

Abstract

Mindfulness has been described as a non-elaborative, non-judgmental, present-centred awareness in which each thought, feeling, or sensation is acknowledged and accepted. The aim of the present study was to systematically search and synthesise qualitative evidence of cancer patients' attitudes to mindfulness. A systematic review of qualitative evidence was conducted following the SPICE framework. All cancers were included. Medline, Cinahl, Science Direct, O-Alster and New Bank were searched from the first available year to August 2016 using the search terms; wellbeing, mindfulness, qualitative. Two reviewers independently screened titles and abstracts; potentially relevant articles were retrieved and assessed independently by two reviewers. Data was extracted and quality assessed using Critical Appraisal Skills Programme (CASP) qualitative research checklist. In total 233 studies, conducted between 2005 and 2015 were identified with six included in the final analysis. Four themes were identified: Coping strategies developed through mindfulness course; Positive outcomes of mindful practice; Challenges with engaging in mindful practice; and Group identification and shared experience. The current evidence supports the view that mindfulness is an effective intervention to help people adjust to living with and beyond cancer, however more qualitative work is needed in this area.

Keywords: Mindfulness, wellbeing and qualitative

Introduction

Mindfulness has been described as a non-elaborative, non-judgmental, present-centred awareness in which each thought, feeling, or sensation that arises is acknowledged and accepted as it is (Bishop et al., 2004). This definition of mindfulness allows for two main characteristics to be identified. Firstly, the non-judgemental aspect which encourages thought processes to be just as they are without over identifying, therefore leading to an acceptance, that may in turn lead to a better self-perception. Secondly, there is a strong emphasis on creating an awareness of the present moment. The mind has a tendency to function on autopilot and habitual behaviours, limiting the scope of our attention to what is happening in the moment.

The evolution of mindfulness practice has promoted a new and alternative perspective on how patients have the capacity to alter their own perceptions about themselves and the world around them. Mindfulness based stress reduction (MBSR) was established in 1979 with the aim to introduce mindfulness to clinical settings to enhance health and reduce stress. The application of mindfulness in clinical settings is far reaching and covers depression, anxiety, education, physical healthcare and learning disabilities (Kenny & Williams, 2007). There are two approaches to mindfulness intervention which are promoted within the United Kingdom (UK) and the rest of the world; MBSR and mindfulness based cognitive therapy (MBCT) (Grossman, Niemann, Schmidt, & Walach, 2004; Teasdale et al., 2000; Williams & Kuyken, 2012).

Mindfulness and cancer care

In the United Kingdom more than 50% of people diagnosed with cancer can expect to live for more than 10 years (De Sio, Castellano, Calandra, & Coltorti, 1993). However, with this survival rate comes a new set of challenges. A diagnosis of cancer can lead to patients experiencing high degrees of emotional anguish (Cook et al., 2015), anxiety, depression, sleep disturbance, chronic fatigue, and in some cases trauma (Van Der Lee & Garssen, 2012). Patients with cancer are becoming increasingly interested in complementary therapies and a systematic review of studies from 13 countries, found that around 31% of patients had tried some form of complimentary therapy (Ernst & Cassileth, 1998).

Aim

The aim of this review is to synthesise evidence from qualitative studies exploring patient's experiences of, and attitudes towards MBCT, MBSR and mindfulness meditation following a cancer diagnosis and to establish the effectiveness of such interventions in helping patient's cope with living with and beyond cancer.

Methods

Literature search

A combination of strategies was utilised to locate evidence including searching electronic sources (Medline, Cinahl, Science Direct, O Alster, and New Banks), reference checking of included studies and key review articles, hand searching of selected journals and searches of relevant websites.

All studies until August 2016 that reported qualitative research about wellbeing, and group based mindfulness interventions for adult patients (18+) who had been treated for cancer, or professionals who treated patients with cancer were eligible. Studies focusing on

professionals delivering mindfulness sessions to cancer patients were included as they could provide a unique perspective on the acceptability and effectiveness of mindfulness training for this population.

We excluded studies which were quantitative in nature or included mindfulness and another intervention such as yoga, or which included partners of those who were diagnosed with cancer. Studies could include patients diagnosed with any type of cancer, but was restricted to adults only. Published primary studies and systematic reviews were eligible for inclusion whilst editorials, research protocols and case studies were excluded. Qualitative data including self-reported questionnaires, face-to-face interviews, telephone interviews and focus groups were included.

Synthesis

The synthesis for this review was based on methods for the thematic synthesis of qualitative research (Thomas & Harden, 2008). Verbatim findings of studies that were relevant to the review were extracted onto a suitable form in Microsoft Excel, along with brief information about the methodology, quality and applicability of the study. Key themes and sub-themes were coded according to the meaning and content of the findings. One reviewer undertook coding of each study whilst a second reviewer checked the consistency of the key themes and sub-themes that emerged by reference to a random subset of the studies identified for inclusion. The data was extracted and quality assessed using the Critical appraisal skills programme (CASP) qualitative research checklist by two reviewers (Critical Appraisal Skills Programme, 2011).

Results

Literature Search and study characteristics

The literature research returned 233 potential articles. Of these 216 were excluded because they were ineligible (Figure 1). Of the remaining 27 articles, 21 were excluded following a review of the full article. Characteristics of the six included studies are summarised in Tables 1 and 2. The six studies were carried out between 2005 and 2015. Three studies were conducted in the UK, two in Canada, and one in Australia. All studies explored patient's experiences and perspectives of mindfulness interventions following a cancer diagnosis. The majority of the participants in the included studies were female and living with and beyond breast cancer.

Two studies used in depth semi structured interviews with patients, gaining experiences and personal views (Chambers, Foley, Galt, Ferguson, & Clutton, 2012; Eyles et al., 2015). Two studies undertook focus groups with semi structured interviews (Dobkin, 2008; Mackenzie, Carlson, Munoz, & Speca, 2007). Eyles et al (2015) conducted a focus group with oncology staff only whilst Hoffman et al (2012) explored patient's experiences with a survey instrument. Five of the included studies took place in a secondary care setting, two of which were in the UK (Brotto & Heiman, 2007; Eyles et al., 2015) two were in Canada (Dobkin, 2008; Mackenzie et al., 2007) and one in Australia (Chambers et al., 2012). One study took place in an integrated cancer care centre in London, independent from the NHS (Hoffman et al., 2012).

FIGURE 1 HERE

TABLE 1 HERE

TABLE 2 HERE

Participants

The majority of participants were female across the studies (n=277), were white. Three studies focused on participants with breast cancer (Dobkin, 2008; Eyles et al., 2015; Hoffman et al., 2012). One study focused on participants who experienced sexual dysfunction after gynaecological cancer (Brotto & Heiman, 2007). One study focused on mixed cancers four had breast, two prostate, one ovarian, one malignant melanoma and one had multiple cancers (Mackenzie et al., 2007). One focused on men with advanced prostate cancer only (Chambers et al., 2012).

Synthesis

Following thematic synthesis of the themes in the included studies we identified four major themes: 1) Coping strategies developed through mindfulness (including subthemes of acceptance, adapting to life with cancer, and engaging in mindful control). 2) Positive outcomes of mindfulness practice (reduced stress and anxiety, learn to live in the moment, making time and creating space, resources assist mindful practice, and increased spirituality). 3) Challenges with engaging in mindfulness practice (difficulty finding time for mindfulness, barriers to engagement, difficulty keeping focused), and 4) Group identification and shared experiences (draw strength from others, and shared understanding). Selected quotes are provided in Table 3 to illustrate each theme.

Findings

Coping strategies developed through mindfulness. *Acceptance.* Participants in four studies (Brotto & Heiman, 2007; Dobkin, 2008; Hoffman et al., 2012; Mackenzie et al., 2007) described the impact of their MBSR course on their journey towards acceptance of cancer. Participants highlighted two distinct processes, which led to acceptance; understanding that

things are not necessarily how the patient would want them to be; and taking care of the self. Mindfulness fostered a culture of accepting things as they are and creating a non-judgemental approach to thoughts.

Adapting to life with cancer. Participants in three studies (Dobkin, 2008; Hoffman et al., 2012; Mackenzie et al., 2007) outlined the various ways in which they have learned to adapt to their life with cancer following participation in an MBSR course. In a number of studies participants discussed a greater understanding of how to deal with the stressors associated with living with and beyond cancer. There was a sense that participants had developed new coping strategies such as living in the present and taking a step back from stressful situations.

Engaging in mindful control. Engaging in mindful control was a theme, which emerged in three studies (Dobkin, 2008; Hoffman et al., 2012; Mackenzie et al., 2007). By practising mindfulness, participants were able to regulate and control their emotions and respond to the ups and downs of everyday life in a controlled and measured way.

Positive outcomes of mindful practice. *Reduced stress and anxiety.* Reduced stress and anxiety was outlined in one study (Hoffman et al., 2012). Participants discussed having access to new raft of tools, which could help them to calm down if they are feeling stressed. In particular participants discussed how focussing on their breath allowed them to regain a sense of calm.

Learn to live in the moment. This subtheme was present in two studies (Brotto & Heiman, 2007; Dobkin, 2008). Participants discussed an enhanced awareness and were better able to

pay attention and be present in the moment. There was a feeling that anyone can do mindfulness as no matter how busy you are, or what you are doing, you can always take a minute to reflect on the moment and pay attention to the sensations in your body.

Making time and creating space. The need to take time for oneself was outlined in four studies (Brotto & Heiman, 2007; Eyles et al., 2015; Hoffman et al., 2012; Mackenzie et al., 2007). There was a realisation amongst participants that it is important to take time away from other people, to just have time and space for themselves, and that this is not a selfish thing to do. Mindful practice gave them the excuse to take themselves away from others, and by creating physical space for themselves, they were able to make space in their mind as well, which reduced feelings of being overwhelmed.

Resources assist mindful practice. Participants in two studies (Hoffman et al., 2012; Mackenzie et al., 2007) discussed how the resources which they were provided with when enrolling on a mindfulness course have assisted them in completing mindful practice in their everyday lives and reinforced the benefits of engaging in mindful practice.

Increased spirituality. This subtheme was discussed in one study (Mackenzie et al., 2007) and highlighted that although spirituality is not explicitly discussed during mindful programmes the methods and philosophy of MBSR may be a factor in promoting a sense of spirituality. A sense of spirituality seemed to emerge in those participants who had perhaps been religious in the past and more in tune with the spiritual undertones of mindfulness.

Challenges with engaging in mindfulness practice. *Difficult finding time for mindfulness.* In contrast to the subtheme above relating to making time and creating space, a number of participants in one study discussed how it could be challenging fitting mindfulness practice into their busy lives (Eyles et al., 2015). All group participants struggled with aspects of the course but some felt that the full day retreat at week 7 was too long.

Barriers to engagement. Two studies discussed potential barriers to engaging in mindful practice, which were pertinent for those who are living with and beyond cancer (Eyles et al., 2015; Hoffman et al., 2012). Some participants of the 8-week course felt that rather than help to take their mind off cancer, that mindfulness could actually bring cancer to the forefront of their minds and could lead to rumination. Furthermore, there was a feeling that asking participants to travel to a group could be a barrier especially if it is in a location that is difficult to reach with public transport.

Difficult to keep focused. Participants in one study (Hoffman et al., 2012) discussed how it was difficult to remain focused during certain exercises which could lead to the mind wandering to places, or feeling that they are going to fall asleep. Some participants also found some exercises difficult to complete due to physical discomfort.

Group identification and shared experiences. *Draw strength from others.* Drawing strength from others emerged in three studies (Chambers et al., 2012; Dobkin, 2008; Mackenzie et al., 2007). Participants discussed how hearing the experience of other people within the group reinforced that they were not alone, and that other people were dealing with similar issues. Furthermore, hearing from people who are perhaps having a tougher time than them allowed

participants to contextualise their illness and realise that if others can cope then so can they. However, sometimes this can evoke fears that in the future participants may find it more difficult to cope.

Shared understanding. Participants in three studies discussed shared understanding (Chambers et al., 2012; Dobkin, 2008; Mackenzie et al., 2007). This shared understanding fostered a sense of togetherness and allowed for members of the group to support each other through their cancer journey no matter what stage they were at.

Study Quality

The CASP tool was used to review the methodological quality of each included study.

Five of the six included studies were rated as high in terms of quality (Table 4).

TABLE 4 HERE

Discussion

Having a cancer diagnosis and subsequent treatment such as chemotherapy and/or radiotherapy is a challenge, which faces patients, families and the medical profession (Derogatis et al., 1983; Musial, Bussing, Heusser, Choy, & Ostermann, 2011; Smith, Richardson, Hoffman, & Pilkington, 2004). Studies in other populations have highlighted that by practicing mindfulness on a regular basis, there is an increase in participant mindfulness (Hoffman et al., 2012; Speca, Carlson, Goodey, & Angen, 2000), which has been shown to have a reduction in symptoms and increased wellbeing (Carmody & Baer, 2008). Mindfulness based therapy is an emerging intervention but there is still little known about its effectiveness

among cancer patients and cancer survivors. Whilst there has been an increase in the number of systematic reviews, and meta-analysis on this topic in the past 10 years, research is still limited.

The purpose of this synthesis of qualitative research was to provide a context for, and give meaning to, evidence of the attitudes of cancer patients and survivors to mindfulness. In order to interpret the findings from the qualitative synthesis of research, the descriptive themes that emerged were used to answer the review question developed according the SPICE framework (Booth, 2006).

The results from this current review propose that MBSR/MBCT and its integration alongside primary care and oncology services, potentially has a number of benefits for patients living with and beyond cancer. Participating in MBSR/MBCT may lead to reduced stress and anxiety (Hoffman et al., 2012); greater acceptance (Brotto & Heiman, 2007; Dobkin, 2008; Hoffman et al., 2012; Mackenzie et al., 2007) and the development of new methods of coping with stressful situations (Dobkin, 2008; Hoffman et al., 2012; Mackenzie et al., 2007).

This current review also highlighted a number of methodological issues. For example, much of the research so far has been quantitative, relying on self-reporting mindfulness measures questionnaires. Grossman (2004) has raised concerns about the validity of these measures, advocating that qualitative approaches are needed to help with our understanding of how mindfulness develops and how the interventions work. This current review has also corroborated evidence that a small number of participants find little or no benefit from the programme or the new techniques learnt (Dobkin, 2008; Eyles et al., 2015). From a clinical viewpoint, it might be beneficial to know at what stage of disease progression mindfulness is

most beneficial, therefore enabling a more targeted approach. Future work should also explore the impact of mindfulness on other populations, as most participants included in this review were breast cancer patients and this may have limited the quality of data. However, these studies did provide assessment of emotional engagement and adherences to the interventions. There were lower drop-out rates than in previous studies and patients were followed up after the sessions had finished.

Strengths and limitations

Very few studies were identified during the literature search that met our inclusion criteria. Furthermore, those studies which were included in the final synthesis, predominately included women who had been treated for breast cancer. Therefore, the results of this synthesis cannot be generalised to other cancer populations. However, of those studies that were included in this synthesis, five out of six were rated as high quality using the CASP tool for quality assessment.

Key conclusions

The evidence from this current review proposes that MBSR / MBCT and its integration alongside primary care and oncology services can have a positive impact on helping with anxiety, acceptance and adjustment to a life threatening illness and subsequent distress. However, there is currently a lack of efficacy/effectiveness studies to test effectiveness. Nevertheless, this study has highlighted the need for more qualitative research, which can gain a greater understanding of why mindfulness works and is helpful for a diverse population.

Disclosure Statement

No potential conflicts of interest were reported by the authors.

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