

**The energy-enhancing potential of participatory performance-based arts activities in the care of people with a diagnosis of cancer
an integrative review**

Ennis, Gretchen; Kirshbaum, Marilynne; Waheed, Nasreena

Published in:

Arts and Health: an international journal for research, policy and practice

DOI:

[10.1080/17533015.2018.1443951](https://doi.org/10.1080/17533015.2018.1443951)

Published: 01/04/2019

Document Version

Peer reviewed version

[Link to publication](#)

Citation for published version (APA):

Ennis, G., Kirshbaum, M., & Waheed, N. (2019). The energy-enhancing potential of participatory performance-based arts activities in the care of people with a diagnosis of cancer: an integrative review. *Arts and Health: an international journal for research, policy and practice*, 11(2), 87-103.
<https://doi.org/10.1080/17533015.2018.1443951>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.



The energy-enhancing potential of participatory performance-based arts activities in the care of people with a diagnosis of cancer: An integrative review

Journal:	<i>Arts & Health</i>
Manuscript ID	RAHE-2017-0050.R2
Manuscript Type:	Review
Keywords:	Singing < Art Forms, Drama < Art Forms, Dance and movement < Art Forms, Cancers < Health Issues, Inter-disciplinary research < Disciplines

SCHOLARONE™
Manuscripts

1
2
3
4
5 **The energy-enhancing potential of participatory performance-based arts activities in**
6 **the care of people with a diagnosis of cancer: An integrative review**
7
8
9

10
11 **Abstract**
12

13 **Background:** Cancer in all its forms and stages is accompanied by a range of emotional,
14 social and spiritual impacts. Pharmacological interventions have limited success with these
15 issues and a range of interventions are needed to support people with a cancer diagnosis. We
16 seek to understand the benefits of participatory performance-based arts activities, such as
17 music, singing, drama and dance, in the care of people with cancer. We use the emerging
18 Energy Restoration Framework, based on Kaplan's Attention Restoration Theory (1995;
19 2001) to explore the potentially energy-enhancing aspects of participation in such activities.
20
21
22
23
24
25
26
27

28 **Methods:** An **integrative** review is used to explore existing research on the use of
29 participatory performance-based arts in cancer care. Existing research is summarized and
30 critically appraised. Results are analyzed thematically and mapped to the attributes of the
31 Energy Restoration Framework.
32
33
34
35
36

37 **Results:** Eight studies (four qualitative, three quantitative and one mixed-methods study)
38 published between 2001 and 2016 met the search criteria. Findings from the thematic
39 analysis resonated with the attributes of the Energy Restoration Framework.
40
41
42
43

44 **Conclusions** Research on the topic is very limited. When examined through the lens of the
45 Energy Restoration Framework, the literature hints at the potential value of participatory
46 performance-based arts activities for enhancing energy in the cancer care context.
47
48
49
50

51
52
53 **Key words:** Performance arts, cancer, group-work, health, social care, energy.
54
55
56
57

Introduction

A diagnosis of cancer brings change and challenges to a person's life, and to the lives of those around them. Mental health, psychological, spiritual and social wellbeing are often impacted (Mausbach & Irwin, 2016; Costanzo, Ryff, & Singer, 2009) and debilitating fatigue can occur at all stages of treatment, recovery and in palliative care (Glaser & Glassman, 2014). Non-pharmacological interventions aimed at assisting people to live with these issues is an aspect of psychosocial support provided by health and social care practitioners in oncology, palliative and community settings. Research exploring ideas for non-pharmacological energy-restoring activities offers a range of possibilities for innovative and meaningful practice in the field of cancer care (Kirshbaum, 2010).

In this article we review research concerned with the use of participatory performance-based arts activities such as music, singing, drama and dance in the care of people who have a diagnosis of cancer and are at any stage of treatment or recovery. Our focus is on activities delivered by musicians, actors, dancers and other performance artists in partnership with health and social care practitioners. We believe this is a subtly different focus to that of more psychotherapeutic focused therapies such as dance therapy, drama therapy or music therapy which are delivered by appropriately trained and qualified dance, drama or music therapists. In terms of 'health and social care practitioners', we are referring to professionals such as social workers, community workers, medical doctors, nurses and other allied health professionals.

We seek to understand the benefits of participatory performance-based arts activities using the newly emerging Energy Restoration Framework (Kirshbaum, Ennis, Waheed & Carter, 2017). This framework has been developed from Attention Restoration Theory (Kaplan,

1
2
3 1995; 2001) and is used here to explore any potentially energy-enhancing aspects of
4
5 participatory performance-based arts activities. The review results are summarized in table
6
7 format. A thematic analysis of the research is provided and findings are mapped to the
8
9 theoretical attributes of the Energy Restoration Framework. While research on the topic is
10
11 limited, the review suggests there is potential for participatory performance-based arts
12
13 activities to enhance energy, and provide an innovative format for health and social care
14
15 practice in the cancer care context.
16
17
18
19

20 **Background**

21 *Supporting people with a diagnosis of cancer*

22
23 Health and social care practitioners have long provided non-pharmacological approaches to
24
25 support people with cancer. Such care involves working with individuals, families and
26
27 groups at any stage including diagnosis, during treatment, rehabilitation, recovery and also at
28
29 the end of life. Complementary interventions that work alongside more traditional
30
31 pharmacological or medical approaches continue to be explored in a range of contexts. For
32
33 example, yoga has been used to assist patients regain a sense of control and to relieve illness
34
35 related tension and stress (Strauss & Northcut, 2014). Play therapy, drawing (Adamo & De
36
37 Falco, 2012), and therapeutic dream work (Goelitz, 2001) have also been utilised to develop
38
39 safe, contained environments for the exploration of emotions in creative ways.
40
41
42
43
44
45

46 More commonly used non-pharmacological approaches to supporting people with cancer
47
48 include psychological support such as cognitive behavior therapy (Berger et al., 2012),
49
50 activity-based interventions including group work (Jacobsen, Donovan, Vadaparampil &
51
52 Small, 2007), and the use of moderate aerobic physical exercise (Berger et al., 2012; Cramp
53
54 & Byron-Daniel, 2012). More recent research concerning women with breast cancer
55
56
57

1
2
3 (Björneklett et al., 2013) found short and long term reduction of fatigue in women involved
4 in support groups. The groups provided education, relaxation and exercise activities, as well
5 as dance and art therapy (Björneklett et al., 2013).
6
7
8
9

10
11 Group work of various types is often used to provide support, information and coping
12 strategies for people at any stage of cancer treatment, recovery or in palliative care (Block,
13 1985; Cohen & Fried, 2007; Glajchen & Magen, 1995; Magen & Glajchen, 1999). Research
14 concerning the value of such groups is beginning to shed light on group work options in this
15 context (Glaser & Glassman, 2014). A study of 172 different cancer support groups in the
16 UK (Stevinson, Lydon, & Amir, 2011) found the main perceived impacts of participation
17 included: ‘knowledge of cancer and treatment, emotional support and hope for the future’
18 (p.678). Other positive impacts included dealing with anxious and depressed feelings,
19 improved relationships with family and friends and the development of practical coping skills
20 (Stevinson et al., 2011). Also in the UK, Visram, Roberts & Seebohm (2012) examined the
21 role of cancer self-help groups in promoting mental wellbeing and found benefits included: a
22 sense of control, supportive relationships, and seeing others ‘redefine their identity, not as
23 victims but as people with a purpose in life’ (p.139).
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40

41 In Australia, Ussher, Kirsten, Butow & Sandoval (2006) sought to understand what a cancer
42 support group provides that other relationships may not. Their qualitative study involving 93
43 people from nine cancer support groups found that these groups provided: ‘a unique sense of
44 community, unconditional acceptance, and information about cancer and its treatment’
45 (Ussher et al., 2006, p.2565). This support was contrasted with ‘the isolation, rejection, and
46 lack of knowledge about cancer frequently experienced outside the group’ (p.2565). No
47 differences in outcomes were seen between professional or a peer-led groups. The critical
48
49
50
51
52
53
54
55
56
57

1
2
3 factors included a 'supportive environment, mutuality, and a sense of belonging, and whether
4
5 it meets the perceived needs of those attending' (Ussher et al., 2006, p.2565).
6
7

8 9 *Arts-based approaches in cancer care*

10
11 Literature concerning the use of creative arts in the care of people with cancer, and their
12
13 families, has increased dramatically over the past decade. The most commonly used arts-
14
15 based interventions appear to be overtly therapeutic (delivered by qualified art or music
16
17 therapists) such as music therapy (Bradt et al., 2015; Daykin, Bunt & McClean, 2006;
18
19 Keenan & Keithley, 2015) and art therapy (Bar-Sela, Atid, Danos, Gabay & Epelbaum, 2007;
20
21 Geue et al., 2010; Oster et al., 2006). In general, there are positive associations between
22
23 engagement with the arts and the improvement of cancer patients' mental health and
24
25 wellbeing (Geue et al 2010; Puetz, Morley & Herring, 2013; Puig, Lee, Goodwin & Sherrard,
26
27 2006). In terms of managing cancer related fatigue specifically, both art therapy (Bar-Sela et
28
29 al., 2007), and music therapy (Freitas et al., 2012; Lesiuk, 2015) have shown promising
30
31 results.
32
33
34
35
36

37
38 We are interested in participatory performance-based arts forms that can be delivered in a
39
40 range of health and community contexts. As such, our focus is not on overtly therapy-related
41
42 arts activity (such as music therapy or drama therapy) which must be delivered by a qualified
43
44 drama or music-therapist. Instead we are keen to explore how health and social care
45
46 practitioners might use activities such as singing, music, acting, and dancing in their cancer
47
48 care work.
49
50

51
52 Health and social care practitioners have demonstrated a growing engagement with the
53
54 creative arts, including music and drama, in a range of different practice settings (Chambon,
55
56
57

2008; Kelly & Doherty, 2016a; 2016b; Sinding, Warren & Paton, 2014), particularly in group work modes of practice (for example: Coholic, Oystreck, Posteraro & Loughed, 2016; DeCarlo & Hockman, 2004; 2016b; McFerran-Skewes, 2005). In the group work context, Kelly and Doherty (2016a) draw upon the work of Lang (2016) in exploring how creative and artistic activity, such a dance, music, drama and play, can be used as 'nondeliberative practice' in group work. Nondeliberative practice encourages participants to 'do, then think' (Lang, 2016, p. 101). It is a less 'talk-based' or 'cognitively oriented form of group therapy' (Kelly & Doherty, 2016a, p.222) that embraces 'artful, actional and analogic forms of solution-seeking' (Lang, 2016, p. 103). The role of the facilitator is to present group members with activities that may not seem obviously linked to the purpose of the group, but that fully engage them. Members are then encouraged to make links between the new learning gained via creative communication and self-expression, and the issues they face in other parts of their lives (Kelly & Doherty, 2016a, p. 222). Singing, acting, dancing or related activities are potentially engaging and nondeliberative practices that can also be used in context of cancer support. We wish to understand if and how these kinds of participatory, creative practices are being integrated into cancer care by performing artists and/or by health and social care practitioners with relevant skills and experience.

The Energy Restoration Framework

The Energy Restoration Framework provides the organising structure for this integrative review. This framework has its origins in a series of studies with people who have cancer and palliative care needs (Kirshbaum, 2010; Kirshbaum, Olson, Pongthavornkamol, Graffigna, 2013; Kirshbaum and Donbavand , 2014; Ennis, Kirshbaum & Waheed, 2016; Kirshbaum, Ennis, Waheed & Carter, 2017). It provides a way of understanding the potentially beneficial attributes of particular activities and environments in terms of reducing

1
2
3 fatigue, restoring energy and enhancing wellbeing. The Energy Restoration Framework is an
4 emerging framework, in that it is based on recent work by a relatively small number of
5 authors. However, it has foundations in Attention Restoration Theory as articulated by
6 Kaplan (1995, 2001). Kaplan's inspirational work was focused on the restorative aspects of
7 natural environments on healthy populations. Kaplan's work drew upon the original ideas of
8 philosopher and psychologist, William James (1892), and uses the concept of *directed*
9 *attention* to explain why activities requiring intense concentration and difficulty result in
10 tiredness. This is contrasted with activities involving *involuntary attention* which are seen as
11 enjoyable and relatively easy. Kaplan proposed that restorative experiences involved four
12 properties: 'Being away' from our everyday environments, an effortless 'fascination' with the
13 activity, the 'scope and coherence that allow one to remain engaged', and the 'compatibility'
14 of the activity with the persons inclinations or wishes (2001, p.482).

15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31 Kirshbaum and Donbavand (2014) adapted Kaplan's theory of attention restoration within the
32 specific context of cancer and palliative care. Their research revealed the energy-restoring
33 value of purposeful, engaging and safe activities for people experiencing fatigue in cancer
34 and palliative care. Four attributes of enjoyable and restorative activities in this context were
35 identified as: *Belonging*, *Expansive*, *Nurturing* and *Purposeful* (Kirshbaum and Donbavand ,
36 2014). These four attributes form the basis of the Energy Restoration Framework. The
37 attribute of *Belonging* refers to engaging with, and feeling part of, a particular group or
38 community. It is related to maintaining an identity as part of the 'outside world'. For
39 example, going out with friends, or attending events. *Belonging* also involves fostering
40 supportive relationships and feelings of positive connection with others. It is important for a
41 sense of connection to the 'non-cancer' parts of life and retaining a sense of 'normal' to day
42 to day living.

1
2
3
4
5 The *Expansive* attribute concerns learning and growing through participation in new and
6 stimulating or fascinating activities and experiences. The *Expansive* attribute is thought to be
7 energy enhancing because people can enjoy the experience of learning something enjoyable
8 that is not overly difficult or stressful. Activities which stimulate and excite the mind can
9 offer opportunities for self-development, growth and knowledge. This can be particularly
10 important at times (such as during cancer treatment or in palliative care) when people may
11 feel other aspects of their life are restricted or being shut down.
12
13
14
15
16
17
18
19
20
21

22 The attribute of *Nurturing* is different in that it involves activities that are relaxing and
23 comforting. *Nurturing* activities are often solitary, such as reading, listening to enjoyable
24 music or having a bath or massage. These activities might be described as ‘easy’ in that they
25 require little effort or organising. This is in contrast to the *Purposeful* attribute which
26 generally involves a motivation of achievement or action, and a movement towards a tangible
27 product or outcome. *Purposeful* means that an activity has a ‘point’ and involves a sense of
28 accomplishing something meaningful. For example, one may feel a sense of achievement
29 from learning and rehearsing songs with a choir and then performing them for others.
30
31
32
33
34
35
36
37
38
39
40

41 Kirshbaum and Donovan (2014) recommended that health care practitioners explore and
42 evaluate a range of activities and experiences that aim to engage people in ways that are
43 energy-restoring. Such knowledge may lead to further options for other non-pharmacological
44 approaches to the management of fatigue in cancer care for health and social care
45 practitioners. As a contribution to this exploration we wish to explore the energy-enhancing
46 potential of participatory performance-based arts (dance, music-making, singing, theatre).
47
48
49
50
51
52
53
54

55 The aims of this integrative review are therefore: (1) To understand the benefits associated
56
57
58
59
60

1
2
3 with participatory performance-based arts for people with a diagnosis of cancer. (2) To
4 understand the potentially energy-enhancing attributes of participatory performance-based
5 arts in the context of cancer care by analysing the existing research through the lens of the
6 Energy Restoration Framework. (3) To consider the implications for arts, health and social
7 care practice in the cancer care context.
8
9
10
11
12

13 14 15 **Method**

16 *Integrative Review*

17
18 Integrative review is a useful method for summarizing and synthesizing research literature in
19 order to create new knowledge for practice (Torraco, 2005; Wittmore & Knafll, 2005).
20
21

22 Unlike other review methods, integrative review allows researchers to bring together diverse
23 methodologies and methods in order to achieve ‘a more comprehensive understanding of a
24 particular phenomenon’ (Whittmore & Knafll, 2005, p. 546). The inclusion of diverse types
25 of research can assist in the development of knowledge in emerging areas of practice. As we
26 wish to explore the relatively new and under-researched area of participatory performance-
27 based arts in the care of people with a diagnosis of cancer, integrative review is an
28 appropriate method.
29
30
31
32
33
34
35
36
37
38
39
40

41 A key feature of integrative review is the articulation of an overt conceptual or theoretical
42 framework which is used to guide the organizing of the literature (Torraco, 2005). In our
43 case, the framework is the previously discussed Energy Restoration Framework. The Energy
44 Restoration Framework is not a ‘theory’ as such. It has however been adapted from the well-
45 established, previously discussed, Attention Restoration Theory, and it provides a transparent
46 analytical structure for the review. The Energy Restoration Framework has also been
47 effectively used in related research in palliative and cancer care contexts to explore the
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 potentially energy enhancing attributes of a range of activities (Kirshbaum, 2010;
4 Kirshbaum, Olson, Pongthavornkamol, Graffigna, 2013; Kirshbaum and Donbavand , 2014;
5 Ennis, Kirshbaum & Waheed, 2016; Kirshbaum, Ennis, Waheed & Carter, 2017).
6
7
8
9

10 11 ***Search strategy***

12
13 A search of the following data bases relevant to health, social and community care, the arts,
14 and psychosocial aspects of cancer care was undertaken in October 2016: Health Source:
15 Nursing/Academic Edition, CINAHL Plus with Full Text, Art Full Text (H.W.Wilson),
16 Academic Search Premier, MEDLINE, Psychology and Behavioral Sciences Collection, and
17 SocINDEX. The list of search term combinations used was: music AND cancer; danc*
18 AND cancer; sing* AND cancer; choir AND cancer; drama AND cancer ; ‘perform* art*’
19 AND cancer; circus AND cancer. The search terms ‘theatre’ and ‘neoplasm’ were not used
20 as a pilot search demonstrated a vast number of irrelevant articles returned using these terms.
21
22 Figure 1 provides an overview of the search process. **A search using Google Scholar was**
23 **also undertaken as a further check for relevant articles up to October 2016. This search**
24 **utilized the same terms and criteria (see below) but did not reveal further articles.**
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45

46 *Insert Figure 1 near here*

47 ***Inclusion and exclusion criteria***

48 Only scholarly research articles in peer-reviewed journals were included. No date or
49 language limiters were set. Articles that identified the intervention as ‘art therapy’, ‘drama
50 therapy’, ‘dance therapy’ or ‘music therapy’ were excluded, as were articles concerning
51 interventions with an overt ‘therapist delivered’ approach. This is because the focus of the
52 review is on **participatory** performance-based arts rather than specific therapies. Articles
53
54
55
56
57
58
59
60

1
2
3 about cancer education and health promotion, and those that involved non-participatory use
4 of arts (such as music listening, or viewing a play) were also excluded.
5
6
7

8 9 ***Critical appraisal***

10 The John Hopkins Nursing Evidence-Based Practice (JHNEBP) Rating Scale (Newhouse,
11 Dearholt, Poe, Pugh & White, 2005) was used to provide an indication of the quality of the
12 evidence located in the review. This scale has two elements: A level of evidence score
13 (ranging from I to V) where Level I includes randomized control trials and experimental
14 research and Level V literature includes expert opinion not based on research. A quality of
15 evidence score (from A to C) is the second element. A rating of 'A' indicates high quality
16 research, and 'C' is considered low quality or significantly flawed. The JHNEBP
17 recommends that 'C' rated studies not be included in the review (Newhouse et al. 2005). The
18 JHNEBP has been used in similar reviews of arts interventions in cancer care (Ennis et al.,
19 2017).
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38

39 ***Synthesizing the literature***

40 We have drawn upon a range of sources (Crisp, 2015; Harden & Thomas, 2005; Popay et al.,
41 2006) for guidance in the analysis and synthesis of diverse types of evidence. The analysis
42 involved a summary of the review articles (Table 1). This provides a quick reference for the
43 number, type and aims of each article reviewed, along with a quality assessment indicator.
44
45 The next step was to list the findings from the qualitative studies and attempt to map these to
46 the Energy Restoration Framework. Quantitative results were examined for an understanding
47 of measurable benefits of participation. Finally, a meta-narrative synthesis approach
48 (Popay et al., 2006), using the theoretical attributes of Energy Restoration Framework as pre-
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 determined categories in a deductive thematic analysis, has been used to consider the
4
5 research and to respond to the research aims.
6
7
8
9

10 11 **Results**

12
13 *Insert Table 1 and Table 2 near here.*
14
15

16 17 ***Summary of the Research***

18
19 There are eight articles included in the final review (four qualitative, three quantitative, one
20 mixed-methods) (see Table 1). The qualitative study sample sizes ranged from four to 11
21 participants. The quantitative studies sample sizes ranged from 30 to 193 people. Critical
22 appraisal of the research placed the 'strength of evidence' of most of the studies in the Level
23 III category ('Non-experimental study, qualitative study or meta-synthesis) with a 'quality of
24 evidence' ranking of B ('good'). There are no randomized control trials. Four articles
25 concerned drama activities, two were dance focused, and two were about singing (choirs).
26
27 Four studies included participants with any type of cancer, and four studies were focused on
28 only women with breast cancer. All literature involved participants working in groups with
29 others in similar situations, and at least one group facilitator.
30
31
32
33
34
35
36
37
38
39
40
41
42
43

44 ***Overview of Outcomes:***

45
46 There were three kinds of outcomes reported in the studies. (1) *Improved 'Quality of life* was
47 discussed in terms of overall life satisfaction, improved perceived social support, and
48 generally feeling more comfortable about oneself, was seen in five of the papers (Carey,
49 2005; Gale, Enright, Reagon, Lewis & van Deursen, 2012; Mattsson-Lidsle, Snickars-von
50 Wright, Lindholm & Fagerström, 2007; Sturm, Baak, Storek, Traore & Thuss-Patience, 2014;
51
52
53
54
55
56
57

1
2
3 Szalai et al., 2015). This benefit was seen across all art forms. (2) *Improved mental health*
4 was articulated as reduced negative effect, reduced anxiety and depression and improved
5 mood, and was seen in the two singing studies (Fancourt et al., 2016; Gale et al., 2012). (3)
6
7
8
9 *Increased energy and vitality*, and reduced fatigue was found in two studies (dance and
10 theatre) (Carey, 2005; Sturm et al., 2014).
11
12
13

14 15 16 ***Thematic analysis of the Research Literature***

17
18 In this section, the four Energy Restoration Framework attributes are used as the organizing
19 structure for a thematic analysis of the research results found in the review articles.
20
21
22

23 24 *Expansive*

25
26 Results that resonate with the *Expansive* attribute were found in five studies. The expression
27 of stimulation and excitement generated through the arts activity is seen the work of Sturm et
28 al. (2014) where participants felt exhilaration ‘at being alive’ and ‘powerful. It was also
29 evident in Gale et al. (2012) where participants are ‘uplifted’. Carey’s (2005) article notes
30 participants felt a sense of ‘transformation’ and ‘renewed wellbeing’, as does Mattsson-
31 Lidsle et al. (2007) whose participants reported feeling that the ‘joy of living’ had returned.
32 Personal development, learning and growth was discussed in relation to activities that were
33 difficult in terms of confronting fears, but ultimately rewarding (Carey, 2005; Mattsson-
34 Lidsle et al., 2007). New shifts in perspectives of, and relationships with, cancer as a
35 personal and political issue were noted (Gray, Sinding & Fitch, 2001; Sinding et al, 2002).
36
37 The arts activities were also *Expansive* in that they could foster a sense of hope about, and
38 focus on, the future (Carey, 2005; Gale et al., 2012); and contribute to participants’ feelings
39 of confidence and self-esteem (Gale et al., 2012).
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Belonging

Results that relate to the attribute of *Belonging* were found in four studies. Learning new ways to interact with family and friends (Gray et al., 2001) and a general improvement in social functioning (Sturm et al., 2014) were noted in two studies. A sense of support and solidarity through the unifying experience of sharing stories (Mattsson-Lidsle et al., 2007) was also found. Gaining new friendships and feeling less alone were also important aspects of *Belonging* (Gale et al., 2012). A further aspect of connection that extended outside of the group was a sense that participants could 'reclaim their compromised ability to give back to the world' (Gray et al., 2001).

Nurturing

Ideas that resonate with the *Nurturing* attribute were found in three studies. Mattsson-Lidsle et al. (2007) and Carey (2005) highlight the supportive and safe environment of the group which made the sharing of emotions and creativity possible. Participants enjoyed being in, and helping to create, a space for nurturing each other and their creativity (Carey, 2005). These were environments that could also foster a sense of 'inner peace' (Mattsson-Lidsle et al., 2007). Sinding et al. (2002) found that immersion in the art form itself (drama) provided moments of 'comfort and solace' for women in their study.

Purposeful

Ideas that aligned with the attribute *Purposeful* were found in two studies. The idea of achieving something was reflected in participant's feelings about sharing a common challenge or goal (Gale et al., 2012). A sense of being part of 'something important' also contributed to participants feelings of commitment to the group and project (Gray et al., 2001).

Discussion

This review has found very little research concerning the use of participatory performance-based arts in the care of people who have had a diagnosis of cancer. However the existing studies point to a range of benefits such as improved mood, enhanced social and emotional well-being, improved quality of live, reduced fatigue and energy enhancement. The Energy Restoration Framework provided an interesting perspective for synthesizing the research. The analysis hints at what it might be about **participatory** performance-based arts activities that may be energy-enhancing and useful for people who have experienced cancer. We see evidence of the *Expansive* attribute occurring in the most studies. This may be because learning new performance skills can expand our verbal and nonverbal communication and analytical repertoire. The *Expansive* attribute is thought to be energy enhancing because people can enjoy learning something that is not too difficult or stressful. While some of the research reports that arts activities can be challenging in terms of facing fears about diagnosis or prognosis (Carey, 2005; Mattsson-Lidsle et al., 2007), it appears to be the feelings that are challenging, rather than the actual activity itself. However, the activity and the feeling are clearly related and this aspect of the research provides a challenge to the assumption that energy-restoring activities should not be too difficult.

Activities which stimulate and excite the mind can offer opportunities for self-development, growth and knowledge at a time when people may feel other aspects of their life are restricted or closing down (Kirshbaum & Donvadband, 2014; Kirshbaum et al., 2017). The arts can help people to make sense and meaning out of challenging situations (Sinding et al., 2014). Much of the limited literature about participatory performance-based arts in cancer care seems to be about the value of meaning making. This involves making sense of a diagnosis

1
2
3 and prognosis as an individual and as social being. This links to the idea of nondeliberative
4 practice (Lang, 2016; Kelly & Doherty, 2016a; 2016b) in that learning acquired through
5 immersion in creative activity can be used to reflect upon, and better understand, other
6 aspects of life impacted by cancer.
7
8
9
10

11
12
13 *Belonging* involves engaging with a group or community and feeling a sense of connection
14 and relationship. *Belonging* is important for feeling linked and connected to the outside or
15 ‘non-cancer treatment world’ and can help to create a sense of ‘normality’ in day to day
16 living (Kirshbaum & Donbavand, 2014; Kirshbaum et al., 2017). *Belonging* is an attribute
17 one might expect to see in activities involving groups of people working intensely together
18 (Doel, 2006). In the context of participatory performance-based arts the sense of belonging
19 appears to be facilitated by creating and performing together. Participants can share and
20 connect through creative expression. They can take risks and enter difficult emotional and
21 social terrain together (Gray et al., 2001).
22
23
24
25
26
27
28
29
30
31
32
33
34

35 The *Nurturing* attribute involves activities that are relaxing, comforting and easy, such as
36 reading a favourite book or listening to enjoyable music (Kirshbaum & Donbavand, 2014;
37 Kirshbaum et al., 2017). These are not necessarily things that one would associate with
38 participatory performance arts. Interestingly, the attribute of *Nurturing* was closely linked to
39 *Belonging* in the support and comfort participants received from others, and through the
40 doing of the activity itself. Interestingly, *Purposeful* also appeared to be linked and even
41 intertwined with the attribute of *Belonging*. *Purposeful* refers to a motivation of action or
42 achievement and a movement towards a particular product or outcome. This is seen in the
43 way some participants continued on with participation because they wanted to share
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 something important (the message in the performance as well as the performance itself) with
4 others, and not let down their fellow participants (Gale et al., 2012; Gray et al., 2001).
5
6
7

8
9 The review raises the question of how we might understand or distinguish between benefits
10 arising from the 'performance arts' and benefits from the group interaction. Some tentative
11 ideas stemming from the analysis suggest that it may be the creativity, learning and
12 exploration of identity through participatory performance-based arts that contributes to the
13 *Expansive* nature of participatory performance-based arts in the cancer care context. It is
14 perhaps in the sharing of this identity and creativity, within and outside the group that
15 contributes to a sense of *belonging*, and enhances the *Nurturing* and *Purposeful* aspects of the
16 experience. The idea of 'audience' may also be important here. Performance-based arts
17 almost always involve working with and/or performing for, others. All of the examples in
18 this review involve people working with others in groups of various sizes. This dynamic and
19 relational aspect of creating with, and/or in front of, others is an aspect of participatory
20 performance-based art forms that requires further investigation.
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36

37 In terms of health and social care practice, this analysis cautiously hints at the potential of
38 nondeliberative, creative, **participatory performance-based arts** group activities in the care of
39 people with cancer. While the ability to work with groups is considered a core skill in many
40 health and social care professions, the expansion of their repertoire of skills in this area may
41 benefit the people they work with. If health and social care practitioners are able to continue
42 to work with arts practitioners such as musicians, actors, directors, dancers and other
43 performers, we may develop new, innovative and invigorating ways to provide support to
44 people who have had a diagnosis of cancer.
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Limitations

The term ‘participatory performance-based arts’ is very broad, and we have included as many types of **participatory** performance-based arts as we were able to determine, however we acknowledge that we may have unintentionally excluded **participatory** performance art forms we are not currently aware. In a similar definitional vein, the separation of music/drama/arts/dance *therapist* delivered interventions from the non-overtly therapeutic, more performance focused projects, is difficult. While we used specific search criteria in our review in order to focus on arts activities and not art-therapies, we understand that there may be overlap and/or conflation in the literature due to cultural and language variation. Some activities may have been defined as ‘art therapy’, ‘music therapy’ or ‘drama therapy’ within the literature, but are not actually delivered by a therapist. This could have resulted in the exclusion of relevant research. Finally, we acknowledge that in our attempt to synthesize diverse forms of research, we risk losing the specific sense and context of the research, particularly in the qualitative studies (Harden & Thomas, 2005). We have attempted to be overtly transparent in our analysis to mitigate these issues.

Conclusion

At the current time there is too little research on the topic of the use of participatory performance-based arts in the care of people with cancer to make any assertions of quantifiable benefit. The available research is mostly qualitative, involving small numbers of adult participants. An analysis of this research through the Energy Restoration Framework lens provides some ideas about the value of participatory performance-based arts for enhancing energy in the cancer care context. Further research of all types is required to build knowledge for practice, **including an empirical study to test Energy Restoration Framework.** Of particular use would be research that qualitatively and quantitatively explores both the processes and outcomes associated with specific types of participatory performance-based

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

arts in the care of people who have a diagnosis of cancer. Such knowledge would add to
practitioner’s ability to understand and select appropriate performance-based arts
interventions in their cancer care work.

For Peer Review Only

References

- Bar-Sela, G., Atid, L., Danos, S., Gabay, N., & Epelbaum, R. (2007). Art therapy improved depression and influenced fatigue levels in cancer patients on chemotherapy. *Psycho-Oncology*, *16*(11), 980-984. doi:10.1002/pon.1175
- Berger, A. M., Gerber, L. H., & Mayer, D. K. (2012). Cancer-related fatigue. *Cancer*, *118*(S8), 2261-2269. doi:10.1002/cncr.27475
- Björneklett, H. G., Rosenblad, A., Lindemalm, C., Ojutkangas, M.-L., Letocha, H., Strang, P., & Bergkvist, L. (2013). Long-term follow-up of a randomized study of support group intervention in women with primary breast cancer. *Journal of Psychosomatic Research*, *74*(4), 346-353. doi:10.1016/j.jpsychores.2012.11.005
- Block, L. R. (1985). The Single-Session Group and the Cancer Patient. *Social Work with Groups*, *8*(2), 81-99. doi:10.1300/J009v08n02_08
- Bradt, J., Potvin, N., Kesslick, A., Shim, M., Radl, D., Schriver, E., . . . Komarnicky-Kocher, L. (2015). The impact of music therapy versus music medicine on psychological outcomes and pain in cancer patients: a mixed methods study. *Supportive Care in Cancer*, *23*(5), 1261-1271. doi:10.1007/s00520-014-2478-7
- Carey, L. (2005). Bosom Buddies: A practical model of expressive disclosure. *Journal of Cancer Education*, *20*, 251 - 255.
- Chambon, A. (2008). Social work and the arts: Critical imagination. In J. G. Knowles & A. Cole (Eds.), *Handbook of the Arts in Qualitative Research*. Thousand Oaks, CA.: Sage
- Cohen, M., & Fried, G. (2007). Comparing Relaxation Training and Cognitive-Behavioral Group Therapy for Women With Breast Cancer. *Research on Social Work Practice*, *17*(3), 313-323. doi:10.1177/1049731506293741

- 1
2
3 Coholic, D. A., Oystriick, V., Posteraro, J., & Lougheed, S. (2016). Facilitating Arts-Based
4
5 Mindfulness Group Activities with Vulnerable Children: An Example of
6
7 Nondeliberative Social Group Work Practice. *Social Work with Groups*, 39(2-3), 155-
8
9 169. doi:10.1080/01609513.2015.1050751
10
11 Costanzo, E.S., Ryff, C.D., Singer, B.H. (2009). Psychosocial adjustment among cancer
12
13 survivors: Findings from a national survey of health and well-being. *Health*
14
15 *Psychology*, 28 (2) 147-156.
16
17 Cramp, F. J., & Byron-Daniel, J. (2012). Exercise for the management of cancer-related
18
19 fatigue in adults. . *Cochrane Database of Systematic Reviews*(11).
20
21
22 Crisp, B. R. (2015). Systematic Reviews: A Social Work Perspective. *Australian Social*
23
24 *Work*, 68(3), 284-295. doi:10.1080/0312407X.2015.1024266
25
26
27 Daykin, N., Bunt, L., & McClean, S. (2006). Music and healing in cancer care: A survey of
28
29 supportive care providers. *Arts in Psychotherapy*, 33(5), 402-413.
30
31 DeCarlo, A., & Hockman, E. (2004). RAP therapy: A group work intervention method for
32
33 urban adolescents. *Social Work with Groups*, 26(3), 45-59.
34
35
36 Doel, M. (2006). *Using Groupwork*, Routledge, UK .
37
38
39 Ennis, G., Kirshbaum, M. N. & Waheed, N. (2017). The beneficial attributes of visual art-
40
41 making in cancer care: An integrative review. *European Journal of Cancer Care*
42
43 (accepted Feb 2017) DOI: 10.1111/ecc.12663
44
45
46
47 Fancourt, D., Williamon, A., Carvalho, L. A., Steptoe, A., Dow, R., & Lewis, I. (2016).
48
49 Singing modulates mood, stress, cortisol, cytokine and neuro peptide activity in cancer
50
51 patients and carers. *E Cancer Medical Science*, 10(631), 13.
52
53
54 Freitas, N., Silva, T., Freitas-Junior, R., Paula, J. W., Silva, D., Machado, G., . . . Carneiro, J.
55
56 (2012). Abstract P2-12-04: Music Therapy Reduces Radiotherapy-Induced Fatigue in
57

- 1
2
3 Patients with Breast or Gynecological Cancer: A Randomized Trial. *Cancer*
4
5 *Research*, 72(24 Supplement), P2-12-04-P12-12-04.
6
7 Gale, N. S., Enright, C., Reagon, C., Lewis, I., & van Deursen, R. (2012). A pilot
8
9 investigation of quality of life and lung function following choral singing in cancer
10
11 survivors and their carer. *E Cancer Medical Science*, 6(261), 12.
12
13 Geue, K., Goetze, H., Buttstaedt, M., Kleinert, E., Richter, D., & Singer, S. (2010). An
14
15 overview of art therapy interventions for cancer patients and the results of research.
16
17 *Complementary Therapies in Medicine*, 18(3–4), 160-170.
18
19 Glajchen, M., & Magen, R. (1995). Evaluating Process, Outcome, and Satisfaction in
20
21 Community-Based Cancer Support Groups. *Social Work with Groups*, 18(1), 27-40.
22
23 Glaser, S., & Glassman, R. (2014). Group work with individuals with chronic cancer. *Social*
24
25 *Work in Health Care*, 53, 31-47. doi:10.1080/00981389.2013.827610
26
27 Gray, R. E., Sinding, C., & Fitch, M. I. (2001). Navigating the Social Context of Metastatic
28
29 Breast Cancer: Reflections on a Project Linking Research to Drama. *Health*, 5(2),
30
31 233-248. doi:10.1177/136345930100500205
32
33 Harden, A., & Thomas, J. (2005). Methodological Issues in Combining Diverse Study Types
34
35 in Systematic Reviews. *International Journal of Social Research Methodology*, 8(3),
36
37 257-271. doi:10.1080/13645570500155078
38
39 Jacobsen, P. B., Donovan, K. A., Vadaparampil, S. T., & Small, B. J. (2007). Systematic
40
41 review and meta-analysis of psychological and activity-based interventions for
42
43 cancer-related fatigue. *Health Psychology*, 26(6), 660-667. (Supplemental)
44
45 James, W. (1892). *Textbook of Psychology*. Kessinger Publishing: Whitefish, Montana,
46
47 USA.
48
49 Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework.
50
51
52
53
54
55 *Journal of Environmental Psychology*, 15, 169–82.
56
57

- 1
2
3 Kaplan, S. (2001). Meditation, Restoration and the Management of Mental Fatigue.
4
5 *Environment and Behaviour*, 33, 480–506.
6
7 Keenan, A., & Keithley, J. K. (2015). Integrative Review: Effects of Music on Cancer Pain in
8
9 Adults. *Oncology Nursing Forum*, E368-E375. doi:10.1188/15.ONF.E368-E375
10
11 Kelly, B. L., & Doherty, L. (2016a). Exploring Nondeliberative Practice through
12
13 Recreational, Art, and Music-Based Activities in Social Work with Groups. *Social*
14
15 *Work with Groups*, 39(2-3), 221-233. doi:10.1080/01609513.2015.1057681
16
17 Kelly, B. L., & Doherty, L. (2016b). A Historical Overview of Art and Music-Based
18
19 Activities in Social Work with Groups: Nondeliberative Practice and Engaging
20
21 Young People’s Strengths. *Social Work with Groups*, 1-15.
22
23
24 Kirshbaum, M., (2010). Cancer related fatigue: A review of nursing interventions.
25
26 *British Journal of Community Nursing*, 15(5), 170 - 174.
27
28
29 Kirshbaum, M., Olson, K., Pongthavornkamol, K., & Graffigna, G.(2013). Understanding
30
31 the Meaning of Fatigue at the End of Life: An Ethnoscience Study. *European Journal*
32
33 *of Oncology Nursing*. 17:146-153. doi:10.1016/j.ejon.2012.04.007
34
35
36 Kirshbaum, M., & Donbavand, J. (2014). Making the most out of life: Exploring the
37
38 contribution of Attention Restorative Theory in developing a non-pharmacological
39
40 intervention for fatigue. *Palliative & Supportive Care*, 12(6), 473-480.
41
42 Kirshbaum, M., Ennis, G., & Waheed, N. (2017) Art in Cancer care: Exploring the role of
43
44 visual art-making programs within an Energy Restoration Framework. *European*
45
46 *Journal of Oncology Nursing* 29:71-78. <http://dx.doi.org/10.1016/j.ejon.2017.05.003>
47
48
49 Lang, N. C. (2016). Nondeliberative forms of practice in social work: Artful, actional,
50
51 analogic. *Social Work with Groups*, 39(2-3), 97-117.
52
53
54
55
56
57
58
59
60

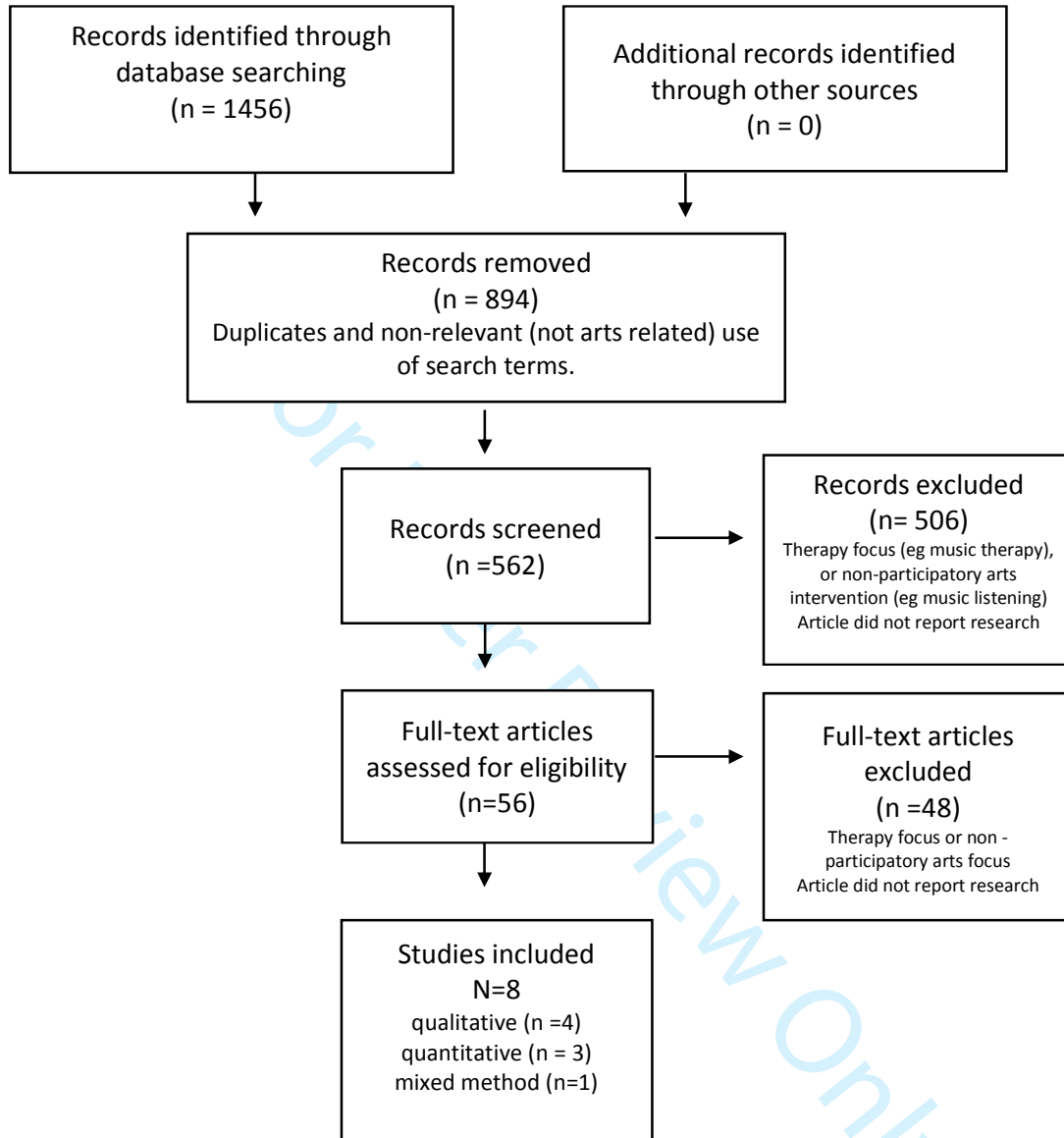
- 1
2
3 Lesiuk, T. (2015, 2015/05//). The effect of mindfulness-based music therapy on attention and
4
5 mood in women receiving adjuvant chemotherapy for breast cancer: a pilot study.
6
7 *Oncology Nursing Forum*, 42, 276+.
- 8
9 Magen, R. H., & Glajchen, M. (1999). Cancer Support Groups: Client Outcome and the
10
11 Context of Group Process. *Research on Social Work Practice*, 9(5), 541-554.
- 12
13 Mattsson-Lidsle, B., Snickars-von Wright, B., Lindholm, L., & Fagerström, L. (2007). Drama
14
15 as a new rehabilitation possibility for women afflicted with breast cancer. *Cancer*
16
17 *Nursing*, 30(6), 479-487.
- 18
19 McFerran-Skewes, K. (2005). Using songs with groups of teenagers: How does it work? .
20
21 *Social Work with Groups*, 27(2), 143-157.
- 22
23
24 Mausbach, B.T., & Irwin, S.A. (2016) Depression and healthcare service utilization in
25
26 patients with cancer. *Psycho-Oncology*. DOI: 10.1002/pon.4133.
- 27
28 Newhouse, R., Dearholt, S., Poe, S., Pugh, P. C., & White, K. (2005). The John Hopkins
29
30 Nursing Evidence-based Practice Rating Scale. Baltimore, MD.: The John Hopkins
31
32 Hospital; John Hopkins University School of Nursing.
- 33
34
35 Oster, I., Svensk, A. C., Magnusson, E., Thyme, K. E., Sjodin, M., Astrom, S., & Lindh, J.
36
37 (2006). Art therapy improves coping resources: A randomized, controlled study
38
39 among women with breast cancer. *Palliative & Supportive Care*, 4(01), 57-64.
- 40
41 Peuckmann-Post, V., Elsner, F., Krumm, N., Trottenberg, P., & Radbruch, L. (2010).
42
43 Pharmacological treatments for fatigue associated with palliative care. *Cochrane*
44
45 *Database of Systematic Reviews*(11). doi:DOI :10.1002/14651858.CD006788.pub2.
- 46
47
48 Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., . . . Duffy, S.
49
50 (2006). Guidance on the conduct of narrative sythesis in systematic reviews *A product*
51
52 *from the ESRC Methods Programme*. United Kingdom.
- 53
54
55
56
57

- 1
2
3 Puetz, T. W., Morley, C. A., & Herring, M. P. (2013). Effects of creative arts therapies on
4
5 psychological symptoms and quality of life in patients with cancer. *JAMA Internal*
6
7 *Medicine, 173*(11), 960-969. doi:10.1001/jamainternmed.2013.836
8
9
10 Puig, A., Lee, S. M., Goodwin, L., & Sherrard, P. A. D. (2006). The efficacy of creative arts
11
12 therapies to enhance emotional expression, spirituality, and psychological well-being
13
14 of newly diagnosed Stage I and Stage II breast cancer patients: A preliminary study.
15
16 *The Arts in Psychotherapy, 33*(3), 218-228.
17
18 Sinding, C., Gray, R., Fitch, M., & Greenberg, M. (2002). Staging Breast Cancer, Rehearsing
19
20 Metastatic Disease. *Qualitative Health Research, 12*(1), 61-73.
21
22 Sinding, C., Warren, R., & Paton, C. (2014). Social work and the arts: Images at the
23
24 intersection. *Qualitative Social Work, 13*(2), 187-202.
25
26 Stevinson, C., Lydon, A., & Amir, Z. (2011). Cancer support group participation in the
27
28 United Kingdom: a national survey. *Supportive Care in Cancer, 19*(5), 675-683.
29
30 Sturm, I., Baak, J., Storek, B., Traore, A., & Thuss-Patience, P. (2014). Effect of dance on
31
32 cancer-related fatigue and quality of life. *Supportive Care in Cancer, 22*(8), 2241-
33
34 2249. doi:10.1007/s00520-014-2181-8
35
36 Szalai, M., Lévy, B., Szirmai, A., Papp, I., Prémusz, V., & Bódis, J. (2015). A clinical study
37
38 to assess the efficacy of belly dancing as a tool for rehabilitation in female patients
39
40 with malignancies. *European Journal of Oncology Nursing, 19*(1), 60-65.
41
42
43 Torraco, R.J. (2005). Writing integrative literature reviews: Guidelines and examples.
44
45 *Human Resource Development Review, 4*(3), September, 356-367.
46
47
48 Ussher, J., Kirsten, L., Butow, P., & Sandoval, M. (2006). What do cancer support groups
49
50 provide which other supportive relationships do not? The experience of peer support
51
52 groups for people with cancer. *Social Science & Medicine, 62*(10), 2565-2576.
53
54
55
56
57

1
2
3 Visram, N., Roberts, A., & Seebohm, P. (2012). The role of self-help groups in promoting
4
5 well-being: experiences from a cancer group. *Mental Health and Social Inclusion*,
6
7 *16*(3), 139-146. doi:10.1108/20428301211255428
8

9
10 Wagner, L. I., & Cella, D. (2004). Fatigue and cancer: causes, prevalence and treatment
11
12 approaches. *British Journal of Cancer*, *94*, 822-828. doi:[10.1038/sj.bjc.6602012](https://doi.org/10.1038/sj.bjc.6602012)
13

14
15 Whittmore, R. & Knafl, K. (2005). The integrative review: updated methodology. *Journal of*
16
17 *Advanced Nursing*, *53*(2), 546-553.
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Figure 1: Review Flow Chart

Adapted from: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta- Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097.
doi:10.1371/journal.pmed1000097

Table 1. Table of Evidence

Author	Study Type	Population Information	Intervention	Aim of Study/Report	Evidence Rating
Carey (2005)	Qualitative Uses concept of 'Expressive Disclosure' 8 participants	USA. Adult women post-treatment. Breast cancer.	Theatre/writing workshop 2 nights per week x 12 weeks Writing, theatre games and performance.	To create a blueprint for similar work and to explore scientific background that supports the method as a valid tool to aid emotional recovery.	V B
Fancourt et al. (2016)	Quantitative Multi-centre, single-arm, Preliminary study. 193 participants	United Kingdom Adult men & women who were regular choir participants. Any cancer type.	Singing 1 hour of group singing.	To assess the impact of singing on mood, stress and immune response in three populations affected by cancer	III B
Gale et al. (2012)	Mixed Method Pilot study. 30 participants. Questionnaires, interviews (10 of the 30).	United Kingdom Adult survivors (not undergoing treatment) and their carers. Any cancer type.	Singing 'Sing for Life' community choir. 2 hour weekly rehearsals (ongoing).	To evaluate quality of life and lung function pre and post three months of choral singing	III B
Gray et al. (2001)	Qualitative Reflection based on previous research, developed script, journals, and interviews with 6 participants	Canada Adult women Metastatic disease, breast cancer.	Theatre 'Handle with Care? Living with Metastatic Breast cancer' Theatre project (Research-based drama).	To explore implications of societal shift in views of cancer for women with metastatic breast cancer	III B
Mattsson-Lidsle et al. (2007)	Qualitative Inductive latent content analysis. longitudinal 11 participants	Finland Adult women Breast Cancer	Drama 1 group session per week for 30 weeks.	To evaluate drama as a method within rehabilitation of women with breast cancer.	III B
Sinding et al. (2002)	Qualitative Interpretative phenomenology Using transcripts of conversations with 4 participants	Canada Adult women Metastatic disease, breast cancer.	Drama 'Handle with Care? Living with Metastatic Breast cancer' Theatre project.	To consider performance in its hermeneutic sense, as a way of generating meaning; to explore the meaning of illness in drama creation., to consider ethical dilemmas surfaced by the project.	III B
Sturm et al. (2014)	Quantitative Non RCT Control = 20 Intervention = 20	Germany. Adult patients under active treatment. Any cancer type.	Dance 10 x 60 min twice weekly classes for 5 weeks.	To evaluate the effect of dance in cancer patients under active anticancer treatment with fatigue as endpoint.	II B

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47

Table 1. Table of Evidence

Szalai et al. (2015)	Quantitative Comparative, Prospective non-RCT Control = 59 Intervention = 55	Hungary. Adult women Any type of 'malignant disease'	Dance 90 min belly dancing + 90 min free interaction session weekly for 12 months.	To compare quality of life, perceived social support and overall life satisfaction in female patients receiving cancer treatment with or without additional belly-dancing	II B
----------------------	--	---	---	--	------

For Peer Review Only

Table 2: Mapping of Results to Energy Restoration Framework (ERF) Attributes

Reference	Results/Findings	Resonance with ERF Attributes	Measured benefits.
Carey, L., 2005.	A feeling of transformation and a renewed sense of well-being. An ongoing desire to positively affect others with their work. Enjoyment in helping others – learned how they could affect others. Sharing ‘still raw memories’ was emotional but women grew comfortable in sharing. A sense of hope for the future. A sense of energy and vitality.	Expansive/Purposeful Nurturing/Purposeful Expansive/Nurturing Expansive Expansive	
Fancourt et al., 2016.	Singing was associated with significant reductions in negative affect and increases in positive affect alongside significant increases in cytokines. Singing improves mood state and modulates components of the immune system.	NA	<i>Reduced negative affect.</i> <i>Improved mood and modulation of immune system.</i>
Gale et al., 2012.	Improved vitality, social functioning, mental health, and bodily pain. There was also a trend of reduced anxiety and depression. No change in fatigue. Spirometric measures of lung function were unchanged; however, there was a trend of increased MEP. A focus, for the future, challenges, a common goal, participants felt uplifted and had greater confidence and self-esteem. Friendship and support.	Expansive/Purposeful Belonging	<i>Improved Quality of Life.</i> <i>Reduced anxiety and depression.</i> <i>Increase in lung strength.</i>
Gray, Sinding & Fitch, 2001.	The realities facing seriously ill people are often ignored or avoided by those who surround them. Patients can be pressured to take up role of passive victim or courageous hero. The play was ‘profoundly meaningful’ to participants - being part of something important. ‘Reclaimed their compromised ability to give back to the world’. Provided new ways to interact with family and friends - revealing dilemmas in ways less personally threatening to self and others.	Expansive Expansive Purposeful Belonging/Expansive Belonging	
Mattsson-Lidsle et al., 2007.	The women were able to share difficult experiences. Joy of living returned, as well as better self-confidence, inner peace, and feelings of good health. Confront their hidden thoughts and feelings and to express them. Support and solidarity within the group Personal development.	Belonging Expansive Expansive Belonging/Nurturing Expansive	
Sinding, Gray, Fitch & Greenberg, 2002.	Participants gradually shifted from being uncomfortable with focus on the disease, to feeling ‘more comfortable in my own shoes’. Drama provided brief moments of comfort and solace. Participants had different relationships to cancer.	Expansive (knowledge) Nurturing Expansive	

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47

Table 2: Mapping of Results to Energy Restoration Framework (ERF) Attributes

Sturm et al., 2014.	Significant improvements for cancer related fatigue in the dance group. Significant improvements in emotional and social functioning.	Belonging	<i>Reduced fatigue Improved social and emotional function</i>
Szalia et al., 2015.	Dancing group scored better at both the baseline and follow-up than the control group. (The differences between the two groups' measured parameters increased further during the course of the study.) for OLS.	NA	<i>Improved health related quality of life, perceived social support and overall life satisfaction.</i>

For Peer Review Only