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Art therapy and eating disorders

How do patients evaluate the effectiveness of art therapy with respect to emotions and the psychological personality dimensions in the treatment of an eating disorder?

Master's thesis

1st assessor: prof. Dr. Mone welsche

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Statement of originality

I confirm that I wrote this thesis on my own. I did not use any other aids or sources other than those I referred to.

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Abstract

Introduction

Art therapy is frequently prescribed for patients with eating disorders. Recent developments in the field have led to a renewed interest in evidence of the effectiveness of art therapy. This multicentre study examines whether patients evaluate art therapy to be effective in the treatment of an eating disorder.

Methodology

The respondents received art therapy as usual. A total of 56 respondents then participated in a mixed-methods study. All 56 clients participated in the qualitative part about art therapy by filling in an art therapy questionnaire. Thirty-three of the 56 respondents participated in a quantitative study on improvement with respect to the symptoms of alexithymia (TAS-20) and the psychological aspects of eating behaviour (EDI-II). Data were assessed pre and post treatment. The respondents were measured on the following themes: identifying, describing and expressing feelings and emotions, body dissatisfaction, feelings of insecurity, perfectionism, being able to relax and play, social insecurity and skills, self-image, acceptance of personal limitations, and insight into the process. After treatment in the qualitative part of the study, the respondents were asked if and which art therapy assignments helped them to reach their treatment goals.

Results

Within a context of a multidisciplinary treatment, respondents consider art therapy as one of the most useful therapies. Clients report to work mostly on awareness, expression and sharing of feelings, self-image, diminishing perfectionism and learning to relax. Despite the small sample size, the results show that, according to the respondents, art therapy results in specific benefits with regard to motivation, interoceptive awareness, the expression of feelings and insight into the therapy process. There were also indications that clients that clients who work on identifying emotions in art therapy, do improve more then clients who do not work on identifying emotions in art therapy, with a large effect size and correlation. There is a statistically strong relation between working on self-esteem in art therapy and improvement with respect to self-esteem, and the effect-size is high. Clients appreciate art therapy because of its specific method of using art, the possibility to discover and express themselves without words and the way they can give individual content to therapy.

Conclusion

The conclusion of this study is that within a multidisciplinary treatment, art therapy can be an important component of the treatment of an eating disorder.

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Reading guide

Quantitative data will be shown in tables and figures. In the text relevant data will be explained and significant data will be commented on.

1. Introduction

Art therapy has been part of the treatment of eating disorders for many years. Unfortunately art therapists have been vigorously challenged in recent years by a number of developments in the field. At a time when choices in treatment options are based on evidence-based medicine, multidisciplinary guidelines and financial choices due to political decisions, the profession of art therapy has a job to do. During the two years of this pilot study, all too often managers of treatment departments said they did not offer art therapy anymore. Art therapists have lost parts of their job, or even their whole jobs.

Those developments necessitate more research into whether art therapy contributes to the effective treatment of eating disorders. This multicentre pilot study examines whether respondents evaluate art therapy to be effective in the treatment of an eating disorder.

1.1 Report structure

This thesis is set out in four chapters, including this introductory chapter, in which the goal (§1.2) and my personal motivation (§1.3) are established. §1.4 contains a brief synopsis of a literature review of the topic. The purpose of this paragraph is to highlight, summarise and explore the connection between art therapy and eating disorders.

§1.4.1 describes evidence and tendencies relating to eating disorders, treatment and recovery. Then §1.4.2 describes general characteristics of art therapy for the treatment of eating disorders. §1.4.3 comprises an explanation of the methodological approach to art therapy in the Netherlands. §1.4.4 is a review of treatment goals in art therapy for eating disorders. This leads to §1.5, which contains conclusions about the knowledge gap in the field of art therapy in the treatment of eating disorders. The research questions are formulated in §1.6.

Chapter 2 focuses on the methodology used for this study. Both qualitative and quantitative methods are used. Chapter 3 comprises a presentation of the results, focusing on the three key themes of why and which therapies are appreciated by respondents, which goals are being reached within art therapy and other therapies, and what art therapeutic tasks were important for respondents. In chapter 4 the results of the qualitative and quantitative parts

are integrated and discussed. Conclusions are then made on the implications for the field and further research.

1.2 Goals of the pilot study

This pilot study aims to contribute to the cause of art therapy in the field of treatment for an eating disorder. The results of the study are intended to provide input for writing an article for a scientific journal about the effects of art therapy as experienced by patients with an eating disorder.

A second goal is to improve the quality of art therapy on the basis of results that indicate how patients experience characteristics of art therapy, which treatment goals for art therapy work best and which art therapy assignments have worked the best for patients who have experienced treatment for an eating disorder.

1.3 Personal motivation

This study is driven by the researcher's experience of working as a lecturer in the department of art therapies at HAN University. Two experiences in particular contributed to the choice of topic. The first was that art therapists in the field have been losing their jobs as members of multidisciplinary teams. The second was that students had little evidence-based practice available on which they could rely when working with patients during their traineeships in the field. The multidisciplinary guideline for the treatment of an eating disorder (Trimbos, 2006) does not deal with art therapy in depth and gives little direction on how the characteristics of art therapy can be used with these patients.

Art therapy as part of multidisciplinary teams

In 2009-2010 I participated as an art therapist in the development of the Dutch multidisciplinary guidelines for psychotic disorders (Nederlandse Vereniging voor Psychiatrie, 2012). My task was to search for literature on evidence of the use of art therapy in the diagnoses and treatment of psychotic disorders. This was the first time that I discovered that there was a lot of tacit knowledge, and also a lot of literature, on the subject. However, the evidence concept is not explicit in articles on art therapy and few articles meet

the criteria for inclusion in treatment standards (Frisch, Franko, & Herzog, 2006; Holmqvist & Lundqvist Persson, 2012; Reynolds, Nabors, & Quinlan, 2000). The field of mental healthcare is changing. Heads of departments have to make decisions about which therapies their patients will receive. They base their decisions on the therapies that are financed by insurance companies and insurance companies usually reimburse therapies that are evidence-based or get good patient reviews. Nowadays multidisciplinary guidelines are fast becoming a key instrument in deciding whether art therapy is included in the treatment of a disorder, because multidisciplinary guidelines give advice based on evidence for treatment, supplemented by recent knowledge and the advice of patient associations. The lack of articles that provide compelling evidence that meets the criteria for the inclusion of art therapy in guidelines results in effective treatments risking not being used in healthcare (Holmqvist & Lundqvist Persson, 2012).

Theoretical backgrounds on art therapy treatment for eating disorders have been developed internationally. Many articles and books contain information about art therapy treatment for eating disorders. Patients and professionals in healthcare appreciate art therapy as a non-verbal, experiential, meaningful and joyful therapy that complements the verbal part of the treatment. However, in spite of these characteristics, art therapy is at high risk of disappearing because of the absence of art therapy in the guidelines. Art therapists have been increasingly losing their work hours and jobs in recent years because of the pressure caused by political decisions related to lowering the costs of healthcare and giving preference to evidence-based methods and methods that are evaluated by patients as helpful, and are described in the multidisciplinary guidelines.

These developments have heightened the need for scientific articles on art therapy. One of the guidelines that will be composed is the multidisciplinary guideline on eating disorders. My aim is to publish articles in scientific journals about art therapy for patients with eating disorders. The goal of this pilot study is therefore to collect knowledge on which the articles will be based. If the results of this pilot study are positive, this will help to save the jobs in our profession and we will be able to remain part of the teams that help patients with eating disorders. These patients are often very positive about the effects of art therapy.

Evidence-based practice of art therapy for eating disorders

Multidisciplinary guidelines are based on systematic reviews (level of evidence A1), randomised control trials (levels of evidence A2 or B), non-comparative trails (level of evidence C) or expert opinion (level of evidence D). In the most recent Dutch

multidisciplinary guidelines for eating disorders (Trimbos, 2006), art therapy is not mentioned. The findings of previous studies on art therapy are excluded because they do not meet the criteria for evidence. The consequence of the lack of evidence-based studies on art therapy is that these guidelines are based upon mainly verbal therapies, which means that the specific characteristics of art therapies are neglected. One of the consequences of the lack of art therapy directions in the guidelines is that art therapists have to adapt the advice on verbal therapies to fit their methods of treating the disorder. This is done in a variety of manners. There has been little research into whether one manner works better than another.

A recent development is that patient satisfaction with therapy has become another criterion for being mentioned in a multidisciplinary guideline. However, far too little attention has been paid to patients' opinions about art therapy. This has heightened the need for studies that include patient's evaluations of the effects of art therapy. Although some research has been carried out on patients' evaluations of art therapy in general (Aerts, van Busschbach, & Wiersma, 2011; Haeyen, 2011), only two studies have been found on the evaluation of art therapy for patients with an eating disorder (Van Dooren, 2014; Ki, 2011). To bridge this gap between practice and literature, the current pilot study asks patients what they think the benefits of art therapy have been after they have had art therapy as part of their treatment for an eating disorder. The outcomes of the pilot study on respondents' perceptions of what they think was important in their treatment can be meaningful for the profession of art therapy, for treatment coordinators and for the group of patients with eating disorders. The results could help art therapists and multidisciplinary teams to understand what is really working for patients. Over and above that, more knowledge about the effects of art therapy will help art therapists to focus on effective goals and treatment strategies.

The most recent version of the Dutch multidisciplinary guidelines on eating disorders (Trimbos, 2006) will be revised as soon as funding is found. In 2006, patient opinion was just starting to be considered, but it is to be expected that in the next edition, patients' opinions on helpful therapies will be included. Moreover, if art therapy is found to contribute to treatment, this will be mentioned in the multidisciplinary guidelines. By offering evidence-based data regarding patients' opinions on the effectiveness of art therapy in the treatment of eating disorders, this study could contribute to the drive to have art therapy included in the new guidelines. A positive mention in the guidelines will make it possible to give the respondents the therapies they need – therapies that might otherwise not be available.

The information on how patients with an eating disorder evaluate art therapy could also be a foundation for further research. More research will transform best practice and tacit knowledge into evidence-based knowledge.

1.4 Brief synopsis of relevant literature

The literature on art therapy with eating disorders selected for the purposes of this thesis focused on the methods that relate to the most used insights from psychological methods and art therapy nowadays, unless the methods that are used are so important for art therapy that they need to be mentioned. An example is that a theoretical basis would not be complete without describing the content of the artwork. Patients in art therapy still use symbols to express themselves, so symbolisation needs to be part of the theoretical basis.

A considerable amount of literature has been published on art therapy for patients with eating disorders. Despite its clinical success, the review of the literature for this study on art therapy for eating disorders uncovered few studies that quantified the outcomes of art therapy. Most of the literature is based on the theoretical background of why art therapy will work or how to use art in therapy with patients with an eating disorder. Another section of the literature is based on aspects of a case study, sometimes illustrated with practical experiences on the content of the art.

To find literature to support this thesis, literature on evidence-based verbal therapies for the treatment of eating disorders was used. After this, articles and books about art therapy for eating disorders and literature on art therapy for themes as connected with an eating disorder were sought. Examples of the last are literature on art therapy for the improvement of self-image or how art therapy is used to express emotions.

Background literature was found after a systematic search using the terms ‘art therapy’ or ‘art’ and ‘anorexia’, ‘bulimia’ and ‘eating disorder’. For the section on treatment goals, background literature was found after a systematic search on the combination of terms ‘art therapy’ or ‘art’ and ‘social skills’, ‘emotions’, ‘alexithymia’, ’self-esteem’, ‘perfectionism’ and ‘body-image’. The sources are publications in the databases of Medline (pubmed), Psycinfo, HAN-quest and Cochrane. The results were limited by language (Dutch or English) and year of publication (after 2000). Exceptions on the limitations on year of publication were if a

publication contained relevant information, or no newer material on the same theme could be found and the older literature was still of relevance.

1.4.1 Eating disorders, treatment and recovery

In this paragraph, first the main features of eating disorders as described in the literature will be specified, then aspects of eating disorders will be explored in more depth and criteria for recovery will be given. General treatment is described next, followed by literature on art therapy for eating disorders.

Main features of eating disorders

Eating disorders influence many aspects of the life of a patient: contact with and awareness of feelings, thoughts about body image, feelings of self esteem and insecurity, being able to play/relax, perfectionism, self image, social skills and recognition of own limitations, and all the behaviour, feelings and thoughts connected with these. Underlying all of these aspects, eating disorders concern thinking and behaviour around food. Patients have a strong preoccupation with food and weight. They have a disturbed body image and they connect self-esteem to looks and weight.

The main eating disorders, according to the DSM-5, are anorexia nervosa, bulimia nervosa, binge eating disorder, and other specified and non-specified feeding or eating disorders.

Anorexia nervosa: patients eat less than they use for living and are afraid to gain weight, even if they are too thin. They often have a low body-weight and a disturbed body image (American Psychiatric Association, 2014). Important themes are perfectionism and a focus on achievements (Stice, 2002).

Bulimia nervosa: Bulimia nervosa is characterised by episodes of binge eating, alternated with attempts to compensate by purging, fasting or excessive movement. Self-image and self-judgement are unduly influenced by body shape and body weight (American Psychiatric Association, 2014).

Binge eating: Patients have episodes of binging (eating big amounts in a short time) when portions need to be big and they experience a loss of control when eating. Bingeing patients

do binge, but do not compensate this by dieting, vomiting or other ways of getting the calories out (American Psychiatric Association, 2014).

Among all patients with eating disorders there is a lot of comorbidity. Previous studies have reported that underneath an eating disorder, there is often an obsessive-compulsive disorder, mood disorder, developmental disorder or anxiety disorder. Bulimia patients can be familiar with substance abuse. There is a high amount of comorbidity with personality disorders (Trimbos, 2006). Eating disorders are severe and hard to treat. 4-6% of chronic cases are mortal. This is sometimes because of suicide but more often because of the physical problems caused by the weight loss. The prognosis for survivors of an eating disorder is that 47% recovers, 33% improves and 20% is chronic (Steinhausen, 2002).

Risk factors for an eating disorder are being female, dieting, having a low self-esteem, negative feelings and depression, being emotionally inhibited, having (social) anxiety, having a concern for others, high target levels and perfectionism, having obsessive personality traits, negative body experience and a strong wish to be skinny. It is the same for bulimia, with an extra risk factor for childhood obesity and impulsivity. There are few good theories about aetiology (Trimbos, 2006).

There is a shared psychology among the group of patients with an eating disorder. For example, some patients who suffer from an eating disorder move among the different diagnoses within the group of eating disorders. An example is a patient who suffers from bulimia who starts dieting and develops anorexia. Or he could develop a binge eating disorder, which looks like a form of bulimia without compensatory behaviour such as the use of laxatives, extra exercising or vomiting. Patients diagnosed with different classifications of eating disorders often receive treatment in mixed eating disorder groups.

Recovery from eating disorders

Full recovery takes a long time. The criteria for recovery from an eating disorder cover the ‘hard’ criteria for an eating disorder in the DSM-5, referring mainly to the eating behaviour and the weight, but they also cover psychological and emotional improvement, the improvement of social functioning (Noordenbos, 2014) and the treatment of comorbidity (Steinhausen, 2002) beyond the DSM-criteria. Eating behaviour and weight recover after an average of 4,7 years, while psychosocial recovery takes an average of 6,6 years (Fennig & Roe, D., 2002; Strober, Freeman, & Morell, 1997).

Art therapy aims at improvement of the psychological and emotional conditions. This is the focus of this thesis and the literature that underpins the study.

Several aspects of psychological improvement for clients with an eating disorder need to be considered. Recovered clients have a better self-experience, have a stronger sense of personal identity, and show more self-esteem and self-confidence (Fennig & Roe, D., 2002; Steinhausen, 2002; Strober, Freeman, & Morell, 1997). Patients with an eating disorder have affect-related difficulties, so a focus on emotions and emotion regulation is important (Nowakowski, McFarlane, & Cassin, 2013). If a patient is in touch with his emotions, does not focus on the body as a source of self-esteem or identity, and has a self-image with a realistic view of his limitations, then the eating disorder will no longer be as present.

Patient perspectives endorse the view that recovery from an eating disorder is: normalisation of eating patterns and a change of negative, self-destructive ideas, learning to cope with stress, trying new strategies, change of cognition (Trimbos, 2006, p. 117) and having a more positive body experience (Noordenbos, 2003).

Treatment of eating disorders

During treatment there is a high dropout rate, so building trust and increasing motivation are important factors in treatment (Treasure & Ward, 1997; Vitousek, Watson, & Wilson, 1998). The English NICE guidelines note that the setting in which the care is provided needs to provide support and the encouragement of good therapeutic relationships. They agree that this is at times as important as the specific treatments offered (National Collaborating Centre for Mental Health, 2004, p. 9).

The English NICE guidelines are an example of guidelines that include multiple aspects of decisions regarding the first choice of treatment. They indicate that evidence-based treatment is important in providing high quality care, but that the absence of empirical evidence does not mean that an offered therapy is ineffective. Additionally, they stress the importance of the fact that the effectiveness of evidence-based therapies is often studied within a multidisciplinary setting, which is a condition that should be maintained, or the specific effects of effective interventions will be lost. For treatment of eating disorders, the English National Collaboration Centre for Mental Health advises the following:

> The nature of the psychological therapies chosen will be influenced by patient preference, their motivation, the nature of associated psychological features and

> their age or stage of development. Some will prefer a non-verbal projective therapy, using art, drama or music. (p.32)

According to the Dutch Multidisciplinary Guidelines on the treatment of an eating disorder (2006), different aspects of the disorder need to be treated. The treatment should address the eating behaviour, bodyweight and body experience, but also psychological problems such as insecurity, perfectionism and traumata, and address problems within the family system and social functioning (Trimbos, 2006, p. 111). Given this broad approach, treatment is often administered by a multi-disciplinary team. *Cognitive-behavioural therapy* is researched most and has been shown to be effective. It changes cognition and behaviour, and is aimed at developing regular and normal eating behaviour and a decrease of dysfunctional cognitions about eating behaviour, body shape and weight (Fairburn, 1997; Trimbos, 2006).

Paragraph §1.4.4 goes into more depth on treatment goals for eating disorders that can be attained using art therapy.

1.4.2 Historical developments in perspectives on art therapy for eating disorders

Some researchers (Frisch, Franko, & Herzog, 2006; Reynolds, Nabors, & Quinlan, 2000) have attempted to review the literature on the empirical evidence related to art therapy. They concluded that empirical evidence for art therapy was not explicit. Other authors (Pain, 2013; Holmqvist & Lundqvist Persson, 2012) question the usefulness of such an approach. They question the narrow assessment criteria and refer to another evaluation system and other criteria for evidence-based therapies (Holmqvist & Lundqvist Persson, 2012, p. 5).

Nevertheless, a considerable amount of literature has been published on the benefits of art therapy in relation to attaining various treatment goals. These studies provide evidence of positive outcomes even though there was heterogeneity in samples, settings and art therapeutic interventions. Among these effects are improved self-esteem, increased communication and symptom reductions regarding anxiety and depression (Reynolds, Nabors, & Quinlan, 2000). An example is a recent study in which art therapy and other experiential therapies were offered in a programme for children and adolescents by a department for eating disorders and a department for other psychiatric disorders. The staff reported higher ratings of benefits for patients with an eating disorders and stronger therapeutic bonds. They explained it by the fact that patients with eating disorders had more

difficulty describing emotional states, and thus benefitted more from the nonverbal therapies than other patients (Kennedy, Reed, & Wamboldt, 2014). Another example is that art therapy is found to help patients by offering them the opportunity to externalise problems. Externalising problems increases the awareness of personal resources, helps to separate problems from the self and fosters a sense of empowerment (Keeling & Bermudez, 2006).

During the past 25 years, much more information has become available on eating disorders and art therapy. When looking at the methods used in art therapy treatment, we see a sudden shift during the last 15 years. Certain treatment topics such as self-image have always played a role in the treatment of eating disorders, (Betts, 2008; Carnabucci & Ciotola, 2013; Edwards, 2000; Fleming, 1989; Hinz, 2006; Klompe, 2001; Levens, 1995; Luzatto, 1995; Morenoff & Sobol, 1989), but the explanation of the causes of the problems has shifted. This has resulted in very different treatment methods.

In 20-year-old literature on eating disorders, the main methods are inspired by psycho-analytical (Levens, 1995; Luzatto, 1995) and patient-centred, Rogerian methods with a focus on symbolism and growth (Fleming, 1989; Morenoff & Sobol, 1989). Making art itself was seen as healing, without a focus on problem-orientated treatment goals. Interpretation and verbalisation were considered important. During the treatment of eating disorders, undiscovered conflicts from childhood were worked out.

Then a new depth of looking at the art was introduced into art therapy: the way materials are used and the creative process came to be taken into account, instead of focussing on the final art products and the depicted themes (Lusebrink, 1990). This was followed by less interpretation by the art therapist. The patient explains the work and the way he or she expresses feelings he discovered during the making of art.

In the ’90s women’s image in the media was introduced into art therapy for patients with an eating disorder, and its influence on the self-image of adolescents and women (Rabin, 2003). The physical body and its acceptance became a more central focus by measuring it, reflecting on and evaluating it or drawing the outlines. Relations with others (sometimes related to early mother-child relations) are still being explored.

Since a few years methods focus more on CBT (cognitive behavioural therapy) (Klompe, 2001), ACT (acceptance and commitment therapy) and mindfulness concepts (Hunter, 2000) and connections are made with treatment goals as advised by multidisciplinary guidelines. The guidelines are based on growing knowledge of the psychological treatment

of eating disorders. In recent years, there has been an increasing amount of literature on cognitive therapies.

1.4.3 Characteristics of art therapy for the treatment of eating disorders

Art therapy has special characteristics compared to verbal therapies. These will be explained in the following paragraphs: art therapy offers a multisensory approach to therapy, and there is a parallel between the artwork and the patient. Clients are able to give the work an individual content. It offers patients experiences in the 'here and now', to become aware of what is going on inside, and helps him to express and share that which cannot be said. Art therapy offers a safe place to experiment and play because clients can enjoy or relax and work therapeutically at the same time. The artwork can give insight. In practice, these characteristics will overlap considerably.

Multisensory approach in therapy

A considerable amount of literature has been published on the use of creative approaches to therapy. These articles confirm that individuals learn best when they are being creative and that multiple senses are connected with more cognitive, verbal approaches. Van Lith, Fenner and Strohfield (2010) found, in a small qualitative study among participants in art-based programmes in psychosocial services (N=18), that strength-based methods such as art making benefits mental health recovery and self-expression. Art making makes participants feel stronger and more confident, and it plays a valuable role in recovery and self-expression. A key area of benefit was insight, gained by self-reflection in relation to the artwork (van Lith, Fenner, & Schofield, 2010). Therapy includes learning complex skills. De Bie and De Kleijn (2001), who specialise in learning theories, confirm that when learning complex skills it is beneficial to use multiple approaches. In the past two decades a number of researchers into learning strategies emphasise the effectiveness of learning by adaptation to different learning styles. Complex skills need to be learnt by trying out and practising. When knowledge, insight and practising are integrated to learn complex skills, a transfer from knowing to doing it in daily life can be made (De Bie & De Kleijn, 2001). Art therapy methods include various assignments that appeal to multiple senses and learning styles. §3.4 on art therapy within the Netherlands goes more into depth on the methods and assignments used to fit the patient.

Parallel artwork and patient

In art therapy in the Netherlands, the most common model that is used is the 'analogue process model'. The analogue process model is based on the theory that there is an analogy between the psychological process and the art process (Smeijsters, 2008). Patients deal with the material in a way that is characteristic of how they deal with reality (Matto, 1997; Smeijsters, 2008). For example, a patient who is perfectionistic in real life will be perfectionistic when making art. This will be visible in the process of making art and in the product that is made. When looking at eating disorders, it means that the process of making art and its results embodies all conflicts, emotions and associations found in the patient's relationship with food and eating behaviour (Rehavia-Hanauer, 2003).

Individual content

In practice the analogue process model matches the individual content that patients can bring to an art therapy assignment. In art therapy, it is often seen that when an art assignment is offered, every patient works on his individual experiences around that topic. For example, on an art task around 'opposites', one patient's topic can be 'to work on how I feel versus what I show', while another patient's topic can be 'to explore listening to the body versus listening to the mind'. Individual treatment goals can be addressed within the same assignment. In a study among patients with an eating disorder, patients mention that it is helpful when a general art topic or technique is left open to individual expression (Ki, 2011). The small-scale study by Ki (2011) showed also that participants in art making considered the flexible structure to be helpful. The topics that are offered provide freedom to explore on an artistic level or from an emotional perspective. In this way patients experience having control over how much they are engaged with personal issues (p. 3). In this way difficult topics can be explored cautiously.

Here and now

Art therapy methods all have in common that the patient is actively working and experiencing in the 'here and now' (Luzatto, 1995; Smeijsters, 2008). Art assignments are directed at creating an environment in which a patient can practise and learn in a manner that is directed at his individual treatment goals. Art therapy offers experiences that can be compared with 'in vivo' exposure techniques in cognitive behavioural therapies. An example is that in art therapy materials and art assignments are offered with the focus on what a patient needs to experience, including feelings, thoughts and actions. In the art therapy sessions, emotional responses are evoked and the patient can learn to cope with them. The patient meets memories and emotions in a safe, controlled way, so anxiety and avoidance

can be managed. Another example is that patients can try out new behaviour such as social skills or being less perfectionistic.

Awareness

Patients describe how typical art therapy characteristics such as the accessibility and characteristics of the art materials, the artistic techniques and the structure of the art making facilitate self-expression, and self-understanding and awareness are thereby facilitated. Both the process and the viewing of the product increase the awareness of different aspects of themselves (Ki, 2011, pp. 6-7).

Expressing what cannot be said

A special characteristic of art is that it reveals complex feelings or situations at the same time. Wadeson (1980) calls this a *spatial matrix.* For example, a patient who draws his family situation by means of symbolic animals can show many aspects in the same picture: the character of the person, the distance he feels from the persons and how they relate to each other, similarities and differences, the nuances in the personality of the characters depicted and much more. In this way, art can help the patient to explore, identify, organise and express his feelings (Frisch, Franko, & Herzog, 2006). In art, feelings and content that are verbally hard to express can be expressed in a direct, creative and/or symbolic way. Symbolic expression bypasses individual defence mechanisms (Wadeson, 1980).

The expression of how a patient really feels and thinks is a basis for treatment. It is a skill that is needed in social interactions, but is also an underlying basis for working together to change negative, self-destructive ideas and cognitions. These are important treatment goals for eating disorders (Trimbos, 2006).

Expressing

Verbal communication and expressing how they feel is particularly hard for patients with an eating disorder (Rehavia-Hanauer, 2003). Literature reviews on the use of visual activities conclude that art therapy can enhance communication between the therapist and the patient, and might also reveal aspects not covered in verbal communication (Frisch, Franko, & Herzog, 2006; Matto, 1997; Pain, 2013). Art making also provides a means to communicate one's perceptions, values and beliefs, which generates a confirming and supportive effect (van Lith, Fenner, & Schofield, 2010, p. 658).

Patients who are in a group share their thoughts and experiences. This helps them to reflect on their personal conflicts and recovery processes (Ki, 2011), and to reflect and communicate. When a patient shows what he or she has made, the viewers can see and feel it, even if the feelings are hard to explain. The patient, group members and therapist can see what the patient is going through during the session and the patient can share it in a non-verbal way with group members and the therapist. The group members learn by seeing and sharing each others' emotions and behaviour as they encounter them in the moment. Patients appreciate having the group members as a mirror. Ki (2011) found that patients discovered that by listening to the shared stories and perspectives of the other patients, the patients were able to reflect on their own situations and on different aspects of themselves (p.5). It sometimes helps them to separate the eating disorder from the self as a person. Patients also say that they gain self-knowledge by observing peers' approaches to the art-making process (Ki, 2011).

A safe place to experiment

Safety and support have been found to be important in the treatment of patients with eating disorders, (Ki, 2011; Slagmolen, Kamphuis, Wigboldus, Probst, & Vanderlinden, 2009). In all therapies the therapist takes care of the therapeutic relationship. Additionally, art therapy offers a special kind of safety, because the patient can work on themes on a symbolic level. In art therapy the 'aesthetic illusion' makes it easier to work on personal themes. It allows patients to work on themes that are difficult to acknowledge. The term 'aesthetic illusion' refers to the opportunity to work on feelings that a person is not conscious aware of, or feelings and thoughts that a person judges him or herself for and thinks he or she should not allow. In art a patient can find a balance between a beautiful or pleasant activity and the different feelings that are evoked by doing so. It helps to handle the difficulty with conflicting or otherwise unacceptable feelings. This can lead to a process of acceptance (Grabau & Visser, 2002, pp. 66-70).

Other writers acknowledge this special characteristic of art. Costorphine (2006) writes that experiential exercises create a safe environment in which emotions in their pure form can be experienced without interference from secondary emotions. Difficult emotions will not overwhelm a patient when expressed in art. Pain (2011) did a review on empirical support for the use of visual methods in practice. She found that visual methods might be useful ways to explore more difficult topics. This difficulty can arise either from an inability to directly verbalise it, or from socio-cultural reticence.

At the same time, another aspect of safety is that the patient can choose which moment to verbalise experiences. As long as something is not said, the patient will not need to be responsible for what he or she expressed. He will not get reactions and by working on an art product, a patient can explore something before it becomes more definite by expressing it verbally and getting reactions from others.

A safe place to play

The structure of the art therapy session creates a safe place in which to experiment (Anzules, 2007). In art therapy and other experiential therapies the patient can try out different behaviour: test reality or express and discover feelings and thoughts in a safe, protective environment or space. A patient can try out behaviour, because working with materials and creating art is between reality, fantasy and play. This constitutes a safe environment to in which to explore. In this 'as if' situation, a patient can discover feelings and thoughts that might otherwise be hard to explore. An example is: 'how would it be to let go of control and make something messy to express my anger'? In this example a patient can discover and try out feelings connected with not striving for perfectionism.

Enjoying or relaxing and therapy at the same time

In art therapy the patients often work on personal themes that can be hard or painful, but at the same time the working sphere is often a situation in which patients talk with each other, draw back, share informal information, make jokes and work on their artwork while doing 'normal things' such as asking for a pair of scissors at the same time. This means that they can control the feelings that come up by creating distance or getting lost in the work.

Insight through the therapeutic process

For patients it often is easier to talk about 'something' than about themselves. In the work the patient can discover something that he is not aware of yet. Feelings and ideas are often first expressed and then explored. Then the patient can integrate them as a part of himself. This usually happens during one session, but on hard topics it could take more time or more help from group members or the therapist. This helps a patient to gain insight (van Lith, Fenner, & Schofield, 2010; Wadeson, 1980). In art therapy the patient can even work out themes without verbalising them.

Especially in eating disorders, there can be a pronounced difference between what the patient says and does. What can be avoided in talking cannot as easily be avoided (or it will

show) in action, such as when handling art materials. Because of this, creative art therapies are a good source of *insight* into the patient. The behaviour and the resources of the patient leave their traces in the art. By watching the results of the creative process and the product, patients can discover new ways of thinking about their problems and challenge them (Anzules, 2007, p. 75). In a qualitative study patients said that through viewing their own artworks over time, they were able to learn more about themselves (Ki, 2011, p. 7)

1.4.4 Goals in art therapy for the treatment of an eating disorder

In this theoretical foundation, the literature on treatment goals in art therapy for eating disorders will be looked at from two perspectives. The first perspective is art therapy treatment for eating disorders and finding goals that are included. The second perspective is a review of treatment goals that are reached in art therapy, but only those goals that are needed for the treatment of an eating disorder.

Per treatment goal information is given with reference to the importance of the goal for eating disorders, based on literature that is concerned with psychology. This is followed by a review of research conducted into the treatment goals specified for eating disorders. If evidence is not available, case studies or theoretical concepts will be described.

It is striking that, among the different perspectives on art therapy, most treatment goals for patients with an eating disorder are consistently found in the literature throughout the years, even though the definition or perspective on the topic has sometimes changed.

In art therapy literature, it is argued that the following problems connected with an eating disorder can improve by treatment with art therapy:

- *Dissatisfaction with (parts of) the body* (Betts, 2008; Carnabucci & Ciotola, 2013; Hinz, 2006; Hunter, 2000; Kearney-Cooke, 1989; Klompe, 2001; Levens, 1995);
- *Problems with self-image,* feelings of *insecurity* and low *self esteem* (Betts, 2008; Carnabucci & Ciotola, 2013; Edwards, 2000; Fleming, 1989; Hinz, 2006; Klompe, 2001; Levens, 1995; Luzatto, 1995; Morenoff & Sobol, 1989)*;*
- *Control and perfectionism* (Betts, 2008)*;*

- Little *awareness*, *recognition* and *expression* of emotions and feelings (Betts, 2008; Carnabucci & Ciotola, 2013; Edwards, 2000; Fleming, 1989; Hinz, 2006; Klompe, 2001; Rust, 1995; Woodall & Andersen, 1989);
- Not being able *to relax* or *play* (Edwards, 2000); and
- Few *social skills*, such as working together, and setting boundaries (Carnabucci & Ciotola, 2013; Klompe, 2001; Levens, 1995; Rust, 1995; Schaverien, 1995).

According to the literature, an art therapy characteristic is that it gives a clear overview of the *therapeutic (steps in the) process* because of the artwork that is kept (Betts, 2008; Hinz, Drawing from within: using art to treat eating disorders, 2006; Makin, 2000).

Especially when working within a multidisciplinary team, it is important to be aware of different therapeutic characteristics in the therapies that are offered in the treatment of an eating disorder. Treatment often involves several kinds of therapy and a patient usually gets the mix of therapies that best fit his or her problems. For art therapists it is good to be clear about which treatment goals they can contribute towards and which treatment goals they think other therapies might achieve just as well, or better or more effectively. Art therapy does not need to solve all the patients' problems. Eating disorders are complex and touch many aspects of social, physical and psychological life.

Body satisfaction

Dissatisfaction with the shape or size of the body and a disturbed body image are seen as the primary aspects of an eating disorder. In a study on patients with eating concerns, it was found that patients overestimated their body size and were dissatisfied with it (Holder & Keates, 2006). For patients with an eating disorder, self-image depends on the image that he has of the body. Patients are focussed on the body as a source of how they feel and who they are. However, the perception of his body by a patient with an eating disorder is disturbed (American Psychiatric Association, 2014).

Bhatnagar et al. (2013) analysed the underlying mechanisms of a disturbed body image and its effects. They found it to be a construct with attitudinal, behavioural and perceptual components. The attitudinal component comprises two aspects. The first is an affective/evaluative aspect of body satisfaction and beliefs about appearance. The other dimension is the emotional importance of the appearance to one's sense of self. The behavioural component is how a patient acts to manage the appearance or avoid the body. The perceptual component is how a patient estimates his own body (Bhatnagar, Wisniewski,

L., Solomon, M., & Heinberg, L., 2013, p. 1). A relationship exists between an eating disorder and body satisfaction. Cognitive behavioural therapy is the most strongly advised form of therapy for eating disorders. In cognitive behavioural therapies, patients learn to change unrealistic expectations about themselves, which can be caused by, for example, what patients think others think. Within this method there is little empirical evidence on the treatment of body mage disturbances (Bhatnagar, Wisniewski, L., Solomon, M., & Heinberg, L., 2013, p. 2). A small study (n=38) on the treatment of body satisfaction was promising. Treatment contained an approach of motivation for therapy, systematic desensitisation of ideas by imaginary exposure, relaxation and exploration of ineffective thoughts (Bhatnagar, Wisniewski, L., Solomon, M., & Heinberg, L., 2013).

An important criterion for recovery is a realistic perception of the body. When patients after treatment still have difficulties with acceptance of the body and they still long for an idealistic, unhealthy body or have a strongly negative body experience, a relapse can be expected (Trimbos, 2006, p. 178). This means that part of treatment should be aimed at bodily awareness (Trimbos, 2006, p. 24). In art therapy, methods and exercises such as phenomenal and non-phenomenal body tasks are developed methods for patients with eating disorders (Rabin, 2003).

A struggle with denial of the body is often seen within the artwork of patients with an eating disorder (Beck, 2007; Rehavia-Hanauer, 2003). Patients with an eating disorder have poorly developed internal body images and self-images. Art forms can represent the self, which is valuable in therapeutic interactions (Gillespie, 1996). Self-help groups mention that patients profit from body-orientated therapies and advise them as part of their treatment. It helps patients to be able to look at their bodies, which has an anxiety-reducing effect and helps them to eat better (Trimbos, 2006).

An additional perspective on treatment is a more mindful approach, connected to acceptance therapy. In this alternative approach, patients learn to observe the body non-judgmentally and they learn to distance themselves from the belief that the body should be changed (Prowse, Bore, & Dyer, 2013, p. 77). This Australian study (n=411) on the relation between mindfulness skills and eating disorder symptoms demonstrated that ‘acceptance without judgment’ and ‘action with awareness’ are associated with lower eating disorder symptoms (Prowse, Bore, & Dyer, 2013). Body images can be a useful tool to locate physical and emotional areas and to discuss a body image treatment plan (Andersen, 2008).

Within treatment protocols there is a focus on a disconnection of body-esteem from self-esteem. Part of this disconnection is looking for activities that promote self-esteem.

Fewer feelings of insecurity, better self-esteem, less perfectionism and control

Self-esteem is an overall evaluation of the self-satisfaction of a person, an individual's sense of his or her value. A lack of self-esteem is a common theme for patients with eating disorders. Patients without a healthy, consistent identity often have less self-reflection, have low self-esteem, are high in cognitive functions but avoid healthy coping and decision-making strategies (Beaumont, 2012, p. 7). A person with a healthy sense of identity is consistent on long-term goals, friendships, career choice, sexual orientation and behaviour, moral values and loyalty towards a group of persons (definition derived from a identity disorder) (American Psychiatric Association, 2014).

Beaumont has studied art therapy approaches for identity problems during adolescence. This is often the age at which eating problems start and disturb the healthy development of a person's identity. Beaumont describes assignments that help a patient to develop a healthy identity. According to Beaumont, to improve a healthy functioning and coherent identity formation, art therapy can be focussed on self-exploration, self-reflection and effective emotional coping skills (Beaumont, 2012, pp. 7-8).

A psychological factor of relevance for self-esteem is perfectionism. Perfectionism is aimed at good performance and is caused by a fear of not being good enough. It often goes together with a critical perspective of the self (Noordenbos, 2014). Patients with an eating disorder often derive their identity from their ideals about their weight. They believe that when they are skinny they are better persons. Eating disordered patients keep control over their body and emotions (Prowse, Bore, & Dyer, 2013).

The need for complete control and the feeling of lack of control is a constantly occurring theme in the art of anorectic patients (Rehavia-Hanauer, 2003). Patients who start art therapy often have high expectations of what the results should look like. They believe that they can reach these norms by keeping control in their aim to reach the desired results. Then they feel disappointed with themselves when they fail to live up to their own norms. An example of how an art therapist can help a patient is to help him to become aware of choosing projects based on too high expectations or projects that are doomed to fail (Matto, 1997). Discussion about the art process and art products can help a patient gain insight to unrealistic expectations and provide the opportunity to confront the patient with internalised

messages (Matto, 1997, p. 349). Mulken & Van der Linden (2013) give an example of how, through art, a patient can experience how it is to lower expectations and learn to enjoy positive experiences. This is confirmed by an Australian study, in which promising results were found by shifting the focus from thoughts about how things should be to values and striving to leading a more meaningful life (Prowse, Bore, & Dyer, 2013).

Art therapy confronts patients with dysfunctional beliefs and challenges negative messages towards themselves within safe boundaries (Matto, 1997). In the art therapy process the change of negative, self-destructive ideas and learning to cope with stress can be recognised in the themes that are worked on. Patients often go through a difficult process of finding a balance between feelings evoked by the intensive creation of an artistic object and the desire to destroy it (Rehavia-Hanauer, 2003). This is confirmed by Ki (2011), who found that patients could manage distressing emotions by means of the group setting in which patients work on themes such as self-criticism and discouragement (p.5). Patients also mention that they experience feelings of accomplishment (Ki, 2011, p. 8). Often peers in an art therapy group reflect the positive sides of what a patient creates; they mirror content and admire specific characteristics in the artwork.

Patients can work on issues of control, perfectionism and dependency (Schaverien, 1995). In art therapy a patient is encouraged to act first, right in the session, and is then encouraged to verbalise reactions to the experience (Luzatto, 1995; Matto, 1997). Art therapists know many methods to help patients to create art out of chaos within the boundaries of the paper. Struggles with issues of control and perfectionism and dependency are practised and can lead to insight for these patients, who tend to intellectualise their experiences (Hinz, 2009; Matto, 1997).

Art therapy for patients with obesity formed the central focus of a small study (n=14) by Anzules *et al.* (2007) in which they offered aspects of mindfulness, which also focuses on the moment instead of the results. The authors found a moderate and significant clinical improvement in self-esteem after a six-week programme in art therapy. These improvements remained for at least two months.

Patient evaluations show that art therapy gives them access to their inner resources, promotes self-awareness, improves self-esteem and improves autonomy (van Lith, Fenner, & Schofield, 2010). Patients also say that the flexibility and intuition they have exercised in art helps them to handle everyday challenges with more confidence and they dare to take

more risks. The more intuitive decision making they experience when creating art helps them to explore this approach to everyday decision making (Ki, 2011).

Alexithymia

According to Noordenbos (2012), alexithymia can be defined as having difficulty identifying and distinguishing between feelings and the bodily sensations of emotional arousal. It encompasses being less able to verbalise it.

The relationship between alexithymia and eating disorders has been widely investigated. Patients with an eating disorder often have a problem recognising and describing feelings and emotions (Nowakowski, McFarlane, & Cassin, 2013; Storch, Keller, & Weber, 2011). Patients who are ill with anorexia have problems inferring emotions in the self and others, whereas patients who have recovered from anorexia have an almost normal ability to recognise emotions. However, recognition of positive emotions is still more impaired (Oldershaw, Hambrook, Tchanturia, Treasure, & Schmidt, 2010). Many theories on eating disorders focus on the eating disorder as an affect regulation system. The eating disorder helps to regulate negative emotions (Storch, Keller, & Weber, 2011; Strien & Ouwens, 2007). Storch et al. (2011) stress that if therapy is focussed only on behaviour and the cognitive aspects of an eating disorder, patients do not learn to become aware of the body signals of emotions, which provide the ‘stop’ and ‘go’ in the decision-making processes and motivational processes. Patients can be taught to pay attention to these body signals.

Within treatment for eating disorders, one of the steps is that a patient needs to learn to distinguish different emotions (Mulken & van der Linden, J., 2013). A recent review of empirical support on visual methods found that the visual might provide a more effective way to tap into the emotional aspects of a topic than verbal approaches alone. Images can evoke emotions and potentially facilitate the expression of feelings or attitudes (Beaumont, 2012; Pain, 2013). The use of creative techniques can improve skills concerning the experience, recognition and description of patients’ emotions. Art materials have an effect on sensing feelings and feeling senses (Hinz, 2009; Lusebrink, 1990). Art provides a safe, not overwhelming environment in the experiential exercises for patients to organise their feelings (Costorphine, 2006). An example is that the art therapy products of anorectic patients show feelings such as the desire and need to be looked after and held. These patients were not able to directly express this desire and need verbally (Rehavia-Hanauer, 2003). Art therapy enhances the treatment of eating disorders by helping patients to learn to deal with emotions in the context of a focus on the strengths of the patient. Patients learn to identify feelings and

emotions, expressing them in art (Frisch, Franko, & Herzog, 2006; Gramaglia, Abbate-Daga, Aminanto, Campisi, & De-Bacco, 2011; Klompe, 2001; van Lith, Fenner, & Schofield, 2010; Matto, 1997)

Patients who have problems tolerating negative mood states are advised to have experiential exercises as part of their treatment. Until recently, there has been no reliable empirical evidence that art therapy is effective in treating patients with an eating disorder to deal with emotions. However, in a qualitative study patients shared that they were enabled to become more aware of their emotions through artistic expression and to manage them. Patients reported that they were able to transfer these experiences to emotion regulation in everyday life (Ki, 2011).

There is a consensus among social scientists that normalisation of the awareness, understanding, regulation and expression of emotions might serve as markers for recovery (Becker-Stoll & Gerlinghoff, 2004; Gilboa-Schechtman, Avnon, L., Zubery, E., & Jeczmien, 2006).

Learning to relax

In a small study, published by Pubmed, it was demonstrated that relaxation for patients with anorexia was associated with higher self-esteem and less fear of fat (L.A., Fuhr, Tsujimoto, & Fischman, 1987). Patients experience relaxation and calmness during the making of art. In a study among children and adolescents with eating disorders, an experiential addition to the programme helped the patients improve their coping skills, relaxation and stress relief (Kennedy, Reed, & Wamboldt, 2014). Patients report that their mood improves through making art and that it is an opportunity to break away from the stress of daily life (Ki, 2011, p. 8).

Social skills

Describing feelings and communication with others are social skills that are underdeveloped for patients with eating disorders. A lack of connection with emotions has an effect on social relationships. Describing feelings is an advantage in developing and maintaining relationships with others. Too few affective skills in relationships cause a lack of self-esteem and feelings of insecurity. This contributes to feelings of depression, anxiety and impulsive behaviour and a conflicts with being at ease among other persons (Fox & Power, 2009; Noordenbos, Greuningen, & Reuneker, 2012).

The content of the artwork of patients with an eating disorder reflects the struggle they have with social relations. In the art of anorectic patients, the conflict between the need to be dependent and in a relationship with others and the desire to be autonomous can be recognised (Rehavia-Hanauer, 2003, p. 140).

In art therapy groups it is helpful when members work together and profit from the mirroring of others. The making and sharing of artwork helps patients to develop relationships through sharing experiences in a less threatening way than talking (van Lith, Fenner, & Schofield, 2010; Makin, 2000; Matto, 1997). Art making is a key to social connectedness and social engagement (van Lith, Fenner, & Schofield, 2010, p. 658). Patients can engage in the group therapy and at the same time choose how much they want to engage with others or the processes of others. Art making is the main activity and not group discussion. Patients say that even if they do not feel comfortable sharing thoughts, they can participate at a level that they feel at ease with and that this is a positive experience (Ki, 2011). During art therapy there often is an informal atmosphere during which patients share thoughts.

Finally, in art therapy art assignments can be directed at group work, in which patients work together and they can practise or gain insight into social skills such as working together or setting boundaries.

1.4.5 Methodical approach to art therapy within the Netherlands

Before reading this paragraph, it is worth noting the following: As far as is known, there are no studies that indicate that a specific form of art therapy is more suitable for eating disorders or other diagnoses than other forms (Holmqvist & Lundqvist Persson, 2012, p. 47).

Within the Netherlands there are four universities that offer education in art therapy. These universities are connected within the Landelijk Opleidings Overleg Creatieve Therapie (LOO) and they have a shared course profile. Art therapists' training within the Netherlands therefore has a common base, with small differences. After education in art therapy, the sharing of knowledge continues. The Netherlands is a small country and contact between art therapists is very common. Interactions between the art therapists in the field and universities of applied sciences for art therapy are intensive. They offer congresses that are well attended by art therapists in the field and art therapists in the field participate in assessments of students. Art therapists share knowledge at national conferences,

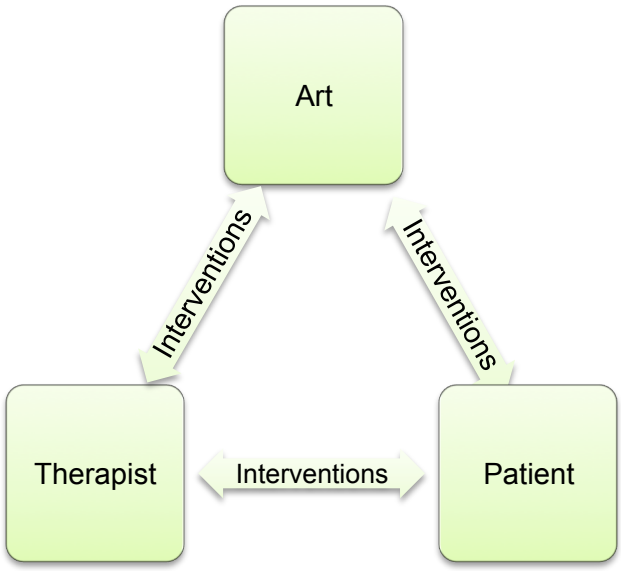
practitioners are invited to universities to train students and art therapists offer students practical learning venues. The trainees of one art therapist often get a job at a new place and share knowledge and methods with their new colleagues. Within the Netherlands there is a strong focus on shared information in the Dutch language, in Dutch books and in articles on art therapy. When something is published, art therapists are eager to read, share and discuss the material. These close connections result in a methodical approach that has a shared base, used in the different treatment settings. This is especially so compared with international approaches, where there is much more variation in methodical perspectives. A study on art therapy for patients with an eating disorder among five different treatment groups located in three different cities within the Netherlands showed that the between-group comparison of art therapy produced similar outcomes. Differences were mainly explained by the composition of the groups (for example 12-15 year olds versus 18+ patients) more than by the different art therapists offering the therapy (Van Dooren, 2014). When looking at the results of this group comparison, it is plausible to conclude that the art therapy methods used do not differ very much, which could be the result of the intensely shared knowledge and perspectives.

There are three overarching models that are important in art therapy methods. These are the therapeutic triad, the analogue process model and the Expressive Therapies Continuum (Hinz, 2009; Lusebrink, 1990). These models encompass various art therapy methods. Within this model various aspects of art therapy find a place, such as symbolism as a tool for insight, art as an alternative form of expression and the exploration of feelings. Within the Dutch approach there is little (psycho)analytic interpretation. The examination of the structure and content of the work is examined via cooperation between the therapist and patient.

Analogue process model: As explained in §1.4.3, the analogue process model is based on the theory that there is an analogy between the psychological process and the art process.

Therapeutic triad: In the Netherlands, the perspective on art is from the point of view of the important role of the art materials in art therapy, and interventions are chosen in the therapeutic triad. *Figure 5. Therapeutic triad,* shows how therapeutic interventions can be made in the relation between art and client, art and therapist, or client and therapist. This is a shared perspective within the Netherlands.

Figure 5. Therapeutic triad



Expressive Therapies Continuum: Within the Netherlands, the most commonly used art therapeutic model is Vija Bergs Lusebrinks Expressive Therapies Continuum (Hinz, 2009; Lusebrink, 1990). This model describes how the art assignments and the material are used to evoke kinesthetic, sensory, perceptual, affective, cognitive or symbolic experiences. The choice in experiences that are offered by the therapist help the patient to reach his treatment goals. For example, a patient who is very perfectionistic and who needs to learn how to let go of control will feel more at ease with cognitive or symbolic tasks, using material that can be controlled. During the therapeutic process, the assignments or materials that are offered will be changed to get more in touch with, for example, feelings or to become aware of bodily sensations.

Indication for art therapy and treatment goals

Within the Netherlands patients get art therapy after an indication that is based on an analysis of the problem. When indicated for art therapy, a patient works on personal treatment goals that arise out of the problem analysis. Within art therapy groups, patients work mostly on their individual treatment goals, even when group topics or assignments are offered. Most interventions are directed towards these goals. An assignment is rarely directed towards a single goal. Usually the assignments are such that a patient can work both on common eating disorder-connected treatment goals and on his specific goals.

How can assignments in art therapy contribute to treatment?

In art therapy patients work on different kinds of art assignments connected to treatment goals. The art therapist often chooses these assignments. Examples are assignments in which a patient shows how he feels, in which patients work together, in which a patient explores his or her self-image or body-image, that asks how he or she thinks about a theme, in which he learns to let go of control, or in which a patient learns to share his opinions or stand up for himself. However, very little is known about what tasks patients experience as most helpful and the extent to which patients can use the skills learnt by doing these tasks in daily living.

A specific characteristic that art therapy literature describes is that, by working with materials, patients can gain insight or can bear confrontations while at the same time enjoying the therapy. But do patients with an eating disorder recognise this? An often repeated expectation of art therapy is that patients learn to identify and describe emotions. Is this really a treatment goal that is worked on more in art therapy than in other therapies?

1.5 Information gaps

Situations where information gaps are seen

The literature review answers many questions about the theoretical perspective on art therapy for eating disordered clients. Still, there is not enough evidence known to include art therapy in the Dutch multidisciplinary guidelines for eating disorders (Trimbos, 2006). This means that there is a huge gap between what art therapists know, and what is known by those who compile the guidelines and by the persons responsible for the composition of treatment programmes at the mental health institutes for the treatment of eating disorders.

It is possible to define three areas where the information gap is seen: firstly, there is an information gap between what art therapists know, and what the compilers of guidelines and programme composers know about practice-based evidence for eating disorders; secondly, there is an information gap between evidence at level 1 or 2 (see *Table 1. Levels of evidence in Dutch guidelines)* and the levels of known evidence for art therapy so far; and, thirdly, there is an information gap between what professionals know about the effects of art therapy and patients' experiences of the effect.

The reason for the first information gap, between what art therapists know and what makers of guidelines or programme composers know about practice-based evidence for eating disorders, is that search engines do not have access to the publications within the field of art therapy and art therapists publish little in the scientific journals for eating disorders. Art therapists have a lot of practice-based experience, but too little is published. Art therapists share a lot of information trough education, courses, study-groups and/or congresses.

The reason for the second information gap, namely that between evidence at level 1 or 2 (see *Table 1*Table 1. **Levels of evidence in Dutch guidelines**) and the levels of known evidence so far, as discussions and a series of publications have shown, is that many studies on art therapy do not qualify for standards as used. There is still discussion in the field as to whether quantitative research can cover the specific field of art therapy (Frisch, Franko, & Herzog, 2006; Holmqvist & Lundqvist Persson, 2012; Reynolds, Nabors, & Quinlan, 2000). On the other hand, the decisions about whether art therapy needs to be included in treatment programs are made on the basis of levels of evidence. At the same time, it is strange that art therapy is often cut because there is no evidence of its effectiveness, but at the same time there is no readiness to do research to determine whether it is effective. As a matter of fact, this is not a scientific perspective but a biased approach.

Table 1. Levels of evidence in Dutch guidelines

Level	Levels of evidence for recommendations, based upon the underlying articles.	Level	Quality of the articles
1	Studies at level A1 or at least two independent studies at level A2	A1	Systematic review of at least two independent studies at level A2
2	One study at level A2 or at least two independent studies at level B	A2	Randomised double blind comparative clinical studies of good quality and good size.
3	One study at level B or level C	B	Comparative studies, but not with all features as under A2 (included are patient control studies or cohort studies)
		C	Non-comparative studies
4	Expert opinion	D	Expert opinion, for example the expert group participating in guidelines

Lastly, the information gap between what professionals and participants know about art therapy is due to the fact that no studies have been conducted to research this issue. This begs the question: Does the theory and practice-based experience, as seen by therapists, reflect clients' opinion about art therapy?

In short, the information gap concerns the difference between what is known from a theoretical perspective, some existing research and the levels of evidence needed for inclusion in the guidelines.

What helps patients with an eating disorder most?

In the past two decades a number of authors on art therapy have sought to determine which art therapy method works best. The perspective on the theoretical background against which the art therapy is practised has shifted from a psychoanalytical perspective (Levens, 1995; Luzatto, 1995) to a more cognitive-behavioural perspective (Carnabucci & Ciotola, 2013; Edwards, 2000; Klompe, 2001). Different authors, using different methods, argue that different aspects of art therapy are beneficial. However, each perspective on what is helpful or best for the patient might simply be the authors' views based on zeitgeist, experiences in the field and theoretic models rather than on the patients' opinions about what has been helpful. The constantly recurring characteristics of art therapy that are important within treatment of eating disorders are explained in §1.4.3 above.

Nowadays patient opinion on treatment plays a vital role in the advice given in multidisciplinary guidelines. In a small study undertaken by Patricia Ki (2011), preliminary work on patients' opinions on the treatment of eating disorders was undertaken. More information on what patients think about which therapies helped them most and what was helpful will be useful information when writing better indications. This missing information will add to the pool of knowledge regarding what therapies are most beneficial to patients with eating disorders.

More information is needed to gain knowledge about which treatment goals patients with an eating disorder think they benefit from and which therapies they feel they have helped them to realise these goals. If it is confirmed that the treatment goals on which patients work reflect in better scores on (sub)scales of standardised questionnaires, this information will lead to better indications.

If there is more information on what goals can be reached successfully by art therapy, art therapists can choose to specialise in the parts of treatment they are good at. Patients get the best therapy when their mix of therapies are given by the specialists that deal best with their problems: dietary advice by the dietician, medicines by their doctors and psychological aspects of an eating disorder by the therapeutic specialisation that reaches the patient best due to its special characteristics.

Research at master's level cannot solve all of the information gaps that need to be addressed. It is not possible to set up a level A or B study. However, it is possible is to source clients' opinions on art therapy for eating disorders and to try to discover evidence at a level D or C level (Trimbos, 2006). Attempting to address the information gaps is one of the primary goals of this pilot study. This would address two of the information gaps mentioned above. Disseminating the results among art therapists, their institutions and their scientific committees, so that policies can be supported or adapted, will moreover result in this study contributing to the field. It will also contribute to the knowledge art therapists have about what clients experience as effective. Finally, if it is possible to find scientific journals to publish the results, it will also contribute to tackling the third information gap by publishing indications of the effects of art therapy for respondents with an eating disorder.

1.6 Research question and sub-questions

As noted in the literature review, there is little empirical evidence regarding the effectiveness of art therapy for eating disorders. Before a (randomised double blind) comparative study can be conducted on the effect of art therapy in the treatment of an eating disorder, more information is needed. The research method followed in this pilot study can generate some of this information. The results of this study are aimed at providing some indications of the extent to which patients experience art therapy as effective in the context of treatment of an eating disorder. Other aims, as mentioned in §1.5, are to bridge the divide between what is known about art therapy by art therapists and the persons who decide on treatment composition, and the information gap between therapists and clients. This pilot study aims to provide knowledge on the specific characteristics of art therapy in the treatment of an eating disorder, treatment goals that can be reached and art therapy assignments that work well according to clients.

A positive development is that patients' opinions about treatment are now incorporated into the Dutch multidisciplinary guidelines, as developed for different disorders. Therefore, if this pilot study results in a positive patient evaluation about art therapy in the context of treatment for an eating disorder treatment, this could be a further step in the direction of including art therapy in the Dutch multidisciplinary guidelines.

Due to the fact that art therapy is usually offered within a multidisciplinary treatment programme, the method for this research was developed in such a way that patients can participate in different settings, with different treatment programmes. The design was based on a balance between being as unobtrusive for respondents and therapists as possible, and considering the needs of research methods to collect data. Art therapists are working under pressure as colleagues are losing their jobs. A research design that would require an alternative programme or a waiting list design is not feasible at this time.

However, before the circumstances can be created to analyse art therapy as an isolated intervention, there needs to be more knowledge about art therapy as an intervention in general. The questions of his pilot study are in keeping with this situation. This pilot study can provide some indications of how patients experience art therapy as effective in the context of treatment and it can guide future studies.

The central question in this pilot study is: ***How do patients evaluate the effectiveness of art therapy with respect to emotions and the psychological personality dimensions in the treatment of an eating disorder?***

To find an answer to this question, this study aims to address the following sub-questions:

A. *Which therapies are evaluated as helpful by patients who have been in treatment for an eating disorder?*
A.1. *Do patients evaluate art therapy 'useful' more often than other therapies?*
To answer this question, the meaning of the word 'useful' needs to be determined. This requires a specification of goals and characteristics of therapy to explain when a therapy is useful for patients in treatment for an eating disorder. This will be sought for in the analyses of the qualitative answers.

A.2. *Is there a relationship between whether a patient has worked on treatment goals (in art therapy) and improvement on alexithymia and the psychological dimensions of an eating disorder?*
For example, do patients who report to have worked on awareness of emotions improve on the TAS-20 scale 'Identifying emotions' after treatment for an eating disorder?

A.3. *Is there a relation between treatment goals in which patients improved more than 2,5 SD and whether they worked on this goal by assignments in art therapy?*

If patients who improve on, for example ‘expressing emotions’ report to have worked on it using art therapy only, then improvement could be an effect of art therapy.

B. *What art therapeutic assignments helped patients with an eating disorder to reach their treatment goals?*

To answer this question, it needs to be evaluated which art therapy assignments helped patients with an eating disorder and why they helped them.

2. Research method

Background information on the research design is provided by an explorative study on patients with an eating disorder (N=54) conducted by this researcher (Van Dooren, 2014). Patients evaluated, using the BTV-ps b/v (Haeyen, 2011) to what extent art therapy helps to meet the following treatment goals: self-image, making choices, expressing emotions/feelings and dealing with their limitations.

Preliminary study

In an explorative study, patients with an eating disorder were asked about their experiences with art therapy (Van Dooren, 2014). Patients in treatment for anorexia nervosa or bulimia nervosa filled in an art therapy questionnaires, developed for personality disorders: the 'Beeldende Therapy Vragenlijst' (art therapy questionnaire) BTV-ps b/c (Haeyen, 2011). The explorative study was based on one measurement for 45 respondents from different art therapy groups at the same time. Some respondents had been in therapy for a long time, some of them had just started and the duration of the therapy could be any length in between these. The results were that the respondents said that they did profit quite a bit from art therapy, especially with respect to the goals of expressing emotions, self-image, autonomy and learning to deal with their limitations. Respondents who finished treatment said they had worked on personal integration, identity and change of negative, self-destructive ideas (Van Dooren, 2014).

One of the limitations of this explorative study was that only three respondents who finished art therapy were included. The respondents who had finished art therapy were more positive about reaching treatment goals through art therapy than respondents who were still in the therapeutic process (Van Dooren, 2014). This small number of respondents means that these results are just an indication of what could be expected from a bigger study.

The method and results of the preliminary study were discussed with three art therapists that participated in both the explorative and in the current study. They all have many years of experience with clients with eating disorders. The results of this discussion were that in this follow-up pilot, more specific questions should be asked regarding body image. Another conclusion was that the preliminary design could be improved by the use of standardised questionnaires, in combination with open questions on art therapy. The design of the

preliminary study could also be improved by including a pre-test and a post-test, and including more clients who have finished art therapy.

Furthermore, one of the problems with the instrument 'beeldende therapie vragenlijst' BTV-ps b/c (Haeyen, 2011), which was used in the explorative study to measure respondents' opinions, was that the questionnaire was based on treatment for respondents with a personality disorder. This questionnaire has subscales with goals that fit personality disorders instead of eating disorders.

This explorative study provides direction on how a larger study should be conducted (Van Dooren, 2014).

Principles of the design of this pilot study

The feedback on the preliminary study resulted in the design of this pilot study. It was decided that a combination of qualitative and quantitative research methods would be the most appropriate. However the main focus was on the qualitative approach. Quantitative and qualitative aspects of the research can each answer different research sub-questions. The utility of findings is higher in such a mixed-method design for art therapy.

The use of qualitative studies is a well-established approach in art therapy. Qualitative methods offer an effective way to explore themes that are important for patients. The aims of this pilot study demands a large number of respondents. This can be found in the design of a multicentre explorative study.

The research questions are answered best when qualitative research yields results that help one to gain insight into aspects of art therapy that are helpful for patients in treatment for eating disorders. A qualitative design gives art therapists and other mental healthcare professionals information on how and when to use art therapy and specific art therapy assignments aimed at realising certain treatment goals. Qualitative data can also be used to arrive at an explorative explanation as to in what therapies patients work on treatment results, as measured by quantitative questions. The qualitative research provides contextual understanding by assessing relationships among variables uncovered through the quantitative questions of the art therapeutic questionnaire.

The quantitative parts of the study were useful to measure how much patients improved in relation to treatment goals. It was expected that these quantitative measures would usefully supplement and extend the results if the themes mentioned in the qualitative approach

reflected an improvement in relation to the treatment goals as measured in the quantitative study.

Because this was a pilot study and the situation in the field did not make it possible at the time, there was no control group.

Art therapists working with patients with an eating disorder were asked to give feedback on the topics they thought it was important to gain more knowledge about. They were asked to give feedback on the first concept of a design for a questionnaire on art therapy. The feedback of the art therapists resulted in adding questions on dealing with perfectionism, getting an overview on the art therapy process and adding questions about the ability to relax and play.

Before the study started, the scientific ethical committees of all the centres that specialise in the treatment of eating disorders needed to give permission for their therapists and clients to participate in the study. These committees often asked for minor changes in the design before they would give their permission. This caused small differences between groups. The committees gave feedback on the research protocols, the questionnaires and procedures, and this caused adaptation in order to get permission. Examples of the changes they proposed were medication to be included, the request to ask for intelligence, to exclude respondents younger than 18 or changes in the letter of informed consent and information on data analyses and the statistical calculations. One institution asked that minors and 45+ aged respondents would not be included. In one case the letter types in the request for permission needed to be changed.

In the following section the manner in which the research was designed is described. Procedures will be explained, as well as the description of instruments, the research population and recruitment, the method of data analyses and representativeness of the study.

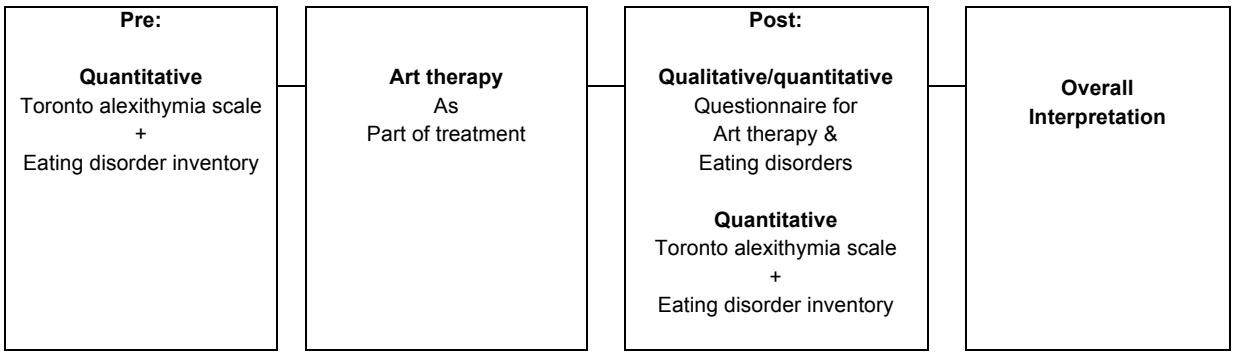
2.1 Research design

This pilot study was conducted within the context of treatment as usual, using a mixed-methods design. In between the pre- and post-tests, the respondents participated in art therapy for between four weeks and 12 months, usually within a multidisciplinary treatment programme that included different kinds of therapy.

As can be seen in *Figure 6. Research design*, the mixed-methods design has three questionnaires: one is mostly qualitative/partly quantitative and two are quantitative questionnaires. The combination of the qualitative and quantitative questionnaires are analysed to answer the research questions.

After treatment with art therapy, the respondents were asked to fill in a mostly qualitative questionnaire on art therapy for the treatment of an eating disorder (ATQ-ed). In the ATQ-ed therapies were evaluated by the respondents in response to open and closed questions, with respect to whether they thought art therapy helped them to work on issues connected with the treatment of their eating disorder. Questions in the ATQ asked what therapies were helpful within treatment for an eating disorder, why these therapies were helpful and what therapies they thought worked in relation to treatment goals connected with an eating disorder and what art therapeutic assignments were most helpful. An example can be seen in *Appendix 2. Art therapy Questionnaire for eating disorders (ATQ-ed).*

Figure 6. Research design



Before and after (multidisciplinary) treatment, including art therapy, the respondents filled in two quantitative questionnaires to measure whether there was an improvement in relation to their symptoms of alexithymia and the psychological aspects of their eating disorder. After treatment, lower scores on the subscales of the Toronto Alexithymia Scale (TAS-20) indicated that someone had fewer symptoms of alexithymia. After treatment, lower scores on the subscales of the Eating Disorder Inventory (EDI-II) indicated lessening of psychological problems connected with an eating disorder.

Differences in the TAS-20 and EDI-II pre- and post-tests were compared per patient in relation to the qualitative data on the ATQ-ed (Art Therapy Questionnaire for eating disorders).

The assumption was that many of the answers given in the ATQ-ed would fit into the categories of treatment goals as asked for in the subscales of the EDI-II and the TAS-20 (*Table 3*).

2.2 Procedures

Prior to undertaking the investigation, ethical clearance was obtained from medical ethical committees at the participating institutions. Every institution has its own procedures and there were differences in the information they needed. An example of a research protocol that was requested can be seen in *Appendix 3. Research protocol.* In *§2.5 Recruitment,* the steps are described that indicate how permission from the participating institutions was obtained. This procedure took between two and 10 months. The first institution started handing out questionnaires in September 2013 and the last institution started in April 2014. All the institutions participated until December 2014.

Participating art therapists informed every new patient that came in and would finish treatment within the period of inclusion about the study, and asked the patient to participate in this pilot study. If they were willing to participate, the clients signed a letter of informed consent. These letters were kept in a separate file from the questionnaires to guarantee anonymity. An example of this letter can be found in *Appendix 5. Letter of informed consent.*

All participating respondents were given a code and they remained anonymous to the researcher. Participating institutions and art therapists did not know the content of the answers to the art therapy questions. For respondents for whom the quantitative questionnaires were part of the ROM (Routine Outcome Measurements), the results of these questionnaires are taken out of the dossier and sent to the researcher. This part of the procedure was possible for participants who filled in these questionnaires in no longer than three weeks before the start or end of art therapy treatment.

The questionnaires were filled in using the code instead of the name and sent in a sealed envelope to the researcher. The art therapist registered the codes to ensure that pre-tests and post-tests matched. After therapy, the respondents filled in the post-tests, put them in sealed envelopes and sent them to the researcher. The respondents were free to answer anonymously without giving ‘wishful answers’.

When qualitative answers were missing, too many answers were given or the answers were given in the wrong place, they were registered exactly as given, even if it was potentially in the wrong place. When a day of the month of start of end of therapy was missing, the day was registered as the 15th of the month.

When respondents filled in the complete pre- and post-test, but missed a quantitative question on the EDI-II or TAS-20, then the average of the subscale for the missing score was used. When respondents gave two answers, the answer that was closest to the average of the subscale was chosen. Filling in missing data was chosen because the amount of questionnaires that were returned was not as high as expected and the other information would have been lost if these respondents were excluded. Respondents who took only the pre-test and not the ATQ-ed post-test were excluded from the study.

After every questionnaire was received, the therapists were sent confirmations on which closed and numbered envelopes were received by mail. Every six to eight weeks the therapists were sent a letter with information on how the research process was going. This was meant to keep them informed and motivated to participate.

2.3 Description of instruments

The primary goal of the study was to measure how patients evaluated the effectiveness of art therapy in treatment for an eating disorder.

There are quite a few validated questionnaires on eating disorders. Most of them measure eating behaviour and/or psychosocial aspects. A disadvantage of these questionnaires is that they are non-specific for art therapy. They do measure the outcomes of the treatment, but do not give information about specific art therapy interventions in treatment areas.

There are several further reasons for which a questionnaire fit for the current pilot study was developed. Firstly, the generalisability of many published questionnaires on art therapy was problematic. Most questionnaires that are used for non-verbal therapies ask the patients to perform a special task. For this pilot study, based on treatment as usual, this approach was too intrusive. Secondly, many other questionnaires ask for a verbal interpretation of the artwork, which is usually done by the art therapist. This makes them a tool based on interpretation by the therapist rather than a tool that measures directly what is being made,

or what the patient says about it (Pain, 2013). For example, self-figure drawings are suggested in international art therapy literature as a tool to assess eating disorders. They are used mostly in studies in countries that have a strong interpretative tradition in art therapy. In the Netherlands (psycho-) analytic interpretation is not the main objective of art therapy and therefore this instrument is not useful. A third reason for developing a questionnaire specifically for this study is that patient perspectives will play an important role in the revision of contemporary guidelines.

The above factors, together with former experiences of the 'art therapy questionnaire for personality disorders cluster b/c' (Beeldend Therapie Vragenlijst voor persoonlijkheids-stoornissen cluster b/c, BTV-ps b/c) (Haeyen, 2011), as well as consultation with art therapists in the field, led to the development of a questionnaire specifically for this pilot study. This questionnaire is described in *§2.3.1 Questionnaire art therapy and eating disorders .*

For the pre- and post-test of the quantitative data, two standardised and validated tests were chosen. Both tests are widely available and have been used in many investigative studies on patients with eating disorders. The tests are the Eating Disorder Inventory, EDI-II (Garner & van Strien, 2002) and the Toronto Alexithymia Scale, TAS-20. The EDI-II is used to measure problematic psychological aspects of an eating disorder. In many eating disorder studies, the TAS-20 is used to identify how patients with an eating disorder identify and describe emotions and to what extent their thinking is externally oriented. The questionnaires are explained in §2.3.1, §2.3.2 and §2.3.3.

2.3.1 Toronto Alexithymia Scale

The Toronto Alexithymia Scale (TAS-20) is a closed response questionnaire with 20 items on three subscales. In eating disorder studies, usually only two subscales are used, a scale on identifying emotions and feelings and a scale on describing emotions and feelings (Strien & Ouwens, 2007). The scale 'difficulty identifying feelings' has seven items. The scale 'difficulty describing feelings' has five items. The items are scored on a five-point Likert scale (1 = disagree strongly; 5 = agree strongly). The Dutch version is validated (Parker, Talyor, & Bagby, 2003; Strien & Ouwens, 2007).

2.3.2 Eating Disorder Inventory

The Eating Disorder Inventory (EDI-II) (Garner & Olmstead, 1983/1991; Garner & van Strien, 2002) is a closed response questionnaire with 60 items on 11 subscales. The subscales are divided into the psychological dimensions of an eating disorder, and items on weight and eating behaviour. One scale is in between these two categories. This is the subscale of interoceptive awareness. All items are scored on a 6-point Likert scale, from 'n=never' to 'a=always'. *Table 3* depicts an overview of the scales and subscales used in this pilot study.

2.3.1 Questionnaire art therapy and eating disorders

The art therapy questionnaire (ATQ) has four parts, developed to fit the research questions. The four parts contain partly situational information and part A relates to helpful therapies, part B to treatment goals and part C to art therapy assignments. These will be explained below. An example of the questionnaire can be found in *Appendix 2. Art Therapy Questionnaire for Eating Disorders (ATQ-ed).*

Situational information: The participant is asked to provide details regarding sex, year of birth, education, medication, diagnoses, length of treatment, treatment setting and body mass index (BMI).

Part A, helpful therapies: This part contained open questions on which therapies the respondents found to be the most helpful and why they found them useful. Open questions were chosen for the beginning of the questionnaire and the patient was not directed towards art therapy yet (as they would be by later questions in the questionnaire).

Part B, treatment goals: This part contained 10 items on treatment goals that appear frequently in the treatment of eating disorders in combination with therapeutic programme components (art therapy, group members, homework, and verbal therapy). Topics on this part were developed on the basis of:

- Outcome of the pilot study, in which respondents said art therapy was helpful in terms of self-image, expressing emotions/feelings, and dealing with their own limitations (Van Dooren, 2014);
- Suggestions by an experienced art therapist about common topics in art therapy treatment of an eating disorder such as being too perfectionistic, the importance of

being able to play and/or relax, the expression of emotions, getting an overview of the therapeutic process, body image and self-image;

- Subscales of the EDI-II that have a match with art therapy treatment as usual in the treatment of an eating disorder, such as body dissatisfaction, ineffectiveness, perfectionism, interpersonal distrust, interoceptive awareness and maturity fears.

Clients could score on a five-point Likert scale how much they thought they worked on these treatment goals and in which therapeutic programme component. An example is given in *Table 2.*

Table 2. Example question Art Therapy Questionnaire, part B

5. I worked on *expression* of my emotions and feelings by means of

	Never true	Rarely true	Sometimes True	Often true	(almost) Always true	No Relevancy
Art therapy	O	O	O	O	O	O
Group members	O	O	O	O	O	O
Homework	O	O	O	O	O	O
Dance and movement therapy	O	O	O	O	O	O
Verbal therapy	O	O	O	O	O	O
Different, namely ..	O	O	O	O	O	O

In *Table 2,* the last column 'ATQ (question number)', shows which treatment goals were chosen to cover the topics of the subscales of the EDI-II and TAS-20. Only those scales of the EDI-II were covered that had a connection with treatment goals that can be realised through art therapy.

Table 3. Overview of (sub)scales of the TAS-20, EDI-II and ATQ-ed

Scale	Content	Subscales (abbreviation)	ATQ (question number*)
TAS-20	Awareness of emotions and feelings	Identifying emotions and feelings (ID)	Recognising feelings and emotions (4)
	Describing emotions and feelings	Describing emotions and feelings (DE)	Expressing feelings and emotions (5)
EDI-II	Preoccupation with bodyweight	Drive for thinness (DT)	X
	Tendency to eat too much and purge	Bulimia (B)	X
	Dissatisfaction with hips and thighs	Body dissatisfaction (BD)	Insecurity with (parts of) the body (1)
	Feelings of inadequacy and insecurity	Ineffectiveness (I)	Feelings of insecurity (2)
	Striving for unrealistically high goals	Perfectionism (P)	Perfectionism (3)
	Avoidance of intimate relations & expressing feelings	Interpersonal distrust (ID)	Expressing emotions (5)
	Awareness of emotions, hunger and satisfaction	Interoceptive awareness (IA)	Recognising feelings and emotions (4)
	Longing for childhood	Maturity fears (MF)	Relaxation and playing (6)
	Striving for virtue by sobriety	Asceticism (A)	Acceptance of personal limits (9)
	Impulsivity and hostility	Impulse regulation (IR)	X
	Insecurity in social situations and feeling unhappy (SI)	Social insecurity (SI)	Social skills (7)
No standardised questionnaire			Self-image (8)
			Insight into the process (10)

Part C, art therapy assignments: This part contained open questions and closed questions about at therapeutic assignments:

- Open questions about which art therapy assignments helped the respondents the most;
- Closed questions about specific inherent characteristics of art therapy assignments (such as making something nice and personal at the same time); and
- How the patient makes use of art therapy topics outside of therapy.

2.4 Research population

In the preliminary pilot study (Van Dooren, 2014), one of the results was that there were no significant differences in the benefits of art therapy for patients with an eating disorder between the art therapy groups of three art therapists, working in three different settings with five different groups (Van Dooren, 2014). The results of his preliminary pilot made it possible

to presuppose that a multicentre study would be possible, with a check on between-group comparison afterwards. This check is detailed in paragraph 4.2. under the title Check on between-group comparison.

The results of the preliminary pilot study also showed that there were no significant differences between patients with anorexia and bulimia in terms of their evaluation of treatment goals and their judgment of art therapy characteristics (Van Dooren, 2014). The only exception was ‘dealing with emotions’, which patients with bulimia thought they worked on less often than the patients with anorexia did (Van Dooren, 2014). The small difference between the core problems of eating disorders is supported by practice: usually patients with different eating disorders get the same treatment, in mixed groups.

The criteria for selecting the participants were as follows: a participant needed to be diagnosed with an eating disorder and would participate in art therapy during treatment. Exclusion criteria were when a patient was younger than 18 or did not fill in a post-test.

2.5 Recruitment

Prior to this study the aim was that 175 respondents from all the centres that specialised in the treatment of eating disorders within the Netherlands and Belgium would participate. However, when scouting the institutions it was discovered that there were many boundaries to cross. Art therapists were uncertain about their jobs, the managers of departments would not give permission and medical-ethical committees had other priorities in research. This led to a lowered expectation of 90 participants: 15 from each of five specialised treatment centres, and 15 in total from three participating psychiatric hospitals.

The first step in the recruitment of participants for this pilot study was to collect an overview of institutions offering art therapy for patients with eating disorders. On request, the NVBT (Dutch association for art therapists) sent a list of 72 Dutch art therapists who were registered as having experience with eating disordered patients. Because not all art therapists are registered at the NVBT, an additional search was done by looking for Internet sites aimed at patients with eating disorders. Additional institutions were found on the Internet, which listed all the institutions that specialise in the treatment of eating disorders within the Netherlands and Belgium. Additional references by art therapists or institutions were used to find more art therapists working with eating disorders. The results of the search

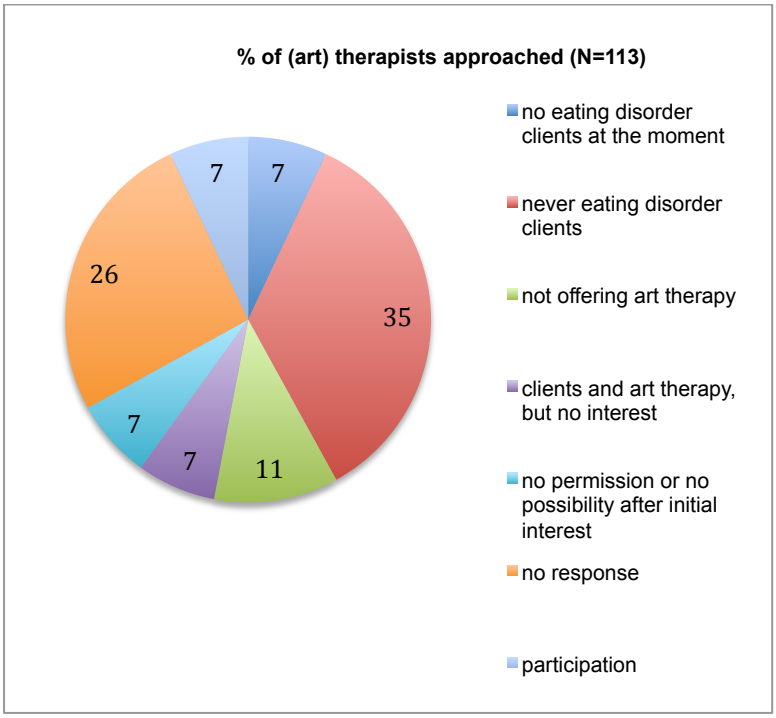
within the Netherlands and Flemish-speaking part of Belgium was that, in total, 36 specialist centres or departments for the treatment of eating disorders were found, of which 16 offered art therapy.

The recruitment of participating art therapists began in May 2013 by sending an email to the NVBT with a request to announce the research in the newsletter and to ask art therapists to participate. In the first six months of the research period, between half a day and three days weekly were spent on communication by email, meetings with managers of the institutions and phone conversations to recruit institutions and art therapists. Additionally, art therapists with private practices and working in psychiatric hospitals were approached.

All these centres and art therapists were first sent a short email with information about the pilot study and a request to participate. Two follow-up emails were sent to art therapists and centres that did not respond. All the information about potential participants was registered in an Excel-file. This information included dates of mailings, whether art therapists or institutions were willing to participate, the setting, the number of patients, e-mail addresses and further steps to be taken in the communication process. *Figure 7* gives an overview of individual art therapists and institutions that were contacted by mail and telephone with a request for participation and the reasons for which they did (not) participate.

Those art therapists who were willing to participate needed to get permission from their managers. After permission from the managers was granted, medical ethical or scientific committees of the institutions had to give permission after seeing the research protocol. Some of those scientific committees met only every two months. At two institutions permission had to be requested twice, after a first refusal and adjustment of the protocol. One institution wanted to participate after the third adjustment of the protocol. In two cases scientific committees refused cooperation, mainly because they gave priority to other research projects for their population.

Figure 7. Percentages of art therapists approached and reasons for (not) participating



In total, 113 art therapists and heads of departments were approached (100%). Of these (100%), eight art therapists eventually participated during the 17 months of the study (7%). Institutions and art therapists that did not participate nevertheless indicated interest in the results of this pilot study.

53% of the approached art therapists and heads of departments had no patients to whom to offer art therapy, either because they had no patients at the time (7%) or because they never had patients with eating disorders (35%), even when registered as such by the art therapy association. Art therapists' reasons for not offering art therapy were that they had just started or finished practice for art therapy, they had no time or no motivation, they suffered from illness or they had just finished studying. 11% of the approached institutions specialised in eating disorders, but did not offer art therapy. Institutions' reasons were that they offered only verbal therapy or they favoured psychomotor therapy above art therapy. Some institutions had just made the choice to fire their art therapists.

7% of the therapist did have clients and offered art therapy but did not show interest in participating for diverse reasons and an additional 26% of those approached did not respond at all. The reasons are unclear.

This left 14% of art therapists who were willing to participate initially. Unfortunately, during the start-up or later on in the research process, 7% in this category found that they could not participate because they did not have clients during the period of the study, did not get permission, had other priorities in research, were recovering from illness and slowly starting up, were pregnant, were fired (3.5%), ill or too busy.

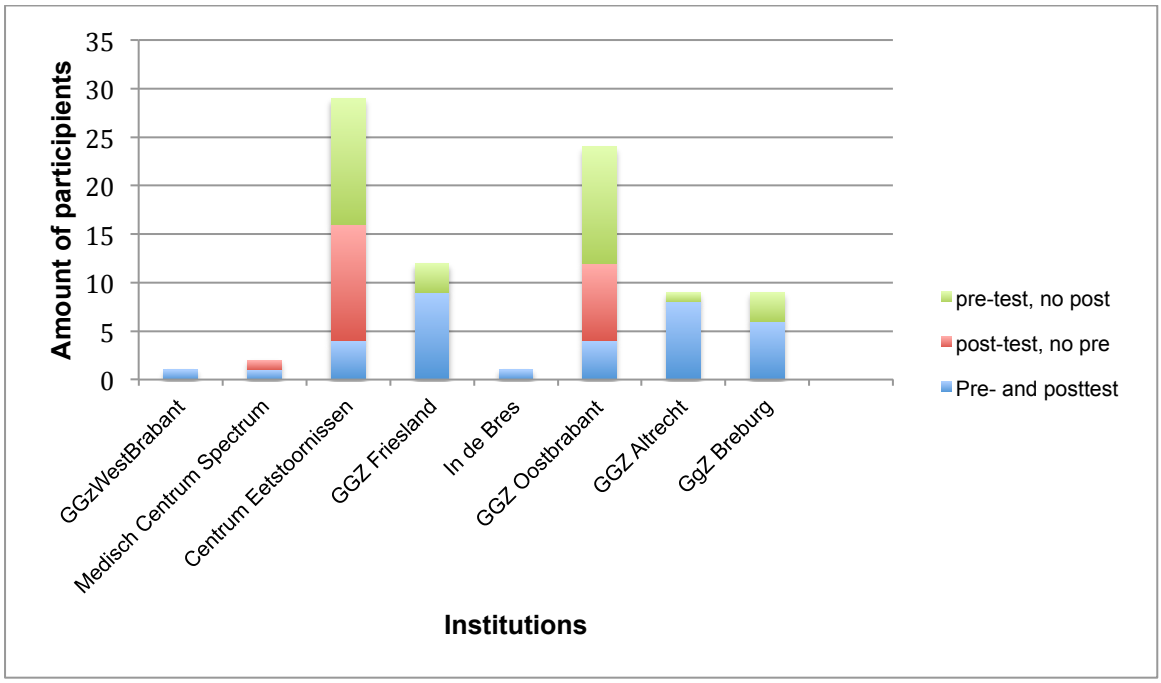
Seven percent (n=8) of the approached art therapists from five specialist centres and three hospitals joined the study between June 2013 and May 2014. Of the eight participating art therapists, five worked at institutions that specialised in the treatment of eating disorders (4%). The three others (3%) worked at hospitals. Each specialist institute was asked to participate with an average of 15 patients; minor hospitals participated with all their patients that met the inclusion criteria.

All of the institutions are located in the Netherlands, covering specialised eating disordered treatment centres and in- and outpatient treatment of psychiatric hospitals. None of the Flemish institutes were able to participate.

Characteristics of the sample

The results of the study are based on the data provided by eight art therapists, working at locations in various parts of the Netherlands. Figure 8 shows an overview of the participants per location. Each location has one participating art therapist. Within the total study population, 87 respondents participated initially (100%). 39% of the respondents completed and returned the pre-tests and post-tests, including the art therapy questionnaire (n=34). 25% completed the art therapy questionnaire for eating disorders (ATQ-ed) without taking the pre-test (n=22). 36% of the respondents completed and returned only the pre-test and were therefore excluded from the analyses (n=31). The reasons for non-response to the post-test were sometimes related to the situation of the art therapist, such as being fired or a relocation of the treatment department and art therapy room. Other reasons were patient-related, such as stopping treatment before time or not returning post-tests for unknown reasons. The respondents might have had treatment before, or continued treatment after they stopped with art therapy.

Figure 8. Respondents per institution



In *Table 19. Treatment settings* (Appendix*),* shows which of the total sum of respondents participated were both inpatient (29.9 %) and outpatient (24.1%). 2.3% of the respondents came in ambulant and 1.1% stayed at the psychiatric department of a general hospital.

9,1% had followed additional treatment components in the same or another setting. As can be seen in *Table 20.* (Appendix), the respondents did not always answer the question about whether they had only had art therapy or art therapy and another therapy, or more than two therapies. However 42.5% participated in programmes in which more than two kinds of therapy were offered, including art therapy.

Art therapy in inpatient and outpatient settings usually takes the form of group therapy, but only 46% answered this question. 47% of the respondents did not specify whether they participated in group or individual therapy and 46.9% had group art therapy or both individual and group art therapy. See *Table 21(*Appendix).

*Table 4*Table shows the length of time that respondents participated in art therapy treatment. The table shows that setting 4, group 2 is a long-term treatment and setting 8 has an average of 2.9 months. The respondents from the other settings were in treatment for a range of averages up to a year.

Table 4. Average amount of months in treatment when taking the post-test, per setting

Setting number	Average amount of months in treatment at post-test	Range	Standard deviation	Number of respondents
1	12	12	x	1
2	6.5	6 - 7	.7	2
4.1	5.3	3 - 7	2.1	4
4.2	30.7	3 - 74	22.8	10
5	7.6	4 - 12	3.2	9
6	6	6	x	1
7	6.9	2-12	3.0	11
8	2.9	1 - 8	2.3	7
9	4	2-5	1.1	6
Total	10.7	1-74	14.3	51

Table 23 (Appendix) provides information about the phase of therapy in which the respondents filled in the data for the post-test. Twenty respondents had finished art therapy treatment and 22 respondents were still in therapy when the post-test was taken because of the end of the period of data-collection. Of these 22 respondents, 10 were in long-term treatment, at setting 4, group 2. Thirty-one respondents quit treatment without filling in a post-test questionnaire.

As shown in *Table 5* most respondents who reported their primary diagnosis suffered from anorexia nervosa (40.2%). 41% of the diagnoses were not reported. 16.1% of the respondents reported a second diagnosis. BMI at the time of the post-tests can be found in *Table 25* (Appendix).

Table 5. Primary and secondary diagnosis

Primary diagnosis	Frequency	Percentage	Second diagnosis	Frequency	Percent
Anorexia nervosa	35	40.2	Anorexia	1	1.1
Bulimia	6	6.9	-	-	-
Binge eating disorder	2	2.3	Binge eating disorder	2	2.3
Not otherwise specified, bulimic characteristics	1	1.1	-	-	-
Eating disorder not otherwise specified	7	8.0	-	-	-
Personality disorder	1	1.1	Personality disorder	1	1.1
-	-	-	Avoiding personality disorder	1	1.1
-	-	-	Body dysmorphic disorder	1	1.1
-	-	-	Post-traumatic stress disorder	2	2.3
-	-	-	Development disorder	2	2.3
-	-	-	Social anxiety disorder	1	1.1
-	-	-	Depression	3	3.4
Unknown	35	41	Unknown	73	83.9
Total	87	100	**Total**	87	100.0

Education was equally divided among the respondents. Intelligence was not measured directly, but respondents were asked what level of education they had achieved. In Table 28

(Appendix) it can be seen that 32,1% of the respondents had completed the middle level of secondary school and higher education (HAVO or HBO). Lower level of education (VMBO or MBO) followed with 25,3% of the respondents and 23% had achieved the highest level of education (VWO or university).

2.6 Representativeness of the sample

The sex of the participants was 90.8% female, 2.3% male and 6.9% did not answer the question, as can be seen in *Table 22* (Appendix). The gender ratio of the participants was close to female-male ratio of 10:1 as presented in the Dutch multidisciplinary guidelines for the treatment of eating disorders (Trimbos, 2006, p. 27). The participants were aged 17 to 55. Most of the respondents (37.9%) were between 18 and 27 years of age Table 24 (Appendix). These figures are not representative of the regular population, in which 95% of the respondents who have eating disorders are between 15 and 25 years of age. However, the multidisciplinary guidelines note that there is some evidence that women older than 25 suffer from eating disorders as well. This could be caused by a late onset or could be due to a long-lasting eating disorder that was developed at young age (Trimbos, 2006, p. 30)

According to the literature, the scores on the standardised tests in this pilot study are representative for the field. As can be seen in *Table 8,* the pre-test scores on many of the subscales are within the reach of respondents with an eating disorder. The score for the respondents on recognising emotions (TAS-20 ID) in the pre-test is 16.3 (in the post-test 13.0). In the TAS-20 scale describing emotions, the pre-test score is 13.0 (post-tests score is 11.4). As a reference, in a study with participants in an eating disorder aftercare group (n=49), the average score on recognising emotions was 16.2 (SD=5.6) and the average on the subscale describing emotions was 13.3 (SD=3.2) (Noordenbos, Greuningen, & Reuneker, 2012).

2.7 Methods of data analyses

A mixed-methods approach was used in this pilot study. Statistical analysis was used to see if the qualitative results were put into perspective by quantitative data. Data was collected

within the context of treatment as usual. This means the respondents participated in art therapy, among other therapies.

Context of the analyses

The chosen tests were used to calculate whether the clients improved on the scales of the standardised tests. It can be questioned whether improvement can be measured and whether clients can verbalise this or show it in a test. One of the characteristics of art therapy is that it is a non-verbal, experiential therapy. The shift to verbalisation is therefore artificial, although this is sometimes needed for research purposes.

Analysing methods on qualitative data

In the art therapy questionnaire the respondents evaluated therapies for eating disorders (ATQ-ed) (Likert scales and open questions) in terms of whether they thought art therapy helped them, in relation to the treatment goals they worked on and which assignments seemed the most useful. These answers can be found in Appendix 2. Art Therapy Questionnaire for Eating Disorders (ATQ-ed). The qualitative data[1] were analysed by coding and looking for categories and variations (Baarda, et al., 2013; Migchelbrink, 2010). All raw data, including codes and labels, can be found in the enclosed DVD[2]. Then definitions of the codes were made and the coding was checked for consistency. This led to the formulation of the final themes (Baarda, et al., 2013).

After categorisation, answers per theme and variation were counted to ascertain which therapies the respondents considered the most helpful (*Table)* and what characteristics they identified that made the therapies useful (*Figure 10*). These are specified by variations on characteristics (*Table 7)* that are seen as most important in the treatment of an eating disorder. The answers were coded by the researcher and by three other art therapists, independently of each other. After the coding, the answers were compared, discussed and the most fitting code was chosen.

[1] Qualitative data are put into an Excel file, as can be seen found on the DVD which is delivered on request, available for the examination office.

[2] If not available please contact Kim.vanoffen@han.nl for further information.

Analysing methods on quantitative data

Quantitative data[3] were analysed by means of the calculations (Field, 2013; Rumsey, 2014; de Vocht, 2012) in the research protocol (see *Appendix 3. Plan for steps in analyses of data)* or as outlined in *chapter 3. Results.* In the quantitative part, pre- and post-tests were compared in order to measure progression on the EDI-II or TAS-20 to establish whether respondents who worked on certain treatment goals, as reported on the ATQ-ed, demonstrated more progress than those who did not.

What was measured was whether respondents had fewer eating disorder-connected problems after art therapy treatment, as indicated by lower scores on the subscales of the Toronto Alexithymia Scale (TAS-20), which measures identifying and describing emotions, and the Eating Disorder Inventory (EDI-II), which measures the psychological aspects of an eating disorder.

The reliability of the TAS-20 measured by Cronbachs alpha is .925 on 24 items (pre- and post-test). The reliability of the EDI-II when used in eating disorders is supported by the literature for the sample as measured in this study, and is shown in *Table 6* for clients with an eating disorder and for a control group of students (Strien & Ouwens, 2007; Garner & van Strien, 2002; Garner & Olmstead, 1983/1991). In this pilot study, Cronbachs alpha was not calculated for the scales of the EDI-II because some institutions supplied only the scores on the scales, not the scores on the items within the scales. The subscales of the EDI-II were never used together as one total scale, because they measured different constructs. For this reason a Cronbachs alpha was not calculated on the overall EDI-II.[4]

Table 6. Reliability of the EDI-II scales

	DT	B	BD	I	P	ID	IA	MF	A	IR	SI
Respondents	.81	.92	.90	.86	.72	.77	.72	.84	.65	.63	.70
Students	.88	.87	.94	.89	.74	.81	.81	.76	.66	.75	.79

Cronbach's alpha <.70: scale is less reliable.

DT= Drive for thinness; B=Bulimia; BD=Body dissatisfaction; I=Ineffectiveness; P=Perfectionism; ID=Interpersonal distrust; IA=Interceptive awareness; MF=Maturity fears; A=Asceticism; IR=Impulse regulation; SI=Social insecurity.

The quantitative data from the EDI-II, TAS-20 and ATQ-ed were analysed mostly on non-parametric tests, so as not to put a demand on the data. A non-parametric test was also

[3] All quantitative data were put into SPSS statistics, version 21. Quantitative data can be found in the DVD, which is available on request.

[4] In March 2015 the EDI-III came out. This edition has 12 scales, which are divided in five composite scales of eating disorder risk, ineffectiveness, interpersonal problems, affective problems and overcontrol. In a follow-up of this pilot study, this EDI-III could be a good alternative for the TAS-20 & EDI-II combination.

chosen because the data were analysed in subgroups, which gives a small number of respondents, and the assumption of normality is too strong in a t-test. In the specific case of a pre-post measurement on the EDI-II and TAS-20, a control is made for adequacy of the distribution of the data compared to a normal distribution by using the Kolmogorof-Smirnof test. Then was chosen for a strong parametric test (paired samples t-test), as a convention, on the basis of the literature (Feld, Woodside, D.B., Kaplan, A.S., Olmsted, M.P., & Carter, J.C.A., 2001; Rumsey, 2014; de Vocht, 2012).
This is shown in *Table 8, Table 9x* and *Table 9*.

Within the therapies, the frequency with which respondents reported to have worked on treatment goals was calculated (*Table 10*). Art therapy versus non-art therapies were compared on pre- and post-tests on improvement with respect to the realisation of treatment goals by Wilcoxon's matched-pair signed rank test *(Table 11).* This is within the context of all therapies, with no isolated comparison.

Helpful factors in art therapy, according to clients, were analysed from the qualitative data, as well as the effects of art therapy according to the respondents. Then it was ascertained whether certain therapies were reported to be more useful than others for respondents who improved by more than 2.5SD (*Table 30, Appendix*).

The results were checked on confounders such as treatment duration, intelligence and setting (*Table 16 and 17*). Data are not filtered on possible confounders as sex and diagnoses. There are just 2 clients that reported they are of the male sex, this number is too small to influence the data strongly. Many clients had more then one diagnoses; a selection of the present data on for example a single anorexia would exclude too many cases. Another argument for not filtering on the diagnoses is that respondents are treated for the psychological dimensions of an eating disorder. Underlying problems are often comparable for the different eating disorders with an exception for dealing with emotions, which is for patients with anorexia nervosa more controlled then for clients with bulimia nervosa or a binge eating. However, dealing with emotions in a healthy manner is for all eating disorders problematic.

3. Results

The results are presented in relation to the topics of the research sub-questions: first art therapy among other therapies, then treatment goals in art therapy, then assignments used for reaching the treatment goals. The qualitative results will be presented first and then the quantitative element will be evaluated to complete the answer to the question, where possible.

Fifty-six respondents filled in the Art Therapy Questionnaire in the post-test. This questionnaire was used as a post-test for the qualitative part of this pilot study. Themes that emerged from the open questions are described after the rough data (see Excel on the DVD), and are explored, specified, reduced and integrated (Baarda, et al., 2013). Excerpts of the answers on the art therapy questionnaire will be given to illustrate the comments. Elaborate analysis on results that are not directly connected to the initial research questions will be given in the discussion section.

In §3.1 Useful therapies according to respondents in the treatment of an eating disorder are described, and thereafter results of the scales. In §3.2.2 Treatment goals per therapy as perceived by patients are outlined and in § 3.3 Art therapy assignments that help with treatment goals according to clients are explained.

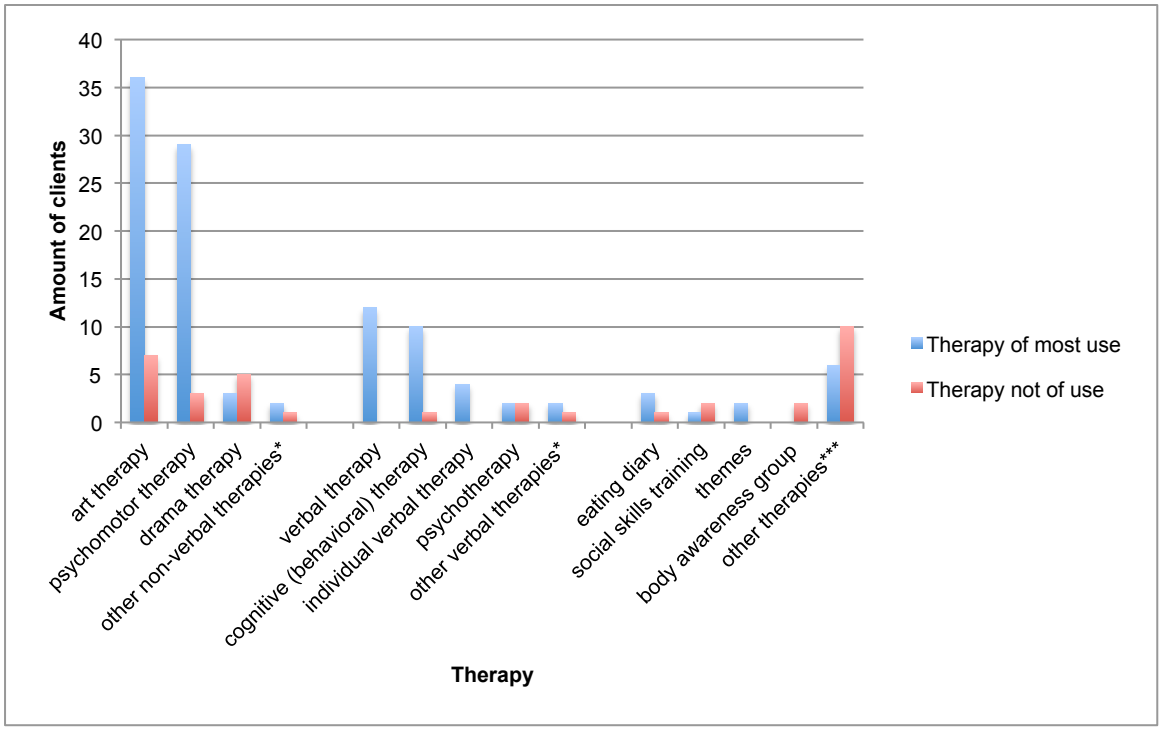
3.1 Useful therapies according to respondents in the treatment of an eating disorder

In §3.1.1 to §3.1.3 the results of the qualitative data on therapies that are most useful according to respondents in treatment for an eating disorder are set out. The answers were analysed with respect to 'why' respondents consider a therapy important. In this pilot study the specific characteristics per therapy are evaluated more than the question of which therapy works best.

3.1.1 Analysis on therapies that are most useful for the treatment of an eating disorder according to respondents

In open questions, the respondents were asked which therapies they evaluated to be the most useful in treatment for an eating disorder (*see Appendix 2, Art Therapy Questionnaire for Eating Disorders, part a*). The respondents often gave more than one answer. Fifty-six respondents filled in the questionnaire and they could name two therapies that helped them the most. This is depicted in Figure 9. Within the group 'psychomotor therapy', the categories 'psychomotor therapy' and 'psychomotor therapy, relaxation module' are scored as psychomotor therapy. Other variations in verbal and non-verbal therapies depicted as different categories are in the graph.

Figure 9. Most helpful therapies in treatment for an eating disorder, as reported by clients



*other non-verbal therapies: music, writing

** other verbal therapies: schema therapy, emotion regulation therapy

*** other therapies: therapies that were mentioned once, either as 'of use' or 'not of use':
Indicated module, EMDR, sociotherapy, goals group, prevention relapse planning, weighing group, group therapy, psycho-education, life-structure, thoughts training, dietician module

In Figure 9, it can be seen that respondents in the research group considered art therapy to be one of the two most helpful therapies. Respondents said 36 times that art therapy was the therapy that offered them the most, directly followed by 29 times for psychomotor

therapy. After psychomotor therapy, verbal therapy was mentioned 12 times and cognitive (behavioural) therapy 10 times.

A broad variation of therapies was mentioned in response to the question about which therapy was least of use for them. These numbers vary from seven times for art therapy, to one for ‘other (non-)verbal therapies’ and ‘cognitive therapy’.

If the categories ‘verbal therapy’, ‘cognitive therapy, ‘individual verbal therapy’ and ‘other verbal therapies’ are taken together, this category is mentioned 30 times as the most useful therapy and four times as ‘therapy of least use’. If the different kinds of nonverbal therapies are taken together, then non-verbal therapies are mentioned 60 times as therapy they could use most. Non-verbal therapies are more often seen as ‘therapy I benefitted from least’ (16 times), then verbal therapies (four times).

The answer to the question of ‘which therapies are evaluated as helpful by respondents who have been in treatment for an eating disorder’ was that the most appreciated therapy was art therapy, followed by psychomotor therapy and verbal therapies. The respondents were asked in an open question, without being directed by the suggestion of the questions, why they consider the most helpful therapies important in treatment for an eating disorder. This is analysed in §

3.1.2 Characteristics of therapies as seen by respondents with an eating disorder.

Attribution to the research questions

The answer to sub-question a1. 'Do respondents evaluate AT 'useful' more often than they evaluate other therapies?' is 'Yes, they do, by far, even if it is diminished by respondents who did not think that art therapy was useful. This answer cannot be properly appraised without the answer to the second part of the question, that is, the 'because of' question.

3.1.2 Characteristics of therapies as seen by respondents with an eating disorder

Figure 10. compares the characteristics of the therapies most often mentioned by the respondents in answer to the question regarding which characteristics make therapies useful or not. Fifty-six respondents replied to the question regarding why the therapies they named were the most useful or not useful. After rough, open, summarised and directed categorising, thematic codes were chosen. Consistency was checked after describing the content of the codes (Baarda, et al., 2013; Migchelbrink, 2010). The following codes were found in the reasons that respondents gave regarding why they considered a certain therapy useful:

Awareness: The characteristic of awareness was used when respondents said that a therapy helped them to become aware of inner feelings or to get in touch with themselves. An example is what a patient said about art therapy: “Discover that I feel and what I feel. Discover that I know (from inside) what it is good to do.” (Respondent 601).

Characteristics: The characteristics of a specific therapy are characteristics that are connected to that kind of therapy. An example, about art therapy: “Expressing my emotions without having to use words.” (Respondent 427).

Goal: The characteristic ‘goal’ is used when respondents describe the treatment goals they worked on. As one interviewee said about art therapy: “Work out underlying causes of the eating disorder and to take action on them.” (Respondent 513).

Insight: Respondents said that they came to an understanding; this is a more cognitive answer than ‘awareness’. As a respondent said about cognitive therapy: “Recognise and acknowledge thinking patterns and certain feelings and thoughts.” (Respondent 906).

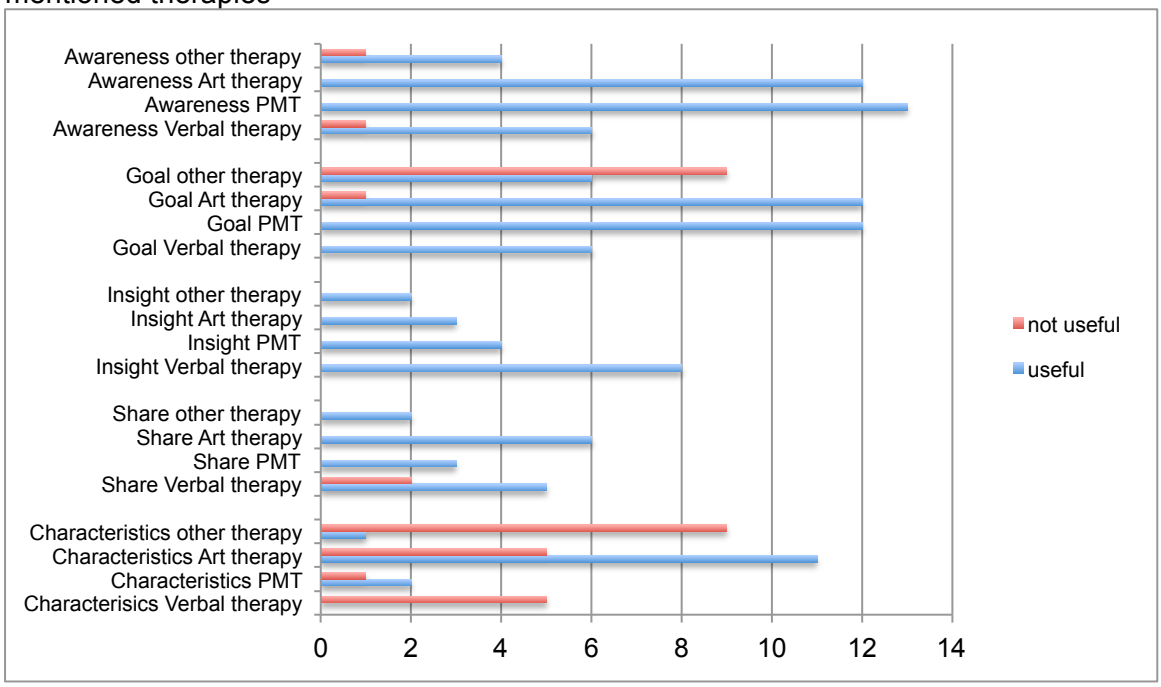
Share: This characteristic contains answers that express to others what goes on within the patient. As one respondent put it: “Expressing the feelings that I could not describe.” (Respondent 806).

Other: Is used when the answer did not have a clear relation to the question. For example, regarding psychomotor therapy, one reason that was mentioned as to why it was of less use was: “Except for body awareness.” (Respondent 506).

No reason: Respondents left this part of the question open.

One answer to why a therapy was useful could contain different characteristics. Every characteristic that was mentioned per answer was counted; so more than one characteristic could be scored per answer or therapy.

Figure 6. Characteristics that make therapies useful, according to clients, in the most mentioned therapies



Other therapies: Indicated module, EMDR, socio-therapy, goals group, prevention relapse planning, weighing group, group therapy, psycho-education, life-structure, thoughts training, dietician module

Figure 6 shows that *awareness* is the function that is mentioned most (37 times) as an important reason for therapy being useful. The next function is *working on treatment goals* (36 times), then *insight* (17 times), *sharing* (16 times), followed by *specific therapeutic characteristics* (14 times).

What is interesting in these data is that experiential therapies (art therapy and psychomotor therapy) are the therapies in which the respondents worked most on *awareness* and *goals*, whereas verbal therapies worked best on *insight*. Art therapy had slightly more the function of *expressing* compared with verbal therapy. In psychomotor therapy respondents reported that they shared less. Art therapy is mentioned especially often on *characteristics.*

The respondents thought a kind of therapy was least useful if the characteristics of the kind of therapy did not match what they needed (20 times said) or if they could not work on their

goals (10 times said) (see data in Excel on DVD). *Table 7* provides more detail about the content that respondents mention on each characteristic.

Attribution to the research questions

Awareness of what is going on inside and working on treatment goals are the functions of therapies that respondents think are the most important in treatment for an eating disorder. Other functions that are appreciated are gaining insight, expressing what goes on inside and then specific therapeutic characteristics such as using art to express emotions.

Experiential therapies are the therapies in which respondents worked most on *awareness* and *goals*, whereas verbal therapies worked mostly on *insight*. Art therapy had slightly more the function of *expressing* compared with verbal therapy. Art therapy is mentioned especially often on *characteristics.*

3.1.3 Themes per therapeutic characteristic as reported by respondents with an eating disorder

Table 7 shows more specific content of the characteristics. The given answers on all the therapies were analysed to find out more detail about why respondents with an eating disorder considered a therapy useful.

Within the characteristics categories, answers were explored and the specific variations were counted. When a patient reported having worked on two treatment goals, these were registered separately. This means that numbers on functions do not match *Figure 6.*

In *Table 7* all the different kinds of verbal therapies are taken as one, whether it is a special kind of verbal therapy such as cognitive behavioural therapy, schema focussed therapy or individual sessions.

This table shows two kinds of results: the last column shows, within each characteristic, which theme is mentioned most as important in treatment for an eating disorder, no matter in which therapy respondents found this. The other result shows whether a theme is spread out

between a palette of therapies, or if a specific therapy was seen as more helpful in working on that characteristic. This is shown in the columns 'total' underneath the therapies.

Table 7. Reasons for which respondents consider therapy useful, variations on themes per characteristic, shown by number of respondents

Theme	Variation	Art therapy	PMT	Verbal therapy	Other	Total N=56
Goals	Learning to relax	4	3	2	1	10
	More self-esteem, assertiveness	3	5	1	1	10
	Expressing emotions/feelings	5	1	1	1	8
	Realistic self-image	1	3	1	-	5
	Change cognitions	2	-	2	-	4
	Diminish perfectionism, let go of control	2	1	-	-	3
	Body-image	-	3	-	-	3
	Change behaviour/deal with self	-	-	1	2	3
	Work on underlying causes	1	-	-	1	2
	Apply what is learnt	-	-	1	1	2
	Other: Make choices, change eating behaviour, show vulnerabilities, learn acceptance	1	2	-	1	4
Goals total		19	18	9	8	54
Awareness	Feelings/emotions	9	3	4	2	18
	Self-image	5	5	3	2	15
	Body-image	1	3	2	-	6
	Illness	1	1	1	1	4
	Actions	-	2	-	-	2
Awareness total		16	14	10	5	45
Insight	Eating disorder and problems	1	4	4	2	11
	Feelings	3	-	2	-	5
	Cognitions	-	-	2	-	2
	Self-image	-	1	1	-	2
	Other: into other persons, eating patterns	-	-	1	1	2
Insight total		4	5	10	3	22
Expressing	Emotions and feelings	4	1	2	1	8
	Expressing what's inside	1	1	1	1	4
	Illness, Self-image	-	-	2	-	2
Expressing total		5	2	5	2	14
Characteristics	Expression without words	5	2	-	1	8
	Pleasant/feels good to do	3	-	-	-	3
	Use creativity	2	-	-	-	2
	Rest while working	1	-	-	-	1
Characteristics total		11	2	-	1	14
Total variations						145 (100%)

In this pilot study the respondents answered that they thought the most important topics in the treatment of an eating disorder were *awareness of feelings and emotions, a better self-image, insight into the eating disorder and illness, learning to relax, learning to express emotions and feelings, sharing emotions and feelings,* and *being able to express themselves without using words*.

Especially in art therapy, there were some topics that got a higher response rate from the respondents. They replied that they worked mostly on *feelings and emotions*, by attaining *awareness* of feelings and emotions, *expressing* them and *sharing* them. The respondents also worked on their *self-image* and on learning to *relax.*

In verbal therapy a theme that showed a bit more often was *insight into the eating disorder* and *awareness of emotions*. Psychomotor therapy overlaps with art therapy on *awareness of self-image* and overlaps with verbal therapy on *insight into the eating disorder*. Another specific theme was the characteristic of *expressing without words* for art therapy, which was appreciated. All the other themes were more widespread over the different therapies.

Attribution to the research questions

The most reported topics that are important in the treatment of an eating disorder were *awareness of feelings and emotions, a better self-image, insight into the eating disorder and illness, learning to relax, learning to express emotions and feelings, sharing emotions and feelings* and *being able to express oneself without using words*. In art therapy respondents worked mostly on *feelings and emotions* by attaining *awareness* of the feelings and emotions, *expressing* them and *sharing* them. They also worked on their *self-image* and on learning to *relax. Expressing without words* is appreciated in art therapy.

3.2 Change in alexithymia and the psychological aspects connected to an eating disorder

In §3.2.3 it is assessed whether changes on subscales of the EDI-II and TAS-20 are reflected in the treatment goals respondents said they had worked on. Therefore §3.2.1 first deals with whether clients showed improvement in terms of the psychological aspects of an eating disorder and alexithymia after a period of treatment in art therapy. Then in §3.2.2 the results on how often respondents worked on specific treatment goals per therapy are outlined.

3.2.1 Differences in the psychological aspects of an eating disorder after treatment

Thirty-two respondents filled in the TAS-20 to measure alexithymia and the EDI-II to measure the psychological aspects of an eating disorder. *Table 8* shows the norm scores for respondents with an eating disorder and norm scores of healthy students (Garner & van Strien, 2002; Garner & Olmstead, 1983/1991). The table also presents the pre- and post-test results of the population of this pilot study.

Table 8. Descriptives on EDI-II and TAS-20, measurements pre- and post-test

Scale	EDI-II Norm scores		Present pilot: Pre test TAS n=34; EDI-II n= 32				Present pilot: Post test TAS n=32; EDI-II n=33			
	Patient	Student	Minimum	Maximum	Mean	Std. Deviation	Minimum	Maximum	Mean	Std. Deviation
TAS_TOT			.33	3.42	2.03	.88	.33	3.42	2.03	.88
TAS_ID			1,00	3.43	2.33	.70	.00	3.43	1.86	1.00
TAS_DE			.80	3,80	2.61	.87	.80	3.40	2.29	.84
EDI_DT	**33-36**	*17-19*	19	42	**35.3**	6.6	11	42	**31.4**	9.5
EDI_B	**25-27**	*11-14*	7	42	18.2	8.7	7	25	*13.9*	6.0
EDI_BD	**43-45**	*32-34*	21	54	**41.9**	10.9	10	54	**41.3**	13.4
EDI_I	**43-45**	*23-25*	17	61	**43.3**	10.2	13	60	38.3	11.0
EDI_P	**22-24**	*16-19*	10	36	**23.0**	6.2	11	34	21.1	5.9
EDI_ID	**25-27**	*18-20*	12	34	**25.7**	6.0	13	33	23.6	6.0
EDI_IA	**39-40**	*22-26*	20	53	**38.1**	8.1	13	55	33.6	10.3
EDI_MF	**26-28**	*22-25*	13	47	**30.4**	8.0	14	44	**28.7**	7.4
EDI_A	**30-33**	*21-23*	18	40	28.8	5.5	12	45	28.3	8.4
EDI_IR	**32-35**	*19-21*	17	41	29.2	6.5	13	46	27.7	8.0
EDI_SI	**31-33**	*21-23*	15	42	29.8	6.4	12	42	26.9	7.4

Bold in the colour 'peach' are the scores on EDI-II that are common for respondents with an eating disorder. Green scores are scores for a standardised control group of students
ID= Identifying emotions; DE=Describing emotions; DT= Drive for thinness; B=Bulimia; BD=Body dissatisfaction; I=Ineffectiveness; P=Perfectionism; ID=Interpersonal distrust; IA=Interceptive awareness; MF=Maturity fears; A=Asceticism; IR=Impulse regulation; SI=Social insecurity.

Table 8 shows that in the pre-test, the means of the research population (*n*=32) are within the range of 'respondents with an eating disorder' as defined by the norm scores of the EDI-II, on all of the scales except for the EDI-II B scale of bulimia. As can be seen in the bold, peach-coloured scales, pre-scores fit within the profile of an eating disordered patient. The deviation for the EDI-II B (Bulimia) can be explained: most respondents were suffering from Anorexia Nervosa, that is, 40.9%, as can be seen in *Table 5*. Bulimia and Binge Eating Disorder are less present among the respondents that participated.

After treatment means of the scores on all scales of the EDI-II and TAS-20 became lower (meaning respondents were less sick). There is a broad variance between cases, both on the pre- and post-tests, as in differences between them.

At the time of the post-test, the respondents' scores showed improvement (-> less ill = lower scores on the scales) on six of the 11 scales. The scales on which respondents moved towards the norm group 'students' are *ineffectiveness (EDI-II I), perfectionism (EDI-II P),*

interpersonal distrust (EDI-II ID), interoceptive awareness (EDI-II A), impulse regulation (EDI-II IR) and *social insecurity (EDI-II SI)*.

In the post-test, despite being lower, the means of the respondents that still fit within the EDI-II profile of respondents with an eating disorder are *drive for thinness (EDI-II DT)*, *body dissatisfaction (EDI-II BD)* and *maturity fears (EDI-II MF)*. At the post-test the only scale on which the means of the respondents are within the norm group of students is the *Bulima (EDI-II B)*.

For normality of distribution of the data in this small sample, the data are tested on significant differences between the scores pre and post per scale by the Kolmogorov-Smirnov test (Field, 2013). This is shown in table 9x.

Results in Table 9x show that almost all scales did not deviate significantly from normal; however, in the pre-test of describing emotions, $D(30)=,224$, $p<0.05$. In the post-test this tendency for a non-normal distribution is not shown.
The post-tests of Body Dissatisfaction [$D(30)=,210$, $p<0.05$] Social Insecurity [$D(30)=,174$, $p<0.05$] scores are significantly not normal.

The post-test on distribution of Describing Emotions was in the pre-test significantly not normal, but in the post-test it is normally distributed. This means that for further calculations, data on describing emotions can be included, but will be looked at with the pre-test calculations in mind if a special conclusions are shown in further calculations. Post-treatment data on Social insecurity and Body dissatisfaction will not be included in the results.

Table 9x Distribution of data as controlled by Kolmogorov-Smirnov

Scale	Kolmogorov-Smirnov Pre (n=30)		Kolmogorov-Smirnov Post (n=30)	
	Statistic (*D*)	Sig. (*p*)	Statistic (*D*)	Sig. (*p*)
Identifying emotions (TAS-20)	,099	,200	,125	,200
Describing emotions (TAS-20)	,224	,001	,141	,135
Body dissatisfaction (EDI-II)	,143	,119	,210	,002
Ineffectivity (EDI-II)	,134	,182	,076	,200
Perfectionism (EDI-II)	,105	,200	,116	,200
Interpersonal distrust (EDI-II)	,158	,053	,133	,188
Introceptive awareness (EDI-II)	,106	,200	,080	,200
Maturity fears (EDI-II)	,086	,200	,090	,200
Ascetism (EDI-II)	,154	,069	,068	,200
Social insecurity (EDI-II)	,128	,200	,174	,021

Light orange: Scores are significant not normal ($p<0,05$)

Table 9 shows when lower scores on the TAS-20 and EDI-II mean significant improvement. The table shows only those scales that match with treatment goals that are usually worked on directly by means of art therapy treatment goals.

Table 9. Significance on TAS-20 and EDI-II scales matching possible treatment goals in art therapy

Scale	Paired differences n=32					t	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error mean	95% confidence interval of the difference			
				Lower	Upper		
Identifying emotions (TAS-20 ID)	.44	.81	.14	,15	.74	3.08	**.004**
Describing emotions (TAS-20DE)	.28	.74	.13	,02	.55	2.15	**.039**
Body dissatisfaction (EDI-II BD)	9	10.50	1.9	-2.9	4.7	.47	.640
Ineffectiveness (EDI-II I)	5.0	9.1	1.6	1.7	8.3	3.12	**.004**
Perfectionism (EDI-II P)	2.0	4.8	.9	.2	3.7	2.30	**.028**
Interpersonal distrust (EDI-II ID)	2.3	4.5	.8	.6	3.9	2.85	**.008**
Interoceptive awareness (EDI-II IA)	4.3	8.3	1.5	1.3	7.3	2.91	**.007**
Maturity fears (EDI-II MF)	1.7	6.0	1.1	-.5	3.9	1.59	.122
Asceticism (EDI-II A)	.3	6.9	1.2	-2.2	2.8	.26	.800
Social insecurity (EDI-II -SI)	2.8	6.6	1.2	.4	5.2	2.39	**.023**

Grades of significance:.

≥0.05 not significant	* < 0.05 = significant	** < 0.01 = rather strong significant	*** < 0.001.(not present in this pilot)

ID= Identifying emotions; DE=Describing emotions; DT= Drive for thinness; B=Bulimia; BD=Body dissatisfaction; I= Ineffectiveness P=Perfectionism; ID=Interpersonal distrust; IA=Interceptive awareness; MF=Maturity fears; A=Asceticism; IR=Impulse regulation; SI=Social insecurity.

Table 9 shows which scales improved significantly in a paired samples t-test during treatment. Scales that have a rather strong significance are identifying emotions (TAS-20 ID) which is supported by the EDI-II scale of Interoceptive awareness (EDI-II IA), ineffectiveness (EDI-II-I) and interpersonal distrust (EDI-II ID), which is supported by a significant improvement on expressing emotions (TAS-20 DE). Perfectionism (EDI-II P) and social insecurity (EDI-II SI) improved significant as well.

A comparison of *Table 8* and *Table 9* indicates the following significant improvements between pre- and post tests. On average, respondents who had been in treatment for an eating disorder were less ineffective (*M= 43.3, SD=10.2)* than before treatment (*M=38.3, SD=11.0*). This difference, -5.0 at a 95% Confidence Interval (CI) [1.7, 8.3] is strongly significant $t(31)=.47$, $p=.004$.

Respondents who had been in treatment for an eating disorder are on average more interoceptively aware (*M= 38.1, SD=8.1)* than before treatment (*M=33.8, SD=10.3*). This difference, -4.3, at CI 95% [1.3, 7.3] is strongly significant $t(31)=2.9$, $p=.007$. This is supported by the TAS-20 ID scale, which shows that respondents identified emotions and

feelings more after treatment (*M=1.9, SD=.70)* than before treatment (*M=2.3, SD=1.0).* This difference, -0.4, at 95%CI [1.5, 0.7], is significant *t* (31)=3.1, *p*=.004.

Respondents who had been in treatment for an eating disorder, on average, suffered less from interpersonal distrust after treatment (*M= 38.1, SD=8.1)* than before treatment (*M=33.8, SD=10.3*). This difference, -4.3, at 95%CI [1.3, 7.3] is rather strongly significant *t*(31)=2.9, *p*=.007. This is supported by the TAS-20 DE scale, which shows that respondents described emotions and feelings more after treatment (*M=2.29, SD=.84)* than before treatment (*M=2.61, SD=0.87).* This difference, -0.28, 95%CI [0.02, 0.55] is significant *t* (31)=2.15, *p*=.039.

Attribution to the research questions

After treatment of an eating disorder, the respondents improved most significantly on self-esteem, *interpersonal distrust and interoceptive awareness, including identifying emotions.* Less strong, but still significant, was an improvement on *social insecurity* and *perfectionism.*

In the next paragraph the therapies the respondents reported to have worked on these treatment goals are outlined.

3.2.2 Treatment goals per therapy as perceived by patients

The respondents were asked per therapy whether they worked on a specific treatment goal. In the art therapy questionnaire, (*Appendix 2, part b*), answers were given on a Likert scale from 0 (never true) to 5 ((almost) always true).

Table 10 presents an overview of how often respondents worked on treatment goals in art therapy, in the group, by homework, in psychomotor therapy or in verbal therapy, in their own opinion. The colours and numbers per treatment goal and per therapy show the average of how often and how many respondents worked on a certain goals, according to their answers. The differences in numbers of respondents are due to respondents who said that working on a topic was not applicable to the specific therapy, or they left the topic open.

Table 106. Means of the extent to which respondents worked on treatment goals per therapy programme, including how many respondents answered this question and standard deviations

Therapy / Goal	Art therapy	Group members	Homework	Psycho Motor therapy	Verbal therapy	Other
Acceptance body	M=1.58 n=43 (SD=1.10)	M=2.5 n=44 (SD=.90)	M=1.69 n=35 (SD=1.05)	M=3 n=39 (SD=.97)	M=2.48 n=40 (SD=.96)	M=2.67 n=6 (SD=.52)
Self-esteem	M=2.34 n=47 (SD=1.07)	M=2,67 n=45 (SD=.88)	M=2.11 n=37 (SD=1.24)	M=2.72 n=39 (SD=1.00)	M=3.05 n=44 (SD=.81)	M=3 n=7 (SD=1.00)
Less perfectionism	M=2.74 n=42 (SD=.99)	M=2 n=40 (SD=1.01)	M=1.66 n=32 (SD=1.21)	M=1.94 n=35 (SD=1.11)	M=2.59 n=37 (SD=1.04)	M=2.4 n=5 (SD=1.34)
Identifying emotions	M=2.67 n=48 (SD=1.02)	M=2.59 n=46 (SD=.96)	M=2.41 n=37 (SD=1.17)	M=2.41 n=37 (SD=1.00)	M=3.26 n=43 (SD=.85)	M=3 n=8 (SD=1.60)
Expressing emotions	M=2.92 n=49 (SD=1.08)	M=2.78 n=46 (SD=1.01)	M=2.4 n=35 (SD=.98)	M=2.65 =40) (SD=1.17)	M=3.17 n=42 (SD=.88)	M=2.75 n=8 (SD=1.58)
Relax	M=2.81 n=48 (SD=1.12)	M=2.48 n=42 (SD=1.11)	M=1.55 n=33 (SD=1.25)	M=2.63 n=38 (SD=1.40)	M=1.88 n=42 (SD=1.23)	M=.67 n=3 (SD=.58)
Social skills	M=1.6 n=48 (SD=1.25)	M=2.8 n=49 (SD=1.02)	M=1.51 n=35 (SD=1.24)	M=2.4 n=41 (SD=1.12)	M=.77 n=43 (SD=1.04)	M=1.8 n=5 (SD=1.79)
Self-image	M=2.17 n=48 (SD=1.26)	M=2.53 n=45 (SD=.97)	M=1.95 n=35 (SD=1.16)	M=3 n=43 (SD=.95)	M=2.63 n=43 (SD=.93)	M=2.4 n=5 (SD=1.34)
Acceptance of own limitations	M=2 n=46 (SD=1.26)	M=2 n=47 (SD=1,02)	M=1.53 n=34 (SD=1.18)	M=2.43 n=40 (SD=.93)	M=.4 n=45 (SD=1.07)	M=1.75 n=4 (SD=.96)
Insight process	M=2.53 n=49 (SD=1.17)	M=2.67 N=51 (SD=1.17)	M=2.11 n=36 (SD=1.24)	M=2.43 n=44 (SD=1.19)	M=3.04 n=47 (SD=1.19)	M=2.11 n=9 (SD=1.54)

M = mean; SD = standard deviation. Scale 0: never true; 1 = seldom true; 2 = sometimes true; 3 = often true; 4 = (almost) always true

Legenda for table 10 (Modus): Number within the colour is the modus.

0.5-0.99 Seldom worked on	1 – 1.49 Seldom worked on	1.5-1.99 Sometimes worked on	2-2.49 Sometimes worked on	2.5-2.99 Often Worked on	>3 Often Worked on

Table 10 shows the means of what respondents reported about how often they had worked on therapeutic goals per therapy. In art therapy respondents reported that they *often* worked (as a mean) on *less perfectionism, identifying emotions, expressing emotions, learning to relax* and *insight into the process* they were going through. The respondents thought they *sometimes* worked in art therapy on *acceptance of the body, self-esteem, social skills, self-image* and *acceptance of their own limitations*.

Attribution to the research questions

The respondents reported that they *often* worked on *less perfectionism, identifying and expressing emotions, learning to relax* and *insight into the process* in art therapy. The respondents thought they *sometimes* worked in art therapy on *acceptance of the body, self-esteem, social skills, self-image* and *acceptance of their own limitations*.

3.2.3 Relationship between working on treatment goals as reported by the respondents and improvement with respect to the psychological aspects of an eating disorder and alexithymia

Is there a relation between lower scores on the Toronto Alexithymia Scale (TAS-20), measuring alexithymia and the Eating Disorder Inventory (EDI-II), measuring psychological aspects connected with an eating disorder, and goals respondents said they had worked on in art therapy?

Table 8 shows how much respondents, on average, improved with respect to alexithymia and the psychological aspects connected to an eating disorder. The scales of the TAS-20 and the EDI-II can be connected to treatment goals as shown in *Table 3.* This paragraph deals with the relation between improvement on the scales of the TAS-20 and EDI-II and how often respondents worked on specific treatment goals, as far as they are aware.

Next, the relations between working or not working on a treatment goal and improvement on the scale of the relevant standardised questionnaire (as can be seen in *Table 3)* are dealt with. These relations are shown in

Table. Part of the analyses was to see if there were relations that needed to be excluded, for example, because of too few respondents on a goal per subscale. These steps led to results related to the question of whether respondents who worked on specific treatment goals showed improvement with respect to alexithymia and the psychological aspects of an eating disorder.

Relations between working on goals and improvement

Table 11 shows the results of the Wilcoxon matched-pair signed rank tests. Respondents who scored 'worked often' or worked '(almost) always' on a treatment goal are defined as the group 'worked on'. Respondents who sometimes, seldom or never worked on a treatment goal are defined as 'not worked on'. Then it is assessed whether they significantly changed on the score on a scale of the EDI-II or TAS-20 and whether there is a relationship between 'worked on' and improvement on a certain scale.

In *Table 11* the colour and number show significance as calculated by Wilcoxon's matched-pair signed rank test. The percentages show the respondents that worked on a specific goal and improved on the related scale.

Table 11. Significance of relations between improvements on treatment goals as measured on TAS-20 and EDI-II and whether respondents reported working on this goal

(Not) worked on per therapy / Therapeutic Goal	Respondents worked on the goal by means of Numbers are significance on the Wilcoxon matched-pair sign rank test (p). %: the percentage of respondents that (not) worked on a goal per therapy and showed improvement									
	Art therapy		**Group members**		**Homework**		**PMT**		**Verbal therapy**	
	NW (*p*)	**W (*p*)**	**NW (*p*)**	**W (*p*)**	**NW (*p*)**	**W (*p*)**	**NW (*p*)**	**W (*p*)**	**NW (*p*)**	**W (*p*)**
Identifying emotions TAS-ID	.177 53% n=15	.011 79% n=14	.045 62% n=13	.156 67% n=15	.397 n=14	.154 n=8	.046 71% n=14	.398 63% n=8	.684 70% n=10	.008 60% n=15
Expressing emotions TAS-DE	.084 n=9	.543 n=19	.111 n=10	.650 n=17	.324 n=12	.207 n=6	.562 n=11	.188 n=9	.496 n=7	.155 n=14
Acceptance body EDI-II BD	.754 n=22	.655 n=2	.779 n=11	.959 n=15	.305 n=17	.317 n=2	.046 63% n=14	.635 36% n=11	.722 n=11	.612 n=11
Self-esteem EDI-II I	,131 67% n=15	,015 75% n=12	,023 77% n=13	,038 64% n=14	,004 79% n=14	,203 57% n=7	,145 58% 12	,018 100% n=7	,072 71% n=7	,036 68% n=18
Less perfectionism EDI-II P	.121 n=8	.210 n=18	.033 58% n=18	1.000 50% n=8	.059 n=16	.414 n=3	.036 59% n=16	.655 50% n=2	.074 n=10	.100 n=12
Expressing emotions /interpersonal distrust EDI-II ID	.010 70% n=23	.581 50% n=4	.439 60% n=10	.007 69% n=19	.022 63% n=19	.102 100% n=3	.183 n=10	.063 n=15	.285 70% n=10	.016 60% n=15
Identifying emotions EDI-II IA	.139 60% n=15	.012 85% n=13	.108 62% n=13	.030 73% n=15	.048 71% n=14	.108 63% n=8	.021 85% n=13	.035 75% n=8	.345 60% n=5	.003 79% n=19
Relax EDI-II MF	.550 n=10	.073 n=18	.894 n=11	.344 n=14	.531 n=17	.269 n=4	.150 n=7	.059 n=13	.829 n=18	.500 n=5
Acceptance EDI-II A	.711 n=20	.235 n=8	.669 n=20	.440 n=8	.796 n=19	.655 n=2	.420 n=14	.249 n=6	.937 n=14	.219 n=10
Social skills EDI-II SI	.102 n=23	.068 n=4	.797 50% n=10	.032 58% n=19	.126 n=19	.285 n=3	.574 40% n=10	0.037 83% n=12	.113 n=10	.071 n=15

NW=not, seldom or sometimes worked on this treatment goal; W = most times or (always) worked on this treatment goal;
(p=) =Significance on Wilcoxon matched-pair signed rank test

Colours in the table are significant results.

Not Working on a treatment goal leads to improvement, significance might be 'accidental' (see '*excluded relations'*, below).
Not Working on a treatment goal leads to significant improvement.
Working on a treatment goal leads to improvement, significance might be 'accidental' (see '*excluded relations'*, below).
Working on a treatment goal leads to significant improvement.

Excluded relations

Relations that needed to be excluded were cases in which too few respondents worked on a treatment goal. If too few respondents worked on a treatment goal, as can be seen in *Table 11,* scale EDI-II ID in art therapy, then if there is any improvement it is seen automatically in the biggest group. For this reason the results are excluded when less than 10 clients have worked (W) or not worked (NW) on the matching treatment goal, and when the corresponding other category, NW or W, in the same scale had more than 10 respondents difference. An example is EDI-II P/group members. In this example eight respondents

worked on perfectionism and 18 respondents did not work on perfectionism. The table shows a significant improvement for clients who did not work on perfectionism, but for this reason this result can be ignored. Therapies can also be excluded when respondents improved on a scale whether they worked on it or not. In that case the improvement cannot be the effect of the therapy.

Finally, there are three scales that show no results. For the TAS-20 this can be explained in combination with *Table 9:* mean improvement in this scale is too low to find differences in *Table 11.* This is a logical relation: if nothing general is found, then nothing specific will be found either. The same can be said for the EDI-II scales of Body Dissatisfaction (EDI-II BD), Maturity Fears (EDI-II MF) and Asceticism (EDI-II A). They show too little improvement in *Table 9* to indicate positive results after working on it in a specific therapy.

Tendencies

Table 12 shows specific numbers on relevant tendencies for respondents who worked on a treatment goal and did improve, as found in *table 9*. In the written analysis only the significance of the scales in which art therapy is involved will be addressed.

Table 127. Significant outcomes on Wilcoxon's matched-pair signed rank test

Scale	Therapy	Worked on					Not worked on				
		Pre Mdn	**Post MDn**	**T**	***p***	***r***	**Pre Mdn**	**Post Mdn**	**T**	***p***	***r***
Identifying emotions TAS-20 ID	Art	2,50	1,64	9,5	0,011	-0,48	2,36	2,14	31	0,177	-0,25
	Verbal	2,21	1,43	2,5	0,008	-0,43	2,79	2,86	9	0,648	0,13
Self-esteem EDI-II I	Art	44,5	37	8	0,015	-0,50	42	38,5	28,5	0,131	-0,28
	PMT	41	34	0	0,018	-0,63	44,5	38	17	0,15	-0,29
Expressing emotions / interpersonal distrust EDI-II ID	Group	29	24	16	0,007	-0,17	26,5	26	16	0,439	-0.44
	Verbal	27	24,5	9	0,016	-0,24	28	26,5	13,5	0,285	-0,44
Identifying emotions EDI-II IA	Art	40	34	7	0,012	-0,49	37	33	34	0,139	-0,27
	Group	40	31,5	17,5	0,003	-0,48	42	38	4	0,345	-0,30
Social skills EDI-II SI	Group	31	31	26,5	0,032	-0,13	27	30	25	0,797	-0,35
	PMT	31,5	27,5	12,5	0,037	-0,13	30	30	14	0,574	-0,42

Significant *p<.05*
Highly significant *p* ≈0,01
Very very significant *p*≈0,001
0,3 < *r* <0,5 medium effect size (Cohen's criteria) (Field, 2013);
r≥.5= large effect size (Cohen's criteria);

Identifying emotions

Identifying emotions, measured on two scales (TAS-20-ID and EDI-II-IA) improves more for respondents who worked on it in art therapy than for respondents who do not work on it in art therapy. The outcomes of scales TAS-20 and EDI-II- IA are consistent with each other. This is seen when the scores are looked at before and after treatment and correlations with improvement. The respondents who often or (almost) always worked in art therapy on internal awareness (EDI-II-IA) scored an improvement. Their scores went from *Mdn*=40 on the EDI-IA scale before treatment to *Mdn*=34 after treatment, with a large correlation and effect size [*T*=7*, p*=0,011*, r*=-0,48]. The respondents who did not, seldom or sometimes worked on identifying emotions in art therapy, scored slightly better on the EDI-II-IA (after: *Mdn*=33 and before *Mdn=37*), but this not a significant improvement [*T*=34, *p*=,139*, r*=-0,27].

The tendency working on identifying emotions in art therapy leads to improvement, is also seen when correlations (on Wilcoxon signed-rank test) are made between respondents who did or did not work on identifying emotions as measured on the TAS-20. Respondents who said they often or almost always worked on identifying emotions in art therapy scored more improvement [before *Mdn*=2,50; after: *Mdn*=1,64; *T*=9,5*, p*=0,011*, r*=-0,48] than respondents who said they did not, seldom or sometimes worked on identifying emotions [before: *Mdn*=2,36; after: *Mdn*=2,14, *T*=31*, p*=0,177*, r*=-0,25].

For verbal therapies on identifying emotions, the following was found on internal awareness (on EDI-II IA). The respondents who said they often or almost always worked on identifying emotions in verbal therapy scored more improvement [before: *Mdn*=40; after: *Mdn*=31,5*; T*=17,5*, p*=0,003 *r*=-0,48] than respondents who said they did not, seldom or sometimes worked on identifying emotions [before: *Mdn*=42; after: *Mdn*=38; *T*=4*, p*=0*,345 r*=-0,30], This is also reflected in the scores on the TAS-20, scale ID (identifying emotions). The respondents who said they did not, seldom or sometimes worked on identifying emotions, as measured on TAS-20, scored less improvement [before: *Mdn*=2,79; after: *Mdn*=2,86; *T*=9*, p*=0*,684 r*=0,13] than respondents who said they often or almost always worked on emotions in verbal therapy (before: *Mdn*=2,21; after: *Mdn*=1,43*), T*=25*, p*=0,008 *r*=-0,43.

Self-esteem

Significant improvement and a large effect size are seen in both art therapy and psychomotor therapy with respect to self-esteem. According to the respondents, problems with self-esteem scored significantly lower (means less sick) on the subscale EDI-II-I after working on it in art therapy *(Mdn=37)* than before therapy *(Mdn=44,5),[T=8, p=0,015, r=-*

0,50]. This is a large correlation. However, for those respondents who did not work on self-esteem in art therapy, self-esteem was not significantly lower (or better) after not or sometimes working on it in art therapy *(Mdn=38,50)* than before *(Mdn=42), [T=28,5, p=,131, r=-0,28].* This means that there is a statistical relation between working on self-esteem in art therapy and improvement, and the effect size is good.

For psychomotor therapy, the respondents who said they often or almost always worked on self-esteem in psychomotor therapy scored more improvement [before: *Mdn*=41; after: *Mdn*=34; *T*=0*, p*=0,018 *r*=-0,63] than respondents who did not, seldom or sometimes worked on self-esteem in psychomotor therapy, as measured on EDI-II I infectivity [before: *Mdn*=44,5; after: *Mdn*=38; *T*=17*, p*=0,15, *r*=-0,29].

Attribution to the research questions

Identifying emotions, measured on two scales, improved more for respondents who worked on it in art therapy than for respondents who do not work on it in art therapy. There is a large effect size and correlation. On expressing emotions, there is also a correlation with improvement, but the effect size is rather small. There is a statistically strong relation between working on self-esteem in art therapy and improvement with respect to self-esteem, and the effect size is high.

3.3 Art therapy assignments that help with treatment goals

After exploration of what is seen by clients as useful in the treatment of an eating disorder *(§*3.1 Useful therapies according to respondents in the treatment of an eating disorder) and treatment goals that are worked on (§3.2.3 Relationship between working on treatment goals as reported by the respondents and improvement with respect to the psychological aspects of an eating disorder and alexithymia*)*, in the following paragraphs the manner in which art therapy assignments contribute to treatment will be dealt with.

In *§*3.3.1 Characteristics of art therapy are analysed. Because in art therapy the artwork plays an essential role in treatment, in §3.3.2 Aspects of assignments helping in treatment for an eating disorder are analysed, and in §3.3.3 Relation between art therapy assignments

and improvement with respect to the psychological aspects of an eating disorder is explored, as input for sub-question B1.

These analyses are based on the data from answers to questions in the art therapy questionnaire (*Appendix 2, part c)*. The respondents were asked which assignments were the most useful and what was helpful about these assignments (Appendix 1 Art therapeutic assignments).

3.3.1 Characteristics of art therapy

Fifty-six respondents answered an open question on what they appreciated most in art therapy and what could be better (*Appendix 2, Question C 1a and 1b*).

After analyses as described in §2.7 Methods of data analyses, three broad categories emerged from the analysis. These were 'art therapy characteristics', 'non-specific therapeutic factors' and 'aims of treatment'. Within these categories several variations can be found within the given answers. Every variation is counted only once (for example when respondents' answers contained two goals and something about materials, the topic of goals was counted once and the materials were counted once). Answers that were not specific, such as "I liked everything", or "I was in there for too short a time" were not counted.

Table 13 shows how often the categories and variations of art therapy were reported. The table shows what respondents were positive about and what they felt could be improved in art therapy. Below the table, characteristics that are mentioned most are analysed and further examples of respondents' answers are given to illustrate the content of the characteristic.

Table 138. Characteristics of art therapy

Art therapeutic characteristics	Amount of Answers		Unspecific therapeutic factors	Amount of answers		Treatments goals	Amount of answers	
	Pos.	Impr.	Neg.	Pos.	Impr.		Pos.	Impr.
Method	23	5	Therapist	16	10	Expression	9	-
Individual content	17	3	Pleasure	4	3	Goals	9	1
Materials	14	1	Combination therapies	2	2	Awareness	5	-
Assignments	13	5	Time	1	8			
Results	3	-	Group members	1	-			
Total	70	12	**Total**	24	23	**Total**	23	1

Pos.= respondents were positive about; Impr. = respondents saw possibilities for improvement

Based on the analyses of the content, three broad categories emerged from the data. First they will be defined, then variations within the categories are given and illustrated with examples of the respondents' replies for the variations that are reported most.

Characteristics

In the current report 'art therapy characteristics' will be used for qualities that are connected to art therapy specifically. Variations within this category are *art therapy method, individual content, materials, assignments* and *results of the art work*.

For *art therapy method*, the respondents said that the manner in which the therapist discussed their artwork helped them (Respondent 202, 514). Art helped them to express feelings without talking (Respondent 803). When respondents wanted improvement on the method of art therapy, it was because they found that art therapy did not fit their needs, or it confirmed the non-verbal characteristic of art therapy: "... to start working actively on the things that I mention rather than just talking about them" (Respondent 701). Some respondents also wanted to reflect on the artwork more, as is usually done in the last part of the session. They needed attention to be paid to the artwork and sharing, as is illustrated by respondent 701: "Discuss together what we have done, not optional, because almost everyone will find it hard to talk -> For example, 15 min before time sitting with the group and let people tell in turn. Now you often had no idea what the other was doing and/or how it was".

The respondents often mentioned that within the assignments, they had their *own content*. The freedom they had to work on their own themes, at their own pass, following their own process was often mentioned as a strong point of art therapy method (202, 423, 513, 718). An example of satisfaction about personal content in art therapy assignments is the following response: "My own input -> What do I want? / What do I need?" (Respondent 718). Some respondents say that when something could be improved, it is being able to work according to one's own ideas (Respondent 702). Some respondents mentioned that they did not feel they had enough individual freedom in their therapy.

The respondents appreciated what *art materials* did for them, how they made them aware of actions and helped them to get in touch with their feelings (Respondent 202, 422, 427, 430). They were usually very satisfied with the materials that were available. As one respondent put it: "By discovering the effects of what materials do with you and how it makes you aware

of your actions, combined with discussions with the psychologist, I can get more in touch with my feelings." (Respondent 202).

The *assignments* helped the respondents with their eating disorders. Most of the respondents were not specific in their answers, but said things such as: "Every time there was an assignment that could lead to reaching a totally different goal. Every time you had to think about different matters" (805). The respondents appreciated the variety of assignments (808) "...and when I could not solve it, there were connecting assignments" (906). When respondents mentioned the assignments as something that could be improved, they needed more instructions (415), or wished they had done it more creatively (506). Some respondents thought it was hard when it was too free; often they needed an assignment that helped them to know what to do, where to start (713, 805).

The respondents said that they are content with the *results* of what they had made (Respondent 101).

Non-specific therapeutic factors

The term 'non-specific therapeutic factors' refers to characteristics that could be connected to any therapy and are beneficial to the therapeutic process. Variations are the *therapist, pleasure, combination with other therapies, the time respondents can work* and *group members.*

The *therapist* is often mentioned, but the respondents were not specific about what they appreciated. The answers on what could be improved helped to get more clarity on what respondents need from a therapist. They need a therapist who balances between not giving them attention/talking when a patient wants to work by themselves (402) and giving enough individual attention (429) or help when they do not know how to do the assignment (801, 415, 806). The respondents said they wanted a therapist who understands how hard it is for them (726) and who has knowledge of eating disorders (717).

The respondents who were dissatisfied about the *time* asked for more time for art therapy (401, 430, 508, 513, 725).

Working on treatment goals

The term 'treatment goals' is used for all comments that relate to the process of working on treatment goals. It contains variations on the process of working on goals such as

awareness and *expression*, and the specific results of *treatment goals*. In *Table 7* characteristics are presented that are helpful in therapy. Many of the variations that are reported in the category 'working on treatment goals' in art therapy match the variations found in *Table 7*.

The respondents mentioned that art therapy helped them to become *aware* what goes on within them (201, 430, 805, 725).

They reported that art therapy helped them to *express* themselves (511, 803, 910) and with working on *treatment goals* (421, 423, 510, 702). An example in which a patient explained what she was satisfied with is: "The different opportunities to express yourself and that you can choose yourself how far you can go. Overcome some fears" (Respondent 421).

Attribution to the research questions

Respondents appreciate art therapy most because of its specific method of using art. They like the way they can give individual content to therapy and they like the materials and assignments. One of the non-specific therapeutic factors that is helpful in art therapy is the role of the therapist. It would be helpful if they had more time for art therapy sessions. In art therapy, being able to express oneself, awareness and working on treatment goals are helpful in the treatment of an eating disorder, according to the participants in this pilot study.

3.3.2 Aspects of assignments helping in treatment for an eating disorder

Fifty-six respondents were asked in an open question which two art therapy assignments were of the most use to them, what materials they used in this assignment, what the effect of the assignment was and how they could use what they did in therapy in daily life (*Appendix 1).* Most assignments had different aspects and, if so, they were counted[5].

Three categories emerged from the data on art therapy assignments that helped the respondents most. They were phases in the *therapeutic process, treatment goals* and *characteristics of making art.*

[5] Raw data and the coding by labels can be found in the enclosed DVD.

Table 14 shows how often a respondent reported the effects of art therapy. In the category phases in the therapeutic process, the numbers of responses are given by the order in which a therapeutic process could develop.

Table 14. Effects of art therapy according to clients

Phases in the therapeutic process		**Goals**		**Characteristics of art making**	
Motivation	9	Feelings	34	Relaxing	10
Awareness	22	Self-image	19	Practicing behaviour	5
Expression	20	Perfectionism / control	9	Social skills	4
Insight	29	Body-image	9	Empowering	4
Sharing	10	Process experiences	3	Distraction, relief, inspiring	3
Acceptance / integration	6				
Total 159	96		74		26

Steps in the therapeutic process

The respondents thought art therapy was helpful because it helped them with phases in the therapeutic process. The answers take into account the phases that respondents go through during an art therapeutic session. The steps are *motivation*, *awareness, expression, insight, sharing* and *acceptance/integration.*

A specific phase that emerges from the data is *motivation*. This is a condition that keeps respondents stimulated to work on treatment goals. Nine individual cases out of 56 said that art therapy assignments motivated them to stay positive, (for example respondent 420, 713) and to choose healthy options (for example respondent 509) for therapy or healthy eating behaviour when having a meal at home (for example respondent 709).

When working on an art therapy assignment, respondents often undergo a process of *awareness, expressing, insight*, and *sharing* within a session. Thirty-four respondents mentioned two or more steps of the therapy process from awareness to expression to insight, sharing and acceptance within the assignment that they mentioned as the assignment that was most effective for them. Apparently an important appeal of art therapy assignments is that they can facilitate an integration of experiences within a session. An example is respondent 429, who said that the most useful assignment was “to express my feelings, especially fear, trauma-related memories and pain with paper and magazines”. It helped her with “a lot of insight and giving myself space to exist, with all of my feelings, that I can name my fears now”, and in daily life it gave her “inspiration, awareness of pain/feelings” (Respondent 429).

Treatment goals

This category comprises all the answers in which respondents mentioned specific treatment goals as helpful in treatment for an eating disorder. The treatment goals that emerged from the data were centred on *exploring feelings, self-image, body-image, to process experience and practising* to *let go of control and perfectionism.*

The topic of *feelings* is mentioned in relation to 34 assignments, that is, in almost two third of the cases, and shows in combination with different steps in the therapeutic process. An example on an assignment in which respondents work on their feelings is the assignment 'Express feelings in a three-dimensional image'.

The respondents gave examples of assignments that helped them to explore their self-image (*Appendix 1*). Respondent 430 reports that "beforehand I didn't know where I would end up and the final result *told me a lot about myself*. It was my own free process". Outside of the session she could use this in the following way: "From the final artwork I could tell what I feel, where I failed, what I needed help with, how I look at myself".

Respondents also reported that they practised with assignments in which they learnt *to let go of control* and *to diminish perfection.* An example is the assignment "Use coloured ink to blow over a little line, next blow over the little line freely and finally make a vase with flowers on paper with coloured ink and a straw." Respondent 801 wrote that it "gave insight into how much I want to do it well (exactly over the line) and when there was more freedom I started liking it more". Outside of the session she used this insight in the following way: "I tried to think more that there are some things that I have no control about and that it does not always have to be perfect, because nothing terrible happens" (Respondent 801).

Assignments in which respondents worked with photographs, pictures and body-outline drawings helped them with their *body-image*. They reported that they gained a more realistic body-image, learnt to look at themselves from different angles (not only from the outside) and better body experience and acceptance (Respondent 425, 510, 701, 709, 719, 725, 801).

Characteristics of making art

In this category the feelings and behaviour that arise from making art are noted. The respondents reported that it was *relaxing, empowering, inviting to try alternative behaviour, inspiring, distracting, relieving* and *invites one to practise social skills.*

The respondents often reported that they considered art therapy to be relaxing, giving them some rest or making them feel free (Respondent 429, 509) and helping them to become aware of nice little things such as the sun on your face by working on themes that made them feel happy (Respondent 713).

Attribution to the research questions

The most striking result to emerge from the qualitative data on art therapy assignments, according to respondents, is that the effects of the assignments are multiple. The answers to the question: 'What art therapy tasks help respondents with an eating disorder in treatment?' indicate various dimensions. Assignments that were evaluated as helpful were assignments in which the respondents went through the steps of the process of motivation, awareness, expression, insight, sharing and/or acceptance, and in which they worked on the treatment goals of self-image, feelings, body-image and perfectionism. The respondents appreciated it when they felt some joy or relaxation while working on art therapy assignments.

3.3.3 Relation between art therapy assignments and improvement with respect to the psychological aspects of an eating disorder

In this paragraph the issue of whether art therapy assignments contribute to reaching treatment goals is explored. First respondents are looked for who have improved by more than a 2,5 standard deviation on the subscales of the EDI-II and the TAS-20. Then it is noted in which therapies respondents report to have worked on this treatment goal and what art therapy assignments they named as most helpful in treatment. An example of the procedure that is followed is: as can be seen in *Table 15,* respondent 803 reported that one of the two most helpful assignments was an assignment on Perfectionism. This respondent showed an improvement of more than 2,5SD between the pre- and post-test on the EDI-II P scale,

which measures perfectionism. A complete overview of the respondents can be seen In *Appendix 6. Additional Tables and Calculations, Table 29.*

Table 15. Example of raw data of respondent 803 on ATQ-ed, part C

1st Art task that was most useful	Art tasks were useful because	Transfer (How could you use this in daily life)
Big sheet of paper divided into two halves. Fill in one half precisely/perfectly, the other half supple and creatively. Material: paint, beads, marker, pencil etc	I realised how extremely difficult it is for me to let go of my perfectionism.	Yes. I recognise situations better in which I am at risk of getting a little too extreme about perfectionism.

The results obtained from the preliminary analysis of these data shows that in 53 cases a strong improvement on one of the EDI-II or TAS-20 scales was reached by 20 respondents. In 38% (20 of 53 improved scales) of the improvements, respondents reported the most helpful assignment to be an assignment that was aimed at the treatment goal on which they improved strongly (*Table 3).*

In 40% (21 of 53 improved scales) of cases the patient reported that he or she had worked often or almost always in art therapy on the treatment goal as connected with the scale of improvement. For 15% it was by art therapy solely, while 25% worked on these goals in art therapy and other therapies. In only in 26% of the improvement on scales did the respondents not report a connection between improvement and art therapy.

Attribution to the research questions

The answer to sub-question B2, 'C*an specific AT assignments be matched with specific treatment goals in AT, based upon the evaluations of the art therapy assignments?'* is that there seems to be a match between an art therapy assignment that a patient reports as helpful and progression in treatment goals. However, when looking at the table as a whole, for individual cases, the method used could not show that art therapy by itself works more often than other therapies with respect to specific treatment goals. The art therapy assignments and treatment goals are seen as too few in these specific cases to draw conclusions on their contribution to improvement on scales that show respondents had improved on strongly in this pilot study.

In the discussion, §4.3 Helpful therapies in the treatment of an eating disorder relations are sought between clients that improved little on the scales of the ED-II and TAS-20 and art therapy.

4. Discussion

This chapter starts with a summary of the results. Then in §4.2 Characteristics and limitations of the research method will be discussed. §4.3 first deals with whether the results of this pilot study can be extrapolated to other patients in art therapy for eating disorders. Then the focus shifts to which therapies respondents think are helpful in the treatment of an eating disorder. Next the specific characteristics of art therapy are considered in relation to other therapies. Then the focus will shift to confirmations of and differences from expectations based upon the literature. In §4.4 the goals in art therapy for treatment of an eating disorder will be dealt with. In this paragraph the points at which qualitative and quantitative data contradict or complement each other will be identified. §4.5 deals in depth with art therapy treatment assignments that are helpful in the treatment of eating disorders. All of these paragraphs lead to §4.6, which contains the answers to the research questions and §4.7, conclusions on implications for the field and future research.

4.1 Summary and conclusions

Fifty-six respondents in treatment for eating disorders at five specialised centres and three general hospitals reported art therapy to be the most useful therapy in treatment for an eating disorder (§3.1). It is important to bear in mind the possible bias in these responses, because while the results are based on respondents who received art therapy as part of their treatment, it is not known whether these respondents chose art therapy as part of their programmes or if they all attended art therapy as a mandatory component of the treatment programme.

Helpful therapeutic processes and treatment goals in the treatment of an eating disorder and the contribution of art therapy

In any therapy in the treatment of an eating disorder, respondents think that *awareness, expression, sharing of emotions and feelings,* and working on *the treatment goals* of *a better self-image, insight into the eating disorder, illness and learning to relax* are the functions of therapies that are most important areas to improve on. Other functions that are appreciated are gaining insight and specific therapeutic characteristics, such as using art to express emotions without words (§3.1.2 and §3.1.3).

Experiential therapies are the therapies in which the respondents worked most on the therapeutic processes of *awareness* and *working on goals*, whereas verbal therapies worked mostly on *insight*. Art therapy offered the function of *expressing* slightly more than verbal therapy. Art therapy was mentioned especially often on specific *characteristics of the method* of art therapy that respondents thought to be useful (§3.1.2). The respondents worked in art therapy mostly on the treatment goals of *feelings and emotions*, *awareness* of feelings and emotions, *expressing* them and *sharing* them. They also worked on their *self-image* and on learning to *relax.* (§3.1.3).

The role of art therapy in improvement with respect to alexithymia and the personality dimensions of an eating disorder

After treatment of an eating disorder, the respondents improved most significantly in the areas of self-esteem (measured by the EDI-II scale of ineffectiveness), *interpersonal distrust and interoceptive awareness, including identifying emotions.* Less strong, but still significant, was the improvement in terms of *social insecurity* and *perfectionism (§3.2).*

Several therapies contribute to the treatment of eating disorders. In the context of this pilot study, a choice was made to focus particularly on art therapy. *Identifying emotions,* measured on two scales improved more for respondents who worked on it in art therapy than for respondents who do not work on it in art therapy. There is a large effect size and correlation. On *expressing emotions,* there is also a correlation with improvement, but the effect size is rather small. There is a statistically strong relation between working on *self-esteem* in art therapy and improvement on self-esteem, and the effect size is high (§3.2.3).

Characteristics of art therapy that makes it helpful in the treatment of an eating disorder

The respondents appreciated art therapy mostly because they liked the way they could give individual content to therapy and they experienced the effect of using materials and assignments. One of the unspecific therapeutic factors that was helpful in art therapy was the role of the therapist. In art therapy, being able to express themselves, awareness and working on treatment goals are helpful in the treatment of an eating disorder, according to the respondents of this pilot (§3.3.1).

Helpful art therapy assignments in eating disorders

The most striking result to emerge from the qualitative data on art therapy assignments, according to the respondents, was that effects of the assignments are multiple in the phases

of the treatment process. Assignments that were evaluated as helpful were assignments in which the respondents went through the steps of motivation, awareness, expression, insight, sharing and/or acceptance, and in which they worked on the treatment goals of self-image, feelings, body-image and perfectionism. The respondents appreciated it when they felt some joy or relaxation during working on art therapy assignments (§3.3.2 and §3.3.3).

There seems to be a match between an art therapy assignment that a patient reports as helpful and progression on treatment goals. However, looking at the outliers that indicated strong improvement, there are too few indications that specific art therapeutic assignments or art therapy works more often than other therapies in relation to specific treatment goals (§3.3.3).

4.2 Characteristics and limitations of the research method

Research design

The research design contained a qualitative and a quantitative part. The use of qualitative studies is a well-established approach in art therapy and the use of quantitative research is common in studies that are included in multidisciplinary guidelines. The utility of the findings is higher in the mixed-methods design, because the qualitative aspects of the questionnaire gives art therapists and other mental healthcare professionals information on how and when to use art therapy and art therapy assignments focussed on treatment goals for patients with eating disorders. Qualitative answers can be put into perspective by quantitative results.

The design of going from a broad perspective (the place of art therapy among other therapies), to treatment goals to the details of art therapy assignments provided a lot of information on the specifics of art therapy and the respondents' appreciation or disapproval of art therapy methods.

Research questions

Some questions in the research design turned out to be too broad to answer directly and had to be specified. This happened for the following question: '*Is there a relationship between whether a patient finds art therapy to be (not) helpful and the patient's difference pre-post score on the eating disorder inventory, EDI-II* (Garner & van Strien, 2002; Garner & Olmstead, 1983/1991) *and Toronto Alexithymia Scale, TAS-20* (Strien & Ouwens, 2007)?'.

The word ‘helpful’ was too broad and needed to be operationalised. The open questions in the questionnaire helped to elicit a view of what patients thought was helpful and what the content of the concept ‘helpful’ was. The respondents replied by noting many aspects of why art therapy is helpful, not just with responses to certain treatment goals, as expected (§3.1 Useful therapies according to respondents in the treatment of an eating disorder*).*

Instruments

In the design there a match between the standardised questionnaires (EDI-II and TAS-20) and the questions as asked on the art therapy questionnaire *(§Table 3*). When analysing the results, it came to light that fewer than expected items on the subscales matched the art therapy questions (*Appendix 2*)*.* This was especially the case with the questions in part B, asking which treatment goals respondents worked on, in which a more complex EDI-II subscale such as ‘Maturity Fears’ (EDI-II MF) could not be covered by the term ‘relaxing and playing’ in a single question. It was too simplistic to restrict the scale of EDI-II MF to ‘relaxing and playing’. The items in this scale cover topics such as the longing for childhood and the demands of being mature. This reasoning mistake was discovered by questioning the lack of relations in the Wilcoxon matched-pair sign rank test. Another example was the connection between the EDI-II scale for Social Insecurity (EDI-II SI) that was at first chosen for a connection with ‘expressing feelings and emotions’. The EDI-II SI did not show many relations on the Wilcoxon matched-pair signed rank test either and when exploring the reasons it became evident that this scale covered items such as ‘feeling at ease in group situations’, ‘feeling understood and acknowledged’ and ‘feeling loved’. However, the EDI-II subscale of ‘interpersonal distrust’ (EDI-II ID) covers items such as being openhearted about feelings, trusting other persons, having strong friendships, showing emotions to others, keeping persons at a distance and being able to talk about personal feelings and thoughts. This seemed to be a much better match and relations on the Wilcoxon matched-pair signed rank test confirmed that.

On the topics of identifying and describing emotions, perfectionism and self-esteem the ATQ-ed questions were well chosen to deepen the results with the qualitative data. The questions covered the content of the subscales much more thoroughly and the outcomes on the Wilcoxon matched-pair signed rank test confirmed that.

Still, by not defining exactly what definitions were used for main themes in the questionnaires, the validity of the structured questions needed to be questioned and reconsidered when matched with the quantitative part of the questionnaire. For the

qualitative analyses this turned out to be less of a problem than anticipated, because the coherence between the answers of the questions per respondent depicted main themes. Definitions of the concepts emerged from the qualitative material. This bottom-up information could then be used in the quantitative analyses.

The mix of open, semi-structured and closed questions in the art therapy questionnaire (ATQ) was helpful. The expectation before the study was that respondents would focus on treatment goals in art therapy. Because of the open questions, it was discovered that respondents also thought art therapy was useful because of specific factors such as not having to use words and the possibility to enjoy and relax while working on treatment goals (*table 13*).

The question regarding the most helpful assignments (ATQ-ed part C) was not asked to answer the research questions, but to hand them out to the field. Surprisingly, the answers to those questions were very informative. They made it possible to triangulate the answers from the ATQ-ed part B. This confirms the added value of a mixed-methods design, where new information shows up in answers to open questions.

Another expectation was that after treatment the respondents would have improved more on the scales of the EDI-II and the scales of the TAS-20. The expectation was that the respondents would be in therapy until the patient was 'cured' from most of the illness. But after the pilot, average treatment duration was 10,7 months, including the group that was in therapy for an average of 30 months. Without group 4.2 (with an average treatment at the time of measuring of 30,7 months), the average treatment duration was 5,9 months. The fact that improvement on all EDI-II scales and TAS-20 was not as clear as was expected in advance is supported by the literature on eating disorders, which reports that psychosocial recovery often takes an average of 6,6 years (Fennig & Roe, D., 2002; Strober, Freeman, & Morell, 1997). For a follow-up study, a pilot on a questionnaire measuring 'quality of life' could give additional valuable information regarding whether respondents experience other benefits of therapy, besides improvement in relation to alexithymia and the psychological aspects of an eating disorder.

Procedures

The duration of the study was a year longer than expected. Whereas in the pre-study (Van Dooren, 2014) the data collection took place within a few weeks, for this pilot study it took up to a year for participating institutions to give permission. The medical scientific committees

sometimes met only every few months. A few committees understood the time given for a master study and they helped by quickening procedures on their site.

All the scientific ethical committees of the centres that specialise in the treatment of eating disorders had to give their permission, as noted in *Chapter 2, Research method,* above. Moreover, the ethical committee's demands for changes to the design caused small differences between groups. The changing demands of the institutions also made it hard to both fulfil their demands and be consistent towards the institutions that had already had started the data collection. Not all of these changes have been used in the results, because they were not consistently asked for all institutions. For example, in the final results data about medication have not been used. For a future study, it would be advisable to start getting permission a year earlier, if possible, in order to start the data collection at the same time at all institutions.

A weak point of the design was the effort needed to help the participating art therapists to execute the procedures as intended, from a distance, over the course of sometimes almost two years. Even though procedures were standardised, circumstances in the art therapists' personal situation, patient groups, misunderstandings or the workplace necessitated that they change. For a follow-up it would be advised that the participating art therapists are given time by their institutions to participate in the research. This will make the effort they put into the research less of a burden on top of the workload they have. More time or a bigger research group would be another option to reduce the effects of these changes.

Despite all these adaptations, the basics of the research protocol were executed as designed. Unfortunately, these procedures cost so much time that the duration of the study was extended several times and the desired number of participants was not attained. The relatively small number of participants for the quantitative part (N= 34), divided into eight groups means that the results of the study point towards tendencies. Not all of the designed calculations made sense or led to reliable results on the data. On the other hand, it made it possible to look for relations between quantitative and qualitative aspects at an individual level.

Research population

A total of 87 respondents participated in the current study. Of these, 34 filled in the pre- and post-tests, including the quantitative questionnaires, and 56 respondents filled in the qualitative questionnaire. The goal of 15 participants per institution that filled in a pre- and

post-test was not reached and does in retrospect not seem feasible with this research design in a master's study. If the prerequisites had been better and less time was needed to be given to acquire permission then it perhaps would have been possible.

For the current study the consequence of the diversity of the research population was that there was a great variation among participants in terms of length of treatment, severity of the eating disorder, phase of treatment, age, intelligence and setting. Between-group comparison in analysis was thus possible only on rough similarities.

Check on between-group comparison

In this pilot study the research design planned to measure differences on psychological aspects and alexithymia in a pre- and post-test. Because of the planned time of data collection and the fact that the respondents sometimes stopped before their treatment was finished, the expected number of 175 respondents was not reached. This means that groups could not be checked on confounders such as medication. For example, the total group of 87 respondents used 44 different kinds of medicines, and sometimes more than four different medicines per person.

However, the 32 respondents who filled in pre-test and post-tests were checked on significant differences of phases of therapy. There are three different groups within the research population: respondents that finished art therapy, respondents that did the post-test while still in treatment, and respondents who quit treatment. The effect size of these differences is small and there is no significance on any scale. The significance of education and duration of treatment is not significant, as can be seen in *Table 16.*

Table 16. **Significance and effect size of confounders**

Scale \ Confounder		Phase		Education		Duration		Institute	
		Sign.	eta	Sign.	eta	Sign.	eta	Sign.	eta
TAS-20	**ID**	.729	,147	.254	,501	.111	,668	.026	,673
	DE	.422	,240	.267	,497	.367	,577	.010	,709
EDI-II	**DT**	.653	,170	.521	,418	.591	,514	.001	,775
	B	.033	,457	.842	,310	.749	,464	.352	,506
	BD	.799	,124	.205	,520	.462	,550	.024	,677
	I	.415	,243	.515	,420	.128	,660	.005	,732
	P	.254	,300	.797	,329	.161	,645	.082	,617
	ID	.509	,213	.237	,508	.094	,678	.089	,612
	IA	.215	,317	.662	,376	.160	,645	.010	,709
	MF	.315	,277	.449	,439	.955	,352	.137	,585
	A	.659	,168	.564	,406	.124	,662	.011	,706
	IR	.727	,147	.066	,596	.066	,696	.126	,590
	SI	.576	,193	.338	,458	.210	,626	.087	,614

ID= Identifying emotions; DE=Describing emotions; DT= Drive for thinness; B=Bulimia; BD=Body dissatisfaction; I=Ineffectiveness; P=Perfectionism; ID=Interpersonal distrust; IA=Interceptive awareness; MF=Maturity fears; A=Asceticism; IR=Impulse regulation; SI=Social insecurity.

Before the pilot study it was expected that there would not be a difference between the different therapists (§1.4.5 Methodical approach to art therapy within the Netherlands*)* (Van Dooren, 2014). However, during the data-collection and processing, differences between settings seemed to emerge. During the processing, it seemed that respondents from some settings were more satisfied than those at other venues. The results are shown in *Table 17.*

Table 179. Differences on improvement on scales per institution

insitute		Scale											
		TASdif ID	TASdif DE	EDIdif DT	EDIdi fB	EDIdif BD	EDId if I	EDIdi fP	EDIdif ID	EDIdif IA	EDIdif MF	EDIdi fA	EDIdif IR	EDIdif SI
1	M	-2,71	-2,00	-30,0	,0	-20,0	-23,0	-8,0	-8,0	-23,0	-19,0	-1,0	-15,0	-13,0
	n	1	1	1	1	1	1	1	1	1	1	1	1	1
	SD	.	.	.	.	.	.	.	.	.	.	.	.	.
2	M	-,14	,00	1,0	1,0	2,0	-4,0	,0	,0	1,0	-4,0	-3,0	-3,0	-2,0
	n	1	1	1	1	1	1	1	1	1	1	1	1	1
	SD	.	.	.	.	.	.	.	.	.	.	.	.	.
4	M	-,26	-,70	-,3	-3,5	14,8	1,5	,5	-6,5	3,5	1,0	4,0	,5	-5,3
	n	4	4	4	4	4	4	4	4	4	4	4	4	4
	SD	,71	,81	4,1	9,7	5,0	10,1	3,8	8,6	2,4	6,5	6,2	5,7	11,1
5	M	-,41	,35	-1,4	-4,9	-4,9	-6,3	-3,7	-1,7	-7,1	-,7	-2,1	-,6	-3,0
	n	8	8	9	9	9	9	9	9	9	9	9	9	9
	SD	,50	,55	6,4	4,5	8,0	7,1	3,5	2,3	6,2	5,9	3,1	5,2	5,7
6	M	-,14	-1,20	-1,0	-10,0	-3,0	-15,0	-14,0	-2,0	-12,0	-7,0	-2,0	-4,0	-8,0
	n	1	1	1	1	1	1	1	1	1	1	1	1	1
	SD	.	.	.	.	.	.	.	.	.	.	.	.	.
7	M	-,29	-,07	-1,7	-,3	1,7	-1,7	,7	2,7	,7	-2,3	1,3	-,3	2,3
	n	3	3	3	3	3	3	3	3	3	3	3	3	3
	SD	,86	,31	1,5	,6	2,1	4,5	6,7	4,0	11,7	5,7	7,2	2,1	2,3
8	M	,02	-,25	-,4	-1,1	-1,0	1,1	-,4	-,8	-,8	-,6	5,0	1,3	1,6
	n	8	8	8	8	8	8	8	8	8	8	8	8	8
	SD	,63	,57	6,3	4,6	7,4	5,6	3,6	2,1	7,1	2,4	6,4	5,1	4,1
9	M	-1,02	-,60	-14,0	-11,2	-3,8	-14,2	-1,8	-4,6	-9,8	-2,0	-6,2	-5,4	-7,6
	n	6	6	5	5	5	5	5	5	5	5	5	5	5
	SD	,86	,61	8,8	13,4	14,8	7,3	5,6	3,9	5,3	7,5	6,4	6,2	4,4
Total	M	-,44	-,28	-3,8	-4,2	-,9	-5,0	-2,0	-2,3	-4,3	-1,7	-,3	-1,3	-2,8
	N	32	32	32	32	32	32	32	32	32	32	32	32	32
	SD	,81	,74	8,8	7,5	10,5	9,1	4,8	4,5	8,3	6,0	6,9	5,7	6,6

M=mean, SD = standard deviation. Grey areas indicate no significant change when the institutions are compared.

Respondents improve more than average	Respondents improve more than 1SD	Respondents improve less than average	Respondents improve less than 1SD

ID= Identifying emotions; DE=Describing emotions; DT= Drive for thinness; B=Bulimia; BD=Body dissatisfaction; I=Ineffectiveness; P=Perfectionism; ID=Interpersonal distrust; IA=Interceptive awareness; MF=Maturity fears; A=Asceticism; IR=Impulse regulation; SI=Social insecurity.

When looking at institutions that responded with more than four respondents, one can see that at two institutes, numbers 5 and 9, the respondents scored more improvement than average on several scales. Both institutes have art therapists who have worked for several years with eating disordered respondents. Two institutions scored less than average. One of these institutes had a change of art therapists, while the other institute moved its location and made a shift in treatment groups (offered less art therapy) during the time of the pilot study. It is very plausible that other reasons might be the cause as well, since at all the institutions the respondents were offered more than one form of therapy. However, the institution that scored above average on improvement had respondents who said they were more satisfied with art therapy in the qualitative answers as well (see excel file with raw data on enclosed DVD).

Taking these differences into account, in a follow-up study it is advisable when measuring the effects of art therapy to include only centres that have stable programmes and therapists. For the results of this pilot study, this means that the prognoses on the effects of art therapy might be more positive than presented due to the institutions that were unstable during this study.

Bias

It is also possible that the results of this study are due to a bias in the results of the question regarding the most helpful therapies as experienced by the respondents, because only respondents who had received art therapy were asked to participate. They were not asked whether they had attended this therapy voluntarily or as part of a designed programme. However, respondents who did receive several kinds of therapy still strongly appreciated art therapy.

4.3 Helpful therapies in the treatment of an eating disorder

The first question in this study sought to determine which therapies the respondents saw as being the most helpful. The results indicate that the respondents considered art therapy, psychomotor therapy and verbal therapies to be important. Among those therapies, art therapy was seen as one of the most helpful therapies *(§*3.1 Useful therapies according to respondents in the treatment of an eating disorder*).* In art therapy treatment, patients work on important aspects of an eating disorder. They become aware of feelings and become more in touch with themselves. They work on different treatment goals, as connected with an eating disorder. They learn to share inner feelings and emotions and all of this is supported by the characteristics of art therapy *(§*

3.1.2 Characteristics of therapies as seen by respondents with an eating disorder*)*.

Art therapy is also mentioned by some respondents as the least useful form of therapy. Table 18 shows the respondents who expressed this view. The table shows that, except for one patient, all these respondents had finished treatment.

Table 18. Analysis of respondents who did not appreciate art therapy

case	phase	TAS-20		EDI-II										
		ID	DE	DT	B	BD	I	P	ID	IA	MF	A	IR	SI
2	0	-	-	-	-	-	-	-	-	-	-	-	-	-
6	0	.26	-.6	-1	1	16	5	1	-17	2	1	-1	-3	-13
27	1	-	-	-	-	-	-	-	-	-	-	-	-	-
36	0	-	-	0	-4	0	-8	-3	-2	3	6	1	2	3
47	0	-,29	-.4	1	-1	0	3	5	2	14	-4	5	2	5
60	0	-	-	-	-	-	-	-	-	-	-	-	-	-
79	0	-2,14	-1,2	-17	-6	-11	-18	0	-4	-18	-13	-7	-5	-15
Mean n=52		-,44	-.28	-3,8	-4,2	-,9	-5	-2	-2,3	-4,3	-1,7	-,3	-1,3	-2,8

Phase: 0= finished treatment; 1 means measurement during treatment.
Patient 27 had art therapy for 3 weeks.

Green: improvement on scales	Peach:

ID= Identifying emotions; DE=Describing emotions; DT= Drive for thinness; B=Bulimia; BD=Body dissatisfaction; I=Ineffectiveness; P=Perfectionism; ID=Interpersonal distrust; IA=Interceptive awareness; MF=Maturity fears; A=Asceticism; IR=Impulse regulation; SI=Social insecurity.

As the table indicates, the respondents who did not appreciate art therapy and who took a pre-test and post-test, are (except for one) all respondents who did not improve on identifying emotions (TAS-20, EDI-II ID) or internal awareness (EDI-II IA). Half of the respondents did also not improve on self-image (EDI-II I). The patient (Respondent 60) who did improve on all scales, but found art therapy of the least use, gave as her reason: “I could not express my feelings well in an image”. Cases 2, 27 and 60 gave as their reasons that art therapy brought less than other therapies, while one respondent attended it for too short a period and the other “couldn’t feel herself” in there.

It would be worth exploring the hypothesis that the respondents who did not appreciate art therapy had more trouble getting in touch with their emotions (after treatment). This might confirm that art therapy might indeed be an effective therapy for internal awareness and identifying emotions.

One of the sub-questions of this pilot study was: ‘Is there a relationship between whether a patient finds art therapy to be (not) helpful and the patient’s difference pre-post score on the eating disorder inventory, EDI-II (Garner & Olmstead, 1983/1991) and Toronto Alexithymia scale, TAS-20 (Strien & Ouwens, 2007)?’ The combination of findings provides some support for the conceptual premise that respondents who did not appreciate art therapy had more difficulty benefiting from treatment generally. It cannot be said that non-improvement on the scales is due to art therapy alone, because the respondents usually participated in more therapies than only art therapy. Also, this tendency is based on only a few cases. This reasoning is not as contradictory to the positive effects of art therapy as it might seem at first because the positive influence of art therapy on improvement on emotions is shown in §3.2.3 Relationship between working on treatment goals as reported by the respondents and

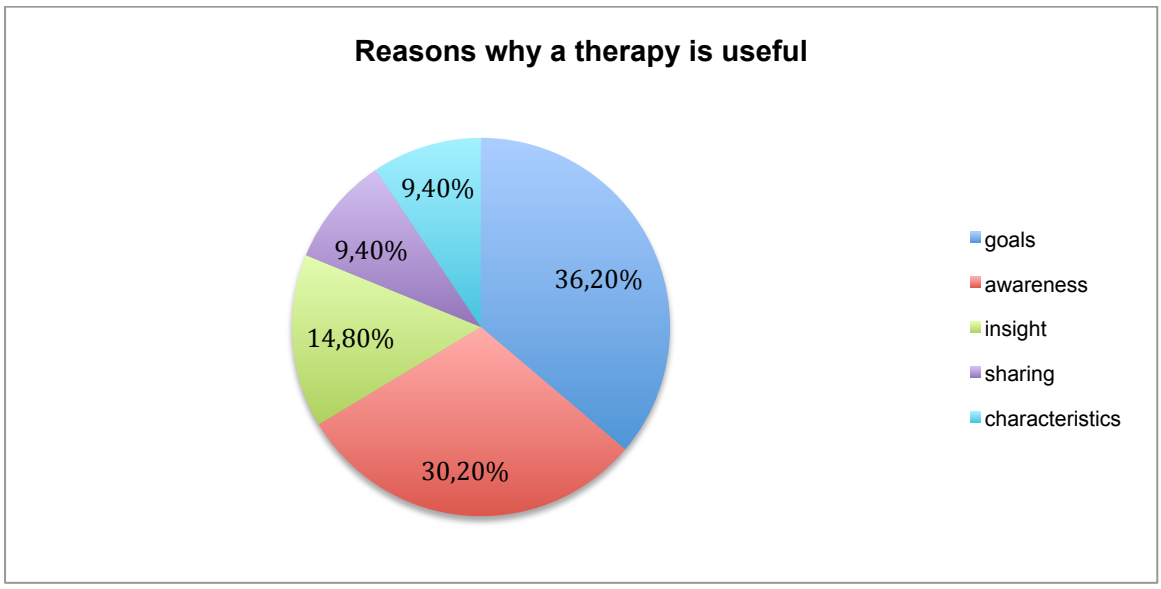
improvement with respect to the psychological aspects of an eating disorder and alexithymia.

4.3.1 Methodical aspects of the treatment process

In the education of art therapists and in the literature on the treatment of eating disorders there is a strong focus on treatment goals. At the start of the study, one of the assumptions was that a therapy would be useful if a patient could work on treatment goals connected with an eating disorder. The expectations when compiling the art therapy questionnaire and the method of this pilot study was that respondents would be focussed on treatment goals within treatment. The expected answers to the 'why a therapy is useful' question were that they would concern the treatment goals they had worked on.

Based on *Table 7, Figure 8* shows the reasons for which therapy is seen as useful, presented in percentages.

Figure 7. Reasons why a therapy is useful according to respondents with an eating disorder



When respondents were asked about why therapies were helpful, surprisingly, they also reported aspects of the treatment process, such as awareness, insight and sharing. As a second topic they reported non-specific characteristics of different kinds of therapies such as therapist and the duration of a therapy.

A third topic concerns results-oriented thinking, such as treatment goals (§

3.1.2 Characteristics of therapies as seen by respondents with an eating disorder). Respondents first mention that it is important to work on treatment goals, closely followed by becoming aware. Insight is seen as important in 14,8% of the helpful treatment reasons. This importance attributed to working on goals and awareness, as felt by respondents with an eating disorder (*Figure 6*), supports the position of art therapy among other therapies used in the treatment of an eating disorder. This could explain why art therapy is experienced as the most helpful therapy in the treatment of an eating disorder: because in art therapy clients report working on awareness and treatment goals, as can be seen in *Figure 10* (§3.1 Useful therapies according to respondents in the treatment of an eating disorder).

Combination of therapies as reasons for therapy being useful

It is possible to triangulate the preferences of clients in terms of characteristics of therapies by combining the information from *Table 8* with the results shown in *Table 7*, which shows in which therapies respondents worked most on specific treatment goals. In *Table 7* it can be seen that emotions and feelings are cited for different reasons as to why a therapy is useful. This table shows that the respondents worked most on awareness of (identifying) emotions in art therapy, and they worked on expressing emotions in art therapy as well. Now knowing from *figure 6* that in verbal therapies insight is worked on more and in the experiential therapies the focus is more on awareness and practising, this confirms the conclusion that these therapies complement each other. Art therapy is a base where emotions are worked on as a treatment goal and where respondents become aware of emotions. Also, some respondents worked on insight into emotions in art therapy, but for most of the respondents the refining of these experiences takes place in verbal therapies. This pilot study has worked it out less explicitly for psychomotor therapy and group members, because these topics were not the focus of the research question.

Looking at a possible answer to the questions *'Which therapies are evaluated as helpful by respondents who have been in treatment for an Eating Disorder?'* and *Do respondents evaluate art therapy as 'useful' more often than they evaluate other therapies?'*, it can be said that according to this research, the respondents thought art therapy was the most helpful for them, followed by psychomotor therapy and verbal therapies *(Figure 9. Most helpful therapies in treatment for an eating disorder, as reported by clients* However, this result has not previously been described.

As mentioned in the literature review*, §1.2 Goals of the pilot study,* art therapy is not mentioned in the multidisciplinary guidelines for treatment of an eating disorder as one of the therapies that should be offered in the treatment of an eating disorder (Trimbos, 2006). One of the reasons was that very little was found on evidence-based practice for art therapy in treatment of eating disorders. For art therapy, more literature was found on practice-based experiences *(§*1.4.3 *Characteristics of art therapy for the treatment of* eating disorders*).* Prior studies have noted that the highest levels of evidence are found on cognitive behavioural therapy for bulimia, and for family-oriented therapy for young respondents with an eating disorder (Carnabucci & Ciotola, 2013; Fairburn, Cooper, & Shafran, 2003; Trimbos, 2006), and these are included in the guidelines.

However, there seems to be a change of opinion. The last multidisciplinary guidelines date back to 2006. In a recent book by one of the Dutch experts on eating disorders, Noordenbos (2104) concludes that a fitting combination of several therapies is more effective than when a therapist specialises in a specific therapy. She writes that respondents who have recovered usually followed a treatment programmes that included a combination of different therapies that contributed to physical, psychological, emotional and social recovery (Noordenbos, 2014).

This research indicates that respondents experience art therapy as having a specific role in the treatment of an eating disorder, which is characteristically different from verbal therapies. This is supported by the literature noted in §1.4.3. The literature review shows that art therapy is internationally recognised as an effective treatment for eating disorders. However, the level of evidence is under discussion (Frisch, Franko, & Herzog, 2006; Holmqvist & Lundqvist Persson, 2012; Ki, 2011; Luzatto, 1995; Pain, 2013; Rehavia-Hanauer, 2003).

Characteristics and methodical aspects of art therapy in relation to other therapies

In the theoretical underpinning of this thesis, outlined in §*1.4.3 Characteristics of art therapy for the treatment of* eating disorders, some specifics were mentioned in the qualitative data about why art therapy is beneficial for respondents with an eating disorder. These were the multi-sensory approach, the parallel between artwork and patient and confrontation, working in the here-and-now, a safe place to experiment and play, expression and intrapersonal insight, as well as insight into the therapeutic process. These functions of art therapy will be reviewed from the perspective of the results of this study to discuss and understand what is found in the results of this pilot study.

Multi-sensory approach: Art therapists emphasise the importance of the appeal of art materials on kinesthetic, sensory, emotional, perceptual, cognitive and symbolic functions (Hinz, 2009; Lusebrink, 1990). Theory and practice in working with respondents with an eating disorder is that they prefer cognitive assignments (Hinz, 2009). It is seen as 'good practice' to stimulate more awareness of bodily feelings, so as to provoke awareness of physical sensations and contact with the body. However, the respondents did not mention this in their answers to the questions. Looking at the assignments they believe to have been most helpful, many assignments are cognitively oriented, such as using words, working with collages and photos, and writing or depicting how they feel on a symbolic level. However, the respondents also thought that awareness and feelings were important. In the assignments aimed at these goals, respondents have made more use of materials that appeal on emotions such as clay, paint and soft pastels. According to art therapists, awareness and dealing with feelings emerge from bodily and sensory experiences (Hinz, 2009; Lusebrink, 1990). For a future study it could be interesting to search for if it is confirmed whether the more sensory oriented materials make patients more aware of feelings and emotion and if more cognitively-oriented assignments helps them on more cognitive treatment gaols such as gaining insight and motivation. It could very well be that patients with eating disorders, who have such difficulties with feeling, do need the insight to give space to the feelings and emotions they become aware of. For art therapy, the theory of the need to start at the level at which a client feels most at ease is supported by the model of the expressive therapies continuum (Hinz, 2009).

Parallel between artwork and patient and confrontation: Respondents did not mention this explicitly very often, but it was mentioned by some respondents, who reported how they practice behaviour such as less perfectionism or control in art therapy and the transfer to how they act outside of the therapy. In another way is it reflected in how respondents recognise themselves in the artworks they have created. They often mention that the memory of the artwork helps them to stay motivated to make more healthy choices when eating or in daily life.

Working in the here-and-now: This characteristic of art therapy is not often mentioned explicitly in these terms, but many of the comments about awareness are about being in touch with inner feelings and thoughts. An example is what a patient says about an assignment: "That beforehand I didn't know where I would end up and the final result told me a lot about myself" (Respondent 430). This working in the here-and-now helps some respondents to learn to relax and let go of sorrows, but it can also lead to insight: "From the

final artwork I could tell what I feel, where I failed where I needed help, how I look at myself" (Respondent 430).

A safe place to experiment and play: Respondents did often mention that they felt freedom when working at their own pace and when working on art therapy assignments. As one patient put it: "I became more playful, and discovered that I like to experiment and always look for 'new' experiences. I feel myself to be richer" (Respondent 718).

Expression: Many of the topics that respondents worked on dealt with expression, whether it be expressing emotions or expressing and exploring self-image. As respondent 427 put it, art therapy helped with "expressing my emotions without having to use words" and she did this in an assignment with paper and magazines: "Expressing my feelings, especially fear, trauma-related memories and pain."

Intrapersonal insight and insight into the therapeutic process: Respondents often said that they gained insight into the treatment process (*Table 10*). Some respondents reported that many of the art therapy assignments that were appreciated most contained moments that helped them to gain insight, for example, into dysfunctional thoughts, or how they dealt with their bodies or feelings. This part of a therapeutic process is not mentioned very often directly in the open answers. This could be because saying something about the process, requires some reflective distance and it might not be the first thing one thinks about. However, some respondents did say something about the process. For example respondent 718: "After exploring during art therapy I could talk about it and/or could go on with my process."

It must be said that this insight seems to be different from the kind of insight that is gained in more verbal and cognitive therapies. In art therapy insight is often mentioned as something that emerges from experiences and awareness during the session. The kind of insight gained in verbal therapies is more of an overview, as the following comments illustrate: Verbal therapy was useful because it helped with "insight into the role of the eating disorder" (Respondent 428) or "put my thoughts into perspective" (Respondent 907).

Again: Therapies are complementary

The specific art therapy characteristics that were mentioned by the respondents, in combination with recognition of other components of the treatment programme, leads to the conclusion that the different kinds of therapy are complementary to each other. This is

confirmed by the analyses of Wilcoxons matched-pair signed rank test in combination with the qualitative analyses. In the quantitative analyses it is seen that working in art therapy and verbal therapy on self-esteem and identifying emotions leads to improvement, whereas the qualitative part of the pilot study shows that in art therapy the focus is on the moment and that in verbal therapy the respondents work on insight. This conclusion regarding how therapies are complementary towards each other fits within the perspective of the English NICE-guidelines. They note that in the treatment of an eating disorder, the effect of evidence-based therapies is mostly studied within a multidisciplinary setting. Without the complimentary effect of parts of the treatment, effective therapies lose their effect (National Collaborating Centre for Mental Health, 2004).

4.4 Goals in art therapy for the treatment of an eating disorder

Five important treatment themes emerged from the studies discussed in the literature review and are confirmed by a recent publication that presents the 'state of the art' treatment of eating disorders (Noordenbos, 2014). These themes are the recovery of eating behaviour and the physical consequences, development of a more positive body perception, development of higher self-esteem, recognition, accepting and expressing of emotions and improvement of social functioning. The themes that emerge from the current pilot study correlate with the perspective that is widely held in the field, as is presented by Noordenbos (Noordenbos, 2014).

Before looking at the results of the pilot study concerning these themes, the question of how much improvement can be expected between pre-and post-test will first be discussed and the results of the study on motivation will be put into perspective in relation to the literature.

Improvement on alexithymia and psychological aspects of an eating disorder

As can be seen in *Table 8,* after treatment the average scores on post-tests are lower on most scales of alexithymia and the psychological aspects of an eating disorder, but they are not on the level of healthy students. This can be explained from the perspective of the literature. Eating disorders are often severe – 4-6% of cases are mortal (sometimes suicide after or because of weight loss). As the literature reports, the prognosis for the survivors of an eating disorder is that 47% recovers, 33% improves and 20% is chronic (Steinhausen, 2002). After treatment, when the weight of the patient has improved, the recovery from the psychological aspects of an eating disorder takes years and in many respondents they will

always remain present. Eating behaviour and weight recovery takes an average of 4,7 years and psychosocial recovery an average of 6,6 years (Strober, Freeman, & Morell, 1997). For this study, because limited time was available, this means that quantitative data on improvement on treatment goals can be expected to show some tendencies, but it cannot be expected that respondents will be healed in the average treatment period of 10,7 months (*Table 4*). This means that small improvements are a satisfying result for the treatment duration of this pilot study. The results also highlight the advantage of qualitative data, which give additional information on what respondents believe is helpful in therapy, before health is reached.

The role of motivation

In this pilot study, figures regarding dropouts are not registered. It is not known exactly for what reasons respondents did not fill in a post-test. However, only 32 out of 66 respondents filled in both a pre-test and a post-test. Some notifications of dropouts were mailed by the therapists, explaining why clients did not fill in an post-test. From the literature it is known that there is usually a high dropout rate during treatment for an eating disorder, so the building of trust and increasing motivation are important factors in treatment (Trimbos, 2006).

The most surprising aspect of the qualitative data is in that respondents often reported that art therapy helped them to be motivated for treatment. Because this was not expected, there were no quantitative or qualitative closed or explicit questions about motivation. The outcome of the qualitative part in the form of open questions was that for 16% of the respondents (n=56) art therapy was helpful because it motivated them to earnestly engage in treatments or to choose healthy behaviour. Respondents reported that art therapy assignments motivated them to stay positive (420, 713) and to choose healthy options such as therapy (509), or healthy eating behaviour when having a meal at home (709). The matching assignment that yielded the most profit was one in which respondents were asked to draw their future. As respondent 509 reported about the assignment “What next?” that it gave her an overview and helped her “with motivation to choose the healthy options”. One patient (702) said about a ‘motivation collage’: “It gave me real positivity”. She could use it “at home, during the meal”. Another patient (509) said about the assignment in which she was asked to depict the eating disorder and herself in a non-perfectionistic way, with charcoal on paper. “It helped with insight”; “I could use this as a motivation against the eating disorder”.

The motivating value of assignments was often more implicit. For example, respondent 508 said that the assignment “Body image” with drawing paper and colours gave her “Insight into how I experience… being confronted with an unrealistic image of myself” and it helped her outside of therapy “by thinking back about it”.

Especially in the treatment of eating disorders, specific interventions directed at attaining this goal increase the motivation to change (Feld, Woodside, D.B., Kaplan, A.S., Olmsted, M.P., & Carter, J.C.A., 2001). For respondents with an eating disorder this motivational aspect is important, because one of the primary conditions for successful treatment is motivation (Treasure & Ward, 1997; Vitousek, Watson, & Wilson, 1998).

Assignments in which respondents were asked to depict the past, the present and the future made them aware of setting goals. This motivated them to pursue the plans they made. Within multidisciplinary treatment, the motivational role art therapy plays can be an important addition. The literature supports the result that art making encourages motivation (van Lith, Fenner, & Schofield, 2010). It is even said to be a key for healthy functioning (Beaumont, 2012). The respondents in this study were often able to maintain this sense motivation at times outside the therapeutic situation.

Recovery of eating behaviour and the physical consequences

Art therapy does not address eating behaviour and physical consequences directly. Only one respondent reported that making a motivation collage using magazines, and cutting, painting and writing gave her ‘real positivity’, which she could use “at home while eating” (Respondent 702). Respondents reported having more often worked on eating behaviour during modules focused on eating diaries.

Development of a more positive body perception

In open questions regarding why certain therapies were the most helpful (*Table 7*), respondents reported in 6% (n=145) of the answers that they had worked on the treatment goal of body image and awareness of the body image. This was a rather small figure for an illness that has such a big influence on body perception. The little attention on body perceptions experienced by respondents is reflected by little improvement on the scale EDI-II BD (Body Dissatisfaction). Norm scores for eating disordered patients is 43-45 and for healthy students 32-34. The average score of the respondents in the pre-test of this study is 41,88 (n=32) and in the post-test it is 41,33 (n=33) (*Table 8*). This improvement is not significant (*Table 9*).

The literature supports the fact that body perception for patients with an eating disorder is hard to change. In long-term outcome studies of residential treatment for anorexia, there was no significant difference on body dissatisfaction between admission and follow-up. Respondents with bulimia showed no significant difference on the subscales of perfectionism and social insecurity. In both groups, all other subscales that improved were quite stable in a follow-up study (Brewerton & Costin, 2011).

However, in the open questions, two-thirds (n=9) of the respondents who reported that working on body-perception or body awareness was one of the most helpful aspects of treatment, said they worked on this goal in psychomotor therapy.

When the respondents were asked “In what therapies did you work on the different topics?” the majority responded that they worked *almost always* on acceptance of the body in psychomotor therapy (n=39), followed by working on it *sometimes* by means of verbal therapy (n=40) and group members (n=44), homework (n=35) and art therapy (n=43). When looking at the relation between respondents who did improve and if they reported having worked on body dissatisfaction, the only significant relation is seen in psychomotor therapy. The most surprising aspect here is that the respondents who *did not work* on body dissatisfaction (63%) in psychomotor therapy did improve more than respondents who did work on body dissatisfaction (26%). However, respondents who worked on body dissatisfaction in verbal therapy (60%) improved more than respondents who did not work on body dissatisfaction in verbal therapy. These results suggest that it might have more effect when respondents work in verbal therapy on body dissatisfaction rather than in psychomotor therapy. This conclusion is not as expected and needs more research.

Fifty-six respondents named the two art therapy assignments (n=103, 100%) that helped them most in a self-report. Nine of these assignments dealt with body dissatisfaction (9%). However, in the question regarding in which therapies they worked on body dissatisfaction, 22 (n=56) respondents said they did, (almost) never or sometimes worked on body dissatisfaction in art therapy. Two respondents said they often or (almost) always worked on this topic in art therapy. A question for further research could be whether working more on body perception in art therapy would cause improvement on this scale. The literature supports the hypothesis that art therapy brings additional value, because it is rooted in bodily sensations and works at the level of bodily awareness, which is different from verbal therapy (Brytek-Matera & Schiltz, L., 2011). The decreasing of body dissatisfaction is an important factor for recovery in the treatment of an eating disorder.

Development of more self-esteem

According to Noordenbos, the development of self-esteem is extremely important. Respondents with an eating disorder make a connection between weight and eating behaviour. Instead of this, they need to become more assertive and stop living up to the expectations of others. A deeper underlying cause is often being afraid to fail, to be criticised or to be rejected. Part of the treatment goal is therefore to diminish perfectionism and high aims (Noordenbos, 2014). In the art therapy questionnaire the respondents were asked whether they worked on self-esteem, self-image and perfectionism. Matching EDI-II scales are EDI-II I (Ineffectiveness) for self-esteem and EDI-II P for perfectionism. Self-image is not covered by one of the EDI-II scales. Noordenbos doesnot mention self-image as a separate topic, but it is used a lot within art therapy and it fits well into the topic of self-esteem.

In the open questions, respondents reported that they worked on self-image: as a treatment goal (3%), in terms of awareness of (10%), insight into (1%) and sharing it (1%) (*Table 7*). In the open questions on what therapies were the most helpful, the respondents reported in 7% (n=145) of the answers that they had worked on the treatment goal of self-esteem and in 2% that they worked on diminishing perfectionism. When additionally looking at art therapeutic assignments (n=103; ->100%) that respondents reported as helping them the most, 16 (16%) of these concerned self-image and nine (9%) dealt with perfectionism.

Working on self-image, self-esteem and perfectionism leads to significant improvement from pre- to post-test results on the EDI-II P (Perfectionism) and the EDI-II I (Ineffectiveness). On both scales the respondents' move significantly in the direction of a control group of healthy students (*Table 8* and *Table 9*).

Additionally to the initial research questions, an exploration will be done regarding whether there is a relation between art therapy and cases that improve exceptionally (more than 2,5 x SD) on the EDI-II or TAS-20 scales. The relation is either that the respondents directly say they worked 'most times' or '(almost) always' on the treatment goal, or they mention an assignment that was of most help, connected to the specific treatment goal / EDI-II or TAS-20 scale.

Five respondents improved on self-esteem exceptionally on the EDI-II I (Ineffectiveness, connected to the goal of self-esteem). Four of the respondents reported to have worked in

art therapy on the connected treatment goal. There seems to be an indication of a relation between improvement with respect to self-esteem and working on it in art therapy.

For perfectionism this tendency is less strong. Four out of seven respondents who improved exceptionally on perfectionism reported a connection with art therapy (*Appendix, Table 30*).

However, when one looks at how many respondents (n=56) answered the question regarding whether they had worked on perfectionism in art therapy, 42 respondents answered this question. As an average they reported they had worked 'often' (M=2,74) on diminishing perfectionism in art therapy (Table 10). As shown in *Table 10,* art therapy seems to provide the best opportunity to work on perfectionism, followed by verbal therapy (n=37, M=2,59). The difference in the number of respondents was because some respondents said that working on perfectionism was not applicable to the specific therapy or they left the topic open.

These figures suggest that art therapy is a form of therapy that is well suited to working on perfectionism. Improvement on perfectionism is rather low on the scale of the EDI-II P. However, two institutions that worked with individual cases with an eating disorder, showed a very strong improvement on the perfectionism scale. It is not possible to find an explanation for this in the data. No common treatment duration, BMI or age can be found. One other individual case does not improve with respect to perfectionism.

Self-image and self-esteem seems to be a topic that can very well be addressed by art therapy. The respondents showed strong improvement on the EDI-II I scale connected to self-esteem, especially those in settings with experienced therapists, in which there was no change of therapist or location, (*Table 17*). There is a strong relation between respondents who worked on self-esteem in art therapy and improvement. 75% of the respondents who said they had worked on self-esteem in art therapy showed a significant improvement in this area (*Table 11*). 80% of the respondents who improved exceptionally with respect to self-esteem reported a relation with art therapy (*Table 30*).

Improvement on alexithymia, recognition, acceptance and expression of emotions

For patients with an eating disorder it is important not to suppress or avoid feelings and emotions. This is often done in relation to positive or negative feelings of disappointment and anger (Noordenbos, 2014). The literature indicates that awareness of emotions does improve in a four-month treatment programme on alexithymia in eating disorders, but

describing emotions does not improve as much. Emotions and feelings are hard to describe. After treatment, alexithymia tendencies are higher than in a normal population (Becker-Stoll & Gerlinghoff, 2004). These figures are reflected in the results of this study.

In this pilot study, feelings are measured in two different ways: using a quantitative and a qualitative method. In the quantitative part they are measured as awareness of feelings and emotions in the scales of the TAS-20 ID (Identifying feelings) and the EDI-II IA (interoceptive awareness). The expression of feelings is quantitatively measured by the TAS-20 DE (describing feelings) and the EDI-scale ID (interpersonal distrust). All of these scales show significant improvement (Table 9). In the art therapy questionnaire, awareness of feelings is qualitatively measured by means of open and semi-open questions. Improvement is confirmed by the qualitative part of the questionnaire. The respondents reported in the open questions that it was helpful to work on feelings and emotions in the treatment of an eating disorder. In 25% of cases the reasons they gave for therapy being most the useful, it was about becoming aware of feelings, gaining insight into feelings, expressing them and sharing feelings (*Table 7*). The therapy in which this is done most is art therapy; it was mentioned by 54% of the respondents as the therapy in which they worked on this theme.

When the respondents were asked how often they worked per therapy on identifying and expressing feelings, they responded that they did this often in verbal therapy (n=42), art therapy (n=48) and by group members (n=46). They also often worked on expressing emotions in psychomotor therapy (n=40), but sometimes (n=37) on identifying emotions.

When assessing whether working on a treatment goal leads to improvement on the matching scale, there is a relation between identifying emotions in art therapy and verbal therapy. For expressing emotions, there is a relationship with working on it in verbal therapy and by group members as measured on the EDI-II ID (*Table 12*). However, for respondents who had improved strongly (more than 2,5SD) on the matching scales, there were also strong connections between working in art therapy on expressing emotions and improvement in this area (*Table 30*).

The respondents reported that 21% of the assignments that helped them most were dealing with feelings, another 16% with ‘expression’, which can be thoughts or feelings as well (*Table 14*). The strong focus on emotions in art therapy could be a reason for which the respondents who did not improve much on the scales dealing with awareness of emotions did not appreciate art therapy. They did improve somewhat on the cognitive aspect of emotions by verbalising them (*Table 18*).

The literature confirms that art can be an important means of expression and it even develops contact with groups and teams. Feelings are expressed in art therapy. Respondents also discover a parallel between artwork and their lives and this promotes healthier coping mechanisms (Carnabucci & Ciotola, 2013; Diamond-Raab & Orell-Valente, J.K., 2002; Frisch, Franko, & Herzog, 2006; Ganter, Enck, P., Zipfel, S., & Sammet, I., 2009; Pfeiffer, Hansen, B., Korte, A., & Lehmkuhl, U., 2005; Rockwell, 1990).

Improvement of social functioning

Patients with eating disorders need to overcome isolation and they need to be encouraged to take part in social activities to be able to function in society again (Noordenbos, 2014). This is measured by the EDI-II SI (social isolation) and in qualitative questions. Respondents improve on this in the EDI-II SI scale, but they say they seldom work on it in art therapy (n=48) and it is hardly mentioned in the assignments that were most helpful for them (3%). Group members and psychomotor therapy are therapies in which there is a relation between working on connected treatment goals (*Table 9*).

Other goals

Goals that have not been mentioned yet are learning to relax and insight into the process. Learning to relax is addressed mostly in art therapy and psychomotor therapy. The respondents reported that they often worked on both topics (Table 10).

Answer to sub question on treatment goals

The respondents recognised that art therapy assignments were aimed at treatment goals, in which they worked by means of a process, and experiences with materials and assignments. The answer to the research sub-question 'Does art therapy work more on the goals: differentiating and describing of feelings, perfectionism, interoceptive awareness and fear of maturity than on the other goals/subscales of the EDI-II (such as body dissatisfaction, interpersonal distrust, social insecurity)?' was that it does work more on some of these goals than on others. The goals that were worked on most in art therapy are *motivation*, *identifying and expression of emotions, interoceptive awareness, self-esteem and emotions.*

Body dissatisfaction is not worked on very much and as a treatment goal it does not improve much. This study does not yield significant answers regarding *maturity fears*, but respondents do learn to relax and play in art therapy.

4.5 Characteristics of art therapy assignments in the treatment of an eating disorder

According to the qualitative results of the pilot study, there is a need for a balance between freedom to fill in the assignments individually and have the assignments clear enough (§*3.3.2 Aspects of assignments helping in treatment for an eating disorder).* During working on treatment themes, respondents have the freedom to choose how overwhelming they allow their emotions to be. For example, respondents say that they can be busy drawing and think about other things (420) and relax (511, 804). Respondents do not experience art therapy as pleasant when the atmosphere is not good (808) or when they feel pressure to finish the work in time (420).

The respondents were asked about their experience of the two tasks that they considered most useful during their therapy (*Appendix 2*, *part c, question 2.1c and question 2.2c).* They were asked to score on a 5-point Likert scale whether they found their two most useful art therapeutic confronting, giving insight, pleasant, easy or leading to a beautiful result. *Figure 8* shows the most given answers per assignment (modus) among 56 respondents (assignment 1) and 47 respondents (assignment 2).

Figure 8. Characteristics of art therapy assignments

Scale 0 = totally disagree; 1 = disagree; 2 = disagree/ agree; 3 = agree; 4 = totally agree
N is a variable per question. Given per assignment is the number of respondents that answered the sub-question

Interestingly, respondents score consistently on how they experience assignments. The table shows that the respondents thought the most helpful art therapy tasks were confronting (assignment 1 / 2 -> n=24 / 17) and giving insight (assignment 1 / 2 -> n=34 / 26), and were pleasant (assignment 1 / 2 -> n= 20 / 17). There was less consensus on the notion that assignments led to something beautiful. The respondents reported that the assignments were not easy to do.

From practice-based experience, it can be said that the beginning art therapy is often experienced as being hard. Respondents have to learn that it is not just the final product that is important, but the creative process and what the product expresses as well. When respondents recognise this, theory says that 'aesthetic illusion' and 'play' make it easier to work on personal themes *(§*1.4.3 Characteristics of art therapy for the treatment of eating disorders). This is reflected in the answers. The respondents appreciated the art therapy method. They enjoyed the fact that individual content could be given to assignments; they enjoyed the materials and the assignments given (*Table 13*). The respondents could work on goals and express themselves without words, and it was pleasant to work on goals while enjoying or thinking about other things (*Table 7*). The respondents experienced the assignments as relaxing and they could practice behaviour (*Table 14*).

4.6 Implications for the field and future research

The primary goal of the current study was to determine how respondents evaluated the effectiveness of art therapy on emotions and the psychological personality dimensions of the treatment for an eating disorder. This pilot study aimed to contribute to the position of art therapy in the field of treatment for an eating disorder. The results of the study are also meant to provide a basis for writing an article for a scientific journal about the effects of art therapy as experienced by respondents with an eating disorder. The results as found in §4.1 Summary and conclusions and in the discussion in paragraphs 4.2 to the end provide useful input for such an article. The results are in line with the literature study and provide concrete evidence of the efficacy of art therapy in the treatment of eating disorders in the Netherlands.

Despite its exploratory nature, this study offers some insight into the identification of art therapy as a useful therapy in the treatment of an eating disorder, as reported by the respondents. What is interesting in this study is that experiential therapies (art therapy and

PMT) are the therapies in which the respondents worked most often on *awareness* and *goals*, whereas verbal therapies worked mostly on *insight*. Art therapy facilitates the function of *sharing* slightly more than verbal therapy. In PMT respondents share less. Art therapy is mentioned especially often for the specific nonverbal characteristics that help to express without words, the awareness of what is going on inside, which is sometimes discovered through discussion with the therapist, and to relax and work on treatment goals at the same time.

The second aspect of achieving this goal was to look for relations between improvement on certain treatment goals and how respondents report having worked on these goals per therapy, with a focus on art therapy. There are significant relations between respondents who work on the awareness of emotions, expressing them and self-esteem. The Respondents, who worked on these goals in art therapy seemed to improve, according the results of the mixed-methods design of this study. The relevance of how art therapy helps respondents to gain motivation for treatment is clearly supported by the qualitative part of the study, in which respondents reported that art therapy assignments helped them.

Thirdly, the manner in which art therapy assignments contribute to the treatment of an eating disorder was looked at. The results of this pilot study show that the respondents appreciated the assignments and that they proved to be effective tools that art therapists could use to guide the topics that respondents worked on. The respondents appreciated the opportunity to contribute individual content within the given assignment.

A second goal was to improve the quality of art therapy by researching how respondents experienced the various characteristics of art therapy, for which treatment goals art therapy worked best and which art therapy assignments worked best for respondents who had experienced treatment for an eating disorder. *§4.6.1 Implications for practice* reports how art therapists can use the knowledge of this pilot study. §4.6.2 notes the implications for further study with a view to making art therapy more evidence-based or implementing the findings in practice.

4.6.1 Implications for practice

This study confirms tendencies detailed in the literature on the field of art therapy. These tendencies relate to improvement in dealing with emotions and feelings, self-esteem,

becoming aware of what is inside and characteristics of participating in art in therapy such as pleasure and relaxation, and the nonverbal way to express what cannot be verbalised.

The implication for the field is that the results of this study indicate that art therapy needs to be included in the guidelines for the treatment of eating disorders. The results of this pilot study also give art therapists and other mental healthcare professionals information on how and when to use art therapy and art therapy assignments focussed on treatment goals for respondents with an eating disorder. Art therapy is especially indicated when clients need to get in touch with their emotions, need to work on self-image and self-esteem and/or learn to be less perfectionistic. The results of this study can also help art therapists with the profiling of their characteristics. The tendencies as shown in this study, and which are supported by literature, might help them to choose treatment goals and methods for patients.

Art therapists are used to the benefits of art materials and art therapy has specific characteristics. Among the assignments that were reported as most helpful by the respondents, there were more 'cognitive' features than expected. There might sometimes be the implicit assumption among art therapists that a therapy process is more complete when a patient can handle materials that appeal less to control and more to emotions. The respondents provided insight into how they experienced this. Art therapy for many of them is also effective when non-verbal assignments include more cognitive, symbolic functioning. However, this does not mean that the more tactile and intuitive assignments should be neglected.

This study also provides art therapists with knowledge about how patients with an eating disorder experience what they do. There is so much appreciation and the qualitative answers show that the respondents were extremely satisfied with the content of the therapy, more than can be expressed in the summaries of the results of what they said. The appreciation of art therapy in the qualitative answers does not always lead to big changes that can be measured in quantitative scales. The respondents who were able to verbalise well in the qualitative part of the study what art therapy has really meant for them and how this was achieved can help the art therapist to see how powerful the tool of art therapy is in treatment of eating disorders.

Within a multidisciplinary treatment, the motivational aspect of art therapy would also be an important addition.

Although the current study is based on a small sample of participants, the findings of this investigation complement those of earlier studies. This research extends our knowledge of how respondents in the Netherlands appreciate art therapy and contains factors that are helpful. The findings in the results part of this investigation (*Chapter* 3. Results) complement those of earlier studies that are used in the multidisciplinary guidelines for eating disorders.

4.5.2 Recommendations for further research

Mental healthcare in the Netherlands is changing its focus towards more effectiveness and efficiency (Federatie Vaktherapeutische beroepen, 2012). As mentioned in the literature review, art therapy is not included in the Dutch Multidisciplinary Guidelines for eating disorders (Trimbos, 2006), which were formulated on the basis of mainly evidence-based data. There is little evidence on effectiveness of art therapy in the treatment of eating disorders because little research has been done on this topic. Moreover, existing studies are often not found by Internet search engines because they are published in art therapy journals, which are not in the databases of the search engines.

Urgency of research

Art therapy seems to be a cost-efficient, focussed and appreciated treatment. In the Netherlands the costs are lower for an art therapist than for other mental health workers such as psychologists. What is surprising is that the new focus on efficiency seems to result in the exclusion of art therapists. When contacting the treatment centres for eating disorders, to ask if they would participate, more than expected said they had stopped offering art therapy recently. During the procedure of getting permission for this pilot study, between June 2013 and November 2013, even more art therapists had to stop the procedure because they lost their jobs. During the two-year period of this pilot study, at least four out of 21 art therapists working with eating disorders were fired due to budget cutbacks rather than because of they did not function well.

This study indicates that institutions should in fact be retaining art therapy as a vital and cost-effective component of the treatment of eating disorders.

Future research

A key strength of this present study was that respondents were asked for their opinion.

Patient opinion is becoming increasingly important when decisions are made as to whether a therapy needs to be offered. This study should prove to be particularly valuable to managers of healthcare institutions and art therapists. For art therapists it shows their strong characteristics and could be an important source of knowledge on what is helpful in therapy. The appendix can serve as an inspiration when choosing assignments aimed at a specific treatment process or goal. A recommendation for future research is to again use a mixed methods design to gain knowledge on art therapy and how clients experience art therapy. A quantitative design will provide evidence at levels that are needed to be included in multidisciplinary guidelines, while the qualitative aspect will specify the content of the art therapy an its assignments.

Further research will also benefit from more studies that rely on a quantitative design. The small sample size, with respondents from diverse settings, diagnoses and sex, makes this study a 'evidence-based pilot', which because of the small scale needs a more validating follow-up. Then a Quality Of Life questionnaire could also be included to see if the often small improvements on the EDI-II and TAS-20 could be supplemented by information about how the patients experience their lives before and after treatment.

This study is a pilot study, intended to explore possibilities for future studies. In the context of a master's study, good results were achieved. Future studies can generate more evidence using a randomised control design. Control groups will make the level of evidence stronger.

The results of this pilot study indicate that further art therapy research is needed to see if the preliminary results of this study can turn into evidence. It is recommended that further research be undertaken.

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Appendixes

Appendix 1. Art therapeutic assignments reported by clients as helpful

Topic	ETC	Art task that was most useful	Art tasks were useful because	Transfer (How could you use this in daily life)
Motivation	Cognitive	Depict a vision for the future. Material: Paper, pencil.	It was a good assignment to think about the future really well.	No.
		What next? Material: Pen + paper.	Overview.	Yes, motivation to chose for the healthy options.
		Making Motivation Collage. Material: Magazines, cutting, painting, writing.	It gave me really positivity.	At home while eating.
		Making posters. Material: Cutting, gluing.	Soothing.	Motivation.
	Symbolic	Depicting the "Es" and self, not perfectionistic. Material: Charcoal and paper.	Insight.	Yes, motivation against Es.
		Tree. Material: pastel.	That I could see there is more.	To try to stay positive.
	Perceptual	Body image. Material: Drawing paper, colours.	Insight in how I experience… being confronted with an unrealistic image of myself.	Yes, by thinking back about it.
	Affective	Happiness Tree. Material: Paint, pen, coloured paper and 1 big sheet of white paper.	The positive aspects are addressed. You are going to look at what brings you happiness. (This is in small things, for example the sun on your face.)	To be aware of little nice things.
	Other	Was actually free work, but especially finding a way to give way to my passion about dance without the thin body that for me is connected with it.	See above (I find it very difficult to let go of control. So it was actually a good exercise)	I could look at it, to remind myself again and again that ballet is more than thin and perfection.
Awareness	Cognitive	Making schemes of cognitions, behaviour and feelings. Material: pen and paper.	The insight that I got.	That I can do it at home and it becomes an automatism.
		Writing down thoughts. Material: paper and markers.	You become aware that you make yourself insecure because you are afraid of how others think about you.	By thinking about it when you feel insecure.
		Work out negative thoughts. Material: paper, pen, markers.	Learn to recognize negative thoughts and put across positive thoughts.	Yes, apply.
		To picture in which mode you are and the disadvantages of it.	To increase awareness how you deal with emotions.	Increase awareness, more view upon what exactly happened inside of you.
		Expressing my feelings, especially fear, trauma-related memories and pain. Material: paper and magazines.	A lot of insight and giving myself space to exist, with all of my feelings, that I can name my fears now.	Inspiration, awareness of pain / feelings.
		6 questions drawing and draw a self-image. Material: drawing and clay.	To be aware of yourself.	x
		6 questions drawing. Material: drawing.	Just like the assignment before to become aware of your feelings and experiences.	To stand still at times and not always being busy.
	Symbolic	Paint 4 basis elements. Water, fire, earth, air. Material: paint.	You give thoughts to how you stand in life.	No.
		Make a tree that represents you and your feeling. Material: paper and acrylic paint.	I liked doing it and to discover what I think is beautiful, pleasurable. It made me think about who I am and how I see myself.	I could go on with this within therapy and at the long term I think that this certainly helps me to get to know myself better and develop a own identity.
	Perceptual	Working with photos. Material: Edit photos with different materials.	Awareness to yourself.	To recognize and express emotions. Being vulnerable.
		Photo. Material: Photo's and pencils.	You see that you have no real image of yourself.	When you consider yourself thick, think back about these pictures.
	Affective	How do you experience your life at this moment? Material: Black ink, coloured ink, water paint.	You see what you feel.	That's the question.

		Draw a Feeling Circle: give every feeling a colour and a place within the circle. Material: Soft pastel.	It allowed me to look at my inside and made clear what feelings -> emotions are within me and what place they take.	An amount of awareness.
		Express an emotion / relax. Material: pastels / mosaic / colouring.	To be busy with something else in my mind. Free and easy.	I planned this in my daily program.
		Express feelings in an image - 3 dimensional.	That beforehand I didn't know where I would end up and the final result told me a lot about myself. It was my own free process.	From the final artwork I could tell what I feel, where I stranded, where I needed help at, how I look at myself.
		Making a circle of emotions with words. Material: didn't matter.	To list emotions that are going on, which you often can't express in words yourself.	In the personal discussions.
		To process emotions. Material: Acrylic paint, coloured ink.	I found out that I can express myself well. In art I succeed better to find out what I feel and what I experience.	After exploring during art therapy I could talk about it and / or could go on with my process. I bought materials to use at home to keep on doing this!
		Express emotion. Material: paint.	Get closer to my feeling, aware of it.	Yes, by talking about it, this went easier afterwards; My tension went down a bit.
		Awareness of feelings. Material: Chalk / pastels.	x	x
		Make a shape and express your feelings with colour. Material: paper and pastels.	I could see my feelings.	See how I can express this feeling.
	Kinesthetic	Mind mapping the 4 emotion words and after that to try to put them on paper with a movement with pastels. Material: pencil, paper, pastels.	For my feeling, this way I could really get in touch with my emotions, and that was nice, insight giving and I could go on with that.	I could especially use it to go on with this within this and other therapy, but at the long term it definitely helps me to understand myself better and express my emotions.
		Self-esteem at a BIG canvas. Material: paint.	It was fun to be busy with. The element that I kept returning to the core. It showed a piece of my character (unconsciously).Yes, often I look for grip, by this I understood my behaviour better.	
Expression	Cognitive	Texts with adjacent drawing. Material: Painting, writing.	Express feelings.	No.
		Expressing emotions by means of words on paper. Material: oil pastel.	Expressing emotions in a different way then writing. It relieved.	Not (yet), but I bought the pastels myself so I can do it at home.
		Writing what goes on in my mind. Material: pen + paper.	Again expressing feelings without having to talk about it. It relieves.	Yes, I write at home regularly when emotions are bothering me.
		Write out feelings. May be not really 'creative' but I gain much peace and order out of it and suffer least of my perfectionism. Material: paper / pen.	Gives peace, overview and it relieves.	x
		Expressing my feelings, especially fear, trauma-related memories and pain. Material: paper and magazines.	A lot of insight and giving myself space to exist, with all of my feelings, that I can name my fears now.	Inspiration, awareness of pain / feelings.
		The 6-questions drawing (Draw something with every question). Material: pencil.	Gained more insight, express my emotions + address them.	No.
	Symbolic	Drawing how you feel yourself by means of a volcano. Material: pastels.	I have difficulties expression emotions. With this I could show how I feel.	My group members understood me better.
	Perceptual	Drawing yourself + drawing a circle. Material: paper, pencils.	Could express my thoughts (Didn't succeed with words).	Sharing with family.
		Working with photos. Material: Edit photos with different materials.	Awareness to yourself.	To recognize and express emotions. Being vulnerable.
	Affective	Express emotion. Material: paint.	Get closer to my feeling, aware of it.	Yes, by talking about it, this went easier afterwards; My tension went down a bit.
		Express feelings with pastels. Material: pastels.	Feeling emotions and share those.	I've got pastels and paper and practice this more at home.
		Making a circle of emotions with words. Material: didn't matter.	To list emotions that are going on, which you often can't express in words yourself.	In the personal discussions.

		Make a shape and express your feelings with colour. Material: paper and pastels.	I could see my feelings.	See how I can express this feeling.
		Put frustrations on paper. Material: coloured ink.	To express frustration literally, so you have more space to move on with your life or to tackle other problems.	Outside of therapy, I have not done much with it. I've realized that not everything has to be "beautiful".
		A nice memory. Material: Clay.	I went back in the time for a moment and happy thoughts without an eating disorder.	Sometimes nice to think of nice memories but important not to stay lingering in it.
		To depict old pain / sadness.	To give thought to your feeling & old feelings.	Learn to identify to deal with it differently in the future.
		Drama / role-play.	To act out emotions whereupon other suppressed emotions came along.	When I faced a difficult talk, I could practise beforehand. Or afterwards play it out. Helped to state how far I would go.
	Kinesthetic	Mind mapping the 4 emotion words and after that to try to put them on paper with a movement with pastels. Material: pencil, paper, pastels.	For my feeling, this way I could really get in touch with my emotions, and that was nice, insight giving and I could go on with that.	I could especially use it to go on with this within this and other therapy, but at the long term it definitely helps me to understand myself better and express my emotions.
		Bouncing a ball to express anger.	To discover that such a simple thing has so much effect.	To express a feeling that leads towards binging.
	Other	Assignments in which I could show how I felt, but it also felt good to write my feelings and get rid of them in this way. Material: Paint, paper, pencil and pen.	x	Insight and pieces of the puzzle felt in place.
Insight		Writing down thoughts. Material: paper and markers.	You become aware that you make yourself insecure because you are afraid of how others think about you.	By thinking about it when you feel insecure.
		How I am now - what I want. Material: Paint, paper (brown and white).	I gained insight in myself & noticed that I knew myself better then I thought.	Yes, telling the story to the outer world. I could explain it for myself.
		To picture in which mode you are and the disadvantages of it.	To increase awareness how you deal with emotions.	Increase awareness, more view upon what exactly happened inside of you.
		Make a collage about yourself and the eating disorder. Material: magazines, paper, scissors, glue.	Gain insight.	x
		Write out feelings. May be not really 'creative' but I gain much peace and order out of it and suffer least of my perfectionism. Material: paper / pen.	Gives peace, overview and it relieves.	x
	Cognitive	How I was, how I am now and how will I be in 5 years? Material: Paper, magazines.	Especially the insights I got.	Not pursue my perfect vision of the future.
		Collage phases. Material: Cutting + gluing.	I used these everyday to see where I stand.	Yes!
		The 6-questions drawing (Draw something with every question). Material: pencil.	Gained more insight, express my emotions + address them.	No.
		6 questions drawing. Material: paper, pencil.	Gave me much insight in my life.	Sharing emerging feelings in other therapies.
		Work out negative thoughts. Material: paper, pen, markers.	Learn to recognize negative thoughts and put across positive thoughts.	Yes, apply.
		Making schemes of cognitions, behaviour and feelings. Material: pen and paper.	The insight that I got.	That I can do it at home and it becomes an automatism.
		Draw a fish with a problem and next draw a solution and next have someone else think about a solution.	That it did give me insight in how I solve problems.	Yes, certainly. I do signalize it, but do not much about it.
	Symbolic	Attachments. Material: All kinds.	x	Could give thoughts to how you stand in life.

		Mask making: what lives inside you and what does the outside world see. Material: Mask, paint, magazines, actually all the creative material that was at hand.	Good to think how the outside world sees you and how you really feel.	An amount of awareness.
		What path did you go and where are you now in treatment by means of a mountain? Material: Drawing.	I could give my group members more insight at how I look at things.	In my treatment plan I could give my view on how far I was.
		Paint 4 basis elements. Water, fire, earth, air. Material: paint.	You give thoughts to how you stand in life.	No.
		Make a tree that represents you and your feeling. Material: paper and acrylic paint.	I liked doing it and to discover what I think is beautiful, pleasurable. It made me think about who I am and how I see myself.	I could go on with this within therapy and at the long term I think that this certainly helps me to get to know myself better and develop a own identity.
	Perceptual	Photo-assignment: trying to recognize myself / attach with the one I see in the picture. Materials: Photo's, coloured ink, cutting, gluing, marker to write down words, paper.	In this manner I discovered that working with words keeps me very much into my head/ratio and gained insight how I could bring my feeling and ratio closer at another.	I could work this out in other therapies and overall I got more understanding of how I 'function'.
		Contrast (dark/light, beautiful / ugly etc.) Material: Clay.	I realized that I lean to much upon my beloved ones.	It is a lasting, tangible reminder of the fact that I should take more responsibility myself.
		A full body trace of my body. Material: pencil, marker, paper.	I got an objective image of how I really look, and discovered for the first how far I had dissociated from my body.	I could work on this in therapy. Except for that, I could not really achieve anything with it.
	Affective	Painting, circles of emotions -> To gain insight in emotions.	x	No.
		Expressing my feelings, especially fear, trauma-related memories and pain. Material: paper and magazines.	A lot of insight and giving myself space to exist, with all of my feelings, that I can name my fears now.	Inspiration, awareness of pain / feelings.
		Express feelings in an image - 3 dimensional.	That beforehand I didn't know where I would end up and the final result told me a lot about myself. It was my own free process.	From the final artwork I could tell what I feel, where I stranded, where I needed help at, how I look at myself.
		Making a circle of emotions with words. Material: didn't matter.	To list emotions that are going on, which you often can't express in words yourself.	In the personal discussions.
		To depict old pain / sadness.	To give thought to your feeling & old feelings.	Learn to identify to deal with it differently in the future.
	Kinesthetic	Mind mapping the 4 emotion words and after that to try to put them on paper with a movement with pastels. Material: pencil, paper, pastels.	For my feeling, this way I could really get in touch with my emotions, and that was nice, insight giving and I could go on with that.	I could especially use it to go on with this within this and other therapy, but at the long term it definitely helps me to understand myself better and express my emotions.
		Self-esteem at a BIG canvas. Material: paint.	It was fun to be busy with. The element that I kept returning to the core. It showed a piece of my character (unconsciously). Yes, often I look for grip; by this I understood my behaviour better.	
	Sensory	Clay assignment. Material: Clay.	Feedback of group members.	Yes, be aware of my traps and to foresee them.
	Other	Assignments in which I could show how I felt, but it also felt good to write my feelings and get rid of them in this way. Material: Paint, paper, pencil and pen.	x	Insight and pieces of the puzzle felt in place.
Sharing	Cognitive	Wish for the future. Material: Clay.	I could acknowledge the past and could express it.	It helped me to show my loved ones what has happened in the past (Rape at young age).
		6 questions drawing. Material: paper, pencil.	Gave me much insight in my life.	Sharing emerging feelings in other therapies.
		How I am now - what I want. Material: Paint, paper (brown and white).	I gained insight in myself & noticed that I knew myself better then I thought.	Yes, telling the story to the outer world. I could explain it for myself.

	Symbolic	What path did you go and where are you now in treatment by means of a mountain? Material: Drawing.	I could give my group members more insight at how I look at things.	In my treatment plan I could give my view on how far I was.
		Drawing how you feel yourself by means of a volcano. Material: pastels.	I have difficulties expression emotions. With this I could show how I feel.	My group members understood me better.
		Make a little figurine of before and after my relation. Material: Clay.	What existed in the beginning of the relation doesn't exist anymore and will not return. The end of the relation touched me very much but I came to the insight that it is good this way.	Yes. I can accept the situation better and talk about it.
	Affective	Drawing yourself + drawing a circle. Material: paper, pencils.	Could express my thoughts (Didn't succeed with words).	Sharing with family.
		Express feelings with pastels. Material: pastels.	Feeling emotions and share those.	I've got pastels and paper and practice this more at home.
		Express emotion. Material: paint.	Get closer to my feeling, aware of it.	Yes, by talking about it, this went easier afterwards; My tension went down a bit.
	Other	Assignments in which I could show how I felt, but it also felt good to write my feelings and get rid of them in this way. Material: Paint, paper, pencil and pen.	x	Insight and pieces of the puzzle felt in place.
Acceptance / Integration	Cognitive	Wish for the future. Material: Clay.	I could acknowledge the past and could express it.	It helped me to show my loved ones what has happened in the past (Rape at young age).
		How I was, how I am now and how will I be in 5 years? Material: Paper, magazines.	Especially the insights I got.	Not pursue my perfect vision of the future.
	Symbolic	Make a little figurine of before and after my relation. Material: Clay.	What existed in the beginning of the relation doesn't exist anymore and will not return. The end of the relation touched me very much but I came to the insight that it is good this way.	Yes. I can accept the situation better and talk about it.
	Perceptual	Photo-assignment: trying to recognize myself / attach with the one I see in the picture. Materials: Photo's, coloured ink, cutting, gluing, marker to write down words, paper.	In this manner I discovered that working with words keeps me very much into my head/ratio and gained insight how I could bring my feeling and ratio closer at another.	I could work this out in other therapies and overall I got more understanding of how I 'function'.
	Affective	Put frustrations on paper. Material: coloured ink.	To express frustration literally, so you have more space to move on with your life or to tackle other problems.	Outside of therapy, I have not done much with it. I've realized that not everything has to be "beautiful".
		Happiness Tree. Material: Paint, pen, coloured paper and 1 big sheet of white paper.	The positive aspects are addressed. You are going to look at what brings you happiness. (This is in small things, for example the sun on your face.)	To be aware of little nice things.
Feelings	Cognitive	Making schemes of cognitions, behaviour and feelings. Material: pen and paper.	The insight that I got.	That I can do it at home and it becomes an automatism.
		Write out feelings. May be not really 'creative' but I gain much peace and order out of it and suffer least of my perfectionism. Material: paper / pen.	Gives peace, overview and it relieves.	x
		The 6-questions drawing (Draw something with every question). Material: pencil.	Gained more insight, express my emotions + address them.	No.
		6 questions drawing. Material: drawing.	Just like the assignment before to become aware of your feelings and experiences.	To stand still at times and not always being busy.
		6 questions drawing. Material: paper, pencil.	Gave me much insight in my life.	Sharing emerging feelings in other therapies.
	Symbolic	Drawing how you feel yourself by means of a volcano. Material: pastels.	I have difficulties expression emotions. With this I could show how I feel.	My group members understood me better.
		Make a tree that represents you and your feeling. Material: paper and acrylic paint.	I liked doing it and to discover what I think is beautiful, pleasurable. It made me think	I could go on with this within therapy and at the long term I think that this certainly helps me to get to

		about who I am and how I see myself.	know myself better and develop a own identity.
Perceptual	Working with photos. Material: Edit photos with different materials.	Awareness to yourself.	To recognize and express emotions. Being vulnerable.
	Outline of yourself, filling it in in the inside. Material: Paper, makers, paint.	The outline was confronting. The fill clear.	To see myself (better).
Affective	To picture in which mode you are and the disadvantages of it.	To increase awareness how you deal with emotions.	Increase awareness, more view upon what exactly happened inside of you.
	How do you experience your life at this moment? Material: Black ink, coloured ink, water paint.	You see what you feel.	That's the question.
	Photo. Material: Photos and pencils.	You see that you have no real image of yourself.	When you consider yourself thick, think back about these pictures.
	Body Outline. Material: Make my body outline with different materials on a large sheet. Showing my inner side and outer side.	Look at myself from different sides, not just judge my appearance.	To judge my body less.
	I always do what gives me a good feeling. Material: whatever I like to do.	I can see that there is something I can.	Self-confidence. That something can be fun as well.
	Expressing my feelings, especially fear, trauma-related memories and pain. Material: paper and magazines.	A lot of insight and giving myself space to exist, with all of my feelings, that I can name my fears now.	Inspiration, awareness of pain / feelings.
	Express an emotion / relax. Material: pastels / mosaic / colouring.	To be busy with something else in my mind. Free and easy.	I planned this in my daily program.
	Expressing emotions by means of words on paper. Material: oil pastel.	Expressing emotions in a different way then writing. It relieved.	Not (yet), but I bought the pastels myself so I can do it at home.
	Happiness Tree. Material: Paint, pen, coloured paper and 1 big sheet of white paper.	The positive aspects are addressed. You are going to look at what brings you happiness. (This is in small things, for example the sun on your face.)	To be aware of little nice things.
	Express feelings in an image - 3 dimensional.	That beforehand I didn't know where I would end up and the final result told me a lot about myself. It was my own free process.	From the final artwork I could tell what I feel, where I stranded, where I needed help at, how I look at myself.
	Put frustrations on paper. Material: coloured ink.	To express frustration literally, so you have more space to move on with your life or to tackle other problems.	Outside of therapy, I have not done much with it. I've realized that not everything has to be "beautiful".
	A nice memory. Material: Clay.	I went back in the time for a moment and happy thoughts without an eating disorder.	Sometimes nice to think of nice memories but important not to stay lingering in it.
	To depict old pain / sadness.	To give thought to your feeling & old feelings.	Learn to identify to deal with it differently in the future.
	To process emotions. Material: Acrylic paint, coloured ink.	I found out that I can express myself well. In art I succeed better to find out what I feel and what I experience.	After exploring during art therapy I could talk about it and / or could go on with my process. I bought materials to use at home to keep on doing this!
	Awareness of feelings. Material: Chalk / pastels.	x	x
	Draw a Feeling Circle: give every feeling a colour and a place within the circle. Material: Soft pastel.	It allowed me to look at my inside and made clear what feelings -> emotions are within me and what place they take.	An amount of awareness.
	x	Express feelings.	No.
	Painting, circles of emotions -> To gain insight in emotions.	x	No.
	Express feelings with pastels. Material: pastels.	Feeling emotions and share those.	I've got pastels and paper and practice this more at home.
	Make a shape and express your feelings with colour. Material: paper and pastels.	I could see my feelings.	See how I can express this feeling.

	Kinesthetic	Bouncing a ball to express anger.	To discover that such a simple thing has so much effect.	To express a feeling that leads towards binging.
		Letting go and discover. Material: Acrylics and palette knife.	I became more playful, discovered that I like to experiment and always look for 'new' experiences. I feel myself richer.	In essence -> Doing it and trying -> Discovering! Who am I? What do I want? What do consider nice? What do I like?
		Mind mapping the 4 emotion words and after that to try to put them on paper with a movement with pastels. Material: pencil, paper, pastels.	For my feeling, this way I could really get in touch with my emotions, and that was nice, insight giving and I could go on with that.	I could especially use it to go on with this within this and other therapy, but at the long term it definitely helps me to understand myself better and express my emotions.
	Other	Assignments in which I could show how I felt, but it also felt good to write my feelings and get rid of them in this way. Material: Paint, paper, pencil and pen.	x	Insight and pieces of the puzzle felt in place.
		Drama / role-play.	To act out emotions whereupon other suppressed emotions came along.	When I faced a difficult talk, I could practise beforehand. Or afterwards play it out. Helped to state how far I would go.
Self-image	Cognitive	Writing down thoughts. Material: paper and markers.	You become aware that you make yourself insecure because you are afraid of how others think about you.	By thinking about it when you feel insecure.
		Look for 3 things that fit you and make a collage out of it. Material: Paper, printer, glue.	To concentrate on what fits me.	I had found out something again about myself and can go on with it.
		How I am now - what I want. Material: Paint, paper (brown and white).	I gained insight in myself & noticed that I knew myself better then I thought.	Yes, telling the story to the outer world. I could explain it for myself.
		6 questions drawing and draw a self-image. Material: drawing and clay.	To be aware of yourself.	x
		To allow myself some time, really something for me. Material: colouring / mosaic.	I gained insight in why I always kept going, en didn't allow myself any time.	Create moments of rest.
	Symbolic	Make a tree that represents you and your feeling. Material: paper and acrylic paint.	I liked doing it and to discover what I think is beautiful, pleasurable. It made me think about who I am and how I see myself.	I could go on with this within therapy and at the long term I think that this certainly helps me to get to know myself better and develop a own identity.
	Perceptual	Photo-assignment: trying to recognize myself / attach with the one I see in the picture. Materials: Photo's, coloured ink, cutting, gluing, marker to write down words, paper.	In this manner I discovered that working with words keeps me very much into my head/ratio and gained insight how I could bring my feeling and ratio closer at another.	I could work this out in other therapies and overall I got more understanding of how I 'function'.
		Taking pictures of myself by therapist. Not posing.	Check how you see yourself and is that the same as the result in the pictures.	Realistic self-image. Less critical at mirrors, for example.
		Photos. Material: Glue, paper, pastels.	It gives you a better self-image.	x
		Making photos. Material: Chalk, painting with spatulas.	Gaining insight in how I see myself.	Looking at myself in a realistic way and take another attitude.
		Photo. Material: Photos and pencils.	You see that you have no real image of yourself.	When you consider yourself thick, think back about these pictures.
		Body image. Material: Drawing paper, colours.	Insight in how I experience… being confronted with an unrealistic image of myself.	Yes, by thinking back about it.
	Affective	I always do what gives me a good feeling. Material: whatever I like to do.	I can see that there is something I can.	Self-confidence. That something can be fun as well.
		A nice memory. Material: Clay.	I went back in the time for a moment and happy thoughts without an eating disorder.	Sometimes nice to think of nice memories but important not to stay lingering in it.
		To process emotions. Material: Acrylic paint, coloured ink.	I found out that I can express myself well. In art I succeed better to find out what I feel and what I experience.	After exploring during art therapy I could talk about it and / or could go on with my process. I bought materials to use at home to keep on doing this!
	Kinesthetic	Stamping on paper. Material: paint, paper, sponges.	x	To find rest and something that I can.

		Letting go and discover. Material: Acrylics and palette knife.	I became more playful, discovered that I like to experiment and always look for 'new' experiences. I feel myself richer.	In essence -> Doing it and trying -> Discovering! Who am I? What do I want? What do consider nice? What do I like?
	Other	My own input. Material: pastel.	That I had to invent something myself.	That I can be creative at home too.
Perfectionism / control	Perceptual	Just let something to occur by letting go of control. Material: coloured ink	I find it very difficult to let go of control. So it was actually a good exercise.	To try not to be the control freak outside of therapy as well.
		Use coloured ink to blow over a little line, next blow over the little line freely and finally make a vase with flowers. Material: paper, coloured ink, straw.	It gave insight in how much I want to do it well (exactly over the line) and when there is more freedom I start liking it more.	A bit. I tried more to think that there are some things that I have no control about and that it has not always to be perfect, because nothing terrible happens.
		Big sheet of paper divided in two halves. Fill in one half precisely/perfect, the other half supple and creative. Material: paint, beads, marker, pencil etc.	I realised hoe extreme difficult it is for me to let go of my perfectionism.	Yes. I recognize situations better, in which I am in risk of getting a little too extreme about perfectionism.
	Kinesthetic	Let go of control by means of drops of paint and splashing. Perfectionism, going on even when I don't think it is beautiful anymore. Material: Paper / paint.	This way you learn to let go of things and that it is okay when it's not 100% perfect.	Let go of control in some situations.
		Strings assignment / explore patterns.	x	Sometimes it became easier tot relativize.
	Sensory	Drawing without looking. Material: Pencil and paper.	It confirmed that I am perfectionistic.	I can let go of control better / more easily.
		Make a bowl + glaze. Material: clay, kiln, glaze.	Letting go of control, en hearing that it was beautiful.	x
		I could use those assignments very well that aimed at where I had to let go of control. Material: Drawing with pencil within a garbage bag.	That when for once it happens that you have no control, disasters do not happen immediately.	No. Not really. But it has been in my mind.
		Chalking and fading rings (like tree rings). Material: Pastels.	Gave me understanding: why did it need to become extra beautiful?	Things are good as they are, to make/ show them extra nice /is not necessary.
Body-image	Symbolic	Mask making: what lives inside you and what does the outside world see. Material: Mask, paint, magazines, actually all the creative material that was at hand.	Good to think how the outside world sees you and how you really feel.	An amount of awareness.
	Perceptual	Select 3 pictures about how you see yourself now, how you don't want to see yourself and about how you would like to see yourself.	It makes you more aware of how you look at yourself.	It helped me to look at another body image.
		Photo's and body outlines. Body experience.	Better body experience and acceptance.	A different perspective of myself in the mirror.
		Body image. Material: Drawing paper, colours.	Insight in how I experience… being confronted with an unrealistic image of myself.	Yes, by thinking back about it.
		Looking at pictures (nudes) and explore how I see my body.	It gave insight at how I see myself.	Looking at my body more positive.
		A full body trace of my body. Material: pencil, marker, paper.	I got an objective image of how I really look, and discovered for the first how far I had dissociated from my body.	I could work on this in therapy. Except for that, I could not really achieve anything with it.
		Circumference of your own body. Material: Paper and pencil.	I've done this at the beginning and end and got a more realistic look at my body.	Remember that I'm not fat anyway.
		Body Outline. Material: Make my body outline with different materials on a large sheet. Showing my inner side and outer side.	Look at myself from different sides, not just judge my appearance.	To judge my body less.
		Outline of yourself, filling it in in the inside. Material: Paper, makers, paint.	The outline was confronting. The fill clear.	To see myself (better).

Process experiences	Symbolic	Make a little figurine of before and after my relation. Material: Clay.	What existed in the beginning of the relation doesn't exist anymore and will not return. The end of the relation touched me very much but I came to the insight that it is good this way.	Yes. I can accept the situation better and talk about it.
		What path did you go and where are you now in treatment by means of a mountain. Material: Drawing.	I could give my group members more insight at how I look at things.	In my treatment plan I could give my view on how far I was.
	Affective	To depict old pain / sadness.	To give thought to your feeling & old feelings.	Learn to identify to deal with it differently in the future.
Relaxing	Cognitive	Was actually free work, but especially finding a way to give way to my passion about dance without the thin body that for me is connected with it.	See a.	I could look at it, to remind myself again and again that ballet is more than thin and perfection.
		Making a Christmas tree, self invented. Materials: Textiles and wood.	Learn to relax.	Went on with it by myself.
		To allow myself some time, really something for me. Material: colouring / mosaic.	I gained insight in why I always kept going, en didn't allow myself any time.	Create moments of rest.
	Symbolic	Happiness Tree. Material: Paint, pen, coloured paper and 1 big sheet of white paper.	The positive aspects are addressed. You are going to look at what brings you happiness. (This is in small things, eg the sun on your face.)	To be aware of little nice things.
	Affective	Express an emotion / relax. Material: pastels / mosaic / colouring.	To be busy with something else in my mind. Free and easy.	I planned this in my daily program.
	Perceptual	Strings assignment / explore patterns.	x	Sometimes it became easier tot relativize.
	Kinesthetic	Stamping on paper. Material: paint, paper, sponges.	x	To find rest and something that I can.
		Painting/ put paint on paper and fold the paper. Material: Paper, paint.	Mostly relaxing and enjoyable. For a moment not thinking about problems.	Showing that despite the problems it is possible to enjoy and forget everything for a moment.
	Other	I did not participate in assignments, went my own way. Material: Clay, textiles, wood.	For me it was relaxing.	No, I'm always and everywhere creative.
		Make something from leftover material. Material: 5 kinds of paper.	Work nicely relaxed.	Yes.
Practicing behaviour	Cognitive	Work out negative thoughts. Material: paper, pen, markers.	Learn to recognize negative thoughts and put across positive thoughts.	Yes, apply.
	Perceptual	Contrast (dark/light, beautiful / ugly etc.) Material: Clay.	I realized that I lean to much upon my beloved ones.	It is a lasting, tangible reminder of the fact that I should take more responsibility myself.
	Kinesthetic	Bouncing a ball to express anger.	To discover that such a simple thing has so much effect.	To express a feeling that leads towards binging.
		I have nothing with art therapy.	I was even more stressed.	Choosing more for myself. Explicit show my own boundaries.
	Other	Drama / role-play.	To act out emotions whereupon other suppressed emotions came along.	When I faced a difficult talk, I could practise beforehand. Or afterwards play it out. Helped to state how far I would go.
Social skills	Cognitive	Cooperation exercises. Making collages together or drawings.	Cooperation. Social skills.	Working together in practice.
		Drawing together. Material: pencil and paper.	That it is also possible to reach something by working together.	Yes. In daily life also you don't have to do everything alone in order that it will go well.
	Symbolic	Make a circle and a human figure. Material: paper and pencil.	An Image in how I stood in the world (my environment).	Yes, work on an bond with my environment.
	Perceptual	Contrast (dark/light, beautiful / ugly etc.) Material: Clay.	I realized that I lean to much upon my beloved ones.	It is a lasting, tangible reminder of the fact that I should take more responsibility myself.
Empo wering	Cognitive	To allow myself some time, really something for me. Material: colouring / mosaic.	I gained insight in why I always kept going, en didn't allow myself any time.	Create moments of rest.
		Make a bowl + glaze. Material:	Letting go of control, en hearing	x

		clay, kiln, glaze.	that it was beautiful.	
	Sensory	Free access - making pottery.	To think for myself what I wished, without expectations by others or an assignment.	Outside of therapy I thought of what I wanted to make.
	Other	My own input. Material: pastel.	That I had to invent something myself.	That I can be creative at home too.
Distracti	Affective	Express an emotion / relax. Material: pastels / mosaic / colouring.	To be busy with something else in my mind. Free and easy.	I planned this in my daily program.
Relief	Cognitive	Write out feelings. May be not really 'creative' but I gain much peace and order out of it and suffer least of my perfectionism. Material: paper / pen.	Gives peace, overview and it relieves.	x
Inspiriting	Affective	Expressing my feelings, especially fear, trauma-related memories and pain. Material: paper and magazines.	A lot of insight and giving myself space to exist, with all of my feelings, that I can name my fears now.	Inspiration, awareness of pain / feelings.
Other	Symbolic	Make tree of life. Material: pastels.	Not very much.	Not.
	Perceptual	Mandala colouring. Material: pencil.	That I was doing something. It is only the 3rd time after 1,5 years (and then I only had art for 3 or 4 times).	x
		I didn't get assignments.	x	x
		I've no idea, therefor not applicable.	x	x
		x	Little	No.
		I cannot write anything more. I have nothing with art therapy.	Nothing.	I will not know this.
		Not applicable.	x	x
		No.	x	x

Appendix 2. Art therapy Questionnaire[6] for eating disorders (ATQ-ed)

English translation

Explanation: the writing space is not so big, so that you are invited to spend not too much time on this questionnaire. If you would like to write more, then this is possible at the back of the pages. In that case, please be very clear about which question your additional answers are.

<table>
<tr><td>Code
(your data will be processed anonymously)</td><td>Year of birth:</td><td colspan="2">Male / female</td><td>Bmi:</td></tr>
<tr><td colspan="2">Do you use medicines? O no
O yes, the following:</td><td colspan="3">Education: o basisschool o mavo/vmbo o havo o vwo
O hbo o universiteit</td></tr>
<tr><td colspan="5">Diagnosis: anorexia o / bulimia o / binge eating disorder o / unknown o / differently, namely…..
2nd diagnosis: i do not know / no / yes, namely…

Explanation: if you have an additional diagnosis, will you please fill this in at ‘2nd diagnoses’? Examples: autism, personality disorder (which one?), depression.</td></tr>
<tr><td>Start treatment:

(may be an estimation)</td><td colspan="2">End of treatment:

(may be an estimation)</td><td colspan="2">Date of filling in:</td></tr>
<tr><td colspan="5">The setting where i get/got art therapy in between start and end of this treatment is:
(more answers possible)

O inpatient program o outpatient program o policlinic / ambulant o differently, namely…

O in a group o individual

O i had just art therapy</td></tr>
</table>

[6] In the Netherlands we usually say ‘art therapy’ or ‘creative therapy’. For participants in Belgium: the word ‘ergotherapy’ is used very commonly. The methods are usually the same. Everywhere where you read ‘art therapy’ you can think the word you are used to.

O i had art and 1 other therapy, namely….

O i had more then 2 kinds of therapy (in this treatment)

A. Which therapies helped you most?

Explanation: there are different kinds of therapy like verbal[7] therapies, art therapy, drama therapy, music therapy, dance and movement therapy. Which kind of therapy do you consider as the most helpful? At what did it help you?

1. This therapy i could use most:
It helped me with…

2. This therapy was also useful:
It helped me with…

3. I could not use his therapy very well:
Because of…

B. In what therapies did you work on the different topics?

In the following 10 questions, you put a cross at how much, in your opinion, you worked on that topic in the different therapies.

Explanation: if you did not have that specific part of therapy (for example 'homework' or 'group members'), you put a cross (x) at ina (is not applicable).

[7] Verbal therapies are all therapies where you work on your problems by talking with a therapist. This can be a psychologist or another professional. Examples are cognitive therapy, or verbal group therapy.

If you did not work on the topic in the question, then you can as well put a cross (x) at ina (is not applicable) at all therapies ('art therapy', 'group members', etc. Up till 'differently') in the specific question.

1. I worked on *dissatisfaction* with (parts of) my body by means of

	Never true	Rarely true	Sometimes true	Often true	(almost) Always true	Ina
Art therapy	O	O	O	O	O	O
Group members	O	O	O	O	O	O
Homework	O	O	O	O	O	O
Dance and movement therapy	O	O	O	O	O	O
Verbal therapy[2]	O	O	O	O	O	O
Differently, namely ..	O	O	O	O	O	O

2. I worked on feelings of *insecurity* and *self esteem* by means of

	Never true	Rarely true	Sometimes true	Often true	(almost) Always true	Ina
Art therapy	O	O	O	O	O	O
Group members	O	O	O	O	O	O
Homework	O	O	O	O	O	O
Dance and movement therapy	O	O	O	O	O	O
Verbal therapy[2]	O	O	O	O	O	O
Differently, namely ..	O	O	O	O	O	O

3. I worked on being *too perfectionistic* by means of

	Never true	Rarely true	Sometimes true	Often true	(almost) Always true	Ina

Art therapy	O	O	O	O	O	O
Group members	O	O	O	O	O	O
Homework	O	O	O	O	O	O
Dance and movement therapy	O	O	O	O	O	O
Verbal therapy[2]	O	O	O	O	O	O
Differently, namely ..	O	O	O	O	O	O

4. I worked on *awareness* and *recognition* of my emotions and feelings by means of

	Never true	Rarely true	Sometimestrue	Often true	(almost) Always true	Ina
Art therapy	O	O	O	O	O	O
Group members	O	O	O	O	O	O
Homework	O	O	O	O	O	O
Dance and movement therapy	O	O	O	O	O	O
Verbal therapy[2]	O	O	O	O	O	O
Differently, namely ..	O	O	O	O	O	O

5. I worked on *expression* of my emotions and feelings by means of

	Never true	Rarely true	Sometimestrue	Often true	(almost) Always true	Ina
Art therapy	O	O	O	O	O	O
Group members	O	O	O	O	O	O
Homework	O	O	O	O	O	O
Dance and movement therapy	O	O	O	O	O	O
Verbal therapy[2]	O	O	O	O	O	O
Differently, namely ..	O	O	O	O	O	O

6. I have worked on learning *to relax* and/or *to play* by means of

	Never true	Rarely true	Sometimestrue	Often true	(almost) Always true	Ina
Art therapy	O	O	O	O	O	O
Group members	O	O	O	O	O	O
Homework	O	O	O	O	O	O
Dance and movement therapy	O	O	O	O	O	O
Verbal therapy[2]	O	O	O	O	O	O
Differently, namely ..	O	O	O	O	O	O

7. I worked on *social skills* (like working together, setting boundaries) by means of

	Never true	Rarely true	Sometimestrue	Often true	(almost) Always true	Ina
Art therapy	O	O	O	O	O	O
Group members	O	O	O	O	O	O
Homework	O	O	O	O	O	O
Dance and movement therapy	O	O	O	O	O	O
Verbal therapy[2]	O	O	O	O	O	O
Differently, namely ..	O	O	O	O	O	O

8. I worked on my *self image* by means of

	Never true	Rarely true	Sometimestrue	Often true	(almost) Always true	Ina
Art therapy	O	O	O	O	O	O
Group members	O	O	O	O	O	O
Homework	O	O	O	O	O	O
Dance and movement therapy	O	O	O	O	O	O

Verbal therapy[2]	O	O	O	O	O	O
Differently, namely ..	O	O	O	O	O	O

9. I have worked on *acceptance of my limitations* by means of

	Never true	Rarely true	Sometimestrue	Often true	(almost) Always true	Ina
Art therapy	O	O	O	O	O	O
Group members	O	O	O	O	O	O
Homework	O	O	O	O	O	O
Dance and movement therapy	O	O	O	O	O	O
Verbal therapy[2]	O	O	O	O	O	O
Differently, namely ..	O	O	O	O	O	O

10. I got a view on the *therapeutic (steps in the) process i have gone through* by means of

	Never true	Rarely true	Sometimestrue	Often true	(almost) Always true	Ina
Art therapy	O	O	O	O	O	O
Group members	O	O	O	O	O	O
Homework	O	O	O	O	O	O
Dance and movement therapy	O	O	O	O	O	O
Verbal therapy[2]	O	O	O	O	O	O
Differently, namely ..	O	O	O	O	O	O

C. About art therapy

1. About art therapy

1a. - I was satisfied about:

1b. - I think the following could be better:

2. Which 2 assignments or art therapeutic tasks helped you the most?

Explanation: there are different kind of tasks, like tasks in which you show how you feel, assignments in which you work together, assignments in which you explore your self-image, tasks on your body-image, how you think about a theme, assignments in which you learn to let go of control, assignments in which you learn to show your opinion or stand up for yourself. Most presumably, your therapist had other assignments as well.

2.1.a. 1st assignment (describe short in your own words):

2.1.b. (still about the 1st assignment) **materials / technique:**

2.1.c. How was it for you?

	Totally disagree	Disagree	No disagree/ no agree	Agree	Totally Agree
Confronting	O	O	O	O	O
The art-technique made it look nice	O	O	O	O	O
It gave insight	O	O	O	O	O
Nice	O	O	O	O	O

Easy	O	O	O	O	O

2.1.d. What did you think was useful about it?

2.1.e. Could you use this outside of the art therapy? How?

2.2.a. 2nd assignment (describe short in your own words):

2.2.b. Materials / technique:

2.2.c. How was it for you?

	Totally disagree	Disagree	No disagree/ no agree	Agree	Totally Agree
Confronting	O	O	O	O	O
The art-technique made it look nice	O	O	O	O	O
It gave insight	O	O	O	O	O
Nice	O	O	O	O	O
Easy	O	O	O	O	O

2.2.d. What did you think was useful about it?

2.2.e. Could you use this outside of the art therapy? How?

Thank you **very much** with the help on these questionnaires! Good wishes for your future.

Karen van Dooren,
Student at ‘international master of arts therapies”, KHFreiburg (Duitsland)
Lecturer of art therapy at HAN University, Nijmegen.

Appendix 3. Research Protocol[8]

Versie 140228

Onderzoek naar eetstoornissen en beeldende therapie, GGzBreburg

1.Title of the study	A Patient Evaluation of the Effect of Art Therapy (AT) on Emotions and Psychological Personality Dimensions after Treatment of an Eating Disorder (ED).
2. Abstract	Art therapy is not mentioned in the Dutch-Multidisciplinary-Guidelines (DMDG) (Trimbos-instituut, 2006) on Eating Disorders (ED). The present study tests if patients evaluate art therapy to be effective in the treatment of ED on different treatment goals: dealing with emotions, body image, self image, expectations and perfectionism, social insecurity and maturity fears. ED patients, treated in different settings, are measured with regard to their improvement on general psychological aspects of the ED and on alexithymia. After treatment, they are asked which therapies helped them to reach different treatment goals. In a qualitative part of the study, patients are asked if and which AT assignments have helped them and if and in which way these assignments were of use outside of the therapy.
3. Problem definition	There is sufficient literature on theories about art therapy and the treatment of ED. Dutch art therapists work often based upon these theoretical backgrounds, in combination with personal practical experience. However, there is very little in the literature regarding practice-based experience working with patients with an ED. In articles concerning AT the evidence concept is not explicit, and there are few articles that meet the criteria for inclusion in treatment standards (Holmqvist & Lundqvist Persson, 2012; Frisch, Franko, & Herzog, 2006). Further, AT is not even mentioned in the Dutch Multidisciplinary Guidelines (DMDG) on ED (Trimbos-instituut, 2006). This leaves us with the following questions: Does art therapy treatment in the Netherlands meet the needs of patients suffering from an ED? If patients evaluate AT to be helpful in the treatment of their ED, for what psychological aspects of an ED do they evaluate AT as helpful? What art therapeutic content have patients experienced as being helpful? Does this coincide with the theory and expert opinion?
4. Research goal	This study aims to contribute data on the use of AT in the treatment of ED. If patients find AT to be effective, and if expert opinion confirms that AT contributes to treatment of psychological aspects of an ED, then an effect study can be considered.
5. Research question	How do patients evaluate the effectiveness of art therapy (AT) on emotions and psychological personality dimensions in the treatment of an eating disorder (ED)? <u>Sub-questions:</u> a. Which therapies are evaluated as helpful by patients who have been in treatment for an ED? a.1. Do patients evaluate AT more often 'not useful' then they evaluate other therapies? a.2. Is there a relationship between whether a patient finds AT to be (not) helpful and the patient's difference pre-post score on the EDI-II (Garner, 1991) and TAS-20 (Strien & Ouwens, 2007)?

[8] This is an example. Due to the different additional information as asked per institute, there are some smaller differences per protocol.

	(For example, after treatment for ED, do patients who do not score highly on scales of dealing with emotions on the EDI-II or TAS-20 have more difficulties benefiting from AT?) a.3. Do patients who differ more then the standard deviation on means of differences between pre-post tests on the TAS-20 scales 'identifying' and 'describing emotions' think different about the degree of helpfulness of AT then patients who have scores within the standard deviation? b. What AT assignments have helped patients with an ED reach their treatment goals? b.1 Is there a relation between scores on subscales of the EDI-II and TAS-20 and art therapeutic assignments that patients evaluate as useful in treatment? For example: do patients who score better on differentiating emotions, give more often answers on art therapeutic assignments which deal with differentiating emotions? b.2 Can specific AT assignments be matched with specific treatment goals in AT, based upon the evaluations of the art therapeutic assignments? For example: which art therapeutic assignments do patients assign as helpful against body dissatisfaction? c. What is the expert opinion on the contribution of art therapy to treatment, as shown by first draft outcomes of the study?
6. Relevance **- Scientific** **- Social**	<u>Social relevance</u>: Outcomes of the study can be meaningful for the profession of art therapy, for treatment coordinators and for patients with an ED. - Outcomes of the study can help to professionals decide whether AT can be helpful in reaching predetermined treatment goals. - The field of mental health care is changing. Choices in treatment are increasingly based upon financing by insurance companies, evidence-based experience and multidisciplinary guidelines. If a therapy is not mentioned in the guidelines, it has at high risk of disappearing. At the moment many art therapists in the field of ED are losing their jobs. Patients and professionals in health care appreciate AT as a non-verbal, experiential, meaningful and joyful therapy that adds to the verbal part of the treatment of ED. - If art therapy is found to be effective or if the effects seem to be contributing to treatment, according to patients, this will be mentioned in the DMDG. A positive mention in the DMDG will make it possible to give the patients the therapies they need, therapies which might otherwise not be available. <u>Scientific relevance:</u> - International, theoretical backgrounds on art therapy treatment of ED have been developed, but there is little evidence that meets the criteria of the DMDG. - More knowledge about the effects of art therapy will help art therapists focus on the effective goals and treatment strategies. - This study provides data on treatment effects of art therapy as experienced by patients with an ED. - More research will change best practise and tacit knowledge into evidence-based knowledge.
7. Theoretical background	Art therapy can be either an independent therapy or it can be done in conjunction with other (non-)verbal therapies. Art therapy is consistent with different psychological theories (Smeijsters, 2008). Within these theories, most art therapists work from clinical experience combined with an art therapy theoretical background. Often, art therapy aims at the integration of cognition and bodily experiences. <u>Commonly characteristics of art therapy and how these fit within the different psychological viewpoints:</u> - In art therapy, patients can work as individuals in the group or they can work together. This gives them a safe space for **exploring individually** and **reflecting together** or for learning by doing group work. - Working with art materials is connected with **play** and **enjoyment.** During interventions

	using materials and art assignments, patients are invited to experience within the indirect, safe boundaries of 'making something'. - Especially in eating disorders, there can be a pronounced **difference between** what the **patient says and does**. Experiences and topics that can be avoided in conversation cannot be as easily and undetectably avoided in actions such as the handling of art materials. Because of this, creative arts therapies are a good source to provide valuable **insight** into the patient (Costorphine, 2006; Koch & Fuchs, 2011). - Working with art materials helps patients to get in contact with **bodily experiences** and **become aware of their feelings** connected to these experiences (Lusebrink, 1990; Hinz, 2009; Lakoff & Johnson, 1999; Kolnes, 2012). - When making art, the **meaning of the art work develops** during the creation process, giving the patient a chance to discover at an unconscious level, without words. Patients can experiment with 'how much do they show' in indirect, concealed and **personal symbolic** work (Lakoff & Johnson, 1980). Patients can **express** themselves non-verbally, **distance themselves** from their work, and **learn to verbalise** what they felt or experienced and thereby gain insight into their feelings. - Patients and therapists see the artwork as a form of an extended self, **what** and **how** they make something, is **who they are** (Buk, 2009; Koch & Fuchs, 2011; Smeijsters, 2008). <u>The art therapeutic characteristics connected to the treatment goals of ED</u> In addition to for the specific characteristics of art therapy mentioned above, there are some aspects of AT that are more prominent and specifically connected to the treatment of ED. *Emotions* Patients with an ED have difficulty identifying, describing, regulating and expressing their emotions (Van Strien, 2013; Trimbos-instituut, 2006; Young, 1992; Skarderud, 2007; Herbert & Pollatos, 2012). Patients with an ED focus more on thinking and beliefs than on connecting with sensory and bodily impressions (Kolnes, 2012; Richardson, 2008). To restore body awareness, a patient needs to reconnect with their bodily sensations (Smeijsters, 2008; Hinz, 2009; Lusebrink, 1990). Art therapy evokes *emotional responses*. In art, feelings and content, which are verbally hard to express, can be *expressed* in a direct, creative and/or symbolic way. This helps a patient to *reflect and communicate* (Frisch, Franko, & Herzog, 2006; Julliard & Van Den Heuvel, 2011; Rehavia-Hanauer, 2003; Skarderud, 2007; Skarderud, 2007). *Self-esteem and the change of negative, self-destructive ideas* Art therapy confronts patients, within safe boundaries, with dysfunctional beliefs and challenges negative messages they have towards themselves (Matto, 1997). Patient evaluations show that art therapy gives ED patients access to their own inner sources, promotes self-awareness and improves self-esteem (Anzules, Haenni, & Golay, 2007). In art can be worked from a focus on strengths of a patient (Klompe, 2001). *Feelings of control and perfectionism* In art of anorectic patients, the need for complete control and the feeling of lack of control is a constantly occurring theme (Rehavia-Hanauer, 2003). Patients can work on issues of control, perfectionism and dependency (Schaverien, 1995). In art therapy a patient is encouraged to act first, work experiential, after which he is encouraged to verbalise reactions to the experience (Luzatto, 1995). *Restoration of social contacts* In the art of anorexic patients, the conflict can be recognised between the need to be dependent and in a relationship with others and the desire to be autonomous. In art therapy groups it is helpful when members work together and profit from the mirroring of others, sharing and group projects (Rehavia-Hanauer, 2003; Makin, 2000). *Body awareness and self-image* Patients with an ED need to become more aware of their bodily feelings, impulses and sensations to develop contact with emotions and affect (Trimbos-instituut, 2006; Kolnes, 2012). The main aim of therapy is to learn to make a difference between bodily sensations and mental representations, to identify feelings, thoughts and impulses. This can be done by performing exercises in the here-and-now, the present moment. To get in touch again with feelings and emotions, patients are offered art materials that are chosen to aim at working on their personal treatment goals. Art materials stimulate people on the kinaesthetic/sensory level. For example finger-paint, stone carving and clay evoke emotions (Hinz, 2009; Lusebrink, 1990). At therapeutic assignments such as body tracing (drawing the outline of the body) can be used to increase awareness, discover and depict

	feelings, and explore the self-image (Skarderud, 2007; Kolnes, 2012; Hinz, 2009; Lusebrink, 1990). The new information can help patients discover lost aspects of themselves and change their self-image.
8. Research design **Method** **- Hypothesis** **- Items:** **- Independent variables** **- Dependent variables**	The method is developed in such a way that patients can participate in different settings, with different treatment programs. At this time, there is not enough knowledge about the effects of arts therapy to make it possible to do a (randomized double blind) comparative clinical study on the effect of AT in treatment of ED. Art therapy is usually offered within multidisciplinary treatment. Before the circumstances can be created to analyse AT as an isolated intervention, there needs to be more knowledge about AT as an intervention. This study can provide some evidence regarding how patients experience AT as affective in the context of treatment and it can guide future studies. The design is developed with the aim of being as unobtrusive and as brief for patients and their treatment settings as possible, but considering the needs of research methods to collect data. Art therapists are working under pressure as colleagues are losing their jobs. A research design that would require an alternative program or a waiting list design is not feasible at this time. I have followed the tendencies in the development of Multidisciplinary Guidelines (DMDG), and have found that the patients' opinion of treatment is now incorporated into the guidelines. Therefore, if this study finds that patients positively evaluate AT in the context of their ED treatment, this could be a further step into the direction of including art therapy in the DMDG. Another argument to pursue this research design is that expert opinion is also accepted by the guidelines. Moreover, expert opinion can add to the insights provided by the outcome of this study. The design of the study is developed for triangulation of data collecting and processing. Main focus is the qualitative approach. Quantitative and qualitative parts of the research can each answer **different research subquestions**. The quantitative parts of the study are used to measure how much patients improve on treatment goals. Qualitative data are used for an **explorative explanation** on how patients have worked on treatment results, as measured by the EDI-II and TAS-20. The qualitative research provides **contextual understanding** by relationships among variables uncovered through the qualitative questions of the art therapeutic questionnaire. The **utility** of findings is higher in this mixed method design, because the qualitative aspects of the questionnaire gives art therapists and other mental health care professionals information on how and when to use art therapy and art therapeutic assignments focussed at certain treatment goals. The professionals' and participants' perspective gives a **diversity of views** on the use of art therapy. This diversity of views uncovers relationships between variables through quantitative research while also revealing meanings among research participants through qualitative research (Creswell & Clark, 2011). The qualitative part of focus groups is used for the **credibility** of the findings. Does expert opinion confirm the first concept conclusions? (Bryman, 2006) <u>Background information on the research design</u> In a pilot study with ED patients (n=52) the patients evaluated on the BTV-ps b/v (Haeyen, 2011) to what extent AT helps them meet the following treatment goals: self-image, making choices, expressing emotions / feelings, and dealing with their own limitations. This pilot study provided direction as to how a larger study should be conducted (van Dooren, 2014). The mixed methods design has 3 questionnaires: 1 is partly quantitative / partly qualitative, 2 are qualitative questionnaires. **Quantitative** **Quantitative** **Qualitative + Quantitative** **Overall interpretation**

	TAS-20	EDI-II		Questionnaire for Art Therapy and eating disorders (QAT-ed).		

A: Quantitative parts

A1: Psychological aspects of ED
Patients are measured if they have lower scores on the subscales of the TAS-20 and EDI-II, indicating that they have less ED-connected psychological problems after (multidisciplinary) treatment including AT. Difference between pre- and post-tests on subscales of the EDIII and TAS-20, are shown by boxplots. Lower scores on subscales indicate improvement on psychological aspects of the ED.
A2: Therapies are evaluated on a questionnaire (Likert scales and open questions) by patients regarding whether they think art therapy helped the patient work on issues connected with the treatment of their ED.
This Questionnaire on Art Therapy for eating disorders (QAT-ed) is developed after a pilot test on patients suffering from an eating disorder (van Dooren, 2014). The questionnaire contributes to qualitative and quantitative data. It can be found in appendix 2.

B: Qualitative parts - Questionnaire on Art Therapy for eating disorders (QAT-ed)

B1.1 Patient evaluation of the helpfulness of therapies with aspects of their ED.
Patients evaluate which therapies have been helpful in their treatment and indicate with which aspects of the ED the therapies helped.
B1.2 Patient evaluation of Art Therapy (AT)
B1.2.1 Patients state for which aspects of the ED AT has been helpful.
B1.2.2 Patients state which AT assignments have helped them.

B2 After first draft outcomes of the study, and for means of triangulation of the qualitative data analyses, expert opinion is asked about:
- art therapy as (part of) the treatment of the psychological factors of ED;
- first outcomes of the patient evaluations.
Answers to this question are gathered by collecting expert opinion by a semi-structured interview in focus groups, after the first results are collected from the quantitative data (part A) and qualitative data (part B1). Interviews are recorded, a report will be written and sent to all participants for authorization and complementary comments. Comments or additions will be incorporated in the report.

Hypotheses and Variables PART A and B1:

H1: After treatment for ED, patients improve on psychological health as measured on the subscales of the EDI-II.
Independent variable: treatment of ED
Dependent variables: psychological health as measured by the EDI-II

H2: After treatment for ED, patients are better able to deal with their emotions as measured by the TAS-20.
Independent variable: treatment of ED
Dependent variables: ability to deal with emotions as measured by the TAS -20

H3: Patients with an ED who have lower scores on subscales of the Edi-II, connected to dimensions of psychological health find AT to be effective.
Independent variable: dimensions of psychological health
Dependent variables: positive evaluation of AT

H4: Patients with an ED who, after treatment, are better able to deal with their emotions, attribute this to AT.
Independent variable: ability to deal with emotions as measured by the TAS
Dependent variables: positive evaluation of AT

9. Research	Therapists and patients come from diverse settings in the Netherlands, including

population	specialised ED treatment centres and in- and outpatient treatment of psychiatric hospitals. Participation: GGZ Friesland, GGZ Oostbrabant, Centrum Eetstoornissen (voorheen Ursula), Medisch Spectrum Twente, Rintveld (onderdeel Altrecht), GGZ Westelijk .NoordBrabant, Chr. GGZ In de Bres. Waiting for patients or permission: St. Elizabeth ziekenhuis, BalanzTwente, GGz Breburg. Each institute will participate with an average of 15 patients (Centrum Eetstoornissen (Ursula) participates with 30 patients). A. Research population: - 90 patients with an ED, between the age of 18 and 40, who are in individual or group (multidisciplinary) treatment for an ED, and who have had AT as (part of) the treatment. B. Participants for triangulation of the qualitative analyses (Bryman, 2006): **(not necessarily Breburg)** B1: Individual interviews: - 5 patients who have received AT and found AT to be effective in the treatment of ED. - 2 patients who have received AT and found AT to be ineffective in the treatment of ED. B2: Focus groups: - 10 therapists working with patients with an ED, including art therapists, psychologists, psychiatrists and nurses. The focus group interviews are in 2 focus groups of professionals with experience in treatment of patients with an eating disorder and experience with art therapy as part of that treatment. These groups are composed of treatment coordinators (such as psychologists and psychiatrists), professionals from other disciplines (such as art therapists and verbal therapists) and a member of a patient organisation for patients with an eating disorder.
10. Phases	1. May 2013–July 2013 Research planning & design 2. June 2013–Dec. 2013 Acquisition & information 3. August 2013–Feb. 2014 Submitting research protocol to scientific committees of participating institutes 4. August 2013–Dec. 2014 Sending and receiving questionnaires before and after treatment 5. March 2013–July 2014 Expert opinion & patient interviews 6. Dec. 2014 – Feb. 2015 Report 7. Feb. 2015– Jan. 2015 Articles for publishing
11. Description of Instruments	**1.** (**EDI-II) Eating Disorder Inventory** (Garner, 1991), Dutch version, validated. Closed response questionnaire with subscales, 6 point Likert scale, 11 items: Drive for Thinness Bulimia Body dissatisfaction Ineffectiveness Perfectionism Interpersonal distrust Interoceptive awareness Maturity fears Asceticism Impulse regulation Social insecurity Motivation: The EDI-II is a wide-spread questionnaire that measures psychological aspects of an ED. It is used diagnostic, it is used to measure which treatment goals should be chosen and it is used to measure if problematic psychological aspects of an ED get less. **2. TAS-20 (Toronto Alexithymia Scale**) (Strien & Ouwens, 2007), Dutch version, validated. Closed response questionnaire with subscales 'difficulty identifying feelings' and 'difficulty describing feelings'. 12 items, 5 point Likert scales. Motivation: in many ED-research this scale is used to identify how patients with an ED response to emotions.

	3. Questionnaire AT and Eating Disorders (QAT-ed) See appendix 1 & 2. Motivation: I developed this questionnaire to fit the research questions. The questionnaire has 3 parts: A: open questions on what therapies patients found to be the most helpful, and on what aspects. Open questions are chosen in the beginning of the questionnaire, the patient is not directed towards art therapy yet (as will be by the other questions in the questionnaire). B: 10 items on topics in treatment of ED, and means of working on these topics. On an 5 point Likert scale patients show how much they think they worked on these topics. Topics are developed, based upon: - Outcome of the pilot study, where patients said AT was helpful on the topics of self-image (Question (q.) B8), expressing emotions / feelings (q. B5), and dealing with their own limitations (q. B9) (van Dooren, 2014); - Suggestions by art therapist about common topics in AT treatment of ED: being too perfectionistic (q. B3), the importance of being able to play and/or relax (q. B6), expression of emotions (q. B5), getting an overview of the therapeutic process (q. B10), body-image (q. B1) and self-image (q. B2/8); - Subscales of the EDI-II that have a match with AT treatment as usual in treatment of ED, such as body dissatisfaction (q. B1), Ineffectiveness (q. B2), Perfectionism (q. B3), Interpersonal distrust (q. B5), Interoceptive awareness (q. B4), Maturity fears (q. B6). C: open questions and closed questions about AT specifics: - open questions about what AT assignments helped the patients the most (to look for match with subscales on the TAS-20 and EDI-II); - closed questions about specific inherent characteristics of AT assignments (such as making something nice and personal at the same time); - a transfer of AT-topics towards outside of therapy: to see if AT has an effect on (subscales of the ED in) daily living according to patients. **4. Semi structured interview (Not Breburg)** In an semi-structured interview, patients with positive and negative experience with art therapy, will be asked for feedback on first results.
12. Analyses	Differences on TAS-20 and EDI-II pre- and post-test will be compared per patient with the more qualitative data on the art therapy questionnaire QAT-ed. Confounders like diagnoses, BMI, and comorbidity, length of treatment will be checked on relevance. Presumption is that many of the answers will fit in categories of treatment goals as asked for in part B and subscales of the EDI-II and the TAS-20. **QUANTITATIVE ANALYSES ON TAS-20, EDI-II AND PARTS OF THE QAT-ed:** Statistics calculated by SPSS. **Descriptive analyses**: 1. Pie charts & cross tables on: • Art therapists approached: specialized, not specialized, unknown • Institutes approached: specialized / not specialized; art therapy (not) part of program 2. Descriptives TAS-20 / EDI-II: • Means, Distributions, Variances, Standard deviations, Outliers (more then 2.5 from the sd) • Box plots. 3. Descriptives QAT-ed: • Means, distribution (Age, BMI pre, post and differences pre-post, Length of Treatment). • Percentages (Sex, Type of medication, Education, Comorbidity, Length of Treatment). • Bar graphs & cross tables.

4. QAT-ed, part A (what therapies were (not) useful):
    - Modus, frequencies Independent one-way anova, F-test, Chi-square. Correlations.
      -> Q_{sub} a.1. Do patients evaluate AT more often 'not useful' then they evaluate other therapies?
5. QAT-ed, part B (Likert scale, treatment goals and where / how much patients worked on goals):
    - Frequencies/ Chi-square, Modus: cross tables.
      -> Which goals are mentioned as worked at in art therapy?
      -> Are certain goals more often matched with art therapy?
6. QAT-ed, part C, q. 2c (art therapy characteristics):
    - Frequencies, Modus
      -> How do patients evaluate art therapy characteristics?
      (Explanation: in the beginning art therapy is often experienced as hard. Theory says that 'aesthetic illusion' and 'play' make it easier to work on personal themes. What tell the evaluations us about methodical choices that can be made by art therapists?)

Analyses of differences, connections and changes:
7. TAS-20, EDI-II:
    - Improvement (lower scores pre-post on subscales of ED-II and TAS-20) on EDI-II and TAS-20: t-test (paired samples)/ univariate anova's, boxplot, outliers, correlations/ covariates.
8. QAT-ed, part B:
    - Correlations & regression (linear analyses) / r-test. Anova's pre and post, individual scales-> cross tables. Outliers: check with Chi-square.
      -> Is there a relation between lower scores on TAS-20 and EDI-II and goals patients say they have worked at in art therapy?
      -> Analyses of outliers: what do outliers (individual) say in the qualitative part?
      Post hoc analyses: looking for effects on subscales, correction for multiple tests-> Bonferroni. Which scales show most effects?
9. QAT-ed, part A combined with lower scores on subscales of the EDI-II and TAS-20:
    - Correlations.
      -> Does art therapy work more on the goals: differentiating and describing of feelings, perfectionism, interoceptive awareness and fear of maturity then at the other goals / subscales of the EDI-II (such as bulimia, body dissatisfaction, interpersonal distrust, impulse regulation, social insecurity).

QUALITATIVE PARTS OF QAT-ED:
- Correlations TAS-20 and EDI-II, differences with art therapy questionnaire answers.

Grounded theory (Baarda, et al., 2013) *:*
Computer program: Kwalitan

Exploration (1st 15 copies of QAT-ed):
1. Import complete answers in Kwalitan (open questions (q): A1, 2, 3. C1.1a, 1b, 2.1a, b, d, e, 2.2a, b, d, e).
2. Rough, open, summarized and directed categorising. Choosing thematic codes and variation codes.
3. Checks on consistency of codes.
4. Evaluation of explorations: themes and variations. Check on relevance and number of codes and premature conclusions.
    - q. A1, q. A2 & q. A3: Which therapies are mentioned as useful / useless?
    - q. A1, q. A2 & q. A3: Why evaluate patients a therapy helpful or useless? (Does this relate to subscales of EDI-II, TAS-20 or therapeutic factors in treatment?)
    - q. C1: What are patients (not) satisfied about?
    - q. C2: What art therapy tasks help in treatment?
      (Does this relate to subscales of EDI-II, TAS-20?)
        - q. A1 + q. A2 and q. C1 + q. C2, lead to answers at Research Q_{sub} a. and b.:
            - Q_{sub} a. Which therapies are evaluated as helpful by patients who have been in treatment for an ED?
            - Q_{sub} b. What AT assignments have helped patients with an ED to reach their treatment goals?

	Specification: 5. Rearrange codes / comparison on similarities and differences between them. 6. Conceptual frameworks. 7. Axial coding 8. Top-down structure, then bottom-up. Depending on answers: nominal and ordinal dimensions and formulating central concepts. 9. Check on material (filters Kwalitan) 10. Reflection on answers at research questions and check with literature. **Reduction** (all questionnaires in Kwalitan): 11. Selective coding. 12. Looking for core concepts. 13. Relations with qualitative outcomes. 14. Interviews patients / professionals & coding interviews to check 1st concepts and outcomes (if possible: including patients who score 2,5 x sd on questionnaires, negative or positive). 15. If needed: recoding. 16. Description, reconstruction and confirmation (or adjustment): consistency with qualitative parts. 17. Reflection: answers to research questions? **Integration:** 18. How do outliers (qualitative analyses) evaluate art therapy and art therapeutic assignments? (subquestion (Q_{sub}) a2, a3) • Q_{sub} a.2. Is there a relationship between whether a patient finds AT to be (not) helpful and the patient's score on the EDI-II (Garner, 1991) and TAS-20 (Strien & Ouwens, 2007)? (For example, after treatment for ED, do patients who do not score highly on scales of dealing with emotions on the EDI-II or TAS-20 have more difficulties benefiting from AT?) • Q_{sub} a.3. Do patients who improve on the TAS-20 scales 'identifying' and 'describing emotions' think that AT is more helpful then patients who did not improve on those scales? 19. Is there a relation, and if yes, what relation can be seen (at an individual level) between the art therapeutic assignments that patients mention as most helpful and progression on treatment goals? (subquestion b1) • Q_{sub} b.1 Is there a relation between the reasons why art therapeutic assignments (as formulated in questions in part C of the questionnaire) are mentioned as being useful and higher scores on scales of the EDI-II and the TAS? (For example: do patients who score better on differentiating emotions, give more often answers on art therapeutic assignments which deal with differentiating emotions?) 20. Final integration qualitative and quantitative part: Q_{sub} a2, a3 and Q_{sub} 1 and b2. Then Q_{sub} a and b, then answer to research question. • Q_{sub} a2, a3 and b1 see above. • Q_{sub} b.2 Can AT assignments be matched with treatment goals in AT, based upon the evaluations and upon the patient's appreciation of the art therapeutic assignments? For example: which art therapeutic assignments are mentioned by the patients as helpful against body dissatisfaction? 21. Presentation interpretations.
13. Products (publications, guidelines)	- Participating institutes get a copy of the research results, and if they wish, they get more information about the results. - Names of participating institutes are mentioned in publications and presentations, if they wish. - Participating institutes and therapists get feedback on what patients are satisfied about, and this can help to make choices within treatment. - Articles offered to diverse scientific magazines, depending on acceptance (suggestions are welcome): Art Therapy: Journal of the American Art Therapy Association European Eating Disorders Review Health Psychology International Journal of Art therapy The Arts in Psychotherapy

	Tijdschrift voor psychiatrie Tijdschrift voor vaktherapie - Results will be offered for presentations at congresses and symposia, for example at the NAE-day (Dutch academy for eating disorders). - Results will be used in art therapy education at HAN University of Applied Sciences.
14. Privacy guarantee	All patient responses are guaranteed to be anonymous. Data from the questionnaires are processed by codes. Names of participating institutes are mentioned; therapists are free to remain anonymous or be mentioned by name.
15. What is asked from participants (patients and professionals) Time, plan	<u>All patients (n= 90, Breburg: n=15):</u> To secure the minimal amount of 15 patients, I will ask all institutes for at least 21 patients to fill in the questionnaires at the start and hope they will all fill out the end-questionnaires. - Fill in two questionnaires, the EDI-II (25 minutes) and the TAS-20 (5 minutes), at the start of the treatment with AT (in the 2 weeks around the start of AT) and at the end of the AT treatment (in or shortly after the last AT session). At the end of AT treatment (in or shortly after the last AT session) all participating patients also fill in the 'QAT-ed' (20 minutes). <u>Voluntary and anonymous patients (n= 7</u>**<u>) (Niet voor Breburg)</u>** -1 hour interview on 1st outcomes of the study. <u>Art therapist Karin van der Vegt</u> - Is alert when a patient starts and stops the treatment, to provide and collect the questionnaires. Per participating patient, this will be about 5-10 minutes. - Will be invited for the end of the research, she gets a copy of the first results and will be asked for her opinion on the first conclusions (triangulation)
16. Costs/ budget	Costs are to be paid by the researcher and HAN University of applied sciences. If there is research budget at the participating institutes, financial help would be nice. - It will be helpful if I could use the EDI-II questionnaires of participating institutes, to reduce the study costs (by about 2.75 euro per EDI-II). - Incidental travel costs. - GGZ Breburg: Stamps to send the questionnaires.
17. Quality assurance	- Guidance & Supervisor: Prof. Dr. phil.habil. Ruth Hampe, 'International Master of Arts Therapies', HAN-University / Catholic University of Applied Sciences Freiburg, Germany - 1st Guidance & examiner: Prof. Dr. Mone Welsche, KHFreiburg, Germany. - 2nd Guidance & examiner: Professor Lony Schiltz (Ph.D in clinical psychology), Research Unit in Clinical Psychology, Health Psychology, Luxembourg - AT professionals are asked for feedback, for example, on the art therapy questionnaire and on the research questions. In the research procedures different instruments will be used for credibility, reliability and objectivity, such as search for disconfirming evidence (patients who are negative about art therapy as part of the program) and subjective review by focus groups. Transferability is caused by collecting data from different institutes.
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Appendix 4. Plan for steps in analyses of data

Quantitative analyses on TAS-20, EDI-II and parts of the ATQ-ed:

Statistics calculated by SPSS.

Descriptive analyses:

1. Pie charts & cross tables on:
    - Art therapists approached: specialized, not specialized, unknown
    - Institutes approached: specialized / not specialized; art therapy (not) part of program
2. Descriptives TAS-20 / EDI-II:
    - Means, distributions, variances, standard deviations, outliers (more then 2.5 from the sd)
    - Box plots.
3. Descriptives ATQ-ed:
    - Means, distribution (age, bmi pre, post and differences pre-post, length of treatment).
    - Percentages (sex, type of medication, education, comorbidity, length of treatment).
    - Bar graphs & cross tables.
4. ATQ-ed, part a (what therapies were (not) useful):
    - Modus, frequencies independent one-way anova, f-test, chi-square. Correlations.
      -> q_{sub} a.1. Do patients evaluate at more often 'not useful' then they evaluate other therapies?
5. ATQ-ed, part b (Likert scale, treatment goals and where / how much patients worked On goals):
    - Frequencies/ chi-square, modus: cross tables.
      -> which goals are mentioned as worked at in art therapy?
      -> are certain goals more often matched with art therapy?
6. ATQ-ed, part c, q. 2c (art therapy characteristics):
    - Frequencies, modus
      -> how do patients evaluate art therapy characteristics?
      (explanation: in the beginning art therapy is often experienced as hard. Theory says that 'aesthetic illusion' and 'play' make it easier to work on personal themes.

What tell the evaluations us about methodical choices that can be made by art therapists?)

Analyses of differences, connections and changes:

7. TAS-20, EDI-II:
    - Improvement (lower scores pre-post on subscales of ed-ii and TAS-20) on EDI-II and TAS-20: t-test (paired samples)/ univariate anova's, boxplot, outliers, correlations/ covariates.
    - Psychological aspects of ed
    - Patients are measured if they have lower scores on the subscales of the TAS-20 and EDI-II, indicating that they have less ed-connected psychological problems after (multidisciplinary) treatment including at. Difference between pre- and post-tests on subscales of the ediii and TAS-20, are shown by boxplots. Lower scores on subscales indicate improvement on psychological aspects of the ed.

8. ATQ-ed, part b:
    - Correlations & regression (linear analyses) / r-test. Anova's pre and post, individual scales-> cross tables. Outliers: check with chi-square.
      -> is there a relation between lower scores on TAS-20 and EDI-II and goals patients say they have worked at in art therapy?
      -> analyses of outliers: what do outliers (individual) say in the qualitative part?
      Post hoc analyses: looking for effects on subscales, correction for multiple Tests-> bonferroni. Which scales show most effects?
9. ATQ-ed, part a combined with lower scores on subscales of the EDI-II and TAS-20:
    - Correlations.
      -> does art therapy work more on the goals: differentiating and describing of feelings, perfectionism, interoceptive awareness and fear of maturity then at the other goals / subscales of the EDI-II (such as bulimia, body dissatisfaction, interpersonal distrust, impulse regulation, social insecurity).

<u>Qualitative parts of ATQ-ed</u>:

- correlations TAS-20 and EDI-II, differences with art therapy questionnaire answers.

Grounded theory (Baarda, et al., 2013) *:*

Computer program: kwalitan

Exploration (1st 15 copies of ATQ-ed):

1. Import complete answers in kwalitan (open questions (q): a1, 2, 3. C1.1a, 1b, 2.1a, b, D, e, 2.2a, b, d, e).
2. Rough, open, summarized and directed categorising. Choosing thematic codes and Variation codes.
3. Checks on consistency of codes.
4. Evaluation of explorations: themes and variations. Check on relevance and number of Codes and premature conclusions.
    - Q. A1, q. A2 & q. A3: which therapies are mentioned as useful / useless?
    - Q. A1, q. A2 & q. A3: why evaluate patients a therapy helpful or useless? (does this relate to subscales of EDI-II, TAS-20 or therapeutic factors in treatment?)
    - Q. C1: what are patients (not) satisfied about?
    - Q. C2: what art therapy tasks help in treatment?
      (does this relate to subscales of EDI-II, TAS-20?)
        - Q. A1 + q. A2 and q. C1 + q. C2, lead to answers at research q_{sub} a. And b.:
            - Q_{sub} a. Which therapies are evaluated as helpful by patients who have been in treatment for an ed?
            - Q_{sub} b. What at assignments have helped patients with an ed to reach their treatment goals?

Specification:

5. Rearrange codes / comparison on similarities and differences between them.
6. Conceptual frameworks.
7. Axial coding
8. Top-down structure, then bottom-up. Depending on answers: nominal and ordinal dimensions and formulating central concepts.
9. Check on material (filters kwalitan)
10. Reflection on answers at research questions and check with literature.

Reduction (all questionnaires in kwalitan):

11. Selective coding.
12. Looking for core concepts.
13. Relations with qualitative outcomes.

14. Interviews patients / professionals & coding interviews to check 1st concepts and outcomes (if possible: including patients who score 2,5 x sd on questionnaires, negative or positive).
15. If needed: recoding.
16. Description, reconstruction and confirmation (or adjustment): consistency with qualitative parts.
17. Reflection: answers to research questions?

Integration:

18. How do outliers (qualitative analyses) evaluate art therapy and art therapeutic assignments? (subquestion ($q_{sub)}$ a2, a3)
    - Q_{sub} a.2. Is there a relationship between whether a patient finds at to be (not) helpful and the patient's score on the EDI-II (garner, 1991) and TAS-20 (strien & ouwens, 2007)?

      (for example, after treatment for ed, do patients who do not score highly on scales of dealing with emotions on the EDI-II or TAS-20 have more difficulties benefiting from at?)
    - Q_{sub} a.3. Do patients who improve on the TAS-20 scales 'identifying' and 'describing emotions' think that at is more helpful then patients who did not improve on those scales?
19. Is there a relation, and if yes, what relation can be seen (at an individual level) between the art therapeutic assignments that patients mention as most helpful and progression on treatment goals? (subquestion b1)
    - Q_{sub} b.1 is there a relation between the reasons why art therapeutic assignments (as formulated in questions in part c of the questionnaire) are mentioned as being useful and higher scores on scales of the EDI-II and the tas?

      (for example: do patients who score better on differentiating emotions, give more often answers on art therapeutic assignments which deal with differentiating emotions?)
20. Final integration qualitative and quantitative part: q_{sub} a2, a3 and q_{sub} 1 and b2. Then q_{sub} a and b, then answer to research question.
    - Q_{sub} a2, a3 and b1 see above.
    - Q_{sub} b.2 can at assignments be matched with treatment goals in at, based upon the evaluations and upon the patient's appreciation of the art therapeutic assignments? For example: which art therapeutic assignments are mentioned by the patients as helpful against body dissatisfaction?

21. Presentation interpretations.

Appendix 5. Letter of informed consent.

Onderzoek beeldende therapie[9] en eetstoornissen

Beste lezer,

Je bent gevraagd om mee te doen aan een wetenschappelijk onderzoek naar beeldende therapie en eetstoornissen.
Om te beoordelen of je mee wilt doen, wil ik je wat informatie geven over het onderzoek, zodat je afwegen of je mee kunt doen. Je kunt deze informatie rustig (her)lezen en in eigen kring bespreken. Ook daarna kun je nog vragen stellen aan jouw beeldend therapeut of aan de onderzoekster die aan het eind van deze brief staat genoemd.

Doel van het onderzoek is om meer te weten te komen wat cliënten met een eetstoornis van beeldende therapie vinden. Beeldende therapie is vaak een vast onderdeel van de behandeling. We willen graag weten of je vindt dat het jou helpt, en zo ja, hoe dan en wat jou het meest heeft geholpen tijdens de beeldende therapie.

Voor het onderzoek wordt je aan het begin van jouw behandeling gevraagd om twee vragenlijsten in te vullen: een lijst over emoties en een vragenlijst over psychologische en gedragskenmerken die met eetstoornissen samenhangen. Aan het eind van de behandeling krijg je deze vragenlijsten opnieuw, plus een vragenlijst over beeldende therapie.
Je krijgt dezelfde behandeling als altijd gegeven wordt, los van of je nu wel of niet deelneemt aan het onderzoek.

Wel of geen deelname aan het onderzoek heeft geen gevolgen voor de behandeling die je krijgt. Door toestemming te geven voor het onderzoek, help je om beeldende therapie in de toekomst misschien (nog) beter op cliënten met een eetstoornis af te stemmen.

Deelname aan het onderzoek kost je aan het begin van de behandeling ongeveer 10 minuten, voor het lezen van deze brief en het invullen van een vragenlijst over omgaan met emoties.
De onderzoekster vraagt ook de uitkomsten op van de door jou ingevulde 'EDI-II' vragenlijst, zodat je die lijst niet opnieuw hoeft in te vullen.
Aan het eind van de behandeling vul je dezelfde lijst over omgaan met emoties in, en komt daar ongeveer 20 minuten extra bij voor een vragenlijst over beeldende therapie.

Er doen in Nederland in verschillende instellingen ongeveer 90 mensen mee. Deelname aan dit onderzoek is geheel vrijwillig. Als je niet wil deelnemen, hoeft je daarvoor geen reden op te geven. Als je besluit niet mee te doen, geeft dat geen enkele verandering in jouw verdere behandeling of begeleiding.

Jouw gegevens worden door de onderzoekster anoniem verwerkt. Tot jouw persoon herleidbare gegevens kunnen nooit door derden worden ingezien. Persoonsgegevens die tijdens het onderzoek worden verzameld, worden vervangen door een codenummer. Alleen dat nummer wordt gebruikt voor studiedocumentatie, in rapporten of publicaties over dit onderzoek. Jouw behandelaren krijgen geen rechtstreekse gegevens over jou als persoon, alleen de samenvatting van de mening van alle deelnemers. Jouw persoonsgegevens worden apart bewaard gedurende het onderzoek en 1 jaar na afloop van het onderzoek vernietigd. Dit is zodat de inspectie eventueel kan beoordelen of ik het onderzoek 'eerlijk' heb uitgevoerd.

Je hebt het recht om de onderzoekster te verzoeken, om jouw gegevens in te zien of te verwijderen.

Jouw behandelaren zijn wel op de hoogte dat je deelneemt aan het onderzoek, zodat ze je aan het eind van de behandeling opnieuw de vragenlijsten kunnen geven. Ze weten niet wat je hebt ingevuld.

Je krijgt geen vergoeding voor deelname aan het onderzoek.

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[9] Beeldende therapie wordt ook wel creatieve therapie genoemd. In België heet het soms ergotherapie.

Voor dit onderzoek is goedkeuring verkregen van de Commissie Wetenschappelijk Onderzoek van GGZBreburg. De voor dit onderzoek geldende nationale en internationale richtlijnen worden nauwkeurig in acht genomen.

Wilt je verder nog iets weten?
Voor het stellen van vragen en het inwinnen van nadere informatie voor, tijdens en na het onderzoek kun je vragen stellen per mail aan de onderzoekster, Karen van Dooren: Karen.vandooren@han.nl.

Ik hoop van harte dat je mee wil doen, jouw deelname is belangrijk voor beeldend therapeuten en we hopen dat zij en cliënten na jou profijt hebben van de gegevens die mede dank zij jou verzameld worden.

Vriendelijke groet, en ik wens je een succesvolle behandeling toe.

Nijmegen, december 2013
Karen van Dooren

Bijlage: toestemmingsformulier.

Toestemmingsformulier A. Onderzoek naar beeldende therapie en eetstoornissen

Ik bevestig dat ik het informatieformulier voor de proefpersoon heb gelezen. Ik heb de gelegenheid gehad om aanvullende vragen te stellen. Deze vragen zijn in voldoende mate beantwoord. Ik heb voldoende tijd gehad om over deelname na te denken.

Ik weet dat mijn deelname geheel vrijwillig is en dat ik mijn toestemming op ieder moment kan intrekken zonder dat ik daarvoor een reden hoef te geven.

Ik geef toestemming om mijn behandelende specialisten op de hoogte te brengen van mijn deelname aan dit onderzoek.

Ik geef toestemming om de gegevens te verwerken voor de doeleinden zoals beschreven in de informatiebrief.

Ik geef wel/geen* toestemming om mijn gegevens gedurende maximaal 1 jaar na afloop van het onderzoek te bewaren.

Ik stem in met mijn deelname aan bovengenoemd onderzoek.

Naam :
Handtekening : Datum : __ / __ / __

Ik verklaar hierbij bovengenoemde proefpersoon volledig geïnformeerd te hebben over het genoemde onderzoek.

Naam onderzoeker : Karen van Dooren
Handtekening: Datum: december 2013

* Doorhalen wat niet van toepassing is.

Appendix 6. Additional Tables and calculations.

Table 10. Treatment setting participating clients

Treatment setting participating clients		Frequency	Percent
Valid	Inpatient	26	29,9
	Outpatient	21	24,1
	Ambulant	2	2,3
	Psychiatric department general hospital	1	1,1
	Total	50	57,5
Missing	Unknown	37	42,5
Total		87	100,0

Table 11. Amount of therapies offered

Amount of therapies offered		Frequency	Percent
Valid	Art therapy only	2	2,3
	Art therapy and one other kind of therapy	3	3,4
	Two or more kinds of therapy	37	42,5
	Total	42	48,3
Missing	Unknown	45	51,7
Total		87	100,0

Table 12. Group or individual treatment

Group or individual treatment		Frequency	Percent
Valid	Group	40	46,0
	Individual	4	4,6
	Group & individual.	2	2,3
	Total	46	52,9
Missing	Unknown	41	47,1
Total		87	100,0

Table 13 Sexe, frequency table

Sex		Frequency	Percent
Valid	Female	79	90,8
	Male	2	2,3
	Total	81	93,1
Missing	Unknown	6	6,9
Total		87	100,0

Table 14. Phase of therapy when taking post test

Phase of therapy when taking post-test		Frequency	Percent
Valid	Treatment finished	20	23,0
	Final measurement during treatment	22	25,3
	Quit treatment	31	35,6
	Total	73	83,9
Missing	Unknown	14	16,1
Total		87	100,0

Table 15. Age of participants

Age	Frequency	Percent
17	1	1,1
18 - 22	18	
23 - 27	17	
28 - 32	8	
33 - 37	5	
38 - 42	5	
43 – 47	3	
48 -52	1	
53 - 57	3	
Unknown	30	

Table 16. BMI

Bmi	Frequency	Percent
Severe underweight < 17,5	11	
Underweight 17,5 – 18,4	3	
Healthy weight, but low 18,5 - 19,9	9	
Healthy weight 20 - 25	10	
Overweight 25,1 – 30	3	
Severe overweight 30,1 - 40	1	
Unknown	49	56,3
Total	87	100

Table 17. Primary diagnosis

Primary diagnosis		Frequency	Percent
Valid	Anorexia	34	39,1
	Bulimia	6	6,9
	Binge eating disorder	2	2,3
	Unknown	1	1,1
	Not otherwise specified, bulimic characteristics	1	1,1
	Not otherwise specified	7	8,0
	Personality disorder	1	1,1
	15	1	1,1
	Total	53	60,9
Missing	Unknown	34	39,1
Total		87	100,0

Table 18. Secondary diagnoses

Secondary diagnoses		Frequency	Percent
Valid	Anorexia	2	2,3
	Binge eating disorder	2	2,3
	Post traumatic stress disorder	2	2,3
	Personality disorder	1	1,1
	Development disorder	2	2,3
	Social anxiety disorder	1	1,1
	Depression	3	3,4
	Avoiding personality disorder	1	1,1
	Body dismorphic disorder	1	1,1
	333	1	1,1
	Total	16	18,4
Missing	Unknown	71	81,6
Total		87	100,0

Table 19. Highest level of education

Highest level of education		Frequency	Percent
Valid	Vmbo	4	4,6
	Havo	9	10,3
	Vwo	4	4,6
	Mbo	18	20,7
	Hbo	19	21,8
	University	16	18,4
	Unknown	17	19,5
	Total	87	100,0

Table 20. Additional treatment setting

Additional treatment setting		Frequency	Percent
Valid	Outpatient	7	8,0
	Ambulant	1	1,1
	Unknown	79	90,7
	Total	78	89,7
Total		87	100,0

3.3 Art therapy assignments that help with treatment goals

Table 21. Treatment goals in which respondents improved more then 2,5SD, in relation with therapies they worked on a goal and assignments in art therapy **reports treatment goals on which a specific patient has improved strongly and is looked for relations with art therapy. To do so, it is looked for outliers who have strong improvement on treatment goals, as defined by 2,5 SD into the positive direction of scales of the TAS-20 and EDI-II (case numbers, 1st column). Column 'Art Therapy (AT) is most useful therapy' shows if the patient reports art therapy as one of the therapies that helped him most (Appendix 2. Art therapy Questionnaire for eating disorders (ATQ-ed)). In the rows 'Worked on' is reported in which therapy a respondent has often or (almost) always worked on a treatment goal, connected to a subscale of the *EDI-II or TAS-20 (***

Table 3. **Overview of (sub)scales of the TAS-20, EDI-II and ATQ-ed***).* The row 'assign. AT' shows if the case number reports as most helpful an art therapeutic assignment that is aimed at improvement of a treatment goal as connected to the scale in the top row. At the bottom row is shown how many cases improved more then 2,5SD per scale of the EDI-II or TAS-20, and how many of those cases report art therapeutic assignments as most helpful in connected treatment goals.

All coloured and grey cases have improvement of more then 2,5SD on scale that is a shown by a colored cel.				
Grey: - art therapy is mentioned as one of the therapies of most use (part A art therapeutic questionnaire)	Green: - Match between improvement on scale and most helpful assignment (questionnaire part C). 38%	Peach: - Art Therapy (is one of the) therapy(s) where is worked often on this goal (questionnaire part B) Peach and dark peach together: 40% Just art therapy: 15%, Art therapy + other therapies: 25%.	Dark peach: - Art Therapy (is one of the) therapy(s) where is worked often on this goal (questionnaire part B)	Blue: - No connection with most helpful assignment or treatment goals having worked on in art therapy as reported by patient. 26%.

Table 21. Treatment goals in which respondents improved more then 2,5SD, in relation with therapies they worked on a goal and assignments in art therapy

Case	Worked on / AT assignment	AT most useful therapy	TAS-20 ID (Q4)	TAS-20 DE (Q5)	EDI-II BD (Q1)	EDI-II I (Q2)	EDI-II P (Q3)	EDI-II ID (Q5)	EDI-II IA (Q4)	EDI-II MF (Q6)	EDI-II A (Q9)	EDI-II SI (Q7)
101	**Worked on**	x	?	?	?	?	?	?	?	?	?	?
	Assign. AT			x		x		x	x			
401	**Worked on**	x		-								
	Assign. AT			x								
402	**Worked on**	-	-									
	Assign. AT		-									
403	**Worked on**	-						g,h,p, v				g,h,p, **V**
	Assign. AT							-				-
415	**Worked on**	x						a				-
	Assign. AT							x				x x
503	**Worked on**	x								**A,G, P**		
	Assign. AT									x		
505	**Worked on**	x	**A,**h,v									
	Assign. AT		x									
509	**Worked on**	x								a,p	-	
	Assign. AT									-	-	
510	**Worked on**	x			**A**	**A**,g,v	**A**		**A**			**A**,g,p, v
	Assign. AT				x	-	-		-			-
511	**Worked on**	-			-				a			
	Assign. AT				-				-			
513	**Worked on**	x					-					
	Assign. AT						-					
601	**Worked on**	x		**A,H, V**		**A,H, V**	**A,H,V**					
	Assign. AT			x		-	-					
701	**Worked on**	x					-					
	Assign. AT											
709	**Worked on**	-								a,g	-	
	Assign. AT									-	x	
803	**Worked on**	-					a					
	Assign. AT						x					
805	**Worked on**	-		g								
	Assign. AT			-								
901	**Worked on**	-		g,p,v	-	**A,** g,p,v			**G,P,V**	b,g,**V**	g,p,v	**G,P**
	Assign. AT			x					x			x
906	**Worked on**	-		g,**P,**v	a	-	a,**G,**p, **V**			a	p,v	
	Assign. AT			-	x	-	-			-	x	
908	**Worked on**	x	g,h,**V**									
	Assign. AT		x									
909	**Worked on**	x	a,h,v	**A**,h,v								
	Assign. AT		x	x								
Amount cases improved /scale			5	8	5	5	7	3	4	6	5	5
Amount AT is connected			3 (60%)	4 (50%)	3 (60%)	4 (80%)	4 (57%)	1 (33%)	4 (100%)	4 (67%)	3 (60%)	3 (60%)

AT= art therapy; g=group members; h= homework; p=psychomotor therapy; v=verbal therapies. Q: question number in part B of the ATQ-ed.
If a therapy is mentioned as place where the patient '(almost) always worked on this treatment goal, then the therapy is showed as a capital and bold. Example: **A** means in Art therapy is (almost) always worked on this treatment goal. G means by group members is often worked on this treatment goal.