Vetenskaplig rapport till Ekhagastiftelsen
Diarienr 2011–66; 2012–27

Denna vetenskapliga rapport avser en slutrapportering för forskningsprojektet *Musikterapi för kvinnor behandlade för gynekologisk cancer*. Rapporten är en sammanfattning av ramberättelsen i Margareta Wärjas avhandling vilken kan laddas ner som pdf utan kostnad via hemsidan på Aalborgs universitet https://www.mt-phd.aau.dk
Eller genom att kopiera denna länk:
https://www.mt-phd.aau.dk/digitalAssets/385/385257_margareta_waerja_phd.pdf

En omfattande referenslista relaterad till denna rapport finns i avhandlingen.

Kontaktperson: Margareta Wärja (margareta.warja@expressivearts.se)

Samverkande parter: Aalborg Universitet, Karolinska Institutet, Karolinska Universitetssjukhuset och Expressive Arts Stockholm AB.

Projektgruppen har bestått av fyra personer:
Margareta Wärja, PhD., leg psykoterapeut, Expressive Arts Stockholm AB, har ansvarat för forskningsarbetet under handledning av professor Lars Ole Bonde, Aalborg Universitet och Med. Dr., överläkare Karin Bergmark, Karolinska Universitetssjukhuset och Karolinska Institutet (KCE) samt Gunder Forss leg. psykolog, leg. psykoterapeut, VD, Expressive Arts Stockholm AB.

Projektet påbörjades 2011 och avslutades i maj 2018 då Margareta Wärja försvarade avhandlingen *Arts-Based Psychotherapy for Women Recovering from Gynecological Cancer* vid The Doctoral School oif Humanities vid Ålborgs Universitet I Danmark.

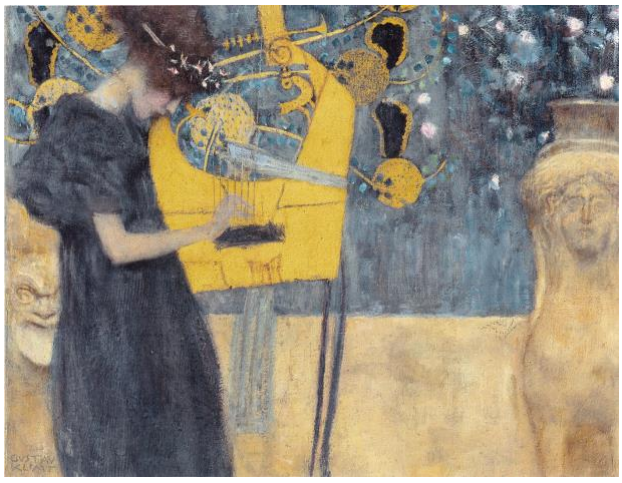
Den vetenskapliga kommittén bestod av följande medlemmar:

Professor, PhD, Mary Jane Esplen, University of Toronto, Canada

Professor emeritus, PhD, Denise Grocke, University of Melbourne, Australia

Associate Professor, PhD, Niels Hannibal, Aalborg University, Denmark

Signaturbild för projektet: ”Musik” av Gutav Klimt.



INTRODUCTION AND BACKGROUND

Women recovering from gynecological cancer are affected in all aspects of their lives. The bodily site of this disease is associated with privacy, silence, and taboo (Bergmark, 2007; Swedish Cancer Society, 2009; Solbrække & Lorem, 2016). Hence, gynecological cancer impacts the core of the woman's body, her identity, sexual life and intimate relationships (Bergmark, Avall- Lundqvist, Dickman, Henningsohn, & Steineck, 2002; Gilbert, Ussher, & Perz, 2011; Krychmann, Pereira, Carter, & Amsterdam, 2006). A cancer diagnosis usually strikes without warning and in an instant the individual is faced with questions of existence, mortality and meaning-making (Vos, 2015). Diagnosis and treatments can also be terrifying, invasive and traumatic (Wettergren, 2007). Besides a potential death threat, gynecological cancer survivors may have to deal with the loss of female body-parts that are symbolically charged and associated with sexuality and being a woman (Bergmark, 2007). Late effects of treatments involve varying degrees of bodily changes such as pain, lymphoedema, weight-gain, hair loss, decreased sexual health, and loss of fertility (Bergmark, 2002). Thus, these women are at risk of developing psychological distress and long-term complications influencing overall quality of life (QoL; Bergmark & Dunberger, 2013; Reis, Nezihe, Beji, & Coskun, 2010).

With the increase of cancer survivorship, and having to live with a changed body, there is a growing need for treatment approaches addressing cancer-related psychological distress and recovery. The creative arts therapies have been found to be effective for people with cancer (Archer, Buxton, & Sheffield, 2015; Boehm, Cramer, Staroszynski, & Osterman, 2014; Bradt, Dileo, Magill, & Teague, 2016; Bradt & Goodill, 2015; Bro et al., 2017; Puetz, Morley, & Henning, 2013). Today, psychosocial support and care alternatives after active oncological treatment are lacking in Sweden (Hellbom & Thomé, 2013).

The overall purpose of this interdisciplinary study was to contribute to the restoration of psychological health, improvement of QoL and bodily well-being of gynecological cancer survivors. More specifically, the aim was to assess the effectiveness of arts-based psychotherapy for survivors in recovery.

Study population

Gynecological cancer refers to any cancer that starts in a woman's reproductive organs and can arise in the endometrium, fallopian tubes, ovaries, cervix, vulva and vagina. In 2013 the worldwide proportion of gynecological cancer among female cancer diagnoses was 16.3%. Of this, cervical cancers made up 7.0%, endometrial 4.8%, ovarian 3.6%, and other forms 0.9%. (International Agency for Research on Cancer, 2013; World Health Organization, 2013). Cervical cancer was the fourth most prevalent cancer among women worldwide and the most frequent cause of death in women in developing countries (International Agency for Research on Cancer, 2013; World Health Organization, 2013). Today, due to screening programs and successful treatment, survival rates have increased in developed countries. In Sweden, about 2.900 women are diagnosed with gynecological cancer annually, making up 12% of the cancers affecting women, and 1000 women die annually from gynecological malignancies (Swedish Cancer Society, 2009). Approximately 30.000 live with various late effects and complications (Swedish Cancer Society, 2009). After treatment is completed, survivors may need additional professional help for social and psychological consequences and to alleviate possible late effects and physiological complications.

Cancer rehabilitation

For most persons, a cancer diagnosis will create a crisis reaction. How the illness is experienced, appraised and coped with will vary between individuals and across the various phases of treatment. In fact, most persons afflicted with cancer find ways to handle the crisis of diagnosis and subsequent treatments (Carlsson 2007, Hellbom & Thomé, 2013). Cancer rehabilitation is an ongoing process that involves the whole trajectory of treatment procedures for the person with cancer (Hellbom & Thomé, 2013). Rehabilitative measures should be addressed and tailored to the unique problems of the individual person afflicted by cancer (and may include the family). Rehabilitation is divided into three main phases: assessment and diagnosis, active treatment, and posttreatment. It is also needed in the case of recurrence, chronic phases of the disease, or palliative care. It is essential to continuously assess, support, and strengthen the innate resources of the person with cancer. The development of psychosocial cancer care was initiated in the 1970s along with research in the area (Carlsson et al, 2007).

Quality of life (QoL) refers to the overall satisfaction with life and wellbeing. It is a complex term that includes different aspects of what makes life worth living for the individual person. It is an individual, subjective and dynamic expression, implying that the experience of what this means will change over time and with different life events (Carlsson, 2007). According to the definition of the World Health Organization, QoL is the individual perception of one's life situation within a cultural context and a specific value system that includes aims, expectations, standards and concerns (WHO QoL, 1995). It is estimated that about 30% of all individuals treated for cancer are in need of additional psychosocial rehabilitative help and care in order to return to a meaningful QoL (Carlsson, 2007). In addition, around 20% are in need of specialized professional help such as psychotherapy, psychiatric care, or special diets. Difficulties experienced by individuals with cancer can be expressed in ways such as depressive symptoms, anxiety, sleep disturbances, negative self-image, and absence of pleasures and meaning in life. To maintain optimal QoL, cancer rehabilitation should be individualized (Hellbom & Thomé, 2013).

Distress is a term used in the literature referring to uncomfortable and overwhelming feelings and an inability to handle and cope with cancer (Brandberg & Hellbom, 2013). Like any traumatic event, cancer can be experienced as a sudden and major disruption (Vos, 2015). There is no consistent picture in the literature of the impact of crisis reactions and distress related to cancer and earlier comorbidity (Rose & Hellbom, 2013). Coping implies a dynamic process and refers to how a person is able to handle internal and external demands and stressors in a given situation.

Rehabilitation of gynecological cancer survivors

Women recovering from gynecological cancer are underrepresented in psychosocial oncology research (Swedish Cancer Society, 2009; Solbrække & Lorem, 2016). Despite the high prevalence of these forms of cancers among women, there is a lack of intervention studies developed specifically to meet the needs of gynecological cancer survivors (Chow, Chan, Choi, & Chan, 2016; Hersch, Juraskova, Prince, & Mullan, 2009; Manne et al., 2007). Although the psychological distress is reported to be high, reviews and studies report generally report good QoL for this population (Bradley, Rose, Lutgendorf, Costanzo, & Andersson, 2006; Dahl et al, 2013; Goncalves, 2010). This may be due to a process of response shift in which internal experiences and subjective measures of life's quality can change in the recovery after a serious illness such as cancer (McClimans, et al., 2013; Schwartz & Spranger, 1999). Nevertheless, a number of studies point out long-term impairment related to sexual health and function, and body image (Bergmark, 2007; Carr, 2013; Ratner, Foran, Schwartz, & Minkin, 2010; Steele & Fitch, 2008). Survivors may develop treatment-induced side effects and long-

term late effects (Bergmark & Dunberger, 2013). Late effects generally refer to symptoms that occur at the earliest after three months and persist two years after oncological treatment has ended. It has been estimated that at least between 25–50% of the individuals will experience chronic sexual problems and difficulties after cancer treatment (Schover, 2005). Women who have removed body-parts through surgery may experience a loss of vital organs, which are associated with being a woman. When ovaries are taken out, women of fertile age will have an immediate onset of menopause. Symptoms may include weight-gain, hot flashes, and feelings of growing old prematurely. The process can be quite traumatizing (Bergmark & Dunberger, 2013; Juraskova et al., 2003). Pelvic radiotherapy and brachytherapy can result in vaginal shortening and stenosis that may cause sexual dysfunction. Another late effect is secondary lymphedema caused by surgery, infection. This occurs when the lymphatic fluid cannot be transported away sufficiently through the body and instead produces abnormal swelling. The result may be a chronically progressive condition that can develop into one of the more disabling late effects (Bergmark et al., 1999; Lindquist, Enblom, & Bergmark, 2015). In one study focused on gastrointestinal side-effects of gynecological malignancy (Dunberger et al., 2010; 2010b), it was found that almost half (49%) of the 616 participants experienced distressing symptoms after radiotherapy that involved defecation urgency with fecal leakage. This will affect sexuality and QoL in general.

Arts-based psychotherapy in oncology

The use of the arts in oncology settings (arts in medicine and creative arts therapy) has generally been well researched and documented (Aldrigde, 1994, 1996; Archer et al., 2015; Bohem et al., 2007; Bonde, 2005; Bradt et al., 2016; Bradt, Shim, & Goodill, 2015; Bro et al., 2017; Bunt & Marstson, 1995; Burns, 2001; Hanser, 2006; Hartley & Payne, 2008; Hertrampf, 2017; Olofsson & Fossum, 2009; Puetz et al., 2013). At the time of beginning this project in 2011, thorough literature searches did not detect any outcome studies specifically focusing on arts-based approaches and gynecological cancer survivors. While a few non-outcome studies were identified, they were qualitative case study reports. To follow up our searches, a systematic review was conducted in 2016 (Hertrampf & Wärja, 2017). In order to collect trials for a substantial review, studies on women with breast cancer were added to the inclusion criteria. Although these are clearly two different cancer diseases, the rationale for including both was the common ground regarding clinical relevance. Nonpharmacological research in oncology has grown considerable in the last decade. The systematic review (Hertrampf & Wärja, 2017) was conducted following the recommendations of the PRISMA guidelines (Liberati, Tezlaff, & Altman, 2015) and summarized the current evidence of arts-based interventions on psychological outcomes for women with breast or gynecological cancer. Searches resulted in 294 items, and 104 were found to be potentially relevant after duplicates were removed. After reading abstracts and articles, 21 papers from 17 trials remained for inclusion in this review. In total 1,703 women had participated (83.1% breast cancer, 16.9 % gynecological cancer). This systematic review identified two music medicine studies in gynecological oncology where music had been implemented at screening and active treatment. No study was found applying any of the arts-based therapy approaches with gynecological cancer survivors. In addition, there is a dearth of literature studying the use of the arts with survivors (of any cancer site) in the post-oncology stage of rehabilitation

The arts-based psychotherapy intervention of the study

Arts-based approaches in psychotherapy uses the different arts to address suffering and assist in interpersonal transformation and optimizing psychological change. Psychotherapy in general, is found to be effective for addressing psychological distress, trauma, and suffering (Wampold, 2010). Regardless of theoretical base, it involves an intersubjective relationship rooted in humanistic values (Wampold, 2010; Mårtensson Blom & Wrangsjö, 2013). Today, psychotherapy research is concerned

with how different therapies have an effect, what kind of factors – seen across the range of methods – have positive outcomes, and for what kind of problems (Philips & Holmqvist, 2008; Wampold, 2010, 2015). The so-called common factors have been researched thoroughly and address factors such as: alliance, empathy, expectations, cultural adaptations and therapist differences (Wampold, 2015).

The intervention used in this study, KMR–Brief Music Journeys (KMR; in Swedish, Korta Musikresor; Wärja, 2010, 2014a, Wärja, 2015a), is an arts-based approach based on receptive music therapy (Frohne-Hagemann, 2007; Grocke & Wigram, 2007) and grounded in methods and theoretical tenets of expressive arts therapy (EXA; Gerge, Wärja & Pedersen, 2017a, 2017b; Wärja, 2013a, 2013b, 2015b) and the Bonny Method of Guided Imagery and Music (GIM; Wärja, 1999, 2012b, 2017). Moreover, this work adheres to theories of affect regulation and attachment, embodiment, implicit processing, and psychodynamics (Halprin, 2003, Hill, 2015, Schore, 1994; Stern, 1985, 2005).

In KMR short and carefully selected pieces of nonclassical music are used in focused listening in a slightly altered state of consciousness to address psychological and existential concerns and distress in individual and group psychotherapy. The structure of a KMR session consists of six steps: a) preliminary conversation agreeing on a relevant focus for the work, b) using relaxation techniques to expand altered states of consciousness, c) the brief music listening experience, d) a bridge back to ordinary consciousness, e) art experience, f) verbal processing, reflection, and finding the essence (Figure 1-1).

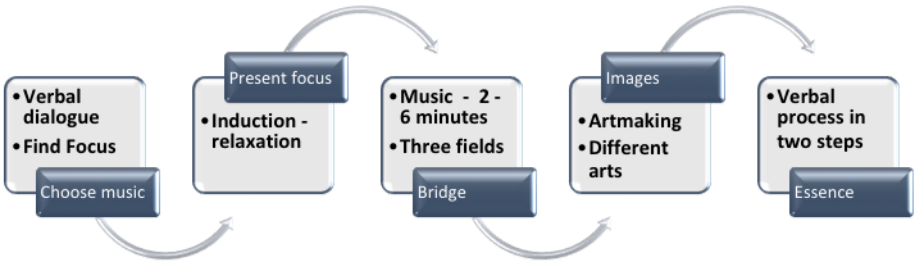


Figure 1-1

Existential perspectives and the arts

Existential psychotherapy is a relevant theoretical and methodological basis for working with persons with cancer (Keitel, Lipari, & Wertz, 2017). It concerns meaning-making, developing coherence, and making active life choices (Strang, 2007; Vos, 2015; Vos, Craig, & Cooper, 2015). The use of arts-based psychotherapy provides direct experiences involving all senses which allows for existentially "being in the moment" and gives new perspectives to old narratives (Meyer DeMott, 2017; Wärja, 1999a, 1999b, 2015b). Thus, the arts provide ways to live from the source of innate resources and self-compassion. The development of humanistic psychotherapies started in USA during the 1950s and 1960s and were rooted in existential philosophy (Stiwne, 2008). A concept of "four life worlds" is used which concerns 1) the physicality of our bodies, 2) our relationships and social networks, 3) our identity – who we are and want to become, 4) how we create meaning and coherence of our life. Throughout life we will encounter small and large crises. The way an individual responds and deals with the situation will determine her quality of life and growth. A crisis can bring about change and development or stagnation (Stiwne 2008, 2009; van Deurzen, 1998, 2003; Yalom, 1980). The arts can help the person with cancer address pain, agony, aging, the changed body, and the fear of dying

(Archer et al., 2015; Hartley & Payne, 2008). We are in a constant process of being and becoming, and we are co-creators in regards to how our lives and identity develops (May, 1985, 1994).

The arts-based psychotherapies have been found to be helpful in addressing trauma and assisting in creating experiences of safety and stabilization (Gerge, 2017b, 2018; Körlin, 2005; Meyer DeMott, 2017a, 2017b; Meyer DeMott, Jakobsen, Wentzell-Larsen, & Heir, 2017; Wärja, Nyberg, Forss, & Bergmark, 2017a, 2017b). The arousal system and affects in a person fluctuates within what is referred to as a "window of tolerance" (Siegel, 1999). The ability to self-regulate is lost when the arousal level is such that the person has moved outside that space. The individual can no longer think clearly and may become upset and impulse-driven (anxious/hyper aroused), or defensive or inhibited (depressed/hypo aroused). Underlying factors for affective fluctuations relate to early attachment experiences and trauma (Schore, 2003a, 2003b). Support for an increased adaptive affect-regulation capacity has been noted with arts-based therapy methods for persons with exposure to traumatic and existential crises (Bonde, 2005; Gerge, 2017b, 2018; Lindvang & Beck, 2017; Meyer DeMott, 2017a; 2017b, Meyer DeMott et al., 2017; Körlin, 2007-2008; Rudstam, 2010; Rudstam et al., 2017; Torres, 2015a, 2015b; Wärja et al., 2017a, 2017b). In this study, we have been attentive to participants' capacity for regulating affect related to cancer and its treatments, and the need for establishing safety (Wärja, 2012b, 2013, 2016b; Wärja, Sodell, & Gerge, 2016).

AIMS AND RESEARCH QUESTIONS

First, the overall aim of this study was to contribute to the amelioration of emotional and psychological health for gynecological cancer survivors, and to provide evidence-based knowledge in order to improve rehabilitation after oncology treatment. Second, the specific aim was to evaluate the effectiveness of two arts-based psychotherapy interventions on psychological outcomes for this population.

Research questions

What is the effect of one initial interview and twelve individual arts-based psychotherapy sessions of KMR–Brief Music Journeys, or one individual interview and eight arts-based group psychotherapy session of KMR on

- Body image?
- Sexual health?
- Fear of cancer recurrence?
- Existential distress?

MATERIALS AND METHODS

This project was originally conceptualized as a mixed methods research study aimed at triangulating quantitative and qualitative data within the frame of the PhD study (Creswell, & Plano Clark, 2007). Due to organizational changes at the Oncology Clinic at Karolinska University Hospital, we could not follow through with the original design. Changes in the work load inhibited nurses involved in recruitment to have the sufficient time to follow up and inform all potential participants. The consequences of the prolonged inclusion and waiting time influenced the design in such ways that we could not use the data from the pretest of the waitlist control group for comparison with posttest of the

individual intervention arm. Therefore, instead of a wait-list/control group we decided to use a design of two parallel treatment arms and compare measurements within each arm at three timepoints, and between the treatment arms.

We used an interdisciplinary framework grounded in theories of medical oncology, psychosocial oncology, psychological vulnerabilities related to cancer, coping abilities (Bergmark & Dunberger, 2013; Hellbom & Thomé, 2013), existential crisis, psychodynamics, affect regulation (Schore, 2003a, 2003b, 2003c, 2014; Stern, 2005; van Deurzen, 1998, 2003), and arts-therapies (Bonny, 1980; 2002; Knill, Nienhaus Barba, & Fuchs 1995; Knill, Levine, & Levine 2005, Levine & Levine, 2011, 2017; McNiff, 1981, 1992, 1998, 2004; Wärja, 1999, 2010, 2015a, 2015b, 2017; Gerge, Wärja, & Pedersen, 2017a, 2017b). Our initial hypotheses were broad and rooted in the literature and clinical knowledge showing that gynecological cancer treatments can have a negative effect on mood and QoL in general, and more specifically on experiences of the overall functions of the body, body image, sexual function, and sexual relations (Bergmark et al. 2002, Bergmark & Dunberger, 2013; Stead, Fallowfield, & Brown, 2007).

In 2011 I was invited to be an associate member of Department of Oncology and Pathology and the division of Clinical Cancer Epidemiology (KCE) at Karolinska Institute in Stockholm. This unit was developed by prof. Gunnar Steineck at Radiumhemmet at Karolinska University Hospital in 1992. Early on, Prof. Steineck initiated a research method based on interviews to identify the prevalence of psychological and sociological influences of symptoms on survivors (Rådestad et al., 1999). Findings were then used to construct a study-specific questionnaire for the main phase of quantitative data collection (Omerov et al., 2013; Steineck et al., 2002). This research group has produced a substantial body of around 100 publications based on this approach.

Study population and preparatory phase

We identified the study population as women who had completed oncological treatment for gynecological cancer at least 3 months before inclusion, and at most 24 months after treatment had ended. Based on clinical observations, we knew that the return to everyday life was a potentially vulnerable time for survivors. Moreover, within this period late effects and complications after treatment may surface that would affect psychological function and well-being (Bergmark & Dunberger, 2013).

The inductive preparatory phase lasted about two years and started with an interview study (n = 23; 9 n = survivors; 14 health care personnel) in order to gain a comprehensive understanding of the study population. The interview material was analyzed by using a simplified version of thematic analysis (Braun & Clarke, 2006). The results of the interview study and the pilot were applied in constructing questionnaires and developing treatment protocols. Furthermore, we selected supplemental instruments, chose methods for the qualitative data collection, designed a procedure for documenting essential information about the treatment sessions, and selected music and arts material.

Four core themes were extracted from interviews and the pilot study (Figure 1-2) and used for developing research questions, questionnaires, and treatment protocols. These themes are psychodynamic, existential, overlapping, evolving, and interconnecting. Moreover, they are in line with the literature and previous findings of prevalent psychological distress related to this population.

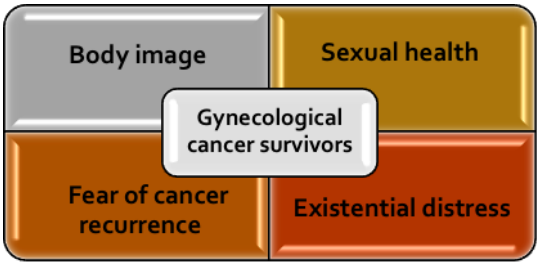


Figure 1-2

Quantitative instruments

The primary instrument was a study-specific questionnaire in five slightly altered versions (baseline, posttest individual and group, FU individual and group) developed in line with the KCE method (Steineck, Hunt, & Adolfsson, 2002). We call it: GYNONC-QoL-CSBAE (Gynecologic oncology, quality of life, coping, sexuality, body and art experiences). In addition, we selected five supplementary validated measurements. We included the anxiety items on the Hospital Anxiety and Depression Scale (HADS-A; Zigmond & Snaith, 1983). Moreover, the Herth Hope Index. Also, 10 items from a Swedish scale for body image called Kroppsmedvetande skala (KMS; Body consciousness scale, my translation; Anders Schiöler, 1998) were added. These questions were related to specific bodily states such as shame and alienation. The final version of the baseline questionnaire has 261 items and is organized into eight sections. In addition to the generic instrument HADS-A and Herth Hope Index, we selected two additional instruments: EORTC-QLQ-C30 and MADRS that were distributed separately. These were chosen for their wide use in cancer research and in depression.

Qualitative instruments

From the pilot study, clinical experience, and the literature, we knew that cancer and oncology treatments affect body image causing major psychological distress. Consequently, we decided to focus on experiences of the body and the changed body after cancer in the qualitative data that we collected at three time points: baseline, posttest after intervention ended, and at seven months FU. Three additional study-specific forms were developed to be used in documentation by the therapists.

Providers and protocol

Four individual and two group therapists were assigned to deliver the interventions. All professionals had extensive clinical experience (between 15–35 years) and were trained in psychotherapy, the KMR method, and in trauma work

Protocols for the individual and group psychotherapy interventions were developed from previous clinical experiences, discussions in the team, conclusions of the pilot study, and support of the literature (Bergmark, 2002; Goldberg, 1992; Strasser & Strasser, 1999; Summer, 2009, Yalom, 1975; Yalom & Leszcz 2005; Wärja, 1999, 2010). This process lasted about 1.5 years. Two manuals were written with detailed information about each session. In designing the interventions, we aimed for resembling a natural psychotherapy setting. It is essential to keep in mind that the treatments were conducted within a theoretical frame of psychotherapy in which the arts-based methods were held in a therapeutic relationship aimed at being flexible and focused on meeting the individual needs of the participants (Wärja, 2015b, 2017).

Main study

The main study was a randomized trial with two parallel treatment arms (Robson, 2002). Participants were recruited from the outpatient gynecological oncology clinic at Karolinska University Hospital. All women in the larger Stockholm area who were in need of primary oncological treatment or adjuvant oncological treatment after surgery were referred to this clinic. We aimed for a sample of 60 participants where 20 would be randomized to individual therapy and 40 to group therapy. We estimated a larger attrition for the group therapy arm based on clinical experience. To allow for dropouts, we included a larger sample than called for in terms of power calculations.

Multiple sources of data were collected during four years of the main study phase consisting of: a) quantitative and b) qualitative instruments, c) interviews, d) various forms filled out by therapists, and e) artwork produced during interventions. Quantitative and qualitative measurements were gathered at three time points: baseline around the time of inclusion, posttest after the intervention, and FU seven months after posttests.

The outcome results of statistical analysis are present as frequencies (*n*), proportions (%), mean, standard deviation (SD), median, odds ratio (OR/POR), effect sizes (Cohen's *d*; Cohen, 1988), and significances (p-value, alpha was set to 0.05) under each major research theme. We performed a per-protocol-analysis, which is different from an intention-to-treat analysis in the following way(s): instead of using the last score obtained from persons who dropped out, outcome data gathered from the questionnaires of those participants who completed the measurements was used (Sedgwick, 2011).

Treatment fidelity is assured by attending to methodological details of intervention and monitoring data collection for targeted outcomes (Robb, Burns, Docherty, & Haase, 2010). To safeguard treatment fidelity in our study and provide the best possible care for the participants, a number of precautions were taken: detailed protocols, forms for clear and transparent session reporting, monitoring the process, supervision, and on-call problem solving.

RESULTS

Findings at baseline before intervention

Fifty-seven participants were randomized to individual psychotherapy (*n* = 18) or group therapy (*n* = 39). Findings at baseline show that despite stable socioeconomic background and modifiable factors, (such as frequent exercise) this group exhibited high psychological distress on a number of variables at baseline. For a majority of the women, we found moderate bodily (80%) and psychological well-being (71%). Fatigue as an effect of cancer treatment was present for more than half the women on a monthly/weekly/daily basis (57%). Matters related to sexuality are generally central to this population. Our data show that most women did not feel sexually attractive (73%). %). Pain during sex had affected 43% of the participants, and a large majority (70%) was not satisfied with their present sexual life. Results related to existential distress showed that almost half the group experienced frequent fears of cancer recurrence (43%). This group of survivors had been informed by medical professionals that they had a good cancer prognosis. Nevertheless, at baseline, they presented substantial psychological distress related to all four research questions. In symbolic words, their bodies were "wing-clipped". Noteworthy characteristics were high education level, previous exposure to trauma, and high prevalence of earlier psychotherapy (more detailed information on clinical characteristics is found in table below)

Demographics and clinical characteristics

Characteristics cancer survivors		*Total sample n = 57 n/N (%)*	*Group therapy n = 39 n/N (%)*	*Individual therapy n = 18 n/N (%)*
Age	27-34	6/57 (10)	2/39 (5)	4/18 (22)
Mean age = 56.5	35-44	6/57 (10)	4/39 (10)	2/18 (11)
	45-54	10/57 (18)	7/39 (18)	3/18 (17)
	55-64	15/57 (26)	11/39 (28)	4/18 (22)
	65-75	20/57 (36)	15/39 (39)	5/18 (28)
Gynecological cancers	Cervical cancer	18/57 (32)	13/39 (33)	5/18 (28)
	Endometrial cancer	24/57 (42)	15/39 (39)	9/18 (50)
	Ovarian cancer	10/57 (17)	7/39 (18)	3/18 (17)
	Other form	5/57 (9)	4/39 (10)	1/18 (6)
	Brachytherapy	36/57 (63)	23/39 (59)	13/18 (72)
	Chemotherapy	46/57 (81)	32/39 (82)	14/18 (78)
	Radiotherapy	31/57 (54)	23/39 (59)	8/18 (44)
	Surgery	44/57 (77)	29/39 (74)	15/18 (83)
Marital status	Married/cohabitating	36/57 (63)	24/39 (62)	12/18 (67)
	Has partner, lives alone	5/57 (9)	3/39 (7)	2/18 (11)
	No partner/widow	16/57 (28)	12/39 (31)	4/18 (22)
Higher education	College or University	36/57 (64)	24/39 (62)	12/18 (67)
Employment status *	Employed	33/57 (58)	23/39 (59)	10/18 (56)
	Unemployed	2/57 (4)	2/39 (5)	0
	Retired	20/57 (35)	17/39 (44)	3/18 (17)
	Sick leave/disability	6/57 (11)	5/39 (13)	1/18 (6)
	Student	3/57 (5)	1/39 (3)	2/18 (11)
	Housework	2/57 (4)	2/39 (5)	0
Place of residency **	Stockholm	44/57 (77)	29/39 (74)	15/18 (83)
	Small town/rural area	13/57 (22)	10/39 (26)	3/18 (17)
Country of birth	Sweden	50/57 (88)	36/39 (92)	14/18 (78)
	Other country	7/57 (12)	3/39 (8)	4/18 (22)
Children	Yes	40/57 (70)	26/39 (67)	14/18 (78)
Exercise (last six months)	Yes, once a week	44/56 (79)	28/38 (74)	14/18 (78)
Religious faith (a little - strong)	Yes	30/56 (54)	20/39 (51)	10/17 (59)
Former psychiatric help (prior to cancer)	Yes	22/57 (39)	16/39 (41)	6/18 (33)
Former psychotherapy (prior to cancer)	Yes	23/57 (40)	15/39 (38)	8/18 (44)
Reported traumatic event (prior to cancer)	Yes	36/57 (63)	25/39 (64)	11/18 (61)
Kinds of reported traumatic events *				
Physical assault	Yes	6/57 (11)	4/39 (10)	2/18 (11)
Sexual assault	Yes	8/57 (14)	6/39 (15)	2/18 (11)
Accident	Yes	6/57 (11)	4/39 (10)	2/18 (11)
Severe illness (of significant others)	Yes	12/57 (21)	9/39 (23)	3/18 (17)
Unexpected/unprepared death	Yes	19/57 (34)	13/39 (33)	6/18 (33)
Other ***	Yes	13/57 (22)	7/39 (18)	6/18 (33)
Cultural/leisure activities (last six months)				
Concerts, opera, show	Yes, monthly/weekly	15/56 (27)	10/38 (26)	5/18 (28)
Reading books (fiction)	Yes, weekly/daily	27/56 (48)	18/39 (46)	9/17 (53)
Active music listening	Yes, weekly/daily	30/57 (53)	21/39 (54)	9/18 (50)
Playing a music instrument	Yes	1/57 (2)	0	1/18 (6)
Working with painting/drawing	Yes	2/57 (4)	1/39 (3)	1/18 (6)
Working with crafts (last six months)	Yes	22/56 (39)	14/38 (37)	8/18 (44)

* Multiple answers possible. ** Total number does not equal 100%. ***Such as: death of child, premature birth, infidelity, experience of war, harassments, financial loss, family related stress.

Findings after arts-based intervention

Fifty-seven questions in the study-specific questionnaires were selected to answer the four research inquiries (of which 27 were assessed post-treatments). The two papers presenting results are not yet submitted for publication, therefore are the tables presenting data from the study-specific questionnaires not included in this report. The summarized results presented here were based on questionnaire answers from 57 participants at baseline, 43 at posttest and 39 at FU.

Questions related to body image and existential distress involved both wider concepts and more specific targeted problem areas related to experiences of the body and of QoL. All these areas are interrelated and present a change pattern after arts-based psychotherapy.

Bodily well-being was significantly improved from baseline to posttest with medium to large effects for both treatments. The effects were sustained at 7 months for both interventions with a slight increase at FU for group therapy (d = 0.83). Five specific bodily aspects related to body and self-image resulted in significant improvements for participants in the group therapy, but not for individual therapy. We found significantly lowered body shame at posttest, less avoidance related to feeling the body at FU, and significant changes at posttest and sustained at FU for experiencing a less damaged body – variables that relate to body shame. Results show substantial and significant improvements for self-image, self-esteem, and self- confidence. Self-image was improved for women in both treatment arms at posttest with medium effect (0.52 and 0.57); effects were slightly improved for both treatments at FU (0.59 and 0.57). For group therapy, we found significant increase for self-esteem with a medium effect (d = 0.63 at posttest and d = 0.65 at FU). No significant improvement was reported for individual therapy; albeit the effect size was d = 0.40 at both posttest and FU. For sexual health, we evaluated only two variables in this analysis. Experiences of being sexually attractive had increased significantly at FU for the group arm, while the interventions did not have any significant effects on how important sex was in life. For individual therapy, no statistically significant increase was found for the importance of sex, although an increase of 15% between baseline and posttest that was decreased to 8% at FU. Overall quality of life was improved notably for both treatment approaches at posttest that were sustained at FU. We found a medium to high effect (individual 0.66 and group 0.78) that remained at FU (0.60 and 0.81 respectively).

Qualitative analysis of body image

A qualitative analysis of body image paintings was conducted using a newly developed tool, SATPA, based on the assumption that visual arts material produced in therapeutic settings could be used to detect various levels of safety, or absence thereof (Gerge, in press; Gerge & Pedersen, 2017). The tool was constructed to detect differences in experienced patterns of neuroception, a concept developed by Porges (2001, 2011) that relates to experiences in activations of the central nervous system, and to levels of safety and threat. A state of safety was according to Gerge (in press) defined as a phenomenological experience (Gendlin, 1978; Merleau-Ponty, 1945/1963) of having access to self-regulating and self-soothing capacities (Krystal, 1988).

Results of the assessments show how paintings produced in therapy could potentially be used to identify differences in self-agency, self-efficacy, embodied felt sense, and levels of stress that in turn could be related to the aftermath of cancer and its treatments. These results were compared with outcome findings of generic instruments (EORTC-QOL-C30 for QoL, MADRS for Depression; HADS-A for Anxiety). The findings of analysis of paintings co-variated with findings of statistical measures for the whole sample of decreased depression and anxiety, and increased QoL at posttest that were sustained at FU (see table below).

Self-assessed depression, anxiety and QoL in gynecological cancer survivors (total sample) before and after arts-based psychotherapy
N = 57

Measurements	***Baseline*** Ind. *n* = 18 Gr. *n* = 39 M (SD)	***Posttest*** Ind. *n* = 15 Gr. *n* = 27 M (SD)	***Baseline-Posttest*** *d*	***FU*** Ind. *n* = 15 Gr. *n* = 21 M (SD)	***Baseline-Follow-up*** *d*	***Baseline-posttest*** 95% CI p-value	***Baseline-FU*** 95% CI p-value
MADRS	12.2 (8.10)	6.78 (5.03)	0.64	6.52 (7.12)	0.69	-4.73 (-6.73 to -2.72) **<.0001**	-4.21 (-6.31 to -2.72) **0.0002**
HADS-A	7.73 (3.82)	5.44 (3.48)	0.60	6.14 (3.97)	0.42	-2.12 (-3.02 to -1.22) **<.0001**	-1.52 (-2.46 to -0.58) **0.002**
EORTC-QOL-C30 Global QoL	65.6 (20.4)	74.2 (13.9)	0.42	74.8 (18.2)	0.45	7.47 (1.62 to 13.32) **0.013**	7.27 (0.93 to 13.60) **0.025**
EORTC-QOL-C30 Emotional functioning	64.3 (23.6)	77.6 (20.0)	0.56	79.2 (22.2)	0.63	13.01 (4.29 to 21.74) **0.004**	14.30 (5.06 to 23.53) **0.003**
EORTC-QOL-C30 Social functioning	72.8 (27.8)	84.5 (21.0)	0.42	87.5 (18.4)	0.53	10.27 (2.70 to 17.86) **0.009**	11.86 (3.63 to 20.08) **0.005**

Results of generic instruments of total sample (baseline, post, FU)

Attendance and satisfaction

The five groups of the group therapy arm consisted of between 5–8 members and in total three persons (9%) of 39 dropped out after starting group therapy. The fifteen participants who completed 13 individual psychotherapy sessions attended all appointments and completed all measurements. Two persons in individual dropped out: one after five sessions (moved to another part of the country) and the other after eight sessions (reasons not known). Participants were asked specific questions about satisfaction and perceived benefits of treatments related to treatments and taking part in the study. Results were dichotomized as not at all/a little and moderately/much/high, and for digital scales as low (0-1); moderate (2-4); high (5-6). Findings showed an exceptional high satisfaction (moderately/much) for both approaches in terms of having participated in therapy. For individual therapy there was 100% satisfaction at posttest and at FU for having been in therapy, and for the individuals in group therapy, this inquiry was rated as 96% at posttest and 93% at FU.

In summary, the overall purpose of this study was to assess the efficacy of two arts-based psychotherapy approaches on psychological distress of women recovering from gynecological cancer. More specifically, four core themes that grew out of an in-depth interview study became the basis for research questions to be examined: the effects on body image, sexual health, fear of cancer recurrence, and existential distress. We present strong and significant results for both treatments, with medium to large effect sizes for a number of variables at posttest that were sustained at seven months FU. Our findings can be summarized as follows: (1) All variables pertaining to experiences of body self were significantly improved with medium to large effect sizes. (2) A large majority did not feel sexually attractive and did not regard sex as important at baseline. However, they also reported not being satisfied with current sexual life (with or without a partner). A significant improvement was found for increased feelings of being sexually attractive at posttest for group therapy, though did not remain at FU. Experiences of sex being more important in one's life yielded no significant changes, although all participants reported an increase from baseline to posttest that was sustained at FU. (3) Fear of cancer recurrence was reduced, when measured as thoughts around death and dying related to cancer for group therapy at posttest and FU, and for individual therapy at FU. Finally, (4) regarding existential distress and QoL, we noted a significant decrease with medium to large effect sizes for distress and significant amelioration for overall life quality that remained at FU. In addition, we found substantial improvement for all participants on the ability to take initiative that were sustained seven months later. Also, significant improvements were reported for group therapy for having increased patience and concentration. Results indicated that all participants perceived they had benefitted considerably from treatments pointing towards clinical significance and usefulness.

DISCUSSION AND CONCLUSION

To the best of our knowledge, this is the first randomized study investigating the effects of arts-based psychotherapy for gynecological cancer survivors. The initial aim was to triangulate quantitative and qualitative data, which was in line with my professional resonance of contributing to an understanding of effects and experiences of the psychotherapeutic use of the arts in oncology, and specifically of music listening in a relaxed state for the purpose of evoking imagery. As this was not possible, this thesis is mainly presented as an outcome study. Nonetheless, in a larger perspective, our data set has the potential to provide a more comprehensive understanding of the benefits and shortcomings of arts-based approaches for our study population.

The body

Experiences of the body is central to people dealing with cancer. It is the body that has been impacted by a life-threatening illness. Thus, our research questions all related to the sense of body-self. In this study, the body is regarded as a phenomenological experience of the wholeness of the body-self unit that is constantly evolving (Merleau-Ponty, 1962). An illness can be experienced as "unhomelike" and uncontrollable. Hence, a disease may introduce experiences of being detached from one's body that is no longer felt like living in the house of the body. These metaphors capture our baseline findings of bodily shame, not trusting or feeling the body and lowered self-esteem – experiences that can remain for an extended time after treatment and may turn into a life-long distress (Dunberger et al., 2013).

There is no consensus for the definition of body image in the oncological literature. The definition was originally formulated by Schilder (1938/1978) in an attempt to reunite the split of body and mind (psyche and soma) into one living unity based on psychoanalytic theory: "body image is the picture we form in our mind that is to say the way in which the body appears to ourselves" (Schilder, 1935/1978,

p. 11). Here, we expand the definition of body image to include theories from research in neuroscience and psychotherapy. This involves affect regulation, the notion of self-states, and the body as the deep unconscious (Schore, 2014).

It is hypothesized that negative body image is connected to lowered self-esteem (Lerner, Karabenic, & Stuart 1973), which is in accordance with our results. Feelings of inferiority and lowered self-esteem may surface in relation to infertility as a consequence of cancer. This may be associated with female identity such as: who am I now without my uterus/ovaries? One study reports that women who experienced greater body shame reported significantly greater body image disturbances and poorer QoL post-treatment (Boquiren et al., 2013), as in our study. Hence, for these participants, it seemed that the arts-based psychotherapy offered an opportunity for working through of the cancer experience and integration of the post-cancer condition. A person with a better-integrated body self identity is more able to regulate affect and the flow of emotions as shown in the analysis of body image paintings (Gerge, Wärja, Gattino, & Nygaard, 2017). In our questionnaires, we collected detailed questions about sexual health to be analysed further. From earlier research conducted at KCE, we know that the late effects after treatments have an adverse influence on sexual health (Bergmark, Åvall-Lundqvist, Dickman, Henningsohn, & Steineck, 2002; Bergmark, 2007).

Existential distress

The goal of psychotherapy, in our existential arts-based frame, was not to remove anguish and affliction by a cognitive understanding and new actions (though this may also grow naturally from the work; Stiwne, 2008, 2009; van Deurzen, 1998, 2003; Wärja, 2015b, 2016). Instead, the arts were provided as containers and places for profound resonance and release. Held within a therapeutic relationship, the person was invited to an exploratory creative process in which it was possible to discover symbols and images for coping, and to find inner resources for transforming distress and agony into a coherent new meaning in the altered life perspective. Nevertheless, for our participants, psychotherapy contributed to significant improvements on variables related to existential distress and QoL that remained stable at FU, suggesting that everyday life had indeed become enriched. The literature related to other cancer populations point out that distress, such as depression, anxiety, and worry hinders the capability to organize life in such a way that it carries meaning and has direction. Support for the positive effects of music interventions and art therapy on depression, anxiety and QoL have been documented in a number of studies (Bradt et al, 2016; Boehm et al, 2014; Hertrampf & Wärja, 2017).

Arts-based individual and group psychotherapy

This project was initially designed to compare individual psychotherapy with a waitlist control condition as mentioned above. Still, the control intervention was originally designed as a considerable treatment in its own right, involving group therapy after the proposed waiting time. The rationale included ethical considerations (to provide a substantial treatment), and the research consideration to assess the effects of arts-based group psychotherapy). Due to unforeseen circumstances we investigated the effects of two hypothesized equal psychotherapies. It is self-evident that there were major differences in content, process, and delivery between the two approaches. Both interventions applied the KMR method designed for individual and group psychotherapy. We found medium to high effects for most analysed variables for both approaches, though generally, group therapy had a larger effect on a number of dependent variables. This may partly be due to the difference in sample size and the more severe psychological distress at baseline for group participants. The difference between the arms, however was not statistically significant.

Working directly and actively in psychotherapy with feelings and emotions has transformative and healing powers affecting change as supported by research in neuroscience and affect regulation (Fosha, 2002; Fosha, Siegel, & Solomon, 2009). Music was selected consciously (using a particular structure) to help the woman open up to feelings. The visual arts provided ways to shape and express various affective states, memories, and symbolic images evoked in the music that consequently were reflected upon. In sharing the music and imagery experience and the produced art-work, the therapist was focused on deepening and following the ability of the woman to deal with the affective material. This speaks to a different kind of methodology than for group therapy. Inherent in the individual work is the implicit intersubjective web of communication that moves and billows between the two engaged in a kind of 'musical' duet (Mårtensson-Blom & Wrangsjö, 2013; Malloch & Trevarthen, 2010; Trondalen, 2016).

We found support for our methods focusing on the usefulness of emotional expression in a study for women newly diagnosed with gynecological cancers receiving six individual psychotherapy sessions (N = 173; Myers Virtue et al., 2015). Central to both approaches was the development of a therapeutic atmosphere and safety in which the person felt secure and supported to express feelings, either verbally or through the arts (Gerge 2018; Herman, 1992; Meyer DeMott, 2017a). As shown in our results, we found that our methods were useful in this regard. Our data show strong support for both approaches in reducing psychological distress and increasing overall QoL. Both interventions attended to work in the three phases used for addressing trauma and severe crisis (namely stabilization, working through trauma, and integration and coming back into the community; Herman, 1992). The qualitative data provided by the therapists' documentation has yet to be analysed in order to more fully understand how the therapeutic process evolved, and how the arts were used and understood.

Strengths and limitations

This study has many strengths. The design was carefully constructed according to the epidemiologically based hierarchical step model (Steineck et al., 2002, 2006). By applying a randomized design to our study, we accounted for selection bias. A central part of our method was to painstakingly construct study-specific questionnaires based on the inquired and expressed needs of this population. In this way, we aimed to control for misrepresentation and assure internal and external validity. We believe that we have collected the needed information on socio-demographic data to control for confounders. Additionally, we were able to access the entire unselected population of gynecological cancer survivors in the greater Stockholm area who were scheduled to attend a medical appointment at Karolinska University Hospital. We selected two theoretically grounded interventions and obtained an updated understanding of current research regarding factors that contribute to positive change in psychotherapy. Confidentially was carefully guarded. Well-trained and experienced providers of interventions were another major strength of this study. Other assets included study protocols that were monitored and documented, and the use of a set playlist based on clinical and theoretical knowledge of applying music for imagery in therapy (Wärja & Bonde, 2014).

This study also has limitations. The extended time for inclusion of targeted participants that was caused by organizational changes within the oncology clinic delayed the recruitment process. One consequence was that some included participants needed to wait for therapy longer than we had planned. This in turn affected the study design in that the waitlist control, which should have been a controlled condition for the individual treatment arm, was lost. Instead we changed the design to a trial with two parallel treatments arms as we also knew that the group therapy approach to be delivered after waiting, was a comparable intervention in its own right. For this study population, psychological distress and treatment-induced physical symptoms do not disappear over time (Barker et al., 2009;

Grover et al., 2011; Sekse, Gjengedal, Råheim, 2013; Sekse, Raaheim, Blaaka, Gjengedal, 2010). They may in fact even worsen with time (Steineck et al., 2017). Thus, in our study despite prolonged waiting, no one left based on not wanting to wait. Participants knew they were getting therapeutic help for cancer-related problems. This suggests a high need and motivation. An additional support for this view is the remarkably high participation satisfaction.

We carefully aimed for a non-selected group that would be representative of the whole study population in Sweden, and possibly Scandinavia. Our study included a sample of women who mostly had a steady partner, a high level of education, were still active in the workforce, had sought prior psychological support, and had active leisure time with engagement in cultural activities. Nevertheless, this self-selected sample presented a high level of emotional distress as an aftermath of cancer, possibly contributed to by prior experiences of trauma and existential fragilities. Another factor to consider is the nature of the offered treatment. It is inevitable that self-selecting will occur in recruitment for psychotherapy. Persons interested in participating in a psychodynamic psychotherapy study have to be motivated and prepared to work on psychological problems and ready to face emotional suffering. Thus, the person needs to be able and find the time for such an obligation. In this sample, 23 women (40%) had been in psychotherapy before and thus knew what that entailed. In this research, we were interested in studying the effects of psychotherapy in which it was possible to address profound cancer-related psychological distress. The kind of psychotherapy that was offered was arts-based. We assume this contributed to the self-selected sample as we found that a majority were active music listeners who regularly attended cultural events, and many worked with crafts. Thus, we cannot generalize our findings to the larger population of gynecological cancer survivors, but the sample may be representative of a subgroup of the study population.

To avoid problems with misrepresentation of data we took great care in the study design. Our analysis revealed a low drop-out rate. Compliance in filling out the questionnaires and participate in qualitative tests was also high. We achieved a 77% participation rate at posttest, and 70% at seven-month FU. The purpose of our study was to evaluate the effects of the interventions. Here we used descriptive statistics of frequencies (n), proportions (%) and statistical regression models that would account for more sensitive analysis of data. Findings presented here were results of the first and initial analysis of our wide-ranging dataset. Further analysis will be undertaken such as conducting subanalyses and comparing variables of interests.

Another undertaking is the large qualitative dataset, which is yet to be analyzed. Merging quantitative and qualitative results is another task to be fulfilled. We hypothesize that data from participants in individual therapy will provide more precise information about the change processes related to our core themes. We have collected detailed documentation of the therapeutic process for each participant in individual therapy for all sessions through the forms filled out by the therapists (100% adherence). We have gathered information on alliance, change processes assessed by the therapists, rationales for music selections and for arts activities, and how the four core themes surfaced in the course of therapy. The triangulation of data is of interest here in order to gain a more complete, nuanced, and richer picture of the effects and experiences of arts-based psychotherapy in the life-world of gynecological cancer survivors.

Conclusions

Both psychotherapy approaches were highly effective in addressing bodily and existential distress and gave significant improvements that were sustained seven months later. Our findings revealed that both individual and group therapy resulted in increased resilient coping with the changed body image after

cancer. Additionally, we found that existential meaning was regained, and quality of life was enhanced. Fear of recurrence decreased significantly for the group therapy participants. Persistent thoughts of cancer and death significantly decreased in both treatment arms. We found significant improvements with medium to large effect sizes on outcomes related to all self domains. Results showed strong evidence supporting the effects of arts-based psychotherapy for this population.

Generally, in our analysis of the data, group therapy was found to be more effective on a number of variables compared with individual psychotherapy. Although there was no statistically significant difference at baseline, participants in group therapy presented higher levels of psychological distress. We suggest that sufficient time is needed in psychotherapy in order to adequately address and work through cancer-related experiences connected to feelings of shame, guilt, and of being damaged, including negative affects related to appearance on the body self-level. The time in both interventions seemed adequate, though there might be individuals who may have needed additional support after termination. Furthermore, we argue that psychosocial interventions in rehabilitation medicine, here resource-oriented arts-based psychotherapies, are to be conducted in a framework of a contemporary understanding of neuroaffective theories of regulation, intersubjectivity and resource activation (Hill, 2015; Schore, 2009; Stern, 2004, 2010). The positive results point to its clinical usefulness and suggest that implicit processing elicited through music listening and arts activities, along with cognitive and relational verbal exchanges, can provide helpful means to reclaim a stronger sense of body self and improve resourceful coping.

Future Research

Generally, there is a lack of high quality studies focused on implementing psychotherapy for gynecological cancer survivors. Psychotherapy with cancer-related psychological distress is a complex field of study in need of attention and development. We argue that future research study the use of existential and psychodynamically oriented psychotherapies in working with layers of trauma and distress in which unconscious and affect regulating process are acknowledged and evaluated. The specific parts of the interventions in this study must also to be more fully understood, such as looking into the specifics of musical parameters in short supportive pieces of music; the imagery process as a resource pool in cancer-related stress; the function of applying music in combination with other arts; and how verbal discussions can be best used in processing and implicit material elicited in working with the arts.

In our study, we evaluated individual and group therapy approaches; for future studies, we suggest that each approach is separated and studied in more detail. Furthermore, we hope that arts-based methods will be tested in other phases of the treatment trajectory, such as around diagnosis, and during various stages of oncological treatment.

In terms of the comprehensive data set, our future plans involve continued analysis of quantitative and qualitative data with the aim to produce additional articles. More specifically, the next step to be started in the fall of 2018, is to prepare and refine two unpublished manuscripts included in the thesis for submission and publication.

Papers included in PhD thesis:

Wärja, M., & Bonde, L. O. (2014). Music as co-therapist: Towards a taxonomy of music in therapeutic music and imagery work. *Music and Medicine*, *6*(2), 16–27.

Wärja, M. (2015). KMR (short music journeys) with women recovering from gynecological cancer. In D. Grocke & T. Moe (Eds.), *Guided Imagery and Music (GIM) methods for individual and group therapy* (pp. 253–266). London, UK: Jessica Kingsley Publishers.

Hertrampf, R. S., & Wärja, M. (2017). The effect of creative arts therapy and arts in medicine on psychological outcomes in women with breast or gynaecological cancer: A systematic review of arts-based interventions. Arts in Psychotherapy, 56, 93–110. doi.org/10.1016/j.aip.2017.08.001

Wärja, M., Nyberg, T., Forss, G., & Bergmark, K. (2017). Reclaiming the Body after Gynecological Cancer: A randomized trial of the effects of arts-based psychotherapy on body image, sexuality, and existential distress. Manuscript in preparation.

Wärja, M., Nyberg, T., Forss, G., & Bergmark, K. (2017). Wing-clipped bodies after gynecological cancer: Characteristics and quality of life reported within a complex intervention of arts-based psychotherapy. Manuscript in preparation.

Gerge, A., Wärja, M., Gattino, G., & Pedersen, I. N. (2017). The body in the mind – The appearance of the phenomenological self assessed through pictures before and after an arts-based psychotherapy intervention for gynaecological cancer survivors. Manuscript submitted for publication.