as possible Tempo Slow Grip - Physical contact -	Affective Sensitive Attentive Rational From his or her head, need for control and structure. Perfectionist. Flexibility Some flexibility, which is beneficial to therapy process.

table continues

Case and Art product	Formal elements	Categories of Material interaction	Client characteristics
	Rhythm The painting shows some rhythm by the repetition of shapes Dynamic The image remains within the boundaries of the paper. Even though the composition is diagonal, the painting is not very dynamic Used space The whole paper is used, yet there is still a lot of “unworked” paper	Rhythm Repetitive use of movements and elements contributes to structure Space Uses the whole (small size) paper that is, does not cover it; there is a lot of plain area Lining Outlines first, fills in and outlines again Use of colour Not all lot of mixture of colours; the colours are used separately Shaping Reinforces the shapes by outlining. Perfectionistic and using details Dialogue Tries to maintain and control the fluid ink in order to paint the picture in his or her head. Yet, the material is used in different ways, not rigid	

table continues

Case and Art product	Formal elements	Categories of Material interaction	Client characteristics
2 	Style Abstract, organic drawing Shape Closed and outlined circle Symbolic use/ yin-yang Finger-marks Line Linear. Line quality shows sharp ends indicating fast lines Colour Prominent dark colour of the charcoal, causing light-dark contrast Suggestion of space Unintended by the use of layers Rhythm Repetition of lines Dynamic Dynamic within the central circle, not outside Used space The size of the paper is used, but the images remains within the boundaries of the paper	Movement Fluent, without many stops. Large movements, worked standing. With courage, dynamic, intense, expressive but internal oriented Pressure A lot of pressure Structure Started from an idea and then got lost in the act Tempo Fast Grip - Physical contact Physical effort Using hands and fingers to rub out Rhythm Repetition of lines Space Everything remains within the circle	Affective The intensity makes the therapists worry, because the client seems to get overwhelmed in her expression, which indicates difficulties in regulating emotions. Rational She works hard, is active. Seems to have started with symbolic meaning but gets overwhelmed during making. Flexibility Wants to explore, but is closed at the same time. Keeping distance, keeping it in.

table continues

Case and Art product	Formal elements	Categories of Material interaction	Client characteristics
		Lining Many fast lines Use of colour Colour seems intentional, but the black overrules Shaping Expressive Shape seems to be inferior Dialogue Makes use of the material, but is not in contact with the material; seems to get overwhelmed.	

table continues

Case and Art product	Formal elements	Categories of Material interaction	Client characteristics
3 	Style Abstract Shape Central composition, using a circle Line Linear and pictorial symmetry, but not completely Line Pencil lines are straight Faction of the aquarelle pencils is visible Outlining in the centre Colour Two soft colours that are minimally mixed Front/background Floating (no background) Rhythm Regularity versus irregularity Dynamic Static but restless/ dynamic	Movement Her movement goes in all directions; does not follow the direction of the shapes Pressure A lot of pressure Structure Some intentionality (use of drafting compass and ruler) that did not succeed Worked with a pattern that was not quit correct Started with some sort of structure but this got lost, Struggle to regain structure Tempo/ Grip/ Physical contact/ Rhythm/ Space - Lining Using a patterns of lines, outlining in the centre Use of colour The colour was mixed with large amount of water	Affective Difficulties with boundaries. Restless, unrestrained. Someone who looses herself. Rational Need for control versus lost of control (of emotions) Need for structure, but unable to create it. Affective versus rational Extreme polarities in both emotional and rational characteristics.

table continues

Case and Art product	Formal elements	Categories of Material interaction	Client characteristics
		Shaping Failing at trying to shape Dialogue Is overwhelmed by the art material, struggling	

table continues

DISCUSSION

In the first study, a large number of art therapists with different backgrounds have recognized material interaction as an important source of information in art therapy assessment of adult clients. This finding is in line with our previous study (Pénzes et al., 2014) and has given input to refine the categories of material interaction.

In the second study, art therapists have theorized the categories of material interaction in terms of dimensions of observable behaviour. Combinations of these categories reveal styles of material interaction. These styles can be placed on a continuum from rational to affective. Observing a client's style of material interaction is linked to the level of rationalization and flexibility as psychological characteristics of the client. This is in line with the Expressive Therapies Continuum (ETC) (Hinz, 2009). A strength of the ETC is that it theorises that clients' art material preferences and the way clients form images reveal overused or blocked ways of either cognitive or emotional styles of information processing. The style of information processing is linked to psychological behaviour, thinking and feeling in daily life: 'Clients then reveal, through the creative process and the art expression, central facts about their preferred style of operating in the world.' (Hinz, 2009, p.194). This is in line with the results of this research that also links the art materials, art making and psychological functioning of clients. A limitation of the ETC might be that it is based on the experiences of only three therapists. However, a large number of art therapists in this study recognize this link between art making and psychological functioning. This link is also made by Smeijsters' theory of analogy (2008a, 2008b, 2008c, 2012). This theory states that a person's 'core-self' (Damasio, 2003, 2010) influences psychological functioning on a non-cognitive and non-verbal level. This 'core-self' consists of patterns of vitality affects (Stern, 2010). Vitality affects are time-based patterns of feelings that are analogous (identical) to the patterns of making art. This implies that observation of a client's way of making art reveals aspects of a client's 'core-self' that influences a client's psychological functioning in daily life. A well-functioning person has access to both 'rational' as 'affective' aspects in adapting to daily life challenges and coping with stress in appropriate ways (Antonovsky, 1997; Hinz, 2009; Vossler, 2012). In line with the theory of analogy (Smeijsters, 2008a, 2008b, 2008c, 2012) this flexibility in adapting to daily life challenges is analogous to the material interaction. Assessing

a client's style of material interaction indicates if a client is flexible in using both rational and affective aspects in adapting to the intrinsic properties of the art materials being used. When a person overuses either a rational or affective style and shows limited flexibility in material interaction, this person might have difficulties in coping with and adapting to daily life challenges. Art materials can be placed on a continuum from high to low structure; materials such as pencils have intrinsic structure and evoke more rational responses whereas fluid materials such as ink have no intrinsic structure and evoke more affective responses (Hinz, 2009; Hyland Moon, 2010; Malchiodi, 2012). There for, assessing material interaction gives the art therapist direction for choosing the appropriate art materials to improve flexibility in thought, emotion and behaviour. Clients who demonstrate a more rational style of material interaction can be offered art materials that gradually evoke more affective responses to achieve a balanced psychological functioning and vice versa; offering art materials that evoke more rational responses to clients who demonstrate a more affective style of material interaction. Offering alternative strategies opens up the possibility to integrate both rational as affective aspects and impart appreciation for already achieved skills; i.e. knowing in which situations and contexts familiar strategies are adequate and how they can be applied and experienced as a client's strength. This might enhance a client's resilience in adapting to daily life challenges and cope with stress in appropriate ways. As this might differ between clients individually, art therapy offers the opportunity to tune into clients' specific needs in treatment.

The results of study 3 show that art therapists are able to describe clients' material interaction and psychological characteristics based on the analysis of the formal elements of the clients' art product. Connecting the material interaction (art making process) and formal elements (art product) bridges the diverse perspectives of art therapy assessment and contributes to the on-going discussion about art therapy assessment (Gilroy, Tipple & Brown, 2012).

Methodological considerations

Despite the efforts to meet the criteria of "trustworthiness" of this research there are limitations.

The art therapists in study three have mentioned that they would have preferred the original art products. Also, only one art product of each client has been analysed. All though the art therapists are perfectly able to

deduce the clients' material interaction and psychological characteristics, some information is not described. This leads to the assumption that one art product might be too limited in art therapy assessment. The participating art therapists were very experienced. This raises the question if novel art therapists are able to deduce the same information about a client as well.

Implications for practice and further research

The findings of this study provide a preliminary theoretical base of art therapy assessment. Results indicate that observing the material interaction as well as the art product are both important to gain information on the aspects of the client's psychological functioning. This theoretical base draws on the perspectives of art therapists and is only limited connected to other existing theories. Future research should address how these findings relate to a broader theoretical context to address the question *if, how and why* observing material interaction and the art product enables art therapists to gain perspective on the clients' psychological characteristics that may influence their daily functioning, decide whether to offer further art therapy, formulate adequate treatment goals and choose appropriate art materials that ameliorate clients' mental health. Answers to these questions might enhance the position of art therapy assessment in adult mental health.

The findings of this study indicate that having knowledge and experience of the possibilities and restrictions of the whole range of art materials are conditional for art therapists to give meaning to clients' material interaction. This implies that art therapists should maintain and elaborate their skills and knowledge of art materials. Future research that investigates the systematic application of art materials in art therapy assessment might have a catalysing role in this.

CHAPTER 4. How art therapists observe mental health using formal elements in art products: structure and variation as indicators for balance and adaptability

Pénzes, I., Hooren, S. van, Dokter, D., & Hutschemaekers, G. (2018). How art therapists observe mental health using formal elements in art products: structure and variation as indicators for balance and adaptability. *Frontiers in Psychology/ Clinical and Health Psychology*. doi.org/10.3389/fpsyg.2018.01611

ABSTRACT

In clinical practice, formal elements of art products are regularly used in art therapy observation to obtain insight into clients' mental health and provide directions for further treatment. Due to the diversity of formal elements used in existing studies and the inconsistency in the interpretation, it is unclear which formal elements contribute to insight into clients' mental health. In this qualitative study using Constructivist Grounded Theory, eight art therapists were interviewed in-depth to identify which formal elements they observe, how they describe mental health and how they associate formal elements with mental health. Findings of this study show that art therapists in this study observe the combination of movement, dynamic, contour and repetition (i.e. primary formal elements) with mixture of color, figuration and color saturation (i.e. secondary formal elements). Primary and secondary elements interacting together construct the structure and variation of the art product. Art therapists rarely interpret these formal elements in terms of symptoms or diagnosis. Instead, they use concepts such as balance and adaptability (i.e. self-management, openness, flexibility, and creativity). They associate balance, specifically being out of balance, with the severity of the clients' problem and adaptability with clients' strengths and resources. In the conclusion of the article we discuss the findings' implications for practice and further research.

INTRODUCTION

Formal elements of art products such as line, color and shape are often used in art therapy observation in youth as well as adult mental health care. The art therapists' underlying assumption seems to be that formal elements reflect clients' mental health problems (e.g. Cohen et al., 1986; Conrad et al., 2011; Gannt & Tabone, 1998; Hacking, 1999; Schoch, Ostermann & Gruber, 2017). Observing formal elements could thus be used by art therapists to formulate their perspective on clients' functioning, strengths and challenges and support their contribution to the descriptive diagnosis. This could help the art therapist to decide whether art therapy and which art interventions may be beneficial. This interest in the use of formal elements is reflected in a large number of studies (e.g. Betts, 2005, 2006; Stuhler-Bauer & Elbing, 2003; Elbing & Hacking, 2001; Eytan & Elkis-Abuhoff, 2013; Kim et al., 2012; Mattson, 2009; Thyme et al., 2013). These studies, however, demonstrate a wide range of opinions concerning which formal elements are relevant and how they are described and interpreted in art therapy observation and assessment. Also, prior studies used a different number of formal elements. In the Diagnostic Drawing Series (DDS) (Cohen, 1986, 1994; Cohen et al., 1986) twenty-two formal elements are included. In the Formal Art Therapy Scale (FEATS) (Gannt & Tabone, 1998) fourteen formal elements are incorporated, in the Descriptive Assessment of Psychiatric Art (DAPA) (Hacking, 1999) five categories, and in the Nürtinger Rating Scale (NRS) (Stuhler-Bauer & Elbing, 2003; Elbing & Hacking, 2001) four categories of twenty-four formal elements. Even if similarities in these formal elements can be recognized, the way they are described differs largely. For example, regarding line some emphasize the quality of the line (Gannt & Tabone, 1998), whereas others emphasize the presence of line versus the absence of line (Cohen et al., 1986). Regarding color, the intensity of color is included in the DAPA (Hacking, 1999), whereas others include the mixture of color (Cohen et al., 1986). Additionally, diversity can be recognized in the methods used to observe and assess the formal elements. In some studies, open observation of formal elements is used to inquire into an in-depth understanding of the individual client (Pénzes et al., 2015; Stuhler-Bauer & Elbing, 2003; Thyme et al., 2013, McNiff in Gilroy et al., 2012). In other studies, specific assessment methods are used such as the DDS, in which an art therapist assesses three drawings that are made with colored pastels according to three different tasks, or the FEATS, in which a drawing made with markers is assessed.

The same kind of diversity is seen in the way formal elements are interpreted. In previous studies, formal elements are related to distinctive psychological features. In most studies, formal elements are related to disorders of the Diagnostic and Statistical Manual of Mental Disorders (DSM) or the International Statistical Classification of Diseases and Related Health Problems (ICD) (Gantt & Tabone, 1998; Hacking, 1999; Cohen et al., 1986; Kim et al., 2014). Whereas in more recent studies formal elements are related to clients' strengths (Hinz, 2009, 2015; Péntzes et al., 2014, 2015) in line with perspectives on positive mental health (Huber, et al., 2016) and recovery (Anthony, 1993). These perspectives have found their way into art therapy observation and assessment (Betts in Gilroy et al., 2012; Wilkinson & Chilton, 2013).

Thus, until now, literature has been far from consistent in presenting tools or suggestions directed towards the clinical use of formal elements in art therapy observation and assessment. Despite this ambiguous evidence, formal elements are very often used in clinical practice. Art therapists use existing art therapy assessment instruments in their own way, frequently developing their own assessment methods with their own favorite formal elements (Claessens et al., 2016). It is however unclear which formal elements art therapists find relevant in their clinical practice, how they observe and interpret them, and how art therapists relate formal elements to mental health. In this study, we will systematically investigate these aspects by interviewing art therapists with many years of experience in clinical practice. If indeed art therapists in clinical practice use formal elements in a consistent way, the outcomes of the present study may contribute to the 'body of knowledge' regarding if and how formal elements can be used in art therapy observation and assessment to estimate clients' mental health, and direct further treatment.

MATERIALS AND METHODS

In this study, we used Constructivist Grounded Theory (Charmaz, 2014). This qualitative approach inductively generates theory grounded in empirical data. Data was gathered through interviews with eight very experienced art therapists and analyzed by initial, focused and theoretical coding principles of qualitative analysis (Charmaz, 2014). See Figure 1.

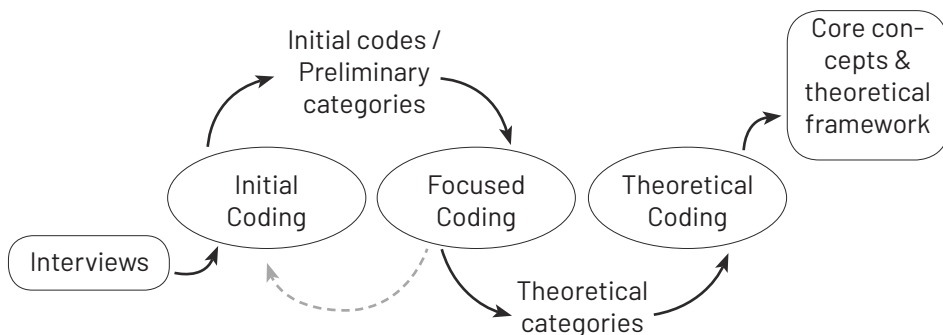


Figure 1. The research process

Participants

In total eight art therapists were purposely selected from the existing professional network of a research center of arts therapies in the Netherlands (<http://www.kenvak.nl/en/>). Participating art therapists were women with 15- >25 years experience with different populations and settings in adult mental health care. Based on the principle of theoretical sampling (Charmaz, 2014; Corbin & Strauss, 2008) they had different nationalities (Dutch, USA and UK), diverse training backgrounds and art therapy perspectives. This diversity provided a critical exploration and variation of the concepts investigated in this study. All art therapists gave written informed consent in accordance with the Declaration of Helsinki.

Data collection

Art products

The participating art therapists were asked to observe six art products of five clients with diverse mental health issues (see Table 4). Two art products (3 and 6) were made by one client. The art products were randomly selected from a larger sample of 138 products made by 48 clients of 11 art therapists. All clients gave written informed consent in accordance with the Declaration of Helsinki. All three paintings were made with acrylic paint on paper (size: 50 x 40 cm.) over a period of three weeks. For the first and second painting, the clients received standardized instructions to paint a landscape; for the third painting clients were asked to create a painting without instruction. For all paintings, clients received the same paint, color palette, brushes and

pencils. The sampled clients had just started treatment in art therapy in a range of mental health settings. In this stage of treatment it is common in the Netherlands that the head of treatment (usually a psychologist or psychiatrist) formulates a preliminary DSM-diagnosis that might change during the course of assessment. Art therapists do not formulate a DSM-diagnosis. In a later phase they formulate an art therapy diagnosis and contribute to a general descriptive diagnosis.

Interviews

The art therapists were interviewed using “intensive interviews” (Charmaz, 2014). The aim of these interviews was to explore in detail which formal elements the art therapists observed and how they described mental health. In particular how exactly they related formal elements to what aspects of mental health. The first six interviews took place in the work setting of the art therapist. Interview seven and eight were conducted on Skype. All interviews were videotaped. During the live interviews the art products were spread out randomly. During the Skype interviews the art products were discussed in numerical order. The interviews were conducted with an interview guide based on the research questions of this study. First, every art therapist was asked to look at the art products separately, describe the formal elements and describe the first impression she gained about the client. Second, more general questions were asked about how she would define the concept of mental health. Finally, every art therapist was asked how she would relate the formal elements of the art product to various aspects of mental health.

This guide was used as a flexible structure to ensure detailed exploration of the art therapists’ view on formal elements of the art product, mental health and the interrelatedness of formal elements and mental health. Open and investigative questions (Charmaz, 2014) were asked to pinpoint these relationships in order to gain an understanding of the diagnostic value of formal elements of art products in art therapy observation; which formal elements *exactly* are important and how are they related to *exactly* which aspects of clients’ mental health?

Data analysis

Initial coding

After full transcription of the interviews, text fragments were organized according to the topics of the interview guide. These topics, (1) formal elements, (2) mental health and (3) relationship between formal elements and mental health, were used as 'sensitizing concepts' (Charmaz, 2014). First, incident-by-incident coding took place; within each interview, each art product separately was analyzed. This analysis resulted in a set of codes.

Focused coding

In the next stage these initial codes were further categorized by comparative analysis (see dotted line in Figure 1); input of all therapists and over all art products were compared and preliminary categories emerged. Codes about which most therapists agreed or that had similarities were clustered into theoretical codes regarding the formal elements, mental health and their interrelatedness. Based on the initial codes, these categories were described. Within the coding process, it became clear that some of these categories, such as several formal elements, were mentioned by almost all therapists about every art product; these became main theoretical categories. Some other categories were mentioned less often; these became sub theoretical categories. In this stage, a first perspective emerged on how the formal elements of the art product were related to mental health.

Theoretical coding

Theoretical coding conceptualized the interrelatedness between the categories. Comparative analysis over the eight interviews supported synthesizing and organizing the links between the theoretical categories. Within this process some of the main theoretical categories were merged into core concepts. For example, the primary and secondary formal elements (see Figure 2) became main categories under the core concept "structure". Of others, it became clear that they were related -but separated- main theoretical categories, such as flexibility and creativity under the core concept of "adaptability". This led to a theoretical framework, conceptualizing the relatedness between sub- and main categories and core concepts. All were defined in detail.

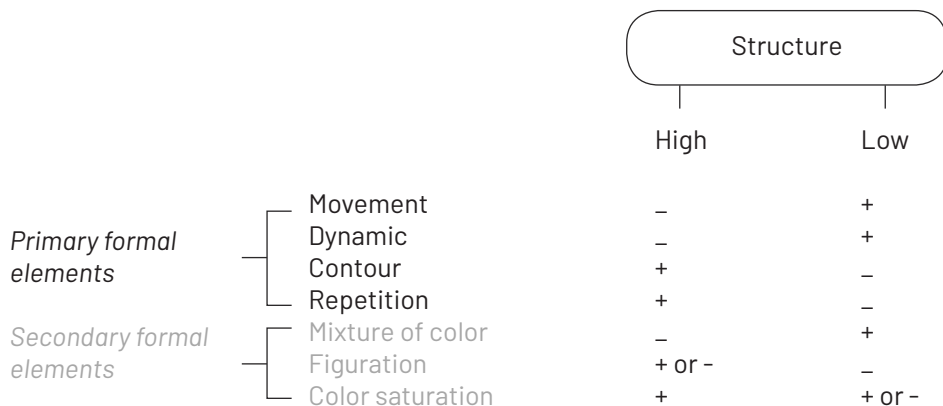


Figure 2. Combinations of formal elements determining the amount of structure

Quality

The whole process of analysis was peer debriefed to ensure that the codes, categories and concepts fit the data. The results of analysis were member checked with all art therapists on two occasions: (1) after initial coding; no additions or changes were made and (2) after focused coding; the art therapists gave some refinements and elaborations that were incorporated into the analysis.

RESULTS

Formal elements

Initial coding showed that art therapists used a variety of words (codes) related to the formal elements of the art products. Focused coding clustered these codes into seven categories (see Table 1). The formal elements "movement", "dynamic", "contour", and "repetition" were mentioned most frequently. "Mixture of color", "color saturation" and "figuration" were only mentioned by the art therapists when the element was dominantly present or absent within the art product.

Table 1: Description and illustration of formal elements. (T= Therapist, AP= Art Product)

Categories	Illustration by quotes and frequently used words	Description
Formal elements		
Movement	T2 (AP2): <i>"The movement is longer, fluent, continued and fairly monotonous."</i> (AP 5): <i>"Coarse, pretty fast and short movements."</i> Words with regard to the (1) amount: <i>a lot, little, more, less</i> , (2) character: <i>compact, short, long, round, straight, fluent, sketchy, small, large</i> and (3) Direction: <i>upward, horizontal, vertical, diagonal</i>	Movement refers to the amount, character and direction of the movement. Movement becomes visible by the brush marks.
Dynamic	T1(AP5): <i>"There is a lot going on, it is very energetic and forceful. And at the same time it is somehow contained. By looking at the line and effect it, consciously or unconsciously, stopped."</i> T4 (AP 4): <i>"I find this art product very turbulent. There is a lot of dynamic which gives me a restless impression."</i> Words with regard to (1) A lot of dynamic: <i>lively, busy, forceful, energetic, powerful, turbulent</i> , and (2) Less dynamic: <i>static, rippling, reserved, contained, restrained, calm, timid</i>	Dynamic refers to tension (tectonic) within the art product. Dynamic varies between static, restrained and calm and fast, turbulent, energetic and forceful. It refers to the vitality of the movement made.
Contour	T8 (AP1): <i>"No fluidity, absolutely boxed-off; rigid distinctions, no overlapping, and more over; he keeps them [colors] very separate."</i> T5 (AP2): <i>"In this case, the structure consists of the combination of movement and contour [...]."</i> Words with regard to (1) A lot of contour: <i>delimitation, line marking, outline, blocks of colors, boxed off, rigid distinctions, sharp, straight lines</i> , and (2) Less contour: <i>fluent, overlap, impressionistic, pictorial, diffuse, loosely</i>	Contour refers to the delimitation that emerges when shapes are outlined or are placed straight next to each other. This leads to rigid distinctions.

table continues

Categories	Illustration by quotes and frequently used words	Description
Repetition	T4 (AP1): <i>"The repeated pattern of colors."</i> (AP6): <i>"There is rhythm by the twist of the brush that is repeated throughout the art product."</i> Words with regard to (1) the presence of repetition: <i>symmetry, mirroring, rhythm in movement, constancy, the same, pattern,</i> and (2) Absence of repetition: <i>no repetition</i>	Repetition refers to the return of one or more formal elements in a pattern. A high amount of repetition leads to symmetry. Rhythm refers to the repetition of movement.
Mixture of color	T8 (AP1): <i>"He is not mixing the colors, he is not playing with them, out of the bottle."</i> Words with regard to (1) A lot of mixture: <i>mixed, tone, mix on palette/ paper, hue,</i> and (2) Absence of mixture: <i>straight from the bottle, separate, distinct, pure</i>	Mixture of color refers to the amount in which the colors are mixed within the art product.
Color saturation	T3 (AP4): <i>"The colors are not completely saturated"</i>. Words with regard to (1) High saturation: <i>covered, thick, impasto, opaque, filled in/up, texture, globs, dense,</i> and (2) Low saturation: <i>thin, dry, transparent, not covered, not filled, paper comes through</i>	Color saturation refers to the density of color within the art product varying between transparent and impasto.
Figuration	T6 (AP3): <i>"There is tried to make an actual image, positioning a tree in the foreground."</i> Words with regard to (1) Presence of figuration: <i>figure, background, realistic, figurative, image, naturalistic, use of semantic color,</i> and (2) Absence of figuration: <i>abstract, basic, unrecognizable</i>	Figuration within the art product exists when there is tried to make a figurative or realistic image. Semantic use of color enhances figuration. Absence of figuration results in an abstract art product.
		
Structure	T8 (AP4): <i>"There is organization, structure, absolutely. Painting the mountain and than the buildings."</i>	Structure refers to the way the art product is constructed and varies between clearly high and low structured.

table continues

Categories	Illustration by quotes and frequently used words	Description
	Related words: Gestalt, Overall Character Words with regard to (1) High structure: <i>organized, planned, sequence, layered, clear construction, controlled</i>, and (2) Low structure: <i>chaotic, unorganized, no structure, uncontrolled</i>	A highly structured art product is characterized as organized and planned. An art product with low or no structure is characterized as chaotic.
Variation	T2 (AP4): <i>"I see diverse movements; long, short, bended and different ways of using the paint; dry and wet. There is diversity and intention in this product."</i> Words with regard to (1) Presence of variation: <i>diversity, differences, nuances, variety, divergence, differentiation, play</i>, and (2) Absence of variation: <i>no variation, limited, uniform, regular, equal, monotonous</i>	Variation refers to the diversity that can be recognized in one or more formal elements within the art product.

Structure and variation

The art therapists stated that formal elements might enhance or weaken each other and that *the combination* determined the “structure” of the art product (see Table 1). Structure varied between very high and very low structured.

Therapist 6: “I look for presence or absence of formal elements; which ones dominate? And how are they connected; the interplay determines the character of the art product.”

Therapist 5: “The structure of the art product consists of the interconnectedness of several formal elements and is indicative for how stuck a person is, how much space there is for change and that influences treatment.”

Focused and theoretical coding of all art products showed that highly structured art products consisted of the presence of “contour” and “repetition” (shown as “+” in Figure 2) in combination with the absence of “movement” and “dynamic” (shown as “-” in Figure 2). Absence of “mixture of

color" and presence of "color saturation" enhanced the amount of structure. "Figuration" contributed sometimes to a highly structured product (e.g. art product 3), at other times not (e.g. art product 1).

Low structured art products consisted of the presence of "movement" and "dynamic" in combination with the absence of "contour" and "repetition". Low structure was further weakened by the presence of "mixture of color" and absence of "figuration". "Color saturation" contributed sometimes to a low structured art product (e.g. art product 5), at other times not (e.g. art product 1 or 2).

The presence or absence of "movement", "dynamic", "contour" and "repetition" determined the structure of the art product. These formal elements were mentioned most frequently. "Mixture of color", "figuration" and "color saturation" reinforced or weakened this structure. To indicate the conciseness of "movement", "dynamic", "contour" and "repetition" in comparison with the other formal elements, the distinction between "primary" and "secondary" formal elements was introduced (see Figure 2).

How formal elements are combined and how strongly they are present appeared to determine the amount of structure art therapists perceived in the art product. The more dominant a formal element was present or absent, the more *clear* the structure of the art product was high or low.

The art therapists were in agreement about clearly structured art products. The dominant present or absent formal elements were consistently mentioned first. The art therapists were less consistent about art products that were less clearly structured. It seemed as if the art therapists hesitated and needed more time describing the formal elements. This was for example the case with art product 6 (see Table 4) that showed high structure but was far less structured than art product 1:

Therapist 2: "Somehow the others [art products] are more clear to me, here nothing jumps out. It is all the same, just the color is a bit different, and nothing is placed in the foreground. Those flowers feel a bit strange. It is not connected somehow."

Therapist 5: "It has something threatening, almost as if it comes rolling towards me. It is a mountain, but it rolls in my direction. Probably accidentally painted in this manner...sort of.... I don't know...there are actually just four shapes with a cloud and some dots. Kind of duality, contradiction within the art product."

Also, clear high or low structured art products demonstrated less *variation*. Variation emerged as a core concept by clustering categories related to the diversity within the art product (see Table 1). Variation existed when a range of formal elements was present or when there was diversity within one or more formal elements (e.g. diversity in movement by the presence of short and long, bended and straight lines). All therapists mentioned the amount of variation in each art product explicitly.

Therapist 8: About art product 1: "There is little variation; no mixing of colors, not playing with them, out of the bottle and more over he keeps them very separate. Lines are repetitive, no fluidity, absolutely boxed-off, rigid distinctions, no overlapping, juncture position of colors."

Mental health

Anyone who expects that art therapists in these interviews used diagnostic terms such as depression and anxiety disorder in order to describe mental health will be disappointed. Art therapists were exceptionally reserved in using these terms and did not explicitly relate art products to psychopathology. However, art therapists did consider the art product as an important basis for clients' mental state and consequently the possibilities and focus for treatment. Clients' possibilities were mentioned more explicitly than their mental problems.

Clients' mental state: balance

The art products provided cues to the art therapists about the clients' inner world. They seemed to use an implicit conceptual model about the client's balance. To describe this, they used a variety of terms. Most of them were related to "feeling" or "thought" (see Table 2).

Table 2: Balance: Feeling and thought. (T= Therapist, AP= Art Product)

Category	Illustration by quote and frequently used words	Description
Feeling	T5 (Client 4): <i>"It is made very fast so I wonder if this client made this from a feeling or a memory? Does this client pay attention to how it felt to make this product? Does the client recognize to be in the "fast lane" often? So it is about feeling. I imagine this was made by a more disinhibited expressive person. It seems the client lost grip on itself a bit."</i> <i>Being overwhelmed, feeling, lost in emotions, affective, not in control of emotions, uncontrolled, under regulation of emotions</i>	Feeling refers to affects and emotions and the ability to allow experience and express these. Feeling can be differentiated between "impulsive expression" (physically acting on feeling) and "emotional expression" (allowing and experiencing feeling).
Thought	T2 (Client 1): <i>"The need to control, shape raised from an idea, it is planned, thoughtful, restrained."</i> <i>Ratio, cognitive, controlling emotions, need for predictability and structure, controlled, from the head, not feeling, analytical, thoughtful, over regulation of emotion, frantic, neurotic, planned.</i>	Thought refers to cognitions and cognitive processes that are related to cognitive control.

With regard to *feeling*, all therapists mentioned emotion regulation and nearly all therapists focused on the client’s potential to regulate emotions. Art therapists extracted cues about feelings and emotions from the art products. Sometimes they referred to positive emotions (happy, lively), more often to negative emotions (anger, sadness, fear). It was as if they scanned the art product for cues with regard to the content of the emotion as well as the intensity of expression. Art therapists differentiated between clients who tended to express impulsively, i.e. physical acted on feeling, and clients that tended to express emotional, i.e. allowing and experiencing feeling.

Therapists 5: "Well, here [art product 4] it is about expressing feeling by using variation in color and movement and it seems to be about a memory or a story, whereas here [art product 5] it seems to be just about expressing emotions in an impulsive, more physical manner."

Next, art therapists used words that could be related to *thought*. This category included thoughts, cognitions and cognitive processes such as planning, organizing, analyzing and structuring. Art therapists did not refer to the content of the cognitions but mostly to a continuum of cognitive control (see Table 2).

Balance existed when allowing, experiencing and expressing emotions and cognitive control were in proportion to each other. However, many clients showed themselves to be out of balance, either because of the high levels of emotion or because of the high levels of cognitive control.

Adaptability: towards more balance

Observation of a client’s tendency towards either “thought” or “feeling” enabled the art therapists to gain a perspective on clients’ actual balance. The art therapists stressed the importance to search for cues to estimate the client’s potential ability to achieve balance. This was related to clients’ “adaptability”. Adaptability was clustered into four categories; “self-management”, “flexibility”, “openness”, and “creativity” (see Table 3).

Table 3: Adaptability. (T= Therapist, AP= Art Product)

Category	Illustration by quote and frequently used words	Description
Self-man- agement	<i>T5: “Specifically that balance between emotion and ratio determines the ability to choose and self-determination. If someone only acts impulsive, that person is less able to decide.”</i> <i>Making choices, attention, self-determination, autonomy, identity, intention, position taking, and confidence.</i>	Self-management refers to the ability to choose. This requires the ability to distance and reflect, awareness of and paying attention to a present situation. Art therapists related self-management to self-determination, identity and autonomy.

table continues

Category	Illustration by quote and frequently used words	Description
Flexibility	T7: <i>"Someone that is mentally healthy is flexible: a person that is able and free to take in information through many means; body, mind and emotions, without blocks, obstacles and disconnections. Someone who is not mentally healthy is stuck in one way or not able to access or flexibly change between ways of processing."</i> <i>Tuning, interact, being able to switch in response style adequate to a given situation, being able to adjust, resilient, integration of cognition and emotion, navigate, responsiveness to the situation, versatile</i> Absence of adaptability: <i>rigid, stuck, blocked, fixed</i>	Flexibility refers to the client's range of possibilities to react to given challenges, tasks, persons or situations. This requires the ability to switch between cognitive control and allowing and expressing emotions. Therapists related flexibility to resiliency.
Openness	T5: <i>"Some sort of curiosity, openness, the ability to interact with the art material, to play with it, explore. Being open tells me something about the ability discover and learn."</i> <i>Taking diverse perspectives, trying something new, experimenting, openness, not seeing a mistake as a disaster, exploring, differ from the known and familiar, taking risk</i>	Openness refers to an attitude that allows taking diverse and new perspectives. It involves curiosity, risk taking, not seeing mistakes as a disaster and daring to experiment in unfamiliar situations.
Creativity	T1: <i>"When someone wants to change, that means he has to transform and move from A to B. That requires leaving what's familiar, expanding your horizon, facing and exploring the unknown."</i> <i>Discovering, unconventional, combining things into something novel.</i>	Creativity refers to the possibility to differ from the known and leave beaten paths in order to create something novel. Art therapists related creativity to problem-solving.

The combination of self-management, flexibility, openness and creativity determined clients' adaptability. Art therapists were less positive about the adaptability of clients who were observed as struggling with being flexible, open, self-managed and creative (see Table 4).

Therapist 7: "Persons that are willing in an unfamiliar situation, to put themselves out, willing to learn and make mistakes and learn from their mistakes shows me something about their prognosis in therapy. Being able to face this task and adapt, that tells me something about their ability to learn and adapt in real life and that is a good prognosis."

Art therapists in this study agreed that gaining a perspective on the client's balance and the presence of adaptability gave direction to the formulation of treatment goals (see Table 4).

Therapist 2: "When someone over regulates his emotions, tries to control them, treatment then is often focused on losing a bit of that control, being able to play, move and act and allow to feel. When someone under regulates his emotions, treatment is often focused on creating structure and calming down."

Table 4: Art therapists' observation of the art products and mental health

Art product, instruction and preliminary diagnosis by psychiatrist or psychologist	Art product		Mental health according to the art therapists in this study		Formulated focus and duration of treatment
	Combination of formal elements -> structure	Variation	(Im)balance	Adaptability	
 Art product 1 Instruction: Painting free choice with acrylic paint; third session Client 1: Female, age 48, panic disorder, eating disorder (bulimia), depressive disorder, personality disorder	All therapists mention and agree on the clear high structure; <i>contour</i> and <i>repetition</i> are dominant present; the lines are placed straight to each other and the colors are, almost symmetrical, repeated. Movement and dynamic are dominant absent. The presence of color saturation and absence of mixture of color enhance contour and weaken movement and dynamic	All therapists agree on the very limited variation; there is no differentiation.	Therapists find this client to be out of balance; very much thought; cognitive control and limited/no feeling; restriction of allowing and expressing emotions.	This client is found to be the least adaptive (not open to experiment, not flexible because of the lack of variation and differentiation and not creative because of the need for predictability, yet some therapists mention that they find the art product powerful; a sort of statement related to self-termination). This client is	Therapists estimate that this client may benefit from affective experiences that allow access to and express feelings instead of controlling or avoiding them. However, they are cautious about how much the client needs the control of emotion as a defense.

table continues

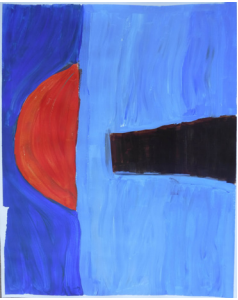
Art product, instruction and preliminary diagnosis by psychiatrist or psychologist	Art product		Mental health according to the art therapists in this study		Formulated focus and duration of treatment
	Combination of formal elements -> structure	Variation	(Im)balance	Adaptability	
	and enforce the high structure. Two therapists mention <i>figuration</i> (abstract).			described as anxious, neurotic and rigid. Overall, the therapists are not positive about <u>treatment outcome</u> and <u>duration</u> .	Therefore they expect more time may be needed in treatment.
 Art product 2 Instruction: Painting a landscape with acrylic paint; first session Client 2: Female, age 20, Anorexia nervosa purging type	The therapists agree on the high <u>structure</u> ; all of them mention the presence of <i>rhythm</i> (repetition of horizontal lines/ movement), <i>high color saturation</i> , <i>figuration</i> , the calm <i>dynamic</i> and <i>contour</i> that is enhanced by limited <i>mixture of color</i> and <i>color saturation</i> .	All therapists mention and agree on the limited variation; monotonous and without differentiation.	Therapists find this client to be out of <u>balance</u> ; <u>having tendency</u> towards <i>thought</i> and <i>cognitive control</i> out of fear to loose control over <i>emotions</i> . Three therapists find this art product a bit alarming by the lack of vitality.	This client is found to be limited adaptive (<u>limited open</u> as she seems to vary and experiment, limited <i>flexible</i> by the strong repetition, monotone movement and lack of differentiation, no <i>creativity</i> by the standard/ obvious and realistic figure about this	To expand this client's adaptability, the therapists prioritize stabilization and reinforcement of self-de-termination by enhancing affective experiences. The therapists are cautious positive about this

table continues

Art product, instruction and preliminary diagnosis by psychiatrist or psychologist	Art product		Mental health according to the art therapists in this study		Formulated focus and duration of treatment
	Combination of formal elements -> structure	Variation	(Im)balance	Adaptability	
				ration and limited yet some self-termination as the client seems to intentionally chooses this figuration and tries to work precise, yet not making the effort to correct "mistakes").	client's ability to <u>change</u> (she seems to be less stuck/ rigid as client 1 by the presence of some movement).
	Art product 3 The therapists agree on <i>figuration</i> (stylistic with no detail), <i>repetition</i> (rhythm of upward movements), <i>contour</i> (not dominant, yet present) and <i>dynamic</i> (seven therapists said to find it mechanically, one lively).	All therapists mention and agree there is some, yet restricted <u>variation</u> (a little bit more in art product 3 as in art product 4).	The therapists are less explicit and use diverse terms with regard to <u>balance</u> . In general this client is described as composed, tensed and tending towards <i>thought</i> ;	Therapists agree on this client's <u>adaptability</u> (some openness by little experimentation but sticking to what is familiar, limited <i>flexibility</i> by lack of differentiation, no creativity by the very	The therapists are cautious positive about <u>change</u> ; the limited amount of differentiation is seen as an opportunity to reinforce in treatment.

table continues

Art product, instruction and preliminary diagnosis by psychiatrist or psychologist	Art product		Mental health according to the art therapists in this study		Formulated focus and duration of treatment
	Combination of formal elements -> structure	Variation	(Im)balance	Adaptability	
 Art product 6 Instruction: Painting a landscape with acrylic paint; second session Client 3: Female, age 33, Borderline Personality Disorder (main), depressive disorder recurrent moderate, problems related to upbringing children and work.	Therefore the <u>structure</u> of this product is relatively high. Six therapists mention there is almost <i>no mixture of color</i> . Four therapists mention <i>color saturation</i> (varying but mainly transparent). These elements enhance the structure.		having the ability to regulate, but preferring to withhold from expressing <i>emotion</i> .	basic and obvious figuration which indicates no exploration and no diversion from the first idea, some <i>self-determination</i> by the choice of figuration, however performed accidentally not seeing other possibilities).	However, some therapists question the client's potential due to intellectual restrictions.
	Art product 6 Seven therapists immediately mention that art product 3 and 6 seems to be made by the same client. They agree that art product 6 tends to be highly <u>structured</u> ,				

table continues

Art product, instruction and preliminary diagnosis by psychiatrist or psychologist	Art product	Mental health according to the art therapists in this study		Formulated focus and duration of treatment
		Variation	(Im)balance	
	Combination of formal elements -> structure			
	as <i>contour</i> is present by the distinction of the blocks of color. Yet there is some overlap. There is <i>repetition</i> by the rhythm of movement. <i>Movement</i> and <i>dynamic</i> are not completely absent. There is only little <i>mixture of color</i> . <i>Color saturation</i> varies between covered and dry. There is some <i>figuration</i> , mainly by the use of color. Six therapists have subjective associations, which are diverse but all related to the cloud.			

table continues

Art product, instruction and preliminary diagnosis by psychiatrist or psychologist	Art product	Mental health according to the art therapists in this study			Formulated focus and duration of treatment
		Combination of formal elements -> structure	Variation	(Im)balance	
Art product, instruction and preliminary diagnosis by psychiatrist or psychologist  Art product 4 Instruction: Painting a landscape with acrylic paint; first session Client 4: Female, age 48, Personality disorder (main), depressive disorder recurrent moderate.	All therapists mention the presence of <i>movement</i> and <i>dynamic</i> in combination with presence of <i>figuration</i> and some amount of <i>repetition</i>. Seven therapists mention <i>contour</i>, five mention <i>color saturation</i> varying between saturated and transparent/dry and four mention the presence of <i>mixture of color</i>. They agree that this art product is not completely chaotic or organized <u>structured</u>, yet slightly tending towards chaotic.	All therapists agree on the presence of <u>variation</u>.	Compared with the other clients in this study, the therapists find this client most <u>balanced</u>; despite having a tendency towards feeling, yet showing aspects of <i>thought</i>..	Therapists agree on this client's <u>adaptability</u> (open as she seems to be experimenting and exploring, <i>flexible</i> as she seems to differentiate, <i>creative</i> as she seems not to be restricted to what is familiar or obvious, some limited <i>self-termination</i> as her impulses may block her from cognitive control.	Therapists are optimistic about <u>change</u>. They estimate that this client may benefit from cognitive experiences to develop the ability to stop and reflect and develop more cognitive control over feelings in order to enhance autonomy.

table continues

Art product, instruction and preliminary diagnosis by psychiatrist or psychologist	Art product		Mental health according to the art therapists in this study		Formulated focus and duration of treatment
	Combination of formal elements -> structure	Variation	(Im)balance	Adaptability	
 Art product 5 Instruction: Painting free choice with acrylic paint; third session Client 5: Male, age 34, addiction (cocaine, alcohol) (main), dysthymic disorder, borderline personality disorder	All therapists agree on all formal elements and the rather low structure, even though it not completely lacks <u>structure</u> . Movement and dynamic (characterized as impulsive/forceful and contained/ restricted at the same time) are dominant present. These are enhanced by the presence of color saturation and mixture of color. Contour is not completely absent;	All therapists agree on <u>variation</u> : limited present, although the effect of paint seems to be repeated.	The therapists find this client out of <u>balance</u> towards feeling by the physically, yet not completely chaotic or impulsive, expression of feeling and some cognitive control.	Art therapists are moderate positive about this client's <u>adaptability</u> (openness seems to be restricted by the repetition of the discovered effect of the paint, which may withhold this client from being creative, some flexibility by differentiation between expressing and structuring, presence of self-determination	Art therapists question this clients' <u>ability to change</u> . They estimate that this client may benefit from experiences that expand the potential to regulate affect.

table continues

Art product, instruction and preliminary diagnosis by psychiatrist or psychologist	Art product	Mental health according to the art therapists in this study		Formulated focus and duration of treatment
		Variation	(Im)balance	
	Combination of formal elements -> structure the white paper creates distinction between the paper and the paint. Also <i>repetition</i> is present to some degree; horizontal and vertical lines are layered up, yet are less repetitive as the lines in art product 1.			

Formal elements and mental health

Through theoretical coding, relationships between formal elements and mental health were conceptualized in which the core concepts were related; structure was related to clients’ balance and variation was related to adaptability (see Figure 3).

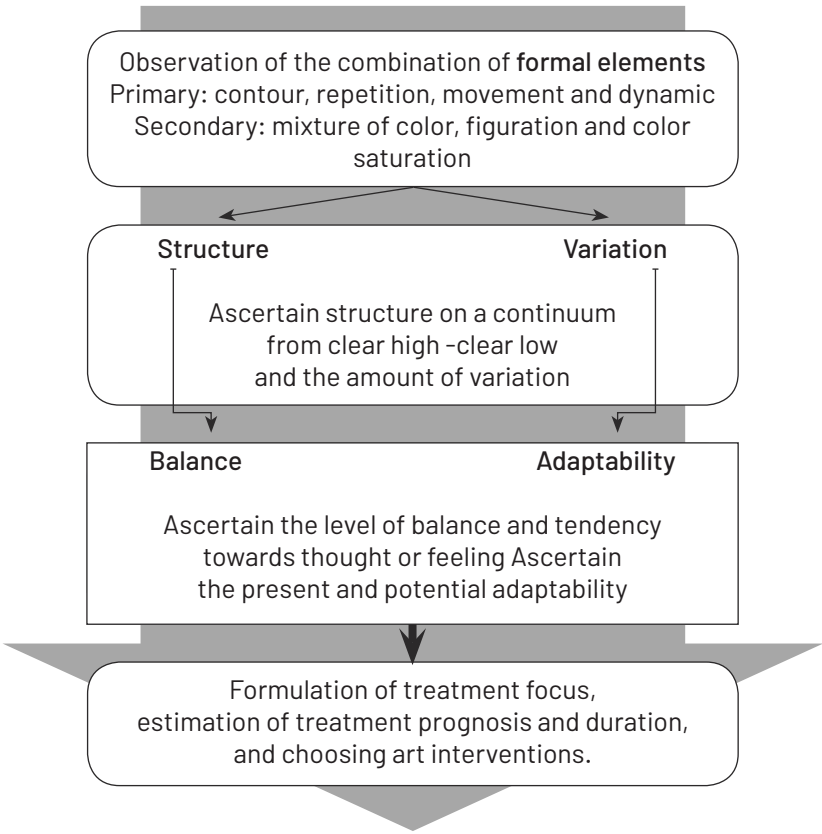


Figure 3. Formal elements in art therapy observation

Structure and balance

Based on the observed primary and secondary formal elements, the extent to which they were present/absent and in which combination, art therapists ascertained the structure of the art product on a continuum from high to

low. The structure was related to clients' balance; based on one art product, art therapists were able to estimate the client's balance. Art therapists preferred to observe at least three art products to observe if each art products had similar amounts of structure over time. If the structure of the art products did not change over time, their initial estimation of clients' balance was confirmed. The art therapists assumed that art products with clear high or low structure indicated that the client was more out of balance. Three general patterns could be recognized; (1) highly structured art products were related to *much "thought" and less "feeling"*, (2) low structured art products were related to *more "feeling" and less "thought"* and (3) art products that alternated between high and low structure were related to *much "thought" and much "feeling"*.

Variation and adaptability

Art therapists observed the amount of variation of the art product, which they related to "adaptability". Variation was associated with experimentation, exploration, playfulness, taking risks, and discovery (see Table 1). These aspects were related to openness, self-management, flexibility and creativity; the categories of adaptability. Generally, more variation was related to more adaptability until a "turning point". This means that art therapists assumed an "optimum" amount of variation; absent or limited variation as well as over- presence of variation was related to limited adaptability. Art therapists stressed their preference to observe at least three art products to observe variation within art products over time. Art therapists assumed that art products with limited or no variation over time indicated less adaptability. Variation over several art products indicated openness, willingness to learn and adapt. If variation was present over different art products art therapists were more optimistic about clients' prognosis, as they associated adaptability with potential to change in therapy.

Balance, adaptability and further treatment

The aim of treatment was to restore or develop balance between "thought" and "feeling" and to enhance adaptability. The art therapists in this study formulated the focus of treatment mainly on the estimated balance and potential adaptability. The focus of treatment directed the choice for art

interventions. In general, the art therapists estimated that clients with a lot of cognitive control (i.e. thought) might benefit from more “affective” interventions, whereas clients with difficulties regulating their emotions might benefit from more “cognitive” interventions. Art therapists stressed the importance of the observation of clients’ individual position on the continuum of balance to choose the art interventions specific to the client’s needs.

Art therapists found clients’ balance and adaptability indicative for treatment duration and prognosis. They were more optimistic about the treatment duration and prognosis of clients who were more balanced and adaptive. Art therapists were alert to clients’ lack of balance and adaptability. They emphasized the importance of clients’ capacity to deal with change; they stated that a clear lack of balance and adaptability might have a function in survival and daily functioning. Therefore, treatment might take longer and prognosis, i.e. the expected amount of change, might be more limited.

DISCUSSION

Based on art products made with acrylic paint and the instruction to either paint a landscape or create a painting without instruction, all the art therapists in this study focus on four primary (movement, dynamic, contour and repetition) and three secondary (mixture of color, figuration and color saturation) formal elements in art therapy observation. This implies that the art therapists in this study agree largely on the relevance of formal elements as well as their hierarchy. These seven formal elements show some resemblance to formal elements incorporated in existing studies on formal elements in art therapy e.g. “mixture of color” is also incorporated in the DDS, “color saturation” resembles “color intensity” of the DAPA, and “figuration” can be related to “color fit” of the FEATS. Some existing studies point out that individual elements mean nothing unless considered as a cluster (Gantt, 2001) or use a “profile” related to specific disorders, such as in the DDS. The findings of this study add to these studies by conceptualizing specific combinations of formal elements that construct the “structure” of the art product..

The art therapists in this study use the formal elements to estimate how clients make their art product. This is in line with existing studies in which it is theorized that formal elements reveal *how* the client makes the

art product. It is this relation between formal elements and the making process that could explain why they provide information about clinically significant emotional and behavioral concerns of clients (Conrad et al., 2011; Hinz, 2009). In previous studies this was specified by the concept of material interaction (Pénzes et al., 2014, 2015).

With regard to the art therapists' perspective on mental health, results of this study show that art therapists do estimate potential psychopathology. They rarely use symptoms or specific diagnoses used in DSM or ICD. Instead, they use concepts as balance and adaptability (i.e. self-management, openness, flexibility, and creativity). Emphasis on adaptability, i.e. resources and strengths, is in line with the perspective of positive health (Huber, et al., 2016) in which health is defined as "the ability to adapt and self manage physical, emotional and social challenges in life". This perspective shows resemblance to the "recovery approach" (Anthony, 1993), which focuses on fulfilling, meaningful life beyond the limitations of illness or symptomatology and emphasizes the empowerment of clients' and their potential for change and growth.

The art therapists' perspective on mental health certainly influences the way the formal elements are interpreted. Not relating the formal elements to symptoms and/or disorders, transcends any classification and is in line with other perspectives on mental health such as those of Siegel (2010, 2012, 2017) and Cozolino (2017) who also stress the importance of integrating "thought" and "feeling" to achieve, restore or maintain mental health and well-functioning.

If the art therapists observe clients being out of balance – which is more or less always the case in health care situations – they actively start searching for the elements of variation. Variation is associated with making choices, play, experimentation and exploration of the art materials. This relates to what in the literature is referred to as 'material interaction' (Pénzes et al., 2014, 2015). Material interaction refers to the clients' dialogue with art materials' properties. Variation is subsequently related to self-management, openness, flexibility and creativity, i.e. adaptability. Lusebrink (1990), Hinz (2009) and Bucciarelli (2011) also pointed out creativity might be a sign of mental health. However they did not explore this further.

Balance and adaptability are conceptualized as two separate concepts; out of balance indicates the severity of the problems, whilst adaptability indicates present or potential resources which allow change in therapy. One might say that being out of balance refers to "mental-*illness*" and variation to "

positive mental-*health*". However, the therapists in this study often mention them together and point out that these concepts are closely interrelated, i.e. the severity of the problem and the potential resources of the client are seen as two sides of the same coin. This raises the question whether and to what degree balance and adaptability are independent, distinct, concepts. Literature on this matter is divided. Some studies question the distinction between mental illness and mental health (adaptation) (Lukat et al., 2016; Van Erp Taalman Kip & Hutschemaekers, 2018). The seven formal elements that emerged in this study might enable art therapists to gain perspective on the strengths and resources as challenges of clients. The findings add to studies that relate formal elements either to specific disorders or clients' strengths and recourses in art therapy observation and assessment. The use of formal elements in art therapy observation provides a broader perspective on the client as a person.

Critical reflection and implications for practice and future research

This study conceptualizes three patterns of balance in combination with the variation in the art product. These patterns provide perspective on clients' strengths, resources and challenges. It may be of interest in future research to investigate if and how the formal elements may differentiate in the way they are present between clients with diverse mental health issues. Due to the limited number of art products included in this study, future research might include more art products to investigate if the same patterns emerge or if these patterns can be differentiated, specified or added.

Additionally, it may be useful to incorporate more than one art product of each client in future research to investigate if that leads to a more precise and differentiated observation of variation and adaptability. Even though all therapists largely agreed on clients' variation and adaptability, they preferred more than one art product to estimate the variation.

Art therapists of three nationalities participated in this study. They cannot represent current international perspectives on art therapy assessment (Gilroy, Tipple & Brown, 2012). However, they agreed on the formal elements and concepts of mental health. Findings of this study could be a valuable starting point to replicate the study in a broader international scope. Future research may address the potential of these concepts in contributing to the international current literature.

Existing studies on formal elements show that the formal elements observed are likely to change in response to the given task and the art media used. One could question if other formal elements would have emerged in this study when art products were made with a different task and art media. For example, the formal element “filled space” might have emerged when art products would have been made on larger paper size, with smaller brushes and/or allowing more time.

Nonetheless, the properties of acrylic paint, allow the observation of those formal elements that enable the art therapists to observe the structure and variation of the art product. The ability to observe the structure and variation related to the level of balance and adaptability may support art therapists to formulate treatment goals to suit the individual needs and potential and to choose those art interventions that enhance or develop the client’s balance and adaptability. Previous studies point out the therapeutic potential of diverse art material properties to achieve a more “affective” or “cognitive” experience to enhance “thought” or “feeling” (Pénzes, et al., 2014; Hinz, 2009, Snir & Regev, 2013; Hyland Moon, 2010). The therapeutic value of experiential interventions is pointed out in many recent studies (e.g. Cozolino, 2017; Porges, 2017). Future research may address the use of art interventions to generate different affective or cognitive experiences.

CONCLUSION

Formal elements are frequently used in clinical practice. In this study, we addressed two questions, namely which formal elements art therapists observe, and how they interpret them in terms of mental health. Findings add to the current body of knowledge. They show that the combination of seven formal elements construct the structure and variation of the art product and are indicative of clients’ level of balance and adaptability. Art therapists in this study gain insight into clients’ mental health through these concepts. This insight supports the art therapists in formulating treatment goals that suit the individual needs and potential and to choose those art interventions that ameliorate the client’s balance and adaptability.

CHAPTER 5. Formal elements of art products indicate aspects of mental health

Pénzes, I., Hooren, S. van, Dokter, D., & Hutschemaekers, G. (2019).
Formal elements of art products indicate aspects of mental health.
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ABSTRACT

Formal elements are often used in art therapy assessment. The assumption is that formal elements are observable aspects of the art product that allow reliable and valid assessment of clients' mental health. Most of the existing art therapy assessment instruments are based on clinical expertise. Therefore, it is not clear to what degree these instruments are restricted to formal elements. Other aspects might also be included, such as clinical expertise of the therapist. This raises the question whether and how formal elements as observable aspects of the art product are related to clients' mental health. To answer this question, four studies are presented that look at: 1) a meta-theoretical description of formal elements; 2) operationalization of these formal elements so they can be analyzed reliably in clients' art products; 3) establishment of reliable and clinically relevant formal elements; 4) the relationship between formal elements and adult clients' mental health. Results show that the combination of the formal elements "movement", "dynamic," and "contour" are significantly interrelated and related to clients' mental health. In this study, we discuss the theoretical and clinical implications of these findings.

Plain-language summary

The assumption that formal elements of art products such as line, color and movement are related to adult clients' mental health is controversial and debated in art therapy literature. In this study we wanted to test this assumption. We defined formal elements that were grounded in art theory and clinical art therapy practice. These formal elements could be operationalized and observed reliably. Related to mental health we found significant relationships between the combinations of the formal elements "movement", "dynamic" and "contour", and adult clients' resiliency and experiential acceptance.

INTRODUCTION

Formal elements like “color” and “movement” have long been used in art therapy assessment, leading to much discussion about the pros and cons of their application. The assumption that art products are related to clients’ mental health can be traced back to the beginning of the 20th century (Plokker, 1963; Prinzhorn, 1919) and projective drawing tests, whose development goes back to the 1940s, assume that the content of an art product represents unconscious psychological conflicts (Buck, 1948; Murray, 1943; Naumberg, 2001; Simon, 2001; Ulman & Bernard, 2001). From a psychometric perspective, these tests are, however, not reliable as they need interpretation, which introduces subjectivity (Betts, 2006; McNiff, 1998). The focus subsequently shifted from symbolic content to the formal elements of art products, such as “line”, “color”, and “movement” as these were considered to be more objective (Gannt, 2001, 2004; Thomas & Cody, 2012).

Formal elements originate from art theories and concern the “form” analysis of art. Formal elements refer to the observable pictorial qualities of art and according to art theorists, “form” analysis is the most objective way of analyzing it (Acton, 2009; De Visser, 2010). In art therapy, the underlying assumption is that formal elements in an art product represent the way clients interact with art materials in order to express themselves and that they are related to clients’ mental health (Gantt & Tabone, 1998, Gant, 2001, 2004; Gilroy, Tipple & Brown, 2012; Hinz, 2009, 2015; Nan & Hinz, 2012; Péntzes, et al., 2014, 2015). Several art therapy assessment instruments have been developed to measure these formal elements and relate them to clients’ mental health problems (e.g. Cohen, 1986, 1994; Cohen et al., 1986; Elbing & Hacking, 2001; Hacking, 1999; Stuhler-Bauer & Elbing, 2003). These instruments have been subject to serious psychometric critique regarding their reliability and validity, however. It has been argued that the existing instruments use poor rating methods (Nan & Hinz, 2012) and inappropriate statistical procedures for measuring inter-rater reliability (Eitel et al., 2008; Hacking, 1999 cited in Betts, 2006; Schoch, Ostermann & Gruber, 2017). The existing instruments also allow, and even need, subjective interpretation based on art therapists’ own clinical experiences with different client groups and different training orientations (Betts, 2006; Eitel et al., 2008; Schoch et al., 2017). This introduces all manner of interpretations, which can negatively affect the reliability. We still do not know to what degree

formal elements as the unambiguous observable aspects of an art product represent the mental health problems of clients or how the clients cope with these problems.

Critics of existing instruments also refer to the wide range of opinions regarding how formal elements should be interpreted in terms of mental health (Pénzes, et al., 2018). Some criticize the emphasis on pathology, i.e. relating formal elements to specific symptoms of disorders (Chaffari & Caparrotta, 2004; Wadeson, 2002), whereas others call for more attention to be paid to clients’ strengths and resources (Betts, 2012). The aims of this study are to define formal elements that can be operationalized and analyzed reliably and are clinically relevant so their relationship with mental health can be tested.

In this article, we therefore report four studies that look at: 1) a meta-theoretical description of formal elements; 2) operationalization of these formal elements to analyze them reliably in clients’ art products; 3) establishment of reliable and clinically relevant formal elements; 4) the relationship between formal elements and adult clients’ mental health.

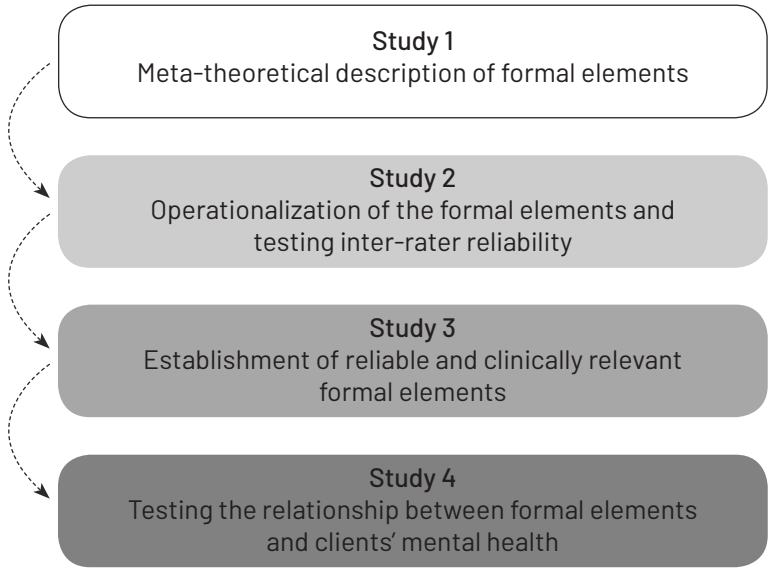


Figure 1. Brief descriptions of the four studies presented.

STUDY 1: A META-THEORETICAL DESCRIPTION OF FORMAL ELEMENTS

Art theories analyze art on five levels: visual form, content/subject matter, historical and cultural context, function, and emotional reaction of the spectator including aesthetics (Van der Kamp & Cuijpers, 2015). Visual form analysis involves analyzing the objective pictorial qualities of the visual form and allows for better understanding and characterization of the art product (Acton, 2009; Taylor, 2014). This first level of “form” analysis is pertinent to this study and art theory literature will be reviewed and experts in the field consulted to gain meta-theoretical descriptions of formal elements.

Method

To describe the formal elements, a literature review was conducted on art theory. Art theories that presented a complete systematic “form analysis” of visual art were included, whereas theories that concerned only one category of form, such as “line,” art history, art criticism, art philosophy, neurology and art perception, and/or aesthetics were excluded. As art theories cannot be found in scientific databases, three other sources were used. First, existing books on art theory were found via the Internet and the university’s library. Additionally, six experts in the field of art theory, specifically art analysis, were consulted by email for advice regarding which art theories to include. These experts were chosen based on their expertise in the field of art theory, specifically form analysis, and/or in using formal elements in art therapy. Also, bibliographies of art therapy literature regarding formal elements in assessment were searched.

All included art theories were then incorporated into a comparative analysis to see which formal elements were included and how they were described. We focused on formal elements that were stated as being appropriate for two-dimensional art.

Results

We began with four theories that incorporated a complete systematic “form analysis” of visual art: Acton (2009), the KPC model (Gerrits, 2000), the ILOUvA model (Van der Kamp & Cuijpers, 2015); and Tate Modern (Gale, 2016; Wilson & Lack, 2016). Additionally, the consultation of the experts

led us to the theories of De Visser (2010), Huntsman (2016), Boermans and van der Borgh (2017), and Taylor (2014). The bibliographies of art therapy assessment literature regarding the use of formal elements did not refer to any art theory (Eitel et al., 2008; Elbing, Hölzer, Danner-Weinberger, von Wietersheim, 2009; Elbing & Hacking, 2001; Schoch et al., 2017; Stuhler-Bauer & Elbing, 2003).

Eight theories were included in further comparative analysis: the ILOUvA model (Van der Kamp & Cuijpers, 2015), Acton (2009), the KPC model (Gerrits, 2000), Tate Modern (Gale, 2016; Wilson & Lack, 2016), Taylor (2014), de Visser (2010), Huntsman (2016), and Boermans and van der Borgh (2017). The formal elements included in these theories and their descriptions were compared for similarities. We found agreement on 17 formal elements across five categories: (1) **"shape"**, including "geometry" and "contour"; (2) **"composition"**, including "symmetry", "rhythm", "line quality", "linearity", "movement" and "dynamic"; (3) **"color"**, including "number of colors", "color saturation", "color brightness", "hue" and "mixture of color"; (4) **"space"**, including "filled area", "used space" and "suggestion of space" and (5) **"surface quality"**, including "texture" (see Table 1).

A sixth category also emerged: "light". In this category, formal elements such as "floodlight", "light source" and "clair-obscur" were included. These formal elements mainly concern photography or art products with realistic styles, such as "baroque" or "romanticism". These styles are often seen in art schools, but are rarely seen in art therapy.

Art theories all conceptualized formal elements as continua with dominant presence of absence in the art product as polarities. Also, all the theories mentioned that formal elements could reinforce or weaken each other. Most art theories explicitly differentiate extra categories consisting of "material and technique", "size/scale" and "frame" that are not described in terms of polarities. Even though these aspects are observable aspects of the art product, most theories exclude these aspects from the first level of analysis. Seventeen formal elements and their descriptions were conceptualized (see Table 1).

Table 1. *The five categories and the seventeen formal elements*

SHAPE
Geometry
Geometry refers to geometric shapes, such as rectangles, circles, and triangles. The opposite of geometric is organic.
Contour
Contour refers to the sharp edges, outlines, and borders of and between separate parts of the art product. Contour is formed by the use of sharp lines or distinct borders. Shapes are completely accentuated by lines and/or have distinct borders as if they were “cut out”. The opposite of contour is pictorial, diffuse artwork.
COMPOSITION
Symmetry
Symmetry is formed by an optical vertical axis of the middle of the artwork. The left and right half of the art product are mirrored and are equal with regard to color and/or shape, line, or figure. The opposite of a symmetric composition is a chaotic overall composition.
Rhythm
Rhythm refers to the regular return of lines, shapes, or colors. It is a repeated pattern that can be predicted once it is recognized.
Line quality
The quality of a line is strong when it is serried, straight, sharp, and fluent. The opposite is a line that is broken, sketchy, wavered, crumbled, and cautious. To judge line quality, the quality of the lines present is observed rather than the number of lines.
Linearity
Linearity refers to the extent to which an artwork consists of lines. A line is a stripe not broader than the tip of the used tool (graphic art material) or the brush. Lines can form shapes. The opposite is a pictorial artwork that lacks lines.
Movement
Movement consists of a combination of elements, such as diagonals and overlap. Movement varies in amount.

table continues

Dynamic

Dynamic refers to the tension within the artwork. Tension is created when the artwork seems to deny the frame. This is called “a-tectonic”. The opposite is an artwork that shows no tension with the frame.

COLOR

Number of colors

The number of distinct, used colors. An artwork can be very colorful and have many colors. The opposite is an artwork that consists of a limited number of colors.

Color saturation

The extent to which a color is saturated. The more saturated the color is, the less paper/canvas etc. is apparent.

Color brightness

Bright colors sparkle and are pure and fresh, such as the green of grass, the yellow of the sun, and the blue of the sky. The color brightness of an artwork increases with the number of bright colors used. Colors that are mixed with water, white, or black (dark or pastel colors) are not bright.

Hue

Hue refers to gradience from light to dark tones of one color or greys (not different “families of color” such as greens, blues, cold or warm colors).

Mixture of color

The amount of which colors are visibly mixed. The opposite is an art product in which the colors are not mixed and applied separately.

SPACE

Filled area

Filled area refers to the “worked” space on the paper or canvas and the ratio between used and unused space.

Used space

Used space refers to the space on the paper/canvas etc. that is used.

table continues

Suggestion of space

Space can be suggested by several techniques, such as overlap, shadow, line perspective, atmospheric perspective, and foreground and background. The suggestion of depth is created. The opposite refers to a “flat” artwork without any suggestion of space.

SURFACE QUALITY

Texture

Texture refers to the tactile surface of the artwork. This does not depend on the used paper or canvas but can depend on the art material used and the way it is applied.

According to our panel, these formal elements may be used to systematically describe the “form” of a visual art product. Whether these can also be used to reliably analyze the art products of adult clients is not yet clear. Therefore, a second study was conducted.

STUDY 2: OPERATIONALIZATION AND INTER-RATER RELIABILITY

In this study, we investigate whether it is possible to construct reliable formal elements in the art products of adult clients in art therapy. The formal elements that emerged from study 1 will be operationalized and tested for inter-rater reliability.

Method

The formal elements that emerged in study 1 were operationalized in three test rounds. This was peer debriefed by two teachers at the art therapy program at Zuyd University of Applied Sciences. Each round was evaluated with the raters and researcher. In the first round, two trained raters independently analyzed 31 art products made by nine adult clients in one mental health setting. The operationalization of the formal elements was adjusted based on the evaluations and tested in a second round where two new trained raters independently rated 60 art products from 25 clients in six mental health settings. Their ratings were tested for inter-rater reliability (see Figure 2) and evaluated. The operationalization of some of the formal

elements was adjusted based on the evaluation. Two new trained raters then independently rated 46 art products from 46 clients in nine mental health settings.

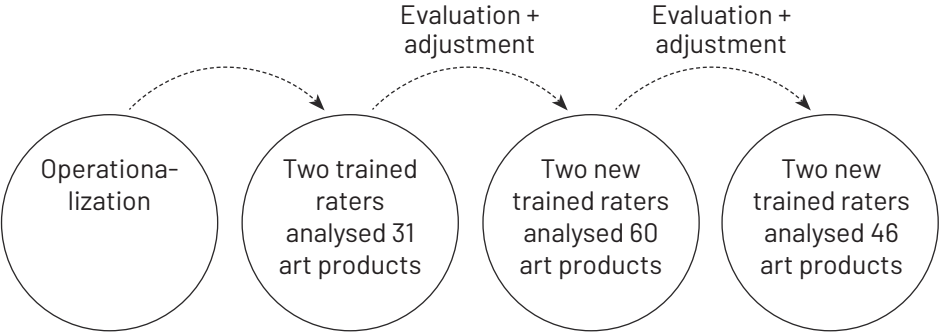


Figure 2. Chart showing the procedure followed in study 2.

Art products of clients

In total, 137 art products from 80 clients were included in this study: 31 art products from 9 clients in the first round, 60 art products from 25 clients in the following round, and 46 art products from 46 clients in the final round. Client inclusion criteria included being aged between 18 and 65 years, being able to read and speak Dutch, and having no or minimal experience in making art and art therapy. Clients with psychotic disorders or in manic episodes were excluded. In line with the Declaration of Helsinki, informed consent was obtained from all clients.

The art products in the first two rounds were made as part of regular art therapy assessment, meaning they were of diverse sizes and styles and used diverse two-dimensional art materials like pastel, pencil, or ink. Some of the clients were instructed while making the products, while other art products were made based on the clients’ own choices. The art products in the final round were made with standardized semi-structured instruction that consisted of painting a landscape with acrylic paint on paper of 50 x 40 cm in a 45-minute session. All clients received the same color palette, the same brushes and pencils, and the same instructions from their therapists. The therapists were given paper and video instructions and took part in a telephone meeting to confirm that all their clients would receive the same instructions.

Analysis

In the first round, the formal elements were operationalized categorically and analyzed for percentage of agreement. Finally, the formal elements were operationalized on a five-point Likert scale and tested for inter-rater reliability using Cohen’s kappa analysis. All analyses were conducted using SPSS version 25.

Results

Operationalization

Initially, the formal elements were operationalized by categories. Some of the formal elements consisted of two categories, while others consisted of three (see Figure 3).

Contour	a. Sharp edged b. Diffuse
Brightness of color	a. Pastels b. Pure/bright colors c. Dark colors

Figure 3. Examples of categorical operationalization of the formal elements “contour” and “brightness of color”.

The overall inter-rater agreement was >88%, but despite this high agreement, the raters found it difficult to rank the formal elements with different numbers of categories. They also found it difficult to rate the art products based on the written definitions of the formal elements and suggested adding visual illustrations.

The operationalization was adjusted and all the formal elements were operationalized into five-point Likert scales (see Figure 4), with 1 representing no or minimal presence of the element and 5 representing a very high presence of the element. For each formal element, example images of art products were provided for both ends of the scale.

Contour	1	2	3	4	5
	No	Low	Average	High	Very high
Contour Contour refers to the sharp edges, outlines, and borders of and between separate parts of the art product. Contour is formed by the use of sharp lines or distinct borders. Shapes are completely accentuated by lines and/or have distinct borders as if they were “cut out”. The opposite of contour is pictorial, diffuse artwork.					
1= No	There is no contour in the art product. The art product is characterized as pictorial, diffuse, softened, vague, and woolly.				
2= Low	There is little contour within the art product. This means that some shapes or lines can be recognized, but without sharp outlines (think of the edges of ripped paper). The lines and edges are rather sketchy, crumbled, or corroded. The largest part of the art product has no contour.				
3= Average	Lines and shapes are present and distinct without a clear contour. This means that the art product consists of recognizable elements, but the outlines or borders are not fully sharp and clear. OR: the art product consists of two equal parts of which one part is pictorial, diffuse, and woolly and the other has a clear and distinct contour with sharp and fluent outlines and borders.				
4= High	There is high contour within the art product. This means the art product consists largely of clear and distinct lines and shapes, but is not completely outlined.				
5= very high	Very clear and distinct contours. Edges and borders of lines characterize the art product and shapes are very distinct and completely fluently outlined. OR: shapes can be placed next to each other that might result in contrast of color. The clear contours determine the character of the art product.				

Figure 4. Example of operationalization of the formal element “contour.”

Inter-rater reliability

In round two, the inter-rater reliability for “rhythm” and “movement” was fair ($\kappa = .34$ and $\kappa = .29$, respectively), while the reliability for “contour” ($\kappa = .57$), “color saturation” ($\kappa = .43$), and “mixture of colors” ($\kappa = .47$) was moderate. Reliability for “suggestion of space” ($\kappa = .65$), “number of colors” ($\kappa = .65$), “color brightness” ($\kappa = .64$), “symmetry” ($\kappa = .68$), “linearity” ($\kappa = .74$), “line quality” ($\kappa = .64$), “dynamic” ($\kappa = .71$), and “texture” ($\kappa = .65$) was substantial, while reliability for “filled area” ($\kappa = .82$), “used space” ($\kappa = .86$), “geometry” ($\kappa = .83$), and “hue” ($\kappa = .83$) was almost perfect (Viera & Garrett, 2005).

The evaluation of round two highlighted three drawbacks of rating. First, the definitions of scores 3, 4, and 5 for “number of colors” overlapped. Second, raters found the definition of the item “rhythm” too complex and the definition of “movement” was found to be unclear and incomplete. This could explain the relatively low reliability for these items. All other definitions were clear and the art product examples were found to be illustrative. Third, it was questioned whether the art materials might influence the ratings of the formal elements. Based on these drawbacks, the definitions of “number of colors,” “rhythm” and “movement” were adjusted and tested for inter-rater reliability in a third and final round. The inter-rater reliability varied between moderate and substantial for all items except “texture” which had poor inter-rater reliability (see Table 2).

The inter-rater reliability for the adjusted formal elements “number of colors,” “rhythm” and “movement” increased in the third round. The inter-rater reliability of all other formal elements remained similar. Only the inter-rater reliability for “texture” decreased significantly, therefore this item was not included in the subsequent studies¹.

Table 2. *Final inter-rater reliability scores for each formal element*

Formal elements	<i>K</i>
Filled area	.64**
Used space	.79**
Suggestion of space	.75**
Geometry	.86**

table continues

1 The inter-rater reliability of “texture” decreased dramatically between the second and third round. In the second round, art products made with diverse art materials were included, whereas in the third round, the art products were made with acrylic paint only (see discussion).

Formal elements	<i>K</i>
Contour	.56**
Number of colors	.83**
Color saturation	.76**
Color brightness	.80**
Hue	.71**
Mixture of color	.68**
Symmetry	.61**
Rhythm	.41**
Linearity	.56**
Line quality	.63**
Movement	.50**
Dynamic	.65**
Texture	-.012
** $p < .001$	

STUDY 3: CLINICALLY RELEVANT FORMAL ELEMENTS

Most formal elements can be operationalized reliably, however, it is still unknown which of these formal elements are clinically relevant. Especially as the art therapy literature is inconsistent when presenting tools or suggestions directed towards the clinical use of formal elements in art therapy observation and assessment (Pénzes, et al., 2018; Schoch, et al., 2017). Eight art therapists with diverse clinical backgrounds, training orientations, and nationalities identified seven relevant formal elements. The combination of “movement” “dynamic”, “contour” and “repetition” construe the overall structure of the art product and are conceptualized as “primary formal elements,” while “mixture of color”, “figuration” and “color saturation” weaken or enhance this structure and are conceptualized as “secondary formal elements”.

These seven formal elements show some resemblance to the formal elements incorporated in existing studies on formal elements in art therapy, for example, “mixture of color” is also incorporated in the Diagnostic Drawing Series (DDS) (Cohen, 1986, 1994; Cohen et al., 1986), “color saturation” resembles “color intensity” in the Descriptive Assessment of Psychiatric Art

(DAPA) (Hacking, 1999), and “figuration” can be related to “color fit” in the Formal Art Therapy Scale (FEATS) (Gannt & Tabone, 1998). In this study, we compare the formal elements from art theories with the formal elements art therapists found to be clinically relevant. “Figuration” was excluded, as art theories state that this element cannot be analyzed according to the level of its presence in an art product. Instead it is a categorical item that refers to the style of the art product as realistic, figurative, or abstract.

Method

A panel consisting of three teachers from the art therapy program of Zuyd University of Applied Sciences compared the formal elements identified by art therapists in the prior study to the formal elements that were identified in study 1 and found to be reliable in study 2. Each expert independently compared the formal elements on a scale ranging from “0 = no similarities”, “1 = some resemblance” and “2 = similar or almost similar”. The comparison concerned which formal elements were similarly described. Formal elements identified by both art therapists and art theorists were considered as reliable and clinically relevant.

Results

The panel agreed that the formal elements “contour”, “movement”, “dynamic” and “mixture of color” were similarly described (see Table 3). “Color saturation” was described differently because the art therapists had merged “color saturation” and “texture”. The way the art therapists described “repetition” showed overlap with the formal elements “symmetry” and “rhythm” in art theory.

In summary, it was found that “movement”, “dynamic”, “contour” and “mixture of color” could be measured reliably and appeared to also be clinically relevant. A fourth study was then conducted to see whether these formal elements are related to mental health.

Table 3. *Comparison of clinically relevant, objective and reliable formal elements*

	Clinically relevant formal elements according to art therapists	Formal elements operationalized in art theories	Agreement of experts
Primary	Movement Movement refers to the amount, character, and direction of the movement. Movement becomes visible by the brush marks.	Movement Movement consists of a combination of elements, such as diagonals and overlap. Movement varies in amount.	All experts gave a rating of "2"
	Dynamic Dynamic refers to tension (tectonic) within the art product. Dynamic varies from static, restrained, and calm to fast, turbulent, energetic, and forceful. It refers to the vitality of the movement made.	Dynamic Dynamic refers to the tension within the artwork. This tension is created when the artwork seems to deny the boundaries of the frame. This is called "a-tectonic". The opposite is an artwork that shows no tension with the frame.	All experts gave a rating of "2"
	Contour Contour refers to the delimitation that emerges when shapes are outlined or are placed directly next to each other. This leads to rigid and sharp distinctions.	Contour Contour refers to the sharp edges, outlines, and borders of and between separate parts of the art product. Contour is formed by the use of sharp lines or distinct borders. Shapes are completely accentuated by lines and/or have distinct borders as if they were "cut out". The opposite of contour is pictorial, diffuse artwork.	All experts gave a rating of "2"
	Repetition Repetition refers to the return of one or more formal elements in a pattern. A lot of repetition leads to symmetry.	Symmetry Symmetry is formed by an optical vertical axis of the middle of the artwork. The left and right half of the art product are mirrored and are equal regarding color	All experts gave a rating of "1"

table continues

	Clinically relevant formal elements according to art therapists	Formal elements operationalized in art theories	Agreement of experts
Primary	Rhythm refers to the repetition of movement.	and/or shape, line, or figure. The opposite of a symmetric composition is a chaotic overall composition. Rhythm Rhythm refers to the regular return of lines, shapes, or colors. It is a repeated pattern that can be predicted once it is recognized.	
	Mixture of color Mixture of color refers to the extent to which the colors are mixed within the art product.	Mixture of color The amount of which colors are visibly mixed. The opposite is an art product in which the colors are not mixed and applied separately.	All experts gave a rating of "2"
Secondary	Color saturation Color saturation refers to the density of color within the art product varying between transparent and impasto.	Color saturation The extent to which a color is saturated. The more saturated the color is, the less paper/canvas etc. is apparent. Texture Texture refers to the tactile surface of the artwork. This does not depend on the paper/canvas, etc. used, but can depend on the art material used and the way it is applied.	All experts gave a rating of "1"

STUDY 4: RELATIONSHIP BETWEEN FORMAL ELEMENTS AND ADULT MENTAL HEALTH

According to art therapists, mental health should be described in terms of balance and adaptability (Pénzes, et al., 2018). This is in line with the perspective of positive health (Huber, et al., 2016). Balance refers to the ratio between thought and feeling, with most mental health clients out of balance because of high levels of emotion(feeling)or high levels of cognitive control (thought). Adaptability consists of openness, self-management, creativity, and flexibility.

In other words, being out of balance refers to mental illness and adaptability refers to positive mental health. Both concepts are considered to be closely related, i.e. the severity of the problem and the potential resources of the client are seen as two sides of the same coin. Art therapists relate the combination of formal elements to mental health (see study 3), specifically the primary formal elements of "dynamic", "movement", "contour" and "repetition". As "repetition" was not similar to the formal elements from art theories, however, it was excluded from analysis in this study.

Method

Clients' art products

Forty-six adult clients in nine different mental health settings participated in this study. These were the same clients and art products examined in the final round of study 2. Client inclusion criteria included being aged between 18 and 65 years, being able to read and speak Dutch, and having no or minimal experience in making art and art therapy. Clients with psychotic disorders or in manic episodes were excluded. Art products were made with standardized instructions (see the final round in study 2). The two raters in the final round in study 2 independently rated the formal elements.

Measurements

During the same week that the client made their art product, they filled in the Dutch version of the Brief Symptom Inventory (BSI) (De Beurs & Zitman, 2006), the Resilience Scale (RS-nl) (Portzky, 2008), and the Acceptance and Action Questionnaire - II (AAQ-II) (Jacobs, Kleen, de Groot & A-Tsjak, 2008). The BSI was used to assess the level of the clients' mental illness/psychopathology, while the RS-nl and the AAQ-II were used to assess the

clients' mental health.

The BSI is a self-rating instrument consisting of 53 items derived from the SCL-90 and is used for the screening and assessment of psychopathology. The BSI was considered appropriate for patients without severe psychiatric disorders. Psychometric qualities were in line with the SCL-90 ($\alpha > 0.71$) with good correlations with other instruments (Buwalda, et.al., 2012). The respondents scored the extent to which they experienced diverse psychological symptoms during the last week on a five-point Likert scale ranging from "a lot" to "not at all". The BSI consists of three scales and nine subscales, including a general measure of psychopathology (total score). In this study, only the total score of the BSI was used because the art therapists described mental illness in general terms instead of specific disorders or symptoms.

The RS-nl is a self-rating instrument for screening resiliency. The respondents scored the extent to which they agree with 25 items on a four-point Likert scale ranging from "totally agree" to "totally disagree". The RS-nl consists of two subscales: "personal competency" and "acceptance of self and live". A high total score suggests adaptability, balance, and flexibility. Psychometric qualities are "good" for content and construct validity and for internal consistency (Windle, Bennett & Noyes, 2011).

The AAQ-II measures the amount of experiential acceptance, experiential avoidance, and psychological (in)flexibility. It consists of 10 items that respondents score using a seven-point Likert scale ranging from "never true" to "always true" (Bond, et al., 2011). A high total score suggests higher experiential acceptance or psychological flexibility and less experiential avoidance. Persons that score high on experiential avoidance generally use avoidance strategies that are related to repression of negative emotions and higher psychopathology. Psychometric qualities showed good internal consistency (Cronbach Alpha = .89) and construct validity of -0.67 to -0.79 on repression and psychological complaints (Bernaerts, et al., 2014; Fledderus, et al., 2012; Jacobs, et al., 2008).

Data-analysis

As art therapists related the combination of formal elements to mental health, Spearman correlation analysis² was used to test whether the formal elements of "movement", "dynamic" and "contour" were related to each

2 Spearman correlation looks at relationships between variables (Field, 2016).

other. Linear regression analysis³ was used to test whether the combination of the formal elements “movement”, “dynamic” and “contour” was related to clients’ scores on the BSI, RS-nl, and AAQ-II. All analyses were conducted in SPSS version 25.

Results

Table 4 gives an overview of the mean scores, standard deviations, and variances for the formal elements “movement”, “dynamic” and “contour” and for the BSI, RS-nl, and AAQ-II scores.

Table 4.*Descriptive statistics for the formal elements dynamic, movement and contour, and the BSI, RS-nl, and AAQ-II scores*

	Mean	Std. Deviation	Min.	Max.
Dynamic	2.50	.66	1	4
Movement	3.00	.82	2	4
Contour	2.50	.78	1	4
BSI	90.07	36.45	12	163
RS-nl	60.77	10.25	40	80
AAQ-II	30.60	9.18	17	51

Inter-relatedness of formal elements

Results of the Spearman correlation analysis indicated a positive significant relationship between “movement” and “dynamic:” $r_s(46) = .76, p < .001$. This suggests that an increase in “movement” is related to an increase in “dynamic” and vice versa. The results also indicated a significant negative relationship between both “movement” and “contour:” $r_s(46) = -.41, p = .004$ and “dynamic” $r_s(46) = -.34, p = .020$ and “contour”.

Relationship between formal elements and mental health

Results of the regression analysis (see Table 5) showed that even though “dynamic” and “movement” significantly related to the BSI total score, the overall model was not significant ($R^2 = .16, p = .072$). The overall model significantly related to the AAQ-II total score ($R^2 = .29, p = .003$), however,

³ Regression analysis seeks to predict the outcome of one or more predictors (Field, 2016).

with main effects found for “dynamic” ($\beta = .60, p = .004$) and “movement” ($\beta = -.76, p < .001$). The overall model also significantly related to the RS-nl total score ($R^2 = .19, p = .034$) with one main effect found for “dynamic” ($\beta = .65, p = .004$) and a trend for “movement” ($\beta = -.40, p = .070$). The combination of “movement,” “dynamic,” and “contour” explained 19.3% of variance in RS-nl scores and 29.1% of the variance in AAQ-II scores.

Table 5.*Regression analysis results: relationships between the formal elements dynamic, movement and contour and the BSI, AAQ-II, and RS-nl total scores*

	BSI total score		AAQ-II		RS-nl	
	B (SE)	B	B (SE)	β	B (SE)	β
Dynamic	-30,494 (34,777)	-.556*	8,350 (2,741)	.602**	9,977 (3,271)	.647**
Movement	20,785 (9,834)	.459*	-8,647 (2,247)	-.764***	-5,040 (2,709)	-.396
Contour	-7,109 (7,228)	-.154	1,246 (1,669)	.107	1,712 (1,991)	.132

Note: B = Unstandardized B, SE = Standard Error, β = Beta coefficient

* $p < .05$, ** $p < .01$, *** $p < .001$

DISCUSSION

In study 1 seventeen formal elements emerged from the analysis of art theories. Findings of study 2 show that the majority of these seventeen formal elements could be observed reliably. The combination of the formal elements “dynamic,” “movement” and “contour” explained 19% of the variance in RS-nl scores and 29% of the variance in AAQ-II scores. These findings imply that the combination of the formal elements “dynamic,” “movement” and “contour” are related to adult clients’ resiliency and experiential acceptance. Looking at each formal element, “movement” and “dynamic” were significantly related to clients’ mental health, whereas “contour” was not. The relationship between the former two elements and mental health is most pronounced for positive mental health concepts, such as

experiential acceptance and resiliency. These results are in line with other art therapy studies that stress the importance of positive mental health in art therapy assessment (Betts, 2012; Haeyen, Van Hooren, Van der Veld and Hutschemaekers, 2017; Hinz, 2009; Péntzes et al., 2018). Rather than focusing on DSM diagnoses or symptoms, art therapists often emphasize clients' strengths and resources, embracing a perspective of mental health that is in line with the idea of positive health (Huber, et al., 2016) and the recovery approach (Anthony, 1993; Jacob, Munro, Taylor & Griffiths, 2017). As the results showed a slight trend between the formal elements and BSI total score, this raises the question of whether a distinction can be made between mental illness and mental health. Haeyen et al. (2017) looked at the effect of art therapy on patients with personality disorder cluster B/C and found that art therapy reduces symptoms of mental illness and promote positive mental health. This inter-relatedness is also seen in other studies that question the distinction between mental illness and mental health (Lukat et al., 2016; van Erp Taalman Kip & Hutschemaekers, 2018). Theoretically, mental illness and mental health can be described independently. In clinical practice, however, these seem to be two interrelated concepts. The results of a previous study also indicate this interrelatedness as art therapists in clinical practice saw health and illness as two sides of the same coin (Péntzes et al., 2018).

The results of sub study 4 indicate that the *combination* of formal elements is related to mental health and that the involved formal elements are strongly interrelated, e.g. an increased presence of "dynamic" and "movement" is related to a decreased presence of "contour". This is in line with existing studies that have argued that individual elements mean nothing unless considered as a cluster (Gantt, 2001) or specific combinations of "primary" formal elements that construct the "structure" of the art product are conceptualized (Péntzes, et al., 2018).

"Movement" and "dynamic" are strongly interrelated, indicating that an increase in "movement" is related to an increase in "dynamic". When relating these elements to mental health measures, however, "movement" is negatively associated with mental health and "dynamic" is positively related. A possible explanation for this can be found in a previous study in which the concept of "variation" emerged (Péntzes, et al., 2018). "Variation" refers to the diversity that can be recognized in one or more formal elements within the art product. Art products with low "dynamic" and low "movement" or high "dynamic" and high "movement" have less "variation". In contrast, art

products with low “dynamic” and high “movement” or vice versa have more “variation”. Art therapists largely agree on the importance of observing this aspect of art products to assess client mental *health*. Future research could address operationalizing “variation” to investigate its relationship with mental health.

In summary, the relationships between formal elements, positive mental health, and mental illness show that art products are indeed associated with aspects of positive mental health and mental illness. The classic assumption of art therapists is in line with this. This implies that the lack of reliability and validity of existing art therapy assessment instruments is not due to the absence of such a relationship or to incorrect theoretical assumptions, but to inconsistent operationalization or weak study design.

Implications for clinical practice of art therapy

Despite the ongoing discussion about how to interpret the formal elements in art therapy assessment, most studies seem to agree that formal elements are related to *how* clients make art products (Conrad et al., 2011; Gannt, 2001; Hinz, 2009). In previous studies, this assumption has been specified using the concept of “material interaction,” which refers to the art making process and the clients’ interaction with the art materials (Pénzes et al., 2014, 2015). In these studies, it was conceptualized that material interaction was reflected by the formal elements of the art product and related to mental health. The significance of the combination of “movement” and “dynamic” might imply that these formal elements reflect the clients’ art making, i.e. the amount and kind of movements that clients make when interacting with art materials to create an art product.

The “dynamic” and “movement” of the art products and “movement” of material interaction can be linked to Stern’s (2010) concept of “forms of vitality,” which refers to the forces and sensations linked to the movement that creates forms. Stern stated that peoples’ health could be evaluated based on the vitality that is expressed in their almost constant movements. This implies that formal elements can be considered as manifest visual forms of vitality and that these formal elements in art products reflect mental health and mental illness.

Further research is needed to investigate the possible relationship between “dynamic” and “movement” in clients’ art products and clients’ “material interaction” in art making. For the time being, these two formal elements are observable and visible aspects of the art product. This

visibility allows the joint reflection of the art therapist and the client, leading to insights and awareness that may help formulate treatment objectives and art interventions. The relationship between the formal elements and mental health is most pronounced for positive mental health aspects, such as experiential acceptance, adaptability, and resiliency. This may have implications for art therapy assessment and treatment. The clients' adaptability, flexibility, and resiliency may indicate the potential for change in therapy and art therapists in a previous study associated adaptability with clients' prognoses in therapy (Pénzes et al., 2018). Several studies have also shown the therapeutic potential of diverse art material properties to create experiential interventions that allow change and ameliorate mental health (Hinz, 2009; Hyland Moon, 2010; Pénczes, et al., 2014; Snir & Regev, 2013). This assumption requires further longitudinal research, however.

Methodological considerations

In this study, art products made with diverse materials and instructions were included. The analyses of studies 3 and 4 were based on art products made with acrylic paint. This is a serious limitation of our study as the art materials and instructions may have influenced the results. For example, the formal element "filled space" might have emerged when art products were made on larger pieces of paper, with smaller brushes, and/or with more time allowed.

We excluded "mixture of color" from the analysis in study 4 because theoretically, it was not conceptualized as a "primary" formal element. The primary formal element "repetition" was also excluded from analysis, as it did not show enough resemblance to formal elements in art theories. Future research could include these formal elements to investigate if they influence the formal elements' relationship with mental health measures. The relationship between the formal elements and mental health found in this work is based on a cross-sectional study design, which does not allow for insights into causality and effects over time. Longitudinal studies including a series of art products could investigate whether therapeutic experiential art interventions change the art making, i.e. material interaction and whether these are reflected in the formal elements of "movement" and "dynamic" and in the enhancement of experiential acceptance, adaptability, and resiliency.

In study 3 we compared formal elements from art theory to formal elements that art therapists in a previous study found relevant in clinical

practice. The majority of these art therapists practice in the Netherlands. Although we did include a few art therapists from other countries such as Israel, Finland, Germany, the US and UK to contrast findings, further generalizability of art therapists' perspectives may need to be checked through further research.

CONCLUSION

This is the first study to reliably operationalize formal elements based on the art therapy literature and demonstrate that these elements are related to mental health. Numerous questions remain unanswered and require further research. Even though it is methodologically challenging to study art and the art-making process in relation to mental health, this study highlights the possibilities for future research. Art products seem to have diagnostic value and may add to clients' verbal expression and indicate their potential to benefit from therapy.

CHAPTER 6. Summary and general discussion

INTRODUCTION

The therapeutic use of the art form – the use of art materials in an art-making process resulting in an *art product* – is specific and unique for art therapy (Edwards, 2013; Hinz, 2009; Jones, 2005; Moon Hyland, 2010; Rubin, 2011; Schaverien, 2000, Schweizer et al., 2009). Diverse art therapy approaches fundamentally assume that the art form reflects clients' mental health. Research of the art form in the context of art therapy observation is, however, inconclusive. Rooted in diverse art therapy approaches, there are different perspectives on how exactly mental health is represented in the art form. They vary regarding the use of the art materials and how to interpret the art-making process and the art product in terms of mental health.

In this dissertation, we investigate the role of the art form in art therapy observation and in the assessment of adult clients' mental health. We wanted to know: 1) how art therapists with diverse theoretical perspectives observe the art form in art therapy assessment, 2) the art therapists' perspectives on adult clients' mental health, 3) whether there is a relationship between the art form and adult mental health, and if so, whether the art-making process or the art product, or both, are related to specific aspects of adult clients' mental health.

We have investigated these questions in four studies.

In this chapter we will first present a summary. Then, the main findings of the studies are discussed in relation to the main questions of this research project and the art therapy body of knowledge. Finally, the methodological considerations, recommendations for further research and implications for clinical practice will be discussed.

SUMMARY

The primary reason to undertake this research was to test the fundamental assumption of art therapy: the assumed relationship between the art form and adult mental health. Literature showed several theoretical perspectives and rationales on this matter and was inconclusive, proving that research on this matter is still in its infancy. We recognized an on-going debate about the use of the art form in clinical practices of art therapy observation and assessment and its interpretation in terms of mental health. This led to the

first study in Chapter 2.

In **Chapter 2** we explored how art therapists with diverse training backgrounds and perspectives on art therapy used, observed and interpreted the art form in the assessment of adult clients' mental health. Despite their different backgrounds, the art therapists mainly applied two-dimensional art materials in art therapy observation. They systematically made use of the diverse art materials' properties, i.e. their degree of physical contact, intrinsic structure (e.g. fluid or resistive) and scope of technical possibilities. The art therapists observed how clients interacted with these art materials' properties – material interaction –, how clients experienced the art materials – material experience –, and what they made – the art product–. Material interaction emerged as a core concept that referred to the clients' observable behavior during their interaction with art materials' properties in the art-making process. Material interaction consisted of the combination of several categories such as movement, dynamic, space and pressure. The art therapists found it important to see whether a client actually made use of the art materials' properties. In terms of mental health, art therapists found clients that used and experimented with the art materials to be more 'flexible'. *Flexibility* was seen as the client's capability and openness to try new materials or use them in different ways. Art therapists related this to experimentation and play during art making. Art therapists evaluated clients who demonstrated minimal or no use of the art materials' properties as having the tendency to 'rationalize'. *Rationalization* referred to the client's need for structure, perfectionism, cognitive control and rigidity.

Material interaction connected two other aspects of the art form: material experience and the art product. As to *material experience*, the art therapists stated that clients' material interaction elicited cognitive and emotional experiences during art making. For example, clients might experience frustration when working with fluid art materials that are less controllable or, in contrast, they may experience relaxation or joy. Observing the clients' material experiences gave insight into if and how clients were able to deal with, allow and express negative emotions.

In relation to the *art product*, the art therapists pointed out that traces of material interaction, i.e. how the art product was made instead of its content, became visible by the formal elements of the art product such as line, contour and shape.

These findings directed the next study in **Chapter 3** in which we included

a larger number of art therapists to further investigate and theorize the concept of material interaction and its relationship with the art product and adult clients' mental health. Further examination of the initial categories of material interaction led to 11 categories that were found to be important to observe. These categories could be divided into two main categories, 'physical expression' and 'design expression', and one core category, 'dialogue'.

'Physical expression' referred to the client's physical action during the art making and consisted of the subcategories 'movement', 'rhythm', 'tempo', 'grip', 'pressure' and 'physical contact'. 'Design expression' consisted of the subcategories 'structure', 'lining', 'shaping' and 'use of color'. The category 'dialogue' referred to the clients' capability to tune in and adjust to the art materials' properties. The amount of dialogue was determined by physical, cognitive and affective characteristics of the client. 'Dialogue' was considered a core concept as it overarched the two main categories and interconnected all other categories. As the categories of material interaction were strongly interconnected, their combination formed a material interaction style that could be placed on a continuum from rational to affective.

With regard to mental health, art therapists found that a more rational style of material interaction often indicated a client's tendency for control. Clients with a tendency for control were often considered as very thoughtful, precise and perfectionistic, and had difficulty recognizing, experiencing and expressing emotions or tried to avoid them. Clients who showed an affective style of material interaction could easily become overwhelmed by emotions, had difficulties in regulating emotions and structuring their impulses and might have difficulties with boundaries.

According to the participants, the clients' style of material interaction indicated their most frequent coping strategies. As art making focuses on doing and experiencing, rather than on thinking, the observation of the material interaction style provided information about clients' flexibility to explore and change their emotional and behavioral strategies.

As for the *art product*, art therapists were able to deduce clients' material interaction based on the analysis of formal elements of clients' art products, such as, 'shape', 'line', 'color', 'rhythm', 'dynamic', 'used space', 'suggestion of space' and 'front/background'. Based on these formal elements, art therapists could describe clients' mental health in terms of their capability to tune in and adjust to the art materials' properties and their rational and affective coping strategies.

These findings directed the research project towards a clearer understanding of art therapists' interpretations of the formal elements of art products made in art therapy observation. Literature on assessing formal elements in art therapy observation appeared to be inconsistent regarding which formal elements to observe, how to operationalise them and how to interpret them in terms of mental health. In **Chapter 4** we wanted to know how art therapists described adult mental health and we wanted to identify exactly which formal elements of the art product art therapists observed in order to gain insight in clients' mental health in clinical art therapy practice. As to the formal elements of the art product, the art therapists primarily observed the presence or absence of the formal elements 'movement', 'dynamic', 'contour' and 'repetition', known as the primary formal elements, in combination with the 'mixture of color', 'figuration' and 'color saturation', known as the secondary formal elements. The combination of the presence or absence of these formal elements construed the 'structure' and 'variation' of the art product. 'Structure' referred to the way the art product was organized, varying from clearly high to low structured, i.e. very organized versus chaotic. Art products with a high structure – those that were very organized – were construed by the presence of 'contour' and 'repetition' in combination with the absence of 'movement' and 'dynamic'. This structure could be enhanced by the presence of 'color saturation' in combination with the absence of 'mixture of color'. Art products with low structure – those that were chaotic – were construed by the presence of 'movement' and 'dynamic' in combination with the absence of 'contour' and 'repetition'. The structure could be weakened by the presence of 'mixture of color' and the absence of 'figuration'.

'Variation' referred to diversity in one or more formal elements within the art product, e.g. diversity in contour existed when some aspects of the art product were clearly outlined and others were diffused. Art products demonstrated less 'variation' when they were placed on the polarities of the continuum of 'structure', i.e. when they were extremely organized or chaotic.

In regard to mental health, the art therapists were exceptionally reserved in describing mental health in terms of psychopathology. They more explicitly observed clients' possibilities and strengths than clients' mental problems. Two main concepts emerged: 'balance' and 'adaptability'. 'Balance' existed when 'feeling', i.e. allowing, experiencing and expressing emotions, and 'thought', i.e. cognitive control, were in proportion to each other. In other words, clients who were able to experience, allow and

express their emotions so that these emotions did not overwhelm them were considered balanced. Clients were evaluated as more imbalanced if they were not able to experience or express their emotions. This could occur when these clients had a very high tendency for cognitive control or, in contrast, were easily overwhelmed by their emotions because of difficulties in regulating emotions. Therefore, imbalance could indicate 'illness'. 'Adaptability' referred to the client's potential ability to achieve balance. It consisted of self-management, openness, flexibility and creativity. Self-management referred to the ability to choose. This required the ability to distance and reflect upon oneself and the awareness of and paying attention to a present situation. Art therapists related self-management to self-determination, identity and autonomy. *Flexibility* referred to the client's range of possibilities to react to given challenges, tasks, persons or situations. This required the ability to switch between cognitive control and allowing and expressing emotions. Therapists related flexibility to resiliency. *Openness* referred to an attitude that allowed taking in diverse and new perspectives. It involved curiosity, risk taking, not seeing mistakes as a disaster and daring to experiment with unfamiliar situations. *Creativity* referred to the possibility to differ from the known and go off beaten paths in order to create something novel. Art therapists related creativity to problem-solving.

In relation to the formal elements of the art product, art therapists considered the formal elements of the art product as an expression of a client's mental state. They assumed that art products with clearly high or low 'structures' indicated that the client was more imbalanced. Very organized art products were related to imbalance towards 'thought'. Very chaotic art products were related to imbalance towards 'feeling'. Art products with 'variation' indicated adaptability because variation was associated with experimentation, exploration, play, taking risks and discovery.

Based on the observation of the formal elements that construed the structure and variation of the art product, art therapists in this study could formulate an art therapy diagnosis in terms of 'balance' and 'adaptability' and then determine the focus of treatment. The focus of treatment directed the choice of art interventions. In general, the art therapists estimated that clients with a lot of cognitive control (thought) might benefit from more 'affective' interventions, whereas clients with difficulties regulating their emotions might benefit from more 'cognitive' interventions.

These findings elicited the question whether it would be possible to

operationalize these formal elements of art products. In art therapy literature, we recognized a number of art therapy assessment instruments that operationalized formal elements. These instruments were seriously criticized regarding their reliability and validity. Therefore, we wanted to clinically define relevant formal elements that could be reliably operationalized and analyzed and to test their relationship with mental health in **Chapter 5**. For this, we went back to basics – the art theories that originally developed the ‘formal analysis’ of art products that analyzed the formal elements instead of symbolic content. These formal elements were operationalized on five-point Likert scales and tested for inter-rater reliability based on 137 art products from 80 clients. The inter-rater reliability varied between moderate and substantial for all items except ‘texture’, which had poor inter-rater reliability.

We compared these reliable formal elements with the formal elements that were conceptualized as ‘primary’ formal elements based on the art therapists in clinical practice and found similarities in ‘movement’, ‘dynamic’ and ‘contour’.

According to the art therapists in Chapter 4, the combination of these formal elements mainly construed the ‘structure’ and ‘variation’ of the art product. Therefore, we tested their interrelatedness. These formal elements appeared to be interrelated in line with the combinations found in Chapter 4, i.e. the presence of ‘contour’ in combination with the absence of ‘movement’ and ‘dynamic’ resulted in high structure, and the presence of ‘movement’ and ‘dynamic’ in combination with the absence of ‘contour’ resulted in low structure.

In Chapter 4, art therapists found that very high and low structured – very organized or very chaotic – art products had less variation and that structure and variation indicated ‘imbalance’ and ‘adaptability’. This would indicate that clients that made very high or low structured art products were more imbalanced and less adaptive. Therefore, we tested whether the scores of the combination of these formal elements were related to scores on psychological complaints, resiliency and experiential acceptance. Findings showed that even though ‘dynamic’ and ‘movement’ significantly related to psychological complaints, the combination of ‘movement’, ‘dynamic’ and ‘contour’ was not significant. The combination of the formal elements ‘movement’, ‘dynamic’ and ‘contour’ significantly related to clients’ resiliency and experiential acceptance with the strongest relationship being with experiential acceptance. Based on these results the formal elements ‘movement’ and ‘dynamic’ indicated adult mental health more

clearly in terms of what art therapists called 'health' than in terms of what they called 'illness'.

DISCUSSION

1. The art form in art therapy observation and assessment

The art form refers to the use of art materials within an art-making process, which results in an art product. This is what differentiates art therapy from other types of therapy in mental health care. A fundamental assumption is that the art form is related to clients' mental health. The art form is seen as one of the cornerstones in the therapeutic context in addition to the client and the therapist. These three cornerstones influence each other, as is explained in the introduction. The addition of a third cornerstone and the influence between the three cornerstones leads to complexity but also richness in the clinical situation, which can be considered as difficult to investigate. This complexity is even more challenging because of the diverse perspectives on art therapy observation and assessment. Art therapy literature reflects this diversity in the ongoing discussion regarding the observation of the art-making process and art product, and how to interpret these observations in terms of mental health (e.g., Betts, 2006, 2012, 2016; Gilroy, Tipple & Brown, 2012). This discussion is diffuse and inconsistent due to a lack of empirical studies and methodological problems (e.g., Schoch, Ostermann & Gruber, 2017). To take the discussion forward, it is necessary to reduce this complexity and focus the research questions. In the studies in this dissertation, we attempted to focus our research questions. The result is promising, as it provides us with some clarity regarding the complexity of art therapy assessment.

In this dissertation, we have shown that the art form indeed contains important cues in art therapy assessment because the art form could provide information about the clients' mental health. Art therapists emphasize the importance of the art process during art therapy assessment. This is seen in our studies, previous research (e.g., Conrad, Hunter & Krieschok, 2011; Hinz, 2009, 2015), and when talking to art therapists in clinical practice. They highlight the importance of observing the way a client interacts, attunes and adapts to the art materials' properties during the art-making process. We have called this clients' 'material interaction.'

The emphasis on the art-making process and the material interaction, however, does not necessarily imply that the diagnostic task can only be done by the therapist during the art-making of the client. One of the most remarkable results of our studies is the unanimous agreement of art therapists that this material interaction is, at least partly, reflected in the formal elements of the art product. This is consistent with the views of other authors who consider the characteristics of the art product, such as line, color and structure, to be the result of the art-making process (Chilton, 2013; Eytan & Elkis-Abuhoff, 2013; Gantt, 2004, 2001; Gussak & Rosal, 2016; Hass-Cohen & Findlay, 2015; Kaplan, as cited in Malchiodi, 2012; Kim et al., 2012; Mattson, 2009; Thomas & Cody, as cited in Gilroy et al., 2012; Thyme et al., 2013). This train of thought would imply that just observing the formal elements is already an important source for assessing clients' mental health. Does this mean that it is not important to look at the art-making process anymore? And does this mean that only looking at the art product is sufficient to obtain information on the client? We simply do not know yet; however, our results give us a direction to further examine the formal elements in art therapy assessment. Focusing solely on formal elements of the art product has the methodological advantage of objectifying diagnostic cues. Furthermore, it can be a royal road to gaining a better understanding of art therapy assessment and more concise formulations of assumptions in art therapy assessment. Without a specific focus, it could remain an inextricable complexity in which it is not clear what is important and how elements are related. By focusing, we do not want to exclude themes. Instead, we want to limit the variables that could be operationalized and eventually measured reliably, and that are clinically relevant according to art therapists. Only in this way can we work on obtaining clarity in the complexity of the clinical context of art therapy observation and assessment.

2. Formal elements of art products

The above-mentioned complexity regarding art therapy observation and assessment could also be recognized in the number of formal elements that are considered as important for art therapy assessment. In literature and clinical practice, it is suggested that many formal elements are clinically and theoretically relevant. These are related to client characteristics, to psycho-social problems, or to psychopathology (e.g., Cohen, 1986, 1994;

Gannt & Tabone, 1998; Hacking, 1999; Stuhler-Bauer & Elbing, 2003). This shows the richness embedded in the clinical practice of art therapy, but at the same time it leads to challenges due to the huge number of formal elements to be studied, as well as the lack of sound empirical studies on formal elements. Again, we have tried to clarify some of the elements in this complexity.

Despite the diversity and complexity, our studies have revealed that only seven formal elements appear to be clinically relevant and at the same time can be operationalized reliably. We were able to limit the formal elements based on three criteria, i.e., objectifiable (unambiguous), clinically relevant, and reliable. Some of the many elements used in previous research could not be considered as observable pictorial qualities – formal elements – of art, e.g., ‘implied energy,’ ‘problem-solving,’ and ‘developmental level’ (Chirila & Feldman, 2012; Nan & Hinz, 2012). By returning to art theories on formal elements and examining the formal elements that are observable qualities of art, it was possible to describe and limit formal elements. Moreover, some formal elements derived from art theory are not considered clinically relevant according to art therapists. Despite the different perspectives and backgrounds of these art therapists, our studies show that they agree on a limited number of formal elements, which are mentioned in combination with each other. These findings indicate that at least some of these formal elements have the potential to transcend and bridge the diverse art therapy perspectives.

Regarding operationalizing formal elements reliably, our studies have led to the conclusion that for some formal elements the inter-rater reliability is problematic. Low to fair agreement between individuals rating formal elements in art products is a major problem in several studies. This becomes evident when formal elements are grouped in larger categories (Eitel et al., 2008), thereby leaving the inextricable complexity untouched. Insufficient agreement between raters is also found when a large number of formal elements are investigated together (Bucciarelli, 2011; Schoch et al., 2017). Our results highlight the need to disentangle the formal elements and to focus on just a few formal elements to obtain satisfactory inter-rater agreement. Again, the focus on these formal elements is certainly a simplification of the rich clinical field, and other aspects in the art product could be of value, e.g., contextual aspects and symbols (Eitel et al., 2008). However, limiting the number of formal elements appears to be promising in creating a solid base for further research and practice.

3. Formal elements of the art product and mental health

The need to focus also concerns the relation between formal elements and mental health. Not only is the number of diagnostic cues in the art form huge, but the same holds true for mental health; the number of approaches of health, as well as the number of health concepts, is almost unlimited. Health (or illness) can be defined in many ways, i.e., in terms of different categories of mental disorders as classified in the Diagnostic and Statistical Manual of Mental Disorders (DSM), as nosological entities, as dimensions of functioning and hindered by complaints, or in terms of positive health, flexibility, or ability to adapt and to self-manage with the challenges of life. Reduction and focus are also needed here. Available literature on the relation between the art product and health mainly focuses on psychopathology in terms of illness as described by the DSM or underlying nosological categories. We call this the nosological tradition. Furthermore, the art therapists in our studies prefer to consider health in terms of “balance” and interpret complaints due to the overuse or blockage of “thought” or “feeling” and lack of “adaptability” given specific challenges. By proposing this approach, they refer to health as clients’ flexibility, openness, self-management, and creativity. We refer to this way of reasoning as the adaptability tradition. The nosological and adaptability traditions are clearly opposed and provide different predictions concerning the relationship between the art product and health.

In Chapter 5, we have opted for a rather pragmatic approach by using available and commonly used questionnaires with good psychometric properties. Some of them stem from the nosological tradition (BSI) while others represent the adaptability tradition (flexibility = AAQ-II; resiliency = RS-nl). The results reveal that the combination of the formal elements ‘dynamic,’ ‘movement’ and ‘contour’ accounts for 19% of variance in RS-nl scores and for 29% in AAQ-II scores. The same combination of formal elements, however, shows only a slight non-significant statistical relation to the BSI; even though ‘dynamic’ and ‘movement’ related significantly to the BSI total score, the overall model that also included ‘contour’ is not significantly related.

Although these results are somewhat unexpected, we assume they are of vital importance. They are unexpected as Haeyen, Van Hooren, Van der Veld & Hutschemaekers (2017) found the same effect sizes for flexibility and mental illness (OQ-45 and SMI maladaptive scales) in their study on

effects of art therapy for patients with a personality disorder. Haeyen et al.'s outcomes are in line with results in more general clinical samples (Lukat et al., 2016; van Erp Taalman Kip & Hutschemaekers, 2018). A variety of hypotheses can be formulated to account for these outcomes: maybe the differences are related to differences in patient samples, the use of specific measures (BSI versus OQ-45 and SMI), or differences in study design (we did not study the effects of an art therapy intervention and did not calculate effect sizes). Undoubtedly, further research is needed to rule out the different hypotheses and to enlighten us in more detail about the nature of the relation between illness and positive health. At this point, again, we think it is more important to focus on what we have found: a clear and convincing relationship between formal elements of the art product and mental health.

The main conclusion of this thesis is that the combination of 'movement', 'dynamic' and 'contour' of the art product appears to be a robust indicator of some important aspects of "mental health", i.e., resilience and experiential acceptance, which refers to psychological flexibility (Hayes, Strosahl & Wilson, 1999). Our results show that the art product contains traces of the patients' "ability to fully contact the present moment and the thoughts and feelings it contains without needless defense, and, depending on what the situation affords, persisting in or changing behavior in the pursuit of goals and values." (Hayes, Luoma, Bond, Masuda & Lillis, 2006, p. 7). Underlying all the controversies among art therapists, we have found strong arguments in favor of their common claim that the art product has great diagnostic value.

Why not assume, therefore, that similar to psychological flexibility, art making itself requires being in the present moment (Smeijsters, 2008) and evokes both cognitive and emotional experiences. Moreover, one could assume that making art is related to executive functions (Abbing, Baars, Sonnevile, Ponstein & Swaab, 2019), such as choosing, focusing, directing action, paying attention to the present situation, taking distance, and reflecting on the impact on one's feelings. Furthermore, it requires the client's capability to play, experiment and discover (e.g. Hinz, 2009, 2015). In other words, the formal elements reflect the way a client is adjusting to the properties of art materials within the context of art therapy. An art product shows "the ability to adapt and to self-manage, in light of specific physical, emotional and social challenges of life," which conforms to the definition of positive health (Huber et al., 2016, p. 1).

If this interpretation is correct, we could argue that formal elements

of the art product reflect clients dealing with challenges in general and more specifically with the specific context of making art and the potential space and ability to achieve or restore balance through the art form. If this is indeed the case, we become able to understand the prognostic value of the art product, i.e., its role in the process of treatment indication. The art product shows us how the client is dealing with the challenge of making art in a therapeutic context, i.e., the ability to explore emotions and thoughts, to experiment with other coping strategies, and to create new solutions to realize a new and less disturbing balance.

By simplifying the complexity of the art form and its relation to health and by focusing on the results obtained, a relatively simple framework of interpretation has emerged regarding the relationship between the art form, adult mental health, and even its use for treatment indication.

Methodological considerations

There are several methodological strengths and limitations we need to consider. These include the study design, client group involved, art materials used, and art therapy task that was given to the clients.

The use of a mixed methods design, i.e., integrating qualitative and quantitative data, enabled us to explore the complex relationship between the art form and mental health (Zhang & Creswell, 2013). There are multiple perspectives on this relationship, and the concepts 'art form' and 'mental health' are multidimensional. This research aimed to gain an understanding of this complexity from both the practitioners and a theoretical point of view. The qualitative findings were employed to formulate hypotheses, which were then tested through quantitative methods, i.e., using a sequential exploratory mixed methods design (Creswell & Plano Clark, 2011). The researcher's art therapy background added depth to the understanding of art therapists with different cultural, educational, theoretical and clinical perspectives. To restrict potential bias to a minimum, a number of strategies were applied in each study to meet the criteria of quality, such as member checking, peer debriefing, and expert panels, which included researchers from outside the field of art therapy.

Regarding the client samples, adult clients with diverse psychological complaints and diagnoses were included. The samples were heterogenic to represent the adult population in mental health. In Chapter 5, clients were diagnosed with a variety of complaints, such as personality disorders, mood

disorders, eating disorders, and anxiety disorders. Clients with co-morbid diagnoses were most often diagnosed with mood disorder and personality disorder. Even though this heterogeneity ensured a realistic representation of the client population in adult mental health, it did not allow comparison of clients with similar mental health issues.

Furthermore, the art materials used and the art therapy task provided could influence the results. As it was argued by art therapists that interaction with diverse art materials evoked different cognitive and emotional experiences and material interaction styles, the art materials used and the task provided could influence the formal elements that we wanted to operationalize and test regarding their relation with mental health. For example, the formal element 'filled space' might have emerged if art products had been made on a larger paper size, with smaller brushes and/or allowing more time. We also knew that using just one art material eliminated the influence of the diversity of different art materials. Therefore, we decided to use acrylic paint that is multifaceted because it can be used resistively or fluidly depending on the amount of water added. The art therapists instructed all their clients explicitly on this possibility. In addition, the formal elements were operationalized for the use of two-dimensional art materials in general. For some formal elements, such as linearity, this was very difficult. Linearity depends considerably on the art material used, for instance, a marker creates lines more easily than acrylic paint. The formal elements 'movement,' 'dynamic' and 'contour' seemed to be less dependent on art materials. Specifically, 'movement' and 'dynamic' are more related to the client's movement and its dynamics during the interaction with the art material. Using a multifaceted material such as acrylic paint allowed clients to interact with it in their own style. We have, however, not tested this, and therefore this could be addressed in future research by using other art materials.

Implications for clinical practice

This research project investigated art therapy's fundamental assumption that the art form is related to adult mental health. This led to several substantial findings; however, the clinical implementation of these findings has not been within the scope of this dissertation. Therefore, we have to be cautious regarding the implications for the clinical practice of art therapy. Nonetheless, the findings are grounded in art therapy practice, as 68

art therapists with diverse art therapy backgrounds and perspectives participated in this research project. Even though these different perspectives seem to be engaged in an ongoing discussion regarding how to observe and interpret the art form in terms of mental health in art therapy literature, our findings indicate agreement between these perspectives at a deeper level. Whereas the existing debate in art therapy literature seemed to be stagnated by the question of whether to observe the art-making process, art product, or both, our findings indicated that there was agreement among art therapists regarding simplification of the complexity of the assumed relationship between the art form and adult mental health. Our empirical studies explicated the tacit knowledge of art therapists regarding the relationship between the art form and mental health and may contribute to the clinical art therapy practice.

Our findings indicated that the combination of the formal elements 'movement,' 'dynamic' and 'contour' mostly reveal aspects of clients' mental health, i.e. resiliency and experiential acceptance. These findings may indicate what to observe and how to interpret the art product in art therapy assessment. As the art product is the tangible and visible result of the art-making process, it can be observed from a distance and over time. Observing the formal elements allows reflection, which may be individual or a joint reflection between the client and therapist. Reflection may contribute to gaining an insight into the clients' balance and adaptability in the context of art therapy and in daily life functioning. In addition, the findings of this study may direct art therapists to systematically apply the art materials' properties to evoke specific experiences to enhance and/or restore clients' balance, adaptability, resiliency, and psychological flexibility. Systematic application of specific art materials' properties is assumed to evoke diverse experiences. Art therapists in this research project assumed that fluid, less controllable, materials evoke more "affective" experiences and resistive, more controllable, materials more "cognitive" experiences. These findings are consistent with the perspective of other authors (Hinz, 2009, 2015; Hyland Moon, 2010; Snir & Regev, 2013). The use of art materials in further art therapy treatment has, however, been beyond the scope of this dissertation. Moreover, observing the art form may support art therapists to estimate the client's potential to change toward health and decide whether clients may benefit from art therapy, to estimate the prognosis and treatment duration, to formulate treatment goals, and to choose specific art interventions, i.e., art materials and instructions, that

meet these treatment goals.

Specifying the relationship between the art form and mental health directs art therapy observation in practice, not only the do's, but also the don'ts. In several art therapy practices, art-based assessments that measure a large number of formal elements and relate them to symptoms of psychiatric disorders, and assessments that interpret the symbolic meaning of the art product are still commonly used. Our findings suggested that it is possible to focus on the combination of a small number of formal elements because they reflect the clients' material interaction and mental health.

Providing an evidence base for the observation of the art form in art therapy assessment may promote the recognition of art therapy as an innovative profession that contributes to the usual assessment of clients in adult mental health.

Recommendations for further research

Based on the findings of this research project, some new or additional topics emerged for further research.

In total, 68 art therapists participated in this research: 54 in the qualitative studies in Chapters 2 and 3 regarding material interaction, and 14 in the studies regarding the formal elements of the art product in Chapters 4 and 5. The majority of these therapists practiced in the Netherlands. Although we included five art therapists from Israel, Finland, Germany, the US and the UK to contrast findings with regard to the formal elements, further generalizability of art therapists' perspectives may need to be checked through further research.

In this research, art therapists have been able to gain a perspective on mental health based on one art product. The arts therapists stated, however, that they would prefer to observe more than one art product to gain a better perspective on "variation" over several art products. Variation was not operationalized in this project; therefore, further research could include at least three art products to further operationalize the concept of variation.

Our findings, in line with current literature, highlighted the therapeutic potential of diverse art material properties to achieve a more "affective" or "cognitive" experience to enhance balance between "thought" and "feeling". Based on the findings in Chapter 2, we know that the systematic application of art materials evokes specific experiences and allows the art therapist

to systematically observe the client's preferred material interaction style in response to familiar and unfamiliar art materials. It may be assumed this requires therapists' expertise in art materials' properties to tailor the art material's application in art therapy observation. Future research could address the use of different art materials to control for different affective or cognitive experiences between art materials used.

We have found main effects for the formal elements of 'dynamic' and 'movement' in relation to mental health, specifically experiential acceptance. Above, we have attempted to explain these findings by linking the formal elements 'dynamic' and 'movement' to material interaction and the concept of "forms of vitality" of Stern (2010, p.3). Future research could investigate this hypothesis by further operationalizing the concept of clients' material interaction and examining the relation between material interaction and the formal elements of art products.

We have focused on initial art therapy assessment. The main purposes of initial art therapy assessment are to gain a perspective on clients' mental health to make decisions with regard to the start of the treatment, whether a client may benefit from art therapy, formulating treatment goals, and choosing appropriate art interventions. The focus in our project was the relationship between the observation of the art form and adult mental health. Future research could address the implication of our findings for tracking treatment progress to determine whether it is possible to observe changes in the combination of the formal elements 'movement,' 'dynamic' and 'contour' during the course of treatment.

CONCLUSION

The main purpose of this dissertation was to investigate whether the art form in art therapy was related to adult mental health. Moreover, when empirical evidence indeed showed the existence of this relationship, our main question was how the aspects of mental health were related to the art form: was the art form related to clients' symptoms or psychopathology, do they concern mainly the way clients cope with them, or are other possibilities more feasible? Next, we elaborated on the question of whether and how to observe the art-making process, the art product, or both.

Our findings can be positioned on the right side of the art therapy triad, which consists of the interaction between the *client*, *therapist* and *art form*

(see Figure 1). Art therapists in this research project specified the art-making process – the axis client-art form in the art therapy triad – through the concept of material interaction. These art therapists also directed our study toward the investigation of the formal elements of the art products – the entity art form in the art therapy triad – because it was assumed that formal elements of the art product reflected the material interaction. The combination of ‘movement,’ ‘dynamic’ and ‘contour’ significantly related to clients’ resiliency and experiential acceptance – the entity client in the art therapy triad –.

Our findings add to the current landscape of art therapy observation and assessment that was largely colored by a stagnated debate with diverse art therapy perspectives trying to convince each other. Instead, we reduced and simplified the complexity of art therapy observation and assessment by focusing on a small part of the art form: the formal elements of the art product. Furthermore, our findings indicate that the experiential entrance through the use of the art form allows the art therapist to observe a client’s resiliency and experiential behavior, i.e., psychological flexibility. They also provide an empirical fundament for the relationship between the art form and adult mental health in art therapy.

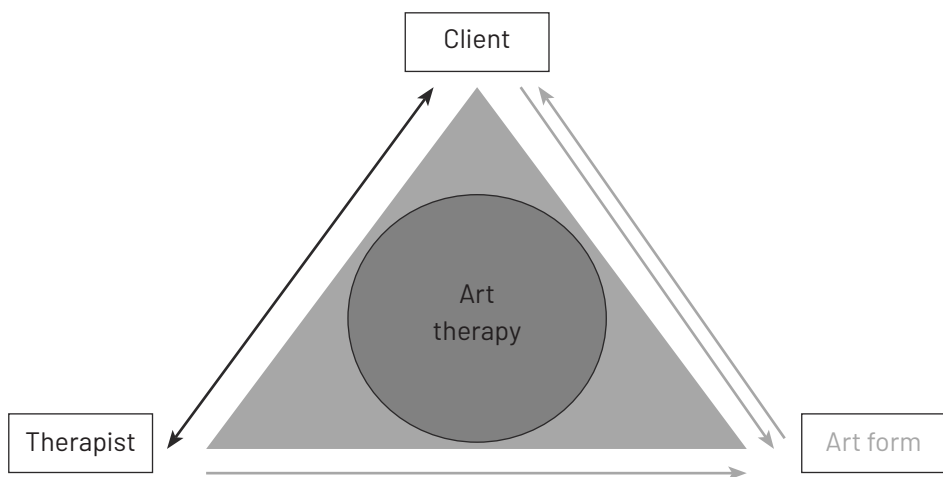


Figure 1: The art therapy “triad”

CHAPTER 7. Nederlandse samenvatting en algemene discussie

INTRODUCTIE

De therapeutische inzet van de beeldende kunstvorm is specifiek en uniek voor beeldende therapie (Edwards, 2013; Hinz, 2009; Jones, 2005; Moon Hyland, 2010; Rubin, 2011; Schaverien, 2000, Schweizer et al., 2009). Het gaat daarbij om het gebruik van beeldend materiaal in een beeldend vormgevingsproces dat resulteert in een beeldend product. Diverse beeldend therapeutische benaderingen veronderstellen dat de beeldende kunstvorm de geestelijke gezondheid van cliënten reflecteert. Onderzoek naar de kunstvorm in de context van beeldend therapeutische observatie laat echter geen consistente relaties zien. Ook heeft elke beeldend therapeutische benadering een eigen perspectief op hoe geestelijke gezondheid precies is gerelateerd aan de kunstvorm. Er is niet alleen verschil van opvatting over de toepassing van de beeldend materialen, maar ook over de interpretatie van het beeldend vormgevingsproces en het beeldend product in termen van geestelijke gezondheid.

In dit proefschrift hebben we de rol van de beeldende kunstvorm in beeldend therapeutische observatie en diagnostiek van de geestelijke gezondheid van volwassenen onderzocht. We willen weten: 1) hoe beeldend therapeuten, met verschillende theoretische perspectieven, de beeldende kunstvorm observeren in beeldend therapeutische diagnostiek, 2) welke perspectieven beeldend therapeuten hebben op geestelijke gezondheid, 3) of er een relatie is tussen de beeldende kunstvorm en geestelijke gezondheid, en zo ja, of het beeldend vormgevingsproces, het beeldend product, of beide zijn gerelateerd aan specifieke aspecten van geestelijke gezondheid. Deze vragen hebben we onderzocht in vier studies.

In dit hoofdstuk vatten we de resultaten samen. Vervolgens worden de belangrijkste bevindingen en de huidige kennis op het gebied van beeldende therapie bediscussieerd. Als laatste bespreken we de methodologische overwegingen, aanbevelingen voor verder onderzoek en implicaties voor de klinische praktijk.

SAMENVATTING

De belangrijkste aanleiding voor dit onderzoek was de fundamentele aanname binnen beeldende therapie dat de beeldende kunstvorm gekoppeld was aan de geestelijke gezondheid. Literatuur op dit gebied

bleek niet consistent vanwege verschillende theoretische perspectieven en verklaringen. We concludeerden dat onderzoek op dit gebied nog in de kinderschoenen stond. Ook zagen we een aanhoudend debat over de toepassing van de beeldende kunstvorm in de klinische praktijk van beeldende therapeutische observatie en diagnostiek en de interpretatie ervan in termen van geestelijke gezondheid. Dit leidde tot de eerste studie in Hoofdstuk 2.

In **Hoofdstuk 2** verkenden we hoe beeldend therapeuten, met verschillende opleidingsachtergronden en perspectieven op beeldende therapie, de beeldende kunstvorm toepasten, observeerden en interpreteerden in de diagnostiek van geestelijke gezondheid van volwassenen. Hiervoor vonden negendiepte interviews plaats waarbij gebruik werd gemaakt van de methode van *Grounded Theory*. Ondanks hun verschillende achtergronden, pasten de beeldend therapeuten vooral tweedimensionale beeldende materialen toe. Ze zeiden daarbij methodisch gebruik te maken van de eigenschappen van verschillende beeldende materialen, namelijk de mate waarin het materiaal fysiek contact eiste, de intrinsieke structuur (bijvoorbeeld vloeiend of vast) en de reikwijdte van technische mogelijkheden. De beeldend therapeuten zeiden vooral oog te hebben voor de wijze waarop cliënten interacteerden met de eigenschappen van het beeldend materiaal – de materiaalinteractie –, hoe cliënten het beeldend materiaal ervaarden – de materiaalbeleving –, en wat ze maakten – het beeldend product –.

Materiaalinteractie bleek een kernconcept te zijn. Het verwees naar het observeerbare gedrag van de cliënt gedurende de interactie met de eigenschappen van beeldend materiaal tijdens het beeldend vormgevingsproces. Materiaalinteractie bestond uit de combinatie van verschillende categorieën zoals beweging, dynamiek, ruimte en kracht. De beeldend therapeuten zeiden vooral aandacht te hebben voor de mate waarin de cliënt daadwerkelijk gebruik maakte van de eigenschappen van het materiaal. In termen van geestelijke gezondheid vonden beeldend therapeuten cliënten die het materiaal gebruikten en ermee experimenteerden meer 'flexibel'. *Flexibiliteit* werd gezien als de cliënt's mogelijkheid en openheid om nieuwe materialen uit te proberen, of ze op een andere wijze te gebruiken. Beeldend therapeuten relateerden flexibiliteit aan het experimenteren en het spel in het beeldend vormgeven. Cliënten die minimaal of geen gebruik maakten van de eigenschappen van het beeldend materiaal, zouden volgens de beeldend therapeuten eerder geneigd zijn te 'rationaliseren'. *Rationalisatie* verwees naar de cliënt's

behoefte aan structuur, perfectionisme, cognitieve controle en rigiditeit. Met het begrip materiaalinteractie verbonden de therapeuten de twee andere aspecten van de beeldende kunstvorm: materiaalbeleving en het beeldend product. Aangaande de *materiaalbeleving*, stelden de beeldend therapeuten dat materiaalinteractie verschillende cognitieve of emotionele ervaringen zou kunnen uitlokken tijdens het beeldend vormgevingsproces. Zo zouden cliënten met veel cognitieve controle bijvoorbeeld frustratie kunnen ervaren wanneer ze werkten met vloeiende beeldende materialen welke zich moeilijker lieten controleren.

Het observeren van de materiaalbeleving van cliënten, leverde de therapeuten inzicht op óf en hoe cliënten in staat waren om negatieve emoties toe te laten, te hanteren en uit te drukken. Tenslotte wezen de geïnterviewde beeldend therapeuten erop dat de sporen van materiaalinteractie, zichtbaar zouden zijn in de formele elementen van het beeldend product zoals lijn, contour en vorm.

In **Hoofdstuk 3**, werden 47 beeldend therapeuten in 3 opeenvolgende focusgroepen bevraagd over materiaalinteractie en de relatie met het beeldend product en de geestelijke gezondheid van volwassenen. Een nadere analyse van de oorspronkelijke categorieën van materiaalinteractie uit hoofdstuk 2 leidde tot 11 categorieën die belangrijk werden gevonden om te observeren. Deze categorieën konden verdeeld worden in twee hoofdcategorieën, 'fysieke expressie' en 'expressie in vormgeving', en één kerncategorie hier 'dialogoog' genoemd.

'Fysieke expressie' had betrekking op de fysieke actie gedurende het beeldend vormgevingsproces en bestond uit de subcategorieën 'beweging', 'ritme', 'tempo', 'greep', 'kracht' en 'fysiek contact'. De tweede hoofdcategorie 'expressie in vormgeving' bestond uit de subcategorieën 'structuur', 'belijning', 'vormen' en 'gebruik van kleur'.

De kerncategorie 'dialogoog' had betrekking op het vermogen van de cliënt om afstemmen, gebruik te maken, en zich aan te passen aan de eigenschappen van de beeldende materialen. De mate van dialogoog werd bepaald door fysieke, cognitieve en affectieve kenmerken van de cliënt. 'Dialogoog' werd gezien als een kernconcept, omdat het de verschillende categorieën verbond. Omdat de categorieën van materiaalinteractie sterk aan elkaar gerelateerd waren, vormden hun combinatie een materiaalinteractie stijl welke gepositioneerd kon worden op een continuüm van rationeel tot affectief.

Met betrekking tot geestelijke gezondheid, legden beeldend therapeuten een verband tussen een meer 'rationele stijl' en de behoefte aan controle van

de cliënt en kenmerken als bedachtzaamheid, precisie en perfectionisme, en moeite hebben met het herkennen, ervaren en uitdrukken van emoties of deze juist vermijden. Cliënten met een meer 'affectieve stijl' van materiaalinteractie zouden gemakkelijk overweldigd kunnen worden door emoties, hadden wellicht moeite met het reguleren van emoties, het structureren van hun impulsen en het hanteren van grenzen. De stijl van materiaalinteractie zou met andere woorden gekoppeld zijn aan de meest gebruikte coping strategieën. Omdat beeldende vormgeving meer gericht was op doen en ervaren dan op denken, zou observatie van materiaalinteractie stijl informatie opleveren over de cliënt's flexibiliteit en diens plek op het continuüm rationeel-affectief.

Wat betreft het beeldend product waren de beeldend therapeuten in staat om de cliënt's materiaalinteractie te herleiden vanuit de analyse van formele kenmerken van beeldend producten zoals 'vorm', 'lijn', 'kleur', 'ritme', 'dynamiek', 'bladvulling', 'suggestie van ruimte' en 'voor- en achtergrond'. Gebaseerd op deze formele elementen konden de beeldend therapeuten de geestelijke gezondheid van cliënten beschrijven in termen van de mogelijkheid om gebruik te maken en af te stemmen op de eigenschappen van de beeldend materialen en hun rationele en affectieve coping strategieën.

Deze bevindingen stuurden het onderzoek in de richting van een duidelijker begrip van de interpretatie die beeldend therapeuten gaven aan formele elementen van beeldend producten die gemaakt waren in beeldend therapeutische observatie.

De literatuur over het beoordelen van formele elementen in beeldend therapeutische observatie bleek niet consistent wat betreft welke formele elementen te observeren, hoe deze te operationaliseren, en interpreteren in termen van geestelijke gezondheid. In **Hoofdstuk 4** onderzochten we hoe beeldend therapeuten de geestelijke gezondheid van volwassenen beoordeelden. Hiervoor voerden wij diepte interviews met acht beeldend therapeuten uit Nederland, Verenigd Koninkrijk en Noord-Amerika. We wilden de exacte formele elementen van beeldend producten identificeren die beeldend therapeuten observeerden om zicht te krijgen op de geestelijke gezondheid van cliënten in de klinische praktijk van beeldende therapie.

De beeldend therapeuten observeerden primaire formele elementen in eerste instantie in termen van aan- of afwezigheid van 'beweging', 'dynamiek', 'contour' en 'herhaling'. Vervolgens combineerden zij deze met 'kleurmenging', 'figuratie' en 'kleursaturatie', oftewel secundaire formele

elementen. In deze combinatie ontstond een oordeel over de 'structuur' en een oordeel over de 'variatie' van het beeldend product.

'Structuur' verwees naar de wijze waarop het beeldend product was georganiseerd, variërend van zeer gestructureerd tot niet gestructureerd, oftewel van zeer georganiseerd tot totaal chaotisch. Zeer gestructureerde beeldend producten bestonden uit de aanwezigheid van 'contour' en 'herhaling in combinatie met de afwezigheid van 'beweging' en 'dynamiek'. Deze structuur werd vervolgens versterkt door de aanwezigheid van 'kleursaturatie' in combinatie met de afwezigheid van 'kleurmenging'. Beeldend producten met weinig structuur (dus meer chaotisch), werden gekenmerkt door de aanwezigheid van 'beweging' en 'dynamiek' in combinatie met de afwezigheid van 'contour' en 'herhaling'. Dit gebrek aan structuur kon worden versterkt door de aanwezigheid van 'kleurmenging' en de afwezigheid van 'figuratie'.

'Variatie' verwees naar de diversiteit in een of meer formele elementen in het beeldend product, bijvoorbeeld van diversiteit in contour was sprake indien sommige aspecten van het beeldend product duidelijk omljnd waren en andere juist diffuus bleven. Beeldend producten hadden minder 'variatie' naarmate ze meer gepositioneerd konden worden op de polariteiten van het continuüm van 'structuur', d.w.z. wanneer deze extreem georganiseerd of chaotisch waren.

Wat betreft de geestelijke gezondheid waren de beeldend therapeuten zeer terughoudend in het beschrijven van geestelijke gezondheid in termen van psychopathologie. Ze observeerden meer expliciet de mogelijkheden en sterkten van de cliënt dan diens specifieke problemen of klachten. Twee hoofdconcepten kwamen daarbij naar boven: 'balans' en 'adaptief vermogen'. Van 'balans' was sprake indien 'voelen' - toelaten, ervaren en uitdrukken van emoties - en 'denken', -cognitieve controle -, elkaar in evenwicht hielden. Met andere woorden, cliënten die hun emoties konden toelaten en uitdrukken op een manier dat ze er niet door overweldigd werden, werden door de therapeuten gezien als gebalanceerd. Van 'disbalans' was sprake bij onvermogen emoties te ervaren en uit te drukken. Dit kwam met name voor bij cliënten met een sterke behoefte aan cognitieve controle of bij cliënten die juist snel overspoeld raakten door emoties. Mogelijk verwees de aard van de disbalans naar 'ziekte' en het soort van pathologie. Dit werd echter niet nader uitgewerkt. 'Adaptief vermogen' verwees naar mogelijkheden van de cliënt om de balans in stand te houden of opnieuw te bereiken. In dit verband werden begrippen genoemd als zelfmanagement,

openheid, flexibiliteit en creativiteit. Zelfmanagement verwees hier naar de vaardigheid tot het maken van keuzes. Dit vereiste de vaardigheid van afstand nemen en kunnen reflecteren op een zich voordoende situatie. Flexibiliteit verwees naar het vermogen te reageren op uitdagingen, taken, personen en situaties. Dit vereiste de vaardigheid te kunnen afwisselen tussen cognitieve controle en het toelaten en uitdrukken van emoties. Therapeuten relateerden flexibiliteit aan veerkracht. Openheid verwees naar het kunnen innemen van verschillende en nieuwe perspectieven. Het betrof nieuwsgierigheid, risico's durven nemen, mislukkingen niet zien als rampen en het durven experimenteren in niet veilige situaties. Creativiteit verwees naar de mogelijkheid om af te kunnen wijken van de bekende weg om zodoende iets nieuws te creëren. Beeldend therapeuten relateerden creativiteit aan probleemoplossend vermogen. Tenslotte koppelden de therapeuten de psychische toestand van een cliënt aan de formele kenmerken. Ze veronderstelden dat zeer gestructureerde en zeer ongestructureerde beeldend producten teken waren van een disbalans van de cliënt. Zeer georganiseerde beeldend producten werden gerelateerd aan disbalans in de richting van 'denken'. Zeer chaotische beeldend producten werden gerelateerd aan disbalans in de richting van 'voelen'. Beeldend producten met 'variatie' verwezen naar een beter adaptief vermogen omdat variatie werd geassocieerd met experimenteren, exploreren, spelen, risico nemen en ontdekken. Op basis van de formele elementen die de structuur en variatie van het beeldend product bepaalden, formuleerden beeldend therapeuten een beeldend therapeutische diagnose in termen van 'balans' en 'adaptief vermogen'. Tenslotte konden ze op basis van deze formele kenmerken de richting van behandeling bepalen. In het algemeen schatten de beeldend therapeuten in dat cliënten met veel cognitieve controle meer gebaat zouden zijn bij 'affectieve' interventies, terwijl cliënten met veel moeite om emoties te reguleren meer zouden kunnen profiteren van 'cognitieve' interventies.

Deze bevindingen riepen de vraag op naar een mogelijk objectieve operationalisatie van formele elementen. In de beeldend therapeutische literatuur vonden we een aantal beeldend therapeutische meetinstrumenten met een operationalisatie van formele kenmerken. Deze instrumenten bleken echter serieus bekritiseerd te worden omwille van beperkte betrouwbaarheid en validiteit. Daarom zochten we in hoofdstuk 5 naar een eigen instrument waarmee klinisch relevante formele elementen konden worden gedefinieerd die betrouwbaar geoperationaliseerd en geanalyseerd

konden worden en dus getest konden worden op hun relatie met geestelijke gezondheid

Hoofdstuk 5 startte met een verkenning van kunsttheorieën die oorspronkelijk de ‘formele beeldanalyse’ ontwikkelden die de formele elementen analyseerden in plaats van de symbolische inhoud. Deze formele elementen werden geoperationaliseerd op een vijf-punt Likert schaal en werden getest op interbeoordelaars betrouwbaarheid gebaseerd op 137 beeldend producten van 80 cliënten.

De interbeoordelaars betrouwbaarheid van alle items varieerde van gemiddeld tot substantieel, behalve ‘textuur’ die een slechte interbeoordelaars betrouwbaarheid had.

We vergeleken deze betrouwbare formele elementen met de formele elementen die geconceptualiseerd waren als ‘primaire’ formele elementen op basis van beeldend therapeuten in de praktijk en vonden overeenkomsten in ‘beweging’, ‘dynamiek’ en ‘contour’.

Volgens de beeldend therapeuten in Hoofdstuk 4 bepaalde de combinatie van deze formele elementen voornamelijk de ‘structuur’ en ‘variatie’ van het beeldend product. Daarom testten we hun onderlinge relatie. Deze formele elementen bleken intergerelateerd, in lijn met de gevonden combinaties in Hoofdstuk 4, namelijk de aanwezigheid van ‘contour’ in combinatie met de afwezigheid van ‘beweging’ en ‘dynamiek’ resulteerde in veel structuur, en de aanwezigheid van ‘beweging’ en ‘dynamiek’ in combinatie met de afwezigheid van ‘contour’ resulteerde in weinig structuur. In Hoofdstuk 4, vonden beeldend therapeuten dat zeer gestructureerde en zeer ongestructureerde – zeer georganiseerde of zeer chaotische – beeldend producten minder variatie hadden en dat structuur en variatie ‘disbalans’ en ‘adaptief vermogen’ aanduiden. Dit zou erop wijzen dat cliënten die beeldend producten maakten met zeer veel of zeer weinig structuur meer uit balans en minder adaptief waren. Daarom testten we in welke mate de scores van de combinaties van deze formele elementen gerelateerd waren aan de scores op psychische klachten, veerkracht en experiëntiële acceptatie. De resultaten waren als volgt: ondanks het feit dat ‘dynamiek’ en ‘beweging’ significant gerelateerd waren aan psychische klachten, bleek de combinatie met ‘contour’ niet significant. De combinatie van de formele elementen ‘beweging’, ‘dynamiek’ en ‘contour’ was significant gerelateerd aan de cliënt’s veerkracht en experiëntiële acceptatie met de sterkste relatie met experiëntiële acceptatie. Formele elementen als ‘beweging’ en ‘dynamiek’ bleken dus positief gecorreleerd aan geestelijke gezondheid van volwassenen.

DISCUSSIE

1. De kunstvorm in beeldend therapeutische observatie en diagnostiek

Beeldende therapie onderscheidt zich in het gebruik van beeldende materialen binnen een vormgevingsproces dat resulteert in een beeldend product (kunstvorm). Een fundamentele hypothese is dat de kunstvorm gerelateerd is aan de geestelijke gezondheid van cliënten. De kunstvorm wordt, naast de cliënt en therapeut, beschouwd als de derde hoeksteen in de therapeutische context. De toevoeging van een derde hoeksteen en de onderlinge invloed geeft de klinische situatie een eigen reliëf maar maakt het ook complexer. De complexiteit is er mede debet aan dat beeldende therapie zo weinig wordt onderzocht.

De rijkheid van de kunstvorm wordt verder gecompliceerd door het groot aantal opvattingen op beeldend therapeutische observatie en diagnostiek en de relatie tussen kunstvorm en geestelijke gezondheid (bv., Betts, 2006, 2012, 2016; Gilroy, Tipple & Brown, 2012). De literatuur hierover is diffuus en inconsistent, mede door gebrek aan empirische studies en ernstig methodologische tekortkomingen in het onderzoek hierover (bv., Schoch, Ostermann & Gruber, 2017). Een volgende stap in kennisontwikkeling vraagt focus in het onderzoek en daarmee erkenning dat daarmee niet de volledige klinische complexiteit kan worden meegenomen. In de studies binnen deze dissertatie hebben we daar een bijdrage aan willen leveren met een beperkt aantal onderzoeksvragen op een beperkt deel van het proces van diagnostiek en indicatiestelling. Per definitie hebben we daarmee onrecht gedaan aan de complexe klinische realiteit, maar tegelijkertijd zijn we daardoor een aantal belangrijke aspecten van de diagnostische waarde van de kunstvorm op het spoor gekomen.

Ten eerste hebben we laten zien dat de kunstvorm daadwerkelijk belangrijke aanwijzingen bevat over de geestelijke gezondheid van de maker ervan, de cliënt. De kunstvorm is dus wel degelijk een belangrijke bron voor de beeldend therapeutische diagnostiek en indicatiestelling. Al direct ontstaat daarbij een onderscheid tussen het proces en het resultaat. Beeldend therapeuten benadrukken dat het vormgevingsproces van belang is in beeldend therapeutische diagnostiek. Deze bevinding komt in veel onderzoek terug (bv., Conrad, Hunter & Krieschok, 2011; Hinz, 2009, 2015), en blijkt ook uit de resultaten van onze studies. Beeldend therapeuten in de

klinische praktijk benadrukken het diagnostisch belang van de wijze waarop de cliënt interacteert met, afstemt op en zich aanpast aan de eigenschappen van het beeldend materiaal gedurende het vormgevingsproces. We hebben dit 'materiaalinteractie' genoemd.

De nadruk op het vormgevingsproces en de materiaalinteractie impliceert echter niet noodzakelijkerwijs dat de diagnostische taak enkel binnen de context van een intake of onderzoek door de beeldend therapeut zelf kan worden verricht. Een van de meest opvallende resultaten van onze studies is de unanieme overeenstemming tussen beeldend therapeuten dat de materiaalinteractie, in ieder geval gedeeltelijk, zichtbaar is in de formele elementen van het beeldend product. Deze bevinding sluit aan bij eerder onderzoek naar formele kenmerken van het beeldend product: lijn, kleur en structuur, zijn (mede) een teken van het vormgevingsproces zelf (Chilton, 2013; Eytan & Elkis-Abuhoff, 2013; Gantt, 2004, 2001; Gussak & Rosal, 2016; Hass-Cohen & Findlay, 2015; Kaplan, als geciteerd in Malchiodi, 2012; Kim et al., 2012; Mattson, 2009; Thomas & Cody, zoals geciteerd in Gilroy et al., 2012; Thyme et al., 2013). Deze bevinding impliceert dat de observatie van formele kenmerken in het product belangrijke informatie oplevert over het proces en dus een belangrijke bron is voor het vaststellen van de geestelijke gezondheid van cliënten. Of daarmee ook gezegd is dat observatie van het vormgevingsproces niet langer nodig is voor de diagnostiek en dat enkel het beeldend product volstaat om informatie over de cliënt te verkrijgen? We weten het simpelweg gewoon (nog) niet. Nader onderzoek moet uitwijzen in hoeverre deze opvatting die zo verankerd is in de 'collective sense of the profession' daadwerkelijk beklijft in de praktijk en of het enkel focussen op de formele elementen van het beeldend product voldoende is. Dat zou in ieder geval een belangrijk methodologisch voordeel hebben. Het zou een koninklijke weg zijn de beeldend therapeutische diagnostiek verder te objectiveren en de aannames van beeldend therapeutische diagnostiek op hun empirische mogelijkheden te onderzoeken.

2. Formele elementen van beeldend producten

De hierboven genoemde complexiteit wat betreft beeldend therapeutische observatie en diagnostiek speelt ook bij het aantal formele elementen dat als belangrijk wordt gezien voor beeldend therapeutische diagnostiek. In de literatuur en klinische praktijk wordt gesuggereerd dat het aantal formele elementen dat klinisch en theoretisch relevant is, bijna tot oneindig reikt.

In literatuur zien we tal van voorbeelden over hoe specifieke kenmerken gerelateerd worden aan karakteristieken van de cliënt, psychosociale problemen, of aan diens psychopathologie (bv., Cohen, 1986, 1994; Gannt & Tabone, 1998; Hacking, 1999; Stuhler-Bauer & Elbing, 2003). De beschrijvingen zijn overtuigend, en zeker op papier is er sprake van een ongekeerde rijkheid aan mogelijkheden. Tegelijkertijd is dat aantal zo groot en zijn de opvattingen onderling zo tegenstrijdig, dat volledigheid bij voorbaat onmogelijk is. Nogmaals, met ons onderzoek hebben we getracht om in deze wirwar aan mogelijkheden enige helderheid te brengen. Het kan niet anders dan dat we daarbij belangrijke elementen uit het oog zijn verloren en te kort doen aan de rijkheid van de klinische praktijk.

Zodra we focussen in deze diversiteit en complexiteit wordt duidelijk dat zeven formele elementen boven komen drijven. Zij blijken klinisch relevant en kunnen tegelijkertijd betrouwbaar geoperationaliseerd worden. Op basis van drie criteria, namelijk objectiveerbaar (ondubbelzinnig), klinisch relevant, en betrouwbaar is het aantal formele beeldkenmerken uiteindelijk beperkt tot drie. Daarbij hebben kunsttheorieën over formele kenmerken het uitgangspunt gevormd. Na operationalisatie en toetsing op basis van betrouwbaarheid is de validiteit vastgesteld op basis van eerder onderzoek onder 8 therapeuten. Ondanks de verschillende perspectieven en achtergronden van deze beeldend therapeuten, blijkt er consensus over een beperkt aantal formele elementen. Deze bevindingen lijken erop te wijzen dat op zijn minst enkele van deze formele elementen de potentie hebben om de verschillende beeldend therapeutische perspectieven te overbruggen.

Nogmaals, de focus op deze formele elementen is zeker een versimpeling van de rijke klinische praktijk, en andere aspecten van het beeldend producten zouden waardevol kunnen zijn, zoals contextuele aspecten en symbolen (Eitel et al., 2008). Tegelijkertijd blijkt het beperken van het aantal formele elementen een solide basis voor verder onderzoek en de praktijk.

3. Formele elementen van het beeldend product en geestelijke gezondheid

De noodzaak te focussen betreft ook de relatie tussen formele elementen en geestelijke gezondheid. Niet alleen is het aantal diagnostische aanwijzingen van de kunstvorm groot, maar het zelfde geldt ook voor het concept van geestelijke gezondheid zelf; het aantal benaderingen van gezondheid als

ook het aantal gezondheidsconcepten is groot en diffuus. Gezondheid (of ziekte) laat zich op verschillende manieren definiëren, bijvoorbeeld als categorie in een systeem van psychische stoornissen als nosologische entiteiten, als dimensies van functioneren en beperkt door klachten, of in termen van positieve gezondheid, flexibiliteit, en het vermogen om zich aan te passen en zelf managen van uitdagingen in het leven. Reductie en focus zijn ook hier nodig. Beschikbare literatuur aangaande de relatie tussen het beeldend product en gezondheid richt zich met name op psychopathologie in termen van ziekte zoals beschreven in de DSM of onderliggende nosologische categorieën. We noemen dit de nosologische traditie. De beeldend therapeuten in onze studies hebben de voorkeur om gezondheid te beschouwen in termen van “balans” en interpreteren klachten door een overmatig gebruik of blokkade van ‘denken’ of ‘voelen’ en een gebrek aan “aanpassingsvermogen” in specifieke gegeven uitdagingen. Door deze benadering, refereren ze naar de gezondheid op basis van de flexibiliteit, openheid, zelfmanagement en creativiteit van cliënten. We verwijzen naar deze manier van redeneren als de traditie van adaptatie. De nosologische - en de adaptatie traditie zijn duidelijk tegenovergesteld en bieden verschillende verklaringen wat betreft de relatie tussen het beeldend product en gezondheid.

In Hoofdstuk 5 hebben we voor een pragmatische benadering van het begrip geestelijke gezondheid gekozen door beschikbare en algemeen gebruikte vragenlijsten met goede psychometrische kwaliteiten in te zetten. Sommige passen meer in een nosologische traditie (BSI), andere sluiten beter aan bij de adaptatietraditie (flexibiliteit = AAQ-II; veerkracht = RS-nl). De resultaten laten zien dat de combinatie van de formele elementen ‘dynamiek’, ‘beweging’ en ‘contour’ 19% van de variantie van RS-nl scores verklaard en 29% van de AAQ-II scores.

Dezelfde combinatie van formele elementen in relatie tot de BSI laat slechts een lichte niet-significante trend zien; ondanks dat ‘dynamiek’ en ‘beweging’ significant gerelateerd zijn aan de BSI Totaal score, is het overall model, dat ook ‘contour’ includeert, statistisch niet significant.

Op basis van andere onderzoeksresultaten zijn deze bevindingen onverwacht. Zo hebben Haeyen et al. (2017) dezelfde effecten gevonden van beeldende therapie op flexibiliteit (AAQ-II) en psychische stoornissen (OQ-45 en SMI maladaptieve schalen). Haeyen et al. 's uitkomsten liggen in lijn met uitkomsten in meer algemene klinische steekproeven (Lukat et al., 2016; van Erp Taalman Kip & Hutschemaekers, 2018). Er kan een variëteit aan

hypotheses worden geformuleerd die deze verschillen verklaart: wellicht zijn de verschillende te relateren aan verschillen in patiënten, het gebruik van specifieke instrumenten (BSI versus OQ-45 en SMI), of verschillen in studie design (wij hebben niet de effecten van een beeldend therapeutische interventie onderzocht en hebben geen effectgroottes berekend). Er is ongetwijfeld verder onderzoek nodig om verschillende hypotheses uit te sluiten en ons in meer detail in te lichten over de relatie tussen ziekte en positieve gezondheid.

Ondanks deze onverwachte resultaten denken we dat de uitkomsten van ons onderzoek van vitaal belang zijn voor een beter begrip van de relatie tussen beeldend product en geestelijke gezondheid. Op dit punt, opnieuw, denken we dat met het focussen op specifieke kenmerken en hun onderlinge relaties we een duidelijke en overtuigende relatie tussen formele elementen van het beeldend product en geestelijke gezondheid hebben gevonden. Daarbij geldt dat de combinatie van 'beweging', 'dynamiek' en 'contour' van het beeldend product vooral een robuuste indicator is van positieve geestelijke gezondheid, d.w.z. psychologische flexibiliteit (Hayes, Strosahl & Wilson, 1999). Onze resultaten laten zien dat het beeldend product sporen bevat van de cliënt's "ability to fully contact the present moment and the thoughts and feelings it contains without needless defense, and, depending on what the situation affords, persisting in or changing behavior in the pursuit of goals and values." (Hayes, Luoma, Bond, Masuda & Lillis, 2006, p. 7). Onderliggend aan alle controversies van beeldende therapeuten, hebben we sterke argumenten gevonden ten gunste van hun gezamenlijke claim dat het beeldend product grote diagnostische waarde heeft.

Waarom zouden we er daarom niet vanuit gaan dat, vergelijkbaar met psychologische flexibiliteit, beeldende vormgeving vereist om in het huidige moment te zijn (Smeijsters, 2008) en leidt tot cognitieve en emotionele ervaringen. Bovendien past dat bij de hypothese dat beeldend vormgeven is gerelateerd aan executieve functies (Abbing, Baars, Sonnevile, Ponstein & Swaab, 2019), zoals het maken van keuzes, focussen, aansturen van gedrag, aandacht richten op de huidige situatie, afstand nemen, en reflecteren op de impact op iemands gevoel. Beeldende vormgeving eist van de cliënt vermogen tot spelen, uitproberen en ontdekken (bv. Hinz, 2009, 2015). Met andere woorden, de formele elementen reflecteren de wijze waarop de cliënt zich aanpast aan de eigenschappen van beeldend materiaal in de context van beeldende therapie. Een beeldend product demonstreert "the ability to adapt and to self-manage, in light of specific physical, emotional

and social challenges of life,” conform de definitie van positieve gezondheid (Huber et al., 2016, p. 1).

Indien vervolgonderzoek de interpretatie van onze resultaten bevestigt, dan luidt de belangrijkste conclusie uit dit onderzoek dat formele elementen van het beeldend product de wijze reflecteert waarop cliënten omgaan met uitdagingen in het algemeen en meer specifiek met de specifieke context van het beeldend vormgeven en de potentiële ruimte en mogelijkheid om balans te bereiken of herstellen door de kunstvorm. Daarmee wordt de diagnostische waarde van het beeldend product inzichtelijk alsook diens rol in het proces van indicatiestelling. Het beeldend product laat zien op welke wijze een cliënt omgaat met de uitdaging van het maken van een beeldend product in een therapeutische context, oftewel de mogelijkheid om emoties en gedachten te verkennen, te experimenteren met andere coping strategieën, en het creëren van nieuwe oplossingen voor het realiseren van een nieuwe en minder verstorende balans.

Methodologische overwegingen

Er zijn verschillende methodologische sterktes en beperkingen die we hier moeten vermelden. Deze betreffen het onderzoeksdesign, de betrokken cliëntengroep, de gebruikte beeldende materialen, en de instructies die aan de cliënten zijn gegeven.

Het gebruik van een ‘mixed method’ waarin kwalitatieve en kwantitatieve data zijn geïntegreerd, heeft ons in staat gesteld om de complexe relatie tussen de kunstvorm en geestelijke gezondheid te exploreren (Zhang & Creswell, 2013). Er zijn veel perspectieven op deze relatie, en de concepten ‘kunstvorm’ en ‘geestelijke gezondheid’ blijken multidimensionaal. Met ons onderzoek hebben we ons als doel gesteld om zicht te krijgen op deze complexiteit vanuit het perspectief van zowel de praktijk als de theorie. De kwalitatieve bevindingen zijn gebruikt voor het formuleren van hypothesen, die vervolgens zijn getest middels kwantitatieve methoden, oftewel een opeenvolgend exploratief mixed method design (Creswell & Plano Clark, 2011). Zo’n benadering vraagt van de onderzoeker een beeldend therapeutische achtergrond en vraagt om erkenning van verschillen tussen beeldend therapeuten door diverse culturele, opleiding, theoretische en klinische achtergronden. Die expertise van de onderzoeker vormt tegelijkertijd een mogelijke bron van bias: de onderzoeker is vooringenomen en heeft aan een half woord genoeg. Om die potentiële bias tot een minimum te beperken, is

in iedere studie een aantal strategieën toegepast om de kwaliteitscriteria te borgen zoals member-checking, peer debriefing en expert panels bestaande uit onderzoekers buiten het gebied van beeldende therapie.

Wat betreft de cliëntengroep, zijn enkel volwassen cliënten met uiteenlopende psychologische klachten geïnccludeerd. Heterogeniteit heeft tot voordeel dat de grote groepen van volwassenen cliënten in de geestelijke gezondheidszorg (GGZ) zijn vertegenwoordigd. Dat geldt zeker voor de cliënten uit Hoofdstuk 5, met uiteenlopende diagnoses waaronder persoonlijkheid-, stemmings-, eet- en angststoornissen. Juist deze heterogeniteit zorgt voor een goede representatie van de cliënten populatie in de volwassenen GGZ. Maar ook hier weer heeft het voordeel zijn eigen nadeel: de subgroepen van cliënten met dezelfde diagnoses zijn klein en laten zich onderling maar moeilijk vergelijken.

Een andere mogelijke beperking betreft het gebruikte beeldend materiaal en de aangereikte beeldend therapeutische instructie. Ongetwijfeld zijn die van invloed op de beeldend producten. Dat volgt uit de aanname van beeldend therapeuten dat juist de interactie met verschillende beeldende materialen tot cognitieve en emotionele ervaringen en stijlen van materiaalinteractie kan leiden. Idem voor de instructie; ook die heeft invloed op het product en dus op de wijze waarop de formele elementen concrete invulling hebben gekregen. Het nadeel van het gebruik van een gestandaardiseerde instructie met één materiaal is dat de invloed van verschillende materialen in instructie niet gemeten wordt. Echter, door de instructie en materiaal constant te houden, worden de producten vergelijkbaar en worden storende factoren zoveel mogelijk uitgesloten. Hierbij is gekozen voor acrylverf omdat dit zowel droog als vloeïend gebruikt kan worden, afhankelijk van de hoeveelheid water die wordt toegevoegd. De formele elementen 'beweging', 'dynamiek' en 'contour' lijken minder afhankelijk van het beeldend materiaal. Specifiek 'beweging' en 'dynamiek' zijn meer gerelateerd aan de cliënt's bewegingen en dynamiek gedurende de interactie met het materiaal.

Implicaties voor de klinische praktijk

In deze dissertatie hebben we de assumptie onderzocht dat de kunstvorm gerelateerd is aan de geestelijke gezondheid. Dit heeft tot verschillende substantiële conclusies geleid met mogelijk belangrijke consequenties voor de praktijk; echter, de klinische implementatie van deze bevindingen heeft geen onderdeel uit gemaakt van deze dissertatie. We zullen daarom

terughoudend moeten zijn wat betreft de implicaties van bevindingen voor de klinische beeldend therapeutische praktijk.

Desalniettemin zijn de bevindingen gefundeerd in de beeldend therapeutische praktijk, omdat in alle studies in totaal 68 beeldend therapeuten met diverse achtergronden en perspectieven hebben geparticipeerd. Op basis van de literatuur en de aanhoudende discussie over observatie en interpretatie van de kunstvorm in termen van geestelijke gezondheid, verwachtten we verdeeldheid. Onze bevindingen nu wijzen op een grote mate van overeenstemming tussen de verschillende therapeuten. Terwijl de bestaande discussie in de beeldend therapeutische literatuur gestagneerd lijkt door de vraag of het vormgevingsproces, het beeldend product, of beide geobserveerd dienen te worden, wijzen onze bevindingen op overeenstemming tussen beeldend therapeuten wat betreft de vereenvoudiging van de complexiteit van de veronderstelde relatie tussen de kunstvorm en geestelijke gezondheid. Deze bevindingen zijn gebaseerd op empirische studies die den 'collective sense of the profession' hebben geëxpliciteerd.

Onze bevindingen wijzen erop dat vooral de combinatie van de formele elementen 'beweging', 'dynamiek' en 'contour' aspecten van geestelijke gezondheid reflecteren, namelijk veerkracht en experiëntiële acceptatie, van cliënten. Deze bevindingen geven mogelijk richting aan het observatie- en interpretatieproces in beeldend therapeutische diagnostiek. Omdat het beeldend product het tast- en zichtbaar is, kan het met afstand en over de tijd geobserveerd worden. De observatie van formele elementen draagt bij aan reflectie: individuele reflectie, maar ook gezamenlijke reflectie tussen de cliënt en therapeut. Reflectie kan bijdragen aan het verkrijgen van inzicht betreffende de balans van de cliënt en diens aanpassing vaardigheden. Daarnaast, kunnen deze bevindingen richting geven aan beeldend therapeuten wat betreft de systematische toepassing van de eigenschappen van beeldend materiaal om de cliënt specifieke ervaringen op te laten doen ten behoeve van het verbeteren en/of herstellen van balans, aanpassingsvermogen, veerkracht en psychologische flexibiliteit. Wij nemen daarbij aan dat de systematische toepassing van specifieke eigenschappen van beeldend materiaal tot verschillende ervaringen bij cliënten zal leiden, en dus tot verschillende vormen van adaptatie. Beeldend therapeuten in dit onderzoek gaan er vanuit dat vloeiende en minder te controleren materialen, zoals aquarelverf of inkt, eerder tot "affectieve" ervaringen leiden. Vastere en beter te controleren materialen, zoals potlood

en markteerstift, geven vooral aanleiding tot “cognitieve” ervaringen. Deze bevindingen liggen in lijn met perspectieven van andere auteurs (Hinz, 2009, 2015; Hyland Moon, 2010; Snir & Regev, 2013).

Misschien kunnen we nog een stap verder zetten door te speculeren over de rol van beeldend materiaal in de verdere beeldend therapeutische behandeling. Daarbij kan het observeren van de kunstvorm beeldend therapeuten ondersteunen bij het inschatten van de ruimte van de cliënt om tot verandering richting gezondheid te komen. Ook zou het observeren van de kunstvorm kunnen bijdragen aan de indicatiestelling, de prognose en duur van behandeling, het formuleren van behandeldoelen en te besluiten welke specifieke interventies en werkvormen, d.w.z. materialen en instructies, hiervoor in te zetten.

Het verder specificeren van de relatie tussen de kunstvorm en geestelijke gezondheid kan ook richting geven aan de beeldend therapeutische observatie in de praktijk, niet alleen wat wel te doen, maar ook wat niet te doen. In de beeldend therapeutische praktijk worden nog regelmatig art-based instrumenten gebruikt waarin een groot aantal formele elementen worden gemeten en gerelateerd aan symptomen van psychiatrische stoornissen, en instrumenten die de symbolische inhoud van het beeldend product interpreteren. We vermoeden, op basis van onze bevindingen, dat die werkwijze omslachtig is met grote kans op vergissing. Veel meer voor de hand ligt de combinatie van een klein aantal formele elementen, juist ook omdat deze de materiaalinteractie en de geestelijke gezondheid reflecteert.

Het verstrekken van een basis voor bewijs voor deze relatie, draagt mogelijk bij aan de (h)erkenning van beeldende therapie als innovatieve professie. Het observeren van de kunstvorm in beeldend therapeutische diagnostiek draagt bij aan de standaard diagnostiek van cliënten in de GGZ.

Aanbevelingen voor verder onderzoek

Op basis van de onderzoeksbevindingen is een aantal nieuwe en aanvullende vragen naar boven gekomen die mogelijk een onderwerp kunnen vormen voor verder onderzoek.

In totaal hebben 68 beeldend therapeuten deelgenomen aan dit onderzoek: 54 in de kwalitatieve studies in Hoofdstuk 2 en 3 over materiaalinteractie, en 14 in de studies over de formele elementen van beeldend producten in Hoofdstuk 4 en 5. Het grootste deel van deze

therapeuten werkt in Nederland. Ondanks dat we vijf beeldend therapeuten uit Israël, Finland, Duitsland, US en UK hebben betrokken ter verrijking van de resultaten over formele elementen verdient het aanbeveling om nader cultuur vergelijkend onderzoek te doen naar de generaliseerbaarheid van de perspectieven van de beeldend therapeuten.

Beeldend therapeuten blijken in staat om op basis van één beeldend product een beeld te hebben van de geestelijke gezondheid van een cliënt. Echter, de beeldend therapeuten zeggen tegelijkertijd een voorkeur te hebben voor het observeren van meer dan één beeldend product; alleen zo krijgen zij meer zicht op de "variatie" over verschillende beeldende producten. Dat is de reden dat wij onze studies "variatie" niet hebben kunnen operationaliseren. Het voorstel is om in verder onderzoek minstens drie producten van een cliënt te includeren en aldus variatie te operationaliseren.

Onze bevindingen, in lijn met de huidige literatuur, benadrukken de therapeutische mogelijkheden van de diverse beeldende materialen om meer "affectieve" of "cognitieve" ervaringen op te roepen en aldus de balans tussen 'denken' en 'voelen' kunnen beïnvloeden of versterken. Gebaseerd op de bevindingen in Hoofdstuk 2 weten we dat therapeuten ervan overtuigd zijn dat de systematische toepassing van beeldend materiaal tot specifieke ervaringen kan leiden bij cliënten. Die ervaringen bieden aanknopingspunten voor beeldend therapeut tot systematische observatie van de door de cliënt geprefereerde materiaal interactie stijl. Nader onderzoek is nodig om de specifieke invloed van materialen verder te verkennen en na te gaan in welke mate deze leiden tot specifieke affectieve en cognitieve ervaringen. We hebben hoofdeffecten gevonden voor de formele elementen 'dynamiek' en 'beweging' in relatie tot geestelijke gezondheid, m.n. experiëntiële acceptatie. We hebben gepoogd deze bevindingen uit te leggen door de formele elementen 'dynamiek' en 'beweging' te relateren aan materiaalinteractie en het concept "forms of vitality" van Stern (2010, p.3). Toekomstig onderzoek zou deze hypothese kunnen verkennen door het concept materiaalinteractie verder te operationaliseren en de relatie tussen materiaalinteractie van cliënten en formele elementen van beeldend producten verder te onderzoeken.

We hebben ons gericht op de beeldende therapeutische diagnostiek bij aanvang van de behandeling. De belangrijkste doelen van deze diagnostiek zijn om zicht te krijgen op de geestelijke gezondheid van cliënten, zodat keuzes gemaakt kunnen worden betreffende het al dan niet starten van behandeling, het inschatten of de cliënt gebaat zou kunnen zijn bij

beeldende therapie, het formuleren van behandeldoelen en het kiezen van passende beeldend therapeutische interventies. De focus in ons project lag op de relatie tussen de observatie van de kunstvorm en de geestelijke gezondheid van volwassenen. Verder onderzoek zou zich kunnen richten op de implicaties van onze bevindingen voor het monitoren van vooruitgang gedurende behandeling om te kunnen bepalen of het mogelijk is om veranderingen die zich voordoen in het behandelproces leiden tot verandering in de combinatie van de formele elementen 'beweging', 'dynamiek' en 'contour'

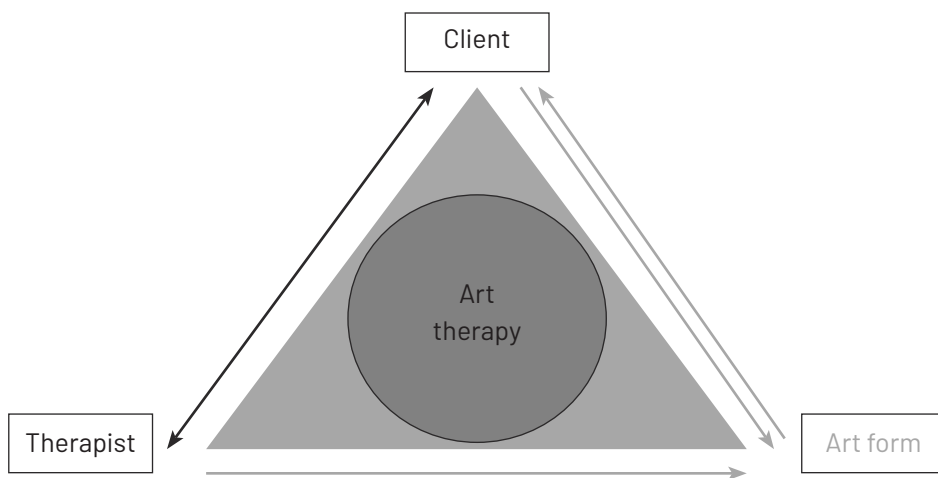
CONCLUSIE

De belangrijkste doelstelling van promotieonderzoek was empirische evidentie te verzamelen over de relatie tussen de kunstvorm in beeldende therapie en de geestelijke gezondheid van volwassenen. En áls empirisch bewijst inderdaad het bestaan van deze relatie zou aantonen, was onze vraag hoe aspecten van geestelijke gezondheid waren gerelateerd aan de kunstvorm: is de kunstvorm gerelateerd aan de symptomen of psychopathologie van cliënten, hebben ze vooral betrekking op de wijze waarop cliënten hiermee omgaan, of liggen andere mogelijkheden meer voor de hand? Vervolgens zijn we verder ingegaan op de vraag of en hoe we het vormgevingsproces, het beeldend product of beide kunnen observeren en interpreteren.

Onze bevindingen kunnen gepositioneerd worden op de rechter-as van de beeldend therapeutische triade welke bestaat uit de interactie tussen *cliënt*, *therapeut* en *kunstvorm* (zie Figuur 1). Beeldend therapeuten in dit onderzoek hebben het vormgevingsproces gespecificeerd – de as cliënt-kunstvorm van de beeldend therapeutische triade – door het concept van materiaalinteractie. Dezelfde beeldend therapeuteten hebben onze studie ook in de richting van de formele elementen van de beeldend producten gestuurd – de hoeksteen kunstvorm van de beeldend therapeutische triade – omdat we veronderstellen dat de formele elementen van het beeldend product de materiaalinteractie reflecteren. De combinatie van 'beweging', 'dynamiek' en 'contour' blijken significant gelinkt aan de veerkracht en experiëntiële acceptatie van cliënten – de hoeksteen cliënt in de beeldend therapeutische triade –.

Het huidige landschap van beeldend therapeutische observatie en

diagnostiek is vooral gekleurd door een stagnerend debat over de waarde van het beeldend product. In deze dissertatie willen we aan deze ideologische discussie een empirisch perspectief toevoegen. Dit is mogelijk geworden door een sterke focus op de formele elementen van het beeldend product. Onze bevindingen laten zien dat de experiëntiële ingang door de inzet van de kunstvorm, de beeldend therapeut in staat stelt om de veerkracht en het experiënteel gedrag, oftewel psychologische flexibiliteit, van de cliënt te observeren. Ze bieden een empirisch fundament voor de relatie tussen de kunstvorm en de geestelijke gezondheid van volwassenen in beeldende therapie.



Figuur 1: De beeldend therapeutische triade

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De beeldend therapeuten hebben een enorm grote rol gespeeld in dit onderzoek. Er hebben zoveel beeldend therapeuten deelgenomen; teveel om ze allemaal op te noemen, maar speciale dank voor Selma Ammerlaan, Jacinta Beukers-Goossens, Conny Bijlmakers, Caro de Bruijn, Gusta van Geleuken, Monique Gerritsen, Margaret Hills de Zaraté, Lisa Hinz, Maartje Lavrijsen-Willems, Suzanne Lucassen, Annette Overberg, Robin Penders-Fanselow, Brigitte Rademakers, Linda Sanders, Philomeen Vernooij en Gemmy Willemars. Jullie hebben mij verbaasd, verrast en verrijkt. De gulheid en betrokkenheid waren hartverwarmend en motiverend. Dank jullie wel daarvoor.

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Ook de overige collega-docenten van de bacheloropleiding Vaktherapie van Zuyd Hogeschool. Vanuit de zijlijn hebben jullie met veel interesse de ontwikkelingen van dit onderzoek gadegeslagen. Hoe onderzoek gedurende de afgelopen jaren zijn plek heeft gekregen in het onderwijs en hoe we samen actief nieuwe didactische vormen vinden voor de link tussen onderzoek en onderwijs is een van de belangrijkste drijfveren voor dit promotietraject geweest. Dank daarvoor, ik ben trots op jullie.

Twee van mijn "collega's" staan tijdens de verdediging letterlijk achter me: Kathinka Poismans en Dieuwertje Abeling-Boselie. Collega's tussen aanhalingstekens, want beide zijn veel meer dan dat.

Kathinka, vaktherapie heeft ons al vele avonturen gebracht. We delen de passie voor de kunstvorm en ik twijfel er niet over dat dit voor ons nog hele mooie nieuwe avonturen gaat opleveren. Dank voor alle gesprekken en je onvoorwaardelijke vertrouwen.

Dieuwertje, bijzonder hoe onze relatie zich ontwikkeld heeft; van student die deelnam in mijn onderzoek, naar mijn collega die enerzijds stokjes van mij overneemt, en anderzijds steeds meer haar eigen weg bewandeld. Mooi om te zien.

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Ingrid Péntzes was born on April 2, 1977 in Tegelen, the Netherlands. In 1999, she graduated cum laude from the bachelor art therapy program of Zuyd University of Applied Sciences.

In 1999, she started working as an art therapist for people with psychosocial problems. Later she worked in a specialized mental health centre for people with mild mental disabilities and severe mental disorders. Meanwhile, she studied Health Sciences at Maastricht University with specialization in Mental Health Sciences, of which she obtained her master degree in 2006.

Since 2003, she has worked as senior lecturer of the bachelor arts therapies program of Zuyd of which she became coordinator in 2017. In 2006, she joined the KenVaK research center for arts therapies and psychomotricity. Since 2011, she co-developed and lectured on the Master of Arts Therapies, which is a collaboration of five Dutch universities of applied sciences to provide further academic development for arts therapies.

Some of her main ambitions are to strengthen the connection between practice-based research, education and clinical practice, and to continue to improve arts therapies training and professional interventions in practice. This was also the main drive for her doctoral research.

This resulted in several achievements. In 2016, she contributed to obtain a 'distinctive quality feature' by the NVAO¹ for Evidence Based Practice-education of the bachelor arts therapies program of Zuyd. In 2018, she collaborated with colleagues to accomplish a grant for a SURF² innovation project to enhance the quality of arts therapies research education across five universities of applied sciences offering Bachelor arts therapies training programs.

She also contributed to art therapy education and practice by publications of articles and chapters in books, and by presentations in mental health institutions, other universities and professional associations.

1 Nederlands-Vlaamse Accreditatiecommissie [Dutch-Flemish Accreditation committee, NVAO].

2 SURF is an ICT Cooperation for education and research that coordinates innovation projects of the ministry of Education, Culture and Science [Onderwijs, Cultuur en Wetenschap, OCW].

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