Abstract
Most people enjoy laughing and having fun, and this can enable individuals to socialise and bond. However, there is a difference between spontaneous laughter and laughter therapy, which consists of physical exercise, relaxation techniques and simulated vigorous laughter. This article aims to enhance nurses’ knowledge and understanding of laughter therapy, which is a practice within complementary and alternative medicine. It discusses the evolution of laughter therapy, and describes its components and how it is practised. This article also identifies the physical and psychosocial benefits of laughter therapy, and how patients and nurses can engage with this activity to enhance their well-being.

Components of laughter therapy
Laughter therapy comprises physical exercise, relaxation techniques and simulated vigorous laughter (Bennett et al 2015). According to stress and anxiety can have a detrimental effect on health then the opposite could also be true; positive emotions could have beneficial effects on health. He found that ten-minutes of ‘good belly laughter’ resulted in two hours of pain-free sleep, something that he craved because he had the degenerative chronic condition, ankylosing spondylitis. Inspired by Cousins, Dr Madan Kataria founded laughter yoga in 1995, as a tool to promote the benefits of laughter; this involves laughter exercises that attempt to rejuvenate the playfulness of one’s inner child. Laughter yoga, or laughter therapy, are widely used globally as an adjunct to other therapies (Mora-Ripoll 2010, Kuru and Kublay 2017). It should be noted that although there may be slight differences between laughter therapy and laughter yoga, the terms are frequently used interchangeably.

Implementing laughter therapy to enhance the well-being of patients and nurses
Penny Tremayne and Kirti Sharma

There is a long-standing history behind laughter therapy; in the 18th century, a neurologist, Dr Duchenne de Boulogne, studied the mechanisms of facial emotions and determined that smiles used muscles of the eyes and the mouth (Mora-Ripoll 2011). In the 1960s, Dr William Fry further enhanced gelotology (the science of laughter) by studying the psychological effects of laughter and identifying that laughter causes the body to release endorphins (Fry and Rader 1977, Fry 1994). Another innovator in the 1960s was Dr Annette Goodheart, an internationally renowned laughter therapist who worked with individuals and organisations, delivering counselling and workshops in cathartic laughter to release repressed emotions (Goodheart 1994). In the early 1970s, Dr Patch Adams used humour and fun in a clinical hospital environment to facilitate physical and emotional health (Adams and Mylander 1998).

In the seminal work Anatomy of an Illness as Perceived by the Patient, Cousins (1979) suggested that if negative emotions such as
Mora-Ripoll (2011), ‘while the human mind can make a distinction between simulated and spontaneous laughter the human body cannot, only the difference in the intensity of the abdominal contractions that are created’. It is a therapy that promotes wellness and well-being, and can be seen as an adjunct to the various forms of non-invasive, complementary and alternative medicine that are widely available, such as yoga, meditation and mindfulness. It is important to differentiate laughter therapy, which is simulated, from genuine and spontaneous laughter. While some of their benefits may be similar, laughter therapy is a technique that is planned and deliberate rather than unplanned and spontaneous. Mora-Ripoll (2011) outlined several types of laughter and related characteristics, as shown in Table 1.

Laughter therapy involves not only laughter, but also play, breathing exercises such as rhythmic deep breathing, mindfulness and coordination exercises. While play is essential in child development, it can become blunted and almost eroded as one ages. In laughter therapy, adult participants are encouraged to revisit this playfulness. Rhythmic deep breathing involves breath control practice, and enables a state of physical and psychological readiness for the exercises that follow; it can also be incorporated in daily life. This breathing technique involves inhalation, retention and exhalation. The retention of breath – the pause within the inhalation and exhalation of breath – enables an extended period of absorption, which gives increased time for gaseous exchange and can be beneficial for various conditions, such as anxiety (Russo et al 2017).

Mindfulness raises an individual’s awareness of their thoughts, emotions and bodily sensations, as well as their surroundings. It cultivates clear thinking, open-heartedness and curiosity, and brings attention to the present experience in the ‘very now’. Furthermore, Lyon (2017) identified that mindfulness can enhance communication and interpersonal skills, by supporting self-awareness and reflection on these skills.

<table>
<thead>
<tr>
<th>Table 1. Types and characteristics of laughter</th>
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<tr>
<td><strong>Laughter type</strong></td>
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<tr>
<td>Genuine and spontaneous</td>
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<tr>
<td>Simulated laughter</td>
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<td>Stimulated laughter</td>
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<td>Induced laughter</td>
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<td>Pathological laughter</td>
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(Adapted from Mora-Ripoll 2011)
practise laughter yoga have an improvement in depression and life satisfaction scores equal to that observed after undertaking an exercise programme. Laughter yoga can also decrease anxiety levels, and this can have a beneficial effect in reducing attenuated HRV (Dolgoff-Kaspar et al 2012), which improves the long-term outcome in patients awaiting organ transplant.

Benefits have also been identified in adults living with Parkinson’s disease, and their caregivers, with DeCaro and Constantine Brown (2016) finding that laughter yoga improved their general well-being. Kim et al (2015) undertook research to investigate whether laughter therapy lowers total mood disturbance scores and improves self-esteem scores in patients with cancer. Those who received 60 minutes of laughter therapy once per day for three consecutive days found that their mood states improved, particularly in relation to tension, depression, anger, and vigour (Kim et al 2015). Social interactions also improve through the peer group activities that form part of laughter therapy, which in turn enhances rapport with others and understanding of their own health and well-being (Heo et al 2016). Some of the psychological benefits of laughter therapy are outlined in Box 1 (Mora-Ripoll 2011).

Ellis et al (2017) implemented a six-week laughter yoga programme for older women living in residential care homes and found significant improvements in post-session scores in terms of improved mood and lower blood pressure. Given the non-invasive nature of laughter therapy, it should be considered for certain groups of patients. The implications could be significant; for some individuals laughter therapy could be used alongside other treatments, for example antidepressants.

Contraindications of laughter therapy

While laughter is generally well endured by most people, it can cause physical strain, trunk compression and a rise in intra-abdominal pressure (Svebak 2016). Similar to other forms of aerobic exercise such as dancing, step and low-impact rhythmic movements, laughter therapy is contraindicated in people with: a hernia; heart disease; hypertension; pregnancy, particularly during the early and late stages or if there are other concerns such as symptoms of nausea and vomiting; epilepsy; serious mental illness; bleeding haemorrhoids; urinary incontinence; persistent cough; and in anyone who has undergone recent surgery (Williams et al 2009).

McCreaddie (2008) further emphasised that laughter from humour is inadvisable in an emergency or psychological crisis. People with a viral infection should also avoid laughter therapy to limit the potential spread of the virus to others. However, it is suitable for many people, including those with compromised mobility (Tse et al 2010).

Example of a laughter therapy session

A one-hour laughter therapy session often begins with participants adopting a pseudonym. This is offered as an ‘ice breaker’ for participants to interact and appreciate that feeling awkward or silly is acceptable while laughing during the session. The facilitator gives a brief overview of the aims and learning outcomes for the session. Participants undertake breathing and mindfulness exercises. These can increase core awareness and concentration, as well as turning an individual’s focus inwards to improve their self-awareness, thus ensuring that the person’s focus is solely on the laughter exercises that follow.

Exercises are undertaken in which, without jokes or external stimuli, participants are encouraged to laugh out loud. These exercises not only enable them to relax, but also encourage stale air from the lungs to be exhaled. Some of the exercises involve being playful, which encourages participants to be open-minded and embrace changes and challenges in their lives. Box 2 provides an example of an exercise that might be used as part of laughter therapy for patients and nurses.

Coordination exercises are also an important feature of a laughter therapy session because they can break repeated patterns by offering a form of distraction, and can provide an enjoyable way to improve cognitive function.

Box 1. Psychological benefits of laughter therapy

- Reduces stress, anxiety and tension, and counteracts symptoms of depression
- Elevates mood, self-esteem, hope, energy and vigour
- Enhances memory, creative thinking and problem-solving
- Improves interpersonal interaction, relationships, attraction and closeness
- Increases friendliness and helpfulness, and builds group identity, solidarity and cohesiveness
- Promotes psychological well-being
- Improves quality of life and patient care
- Intensifies mirth and is contagious

(Adapted from Mora-Ripoll 2011)

Key points

- Laughter therapy consists of physical exercise, relaxation techniques and simulated vigorous laughter (Bennett et al 2015)
- De La Fuente Mochales and González Cascante’s (2010) study of 107 patients with chronic pain, mainly fibromyalgia, found that one laughter therapy session per week for eight weeks resulted in a 55% reduction in pain and a 12% increase in functional mobility
- Yazdani et al (2014) found that after eight one-hour laughter yoga sessions, nursing students showed significant improvements in their general health and well-being compared with those who did not undertake these sessions. These positive effects led to improvements in physical health, a reduction in sleep disorders, lowered anxiety and depression, and promoted increased social function
- It is important that undergraduate and postgraduate nurse education programmes embrace complementary and alternative therapies within their curricula, so that nurses can provide safe advice and support patients to enhance their quality of life
Box 2. Example of an exercise that might be used as part of laughter therapy

The following 'Y-junction' (three-part) exercise can be undertaken as part of laughter therapy:

1. Deep breathing, for physical bodily awareness
2. A mantra that the person says mentally, for psychological awareness
3. Bubble blowing, for fun and to celebrate the surroundings

Breathing in deeply with your mouth closed, mentally say ‘I am;’ then mentally say ‘going to enjoy this’ when breathing out through pursed lips at a gradual and steady pace, while imagining that you are blowing bubbles. Try to make those bubbles go far and high in the air, touching whatever you can notice in your environment, bearing in mind that the act of breathing in fills up your tank of bubble solution and you are in control of how to use it. Also, notice your stomach gently inflating on breathing in and deflating on breathing out.

Laughter therapy for patients

The following case studies demonstrate the potential benefits of laughter therapy for patients and its adaptability for use in a variety of settings.

Case study 1 – Fatima

Fatima is a 76-year-old retired shopkeeper who has had a left cerebral hemisphere infarction. She has a hemiparesis of the right side of her body affecting her arm and leg, which have compromised her mobility. Fatima also has some right-sided facial weakness and expressive dysphasia (difficulty in formulating understandable sentences). She is feeling frustrated and angry, and is tearful at times. She is choosing to separate herself from other patients who are also undergoing stroke rehabilitation on the unit. Fatima had been diagnosed with hypertension, but her blood pressure is now within normal limits because she is taking antihypertensive medicines daily.

Laughter therapy could offer Fatima several benefits, for example:

» Mobilising to the venue may assist in Fatima’s stroke rehabilitation and therefore be an incentive for attending laughter therapy sessions, although laughter therapy can still be undertaken in a wheelchair. Posture is important in stroke rehabilitation, and sitting up to undertake the exercises will encourage Fatima to use her muscles to support herself.

» Gentle stretching exercises of smiling, grinning and grimacing may exercise Fatima’s facial muscles. Coordination exercises can facilitate focus and enhance movement, which will support her rehabilitation.

» Interaction with others is important and may enable Fatima to form a sense of camaraderie and enhance her communication with others, especially her peers.

» Reducing anxiety and stress will reduce cortisol and may contribute towards lowering Fatima’s blood pressure.

Case study 2 – Kelvin

Kelvin is a 58-year-old man who has experienced a myocardial infarction, and he remains on sick leave from his job as an office administrator. He has begun to lose confidence and is withdrawing from his family and friends. He has recently been diagnosed with an anxiety disorder, and appears to be preoccupied by his symptoms and fearful that he will have another cardiac event. Cardiac rehabilitation classes have been arranged for a few weeks’ time. On a routine visit to his GP, Kelvin sees a laughter therapy leaflet on the noticeboard. Laughter therapy might be beneficial for Kelvin because:

» The exercises undertaken are short, so should keep Kelvin engaged and occupied.

» It could instil a sense of fun and play in Kelvin, which could reduce his anxiety and tension.

» It can support mindfulness and living in the present by improving Kelvin’s concentration and core awareness.

» While laughter therapy can be undertaken in a group situation, it can also be practised alone. The exercises undertaken alone could be beneficial for Kelvin because they aim to improve an individual’s outlook on the day ahead, overcome their default autopilot mode and celebrate life in its entirety.

Laughter therapy for nurses

The role of a nurse can be all-embracing and can have significant emotional effects, such as stress and burnout. This is evidenced by a Cavell Nurses’ Trust (2016) report, which states that two in five nurses have a physical or mental health condition expected to last longer than one year, and that they feel more stressed than the general population.

Dean (2012) suggested that there is a growing recognition of the link between staff well-being and patient satisfaction, and therefore the health and well-being of staff is an essential investment for healthcare organisations. Furthermore, the Nursing and Midwifery Council’s (2018) Future Nurse: Standards of Proficiency for Registered Nurses states that nurses must ‘understand the professional responsibility to adopt a healthy lifestyle to maintain the level of personal fitness and wellbeing required to meet people’s needs for mental and physical care’.

(Kwok et al 2011). Box 3 shows an example of a coordination exercise that could be used in laughter therapy for patients and nurses.

Gilbert (2014) considered the effectiveness of laughter therapy in a tertiary care home setting and how the format of a session can be adapted to the needs of the individuals involved. For example, the pace of the session can be adapted according to the fitness of the members taking part and to ensure care and support is available should the laughter therapy provoke profound emotions.
These standards also emphasise the importance of emotional intelligence and resilience.

Yazdani et al (2014) found that after eight one-hour laughter yoga sessions, nursing students showed significant improvements in their general health and well-being compared with those who did not undertake these sessions. These positive effects led to improvements in physical health, reduction in sleep disorders, lowered anxiety and depression, and increased social function.

The benefits of laughter therapy have also been recognised by some employers, with laughter therapy workshops well established in various major global organisations (Shah 2016). Corporate investment in laughter therapy recognises the importance of valuing employees and acknowledges that if they are fit, happy and healthy, this will improve morale and productivity (Beckman et al 2007). It is also one of the approaches used as part of team-building (Beckman et al 2007).

In a dialogue with Joan M. Erikson (1998), Benveniste emphasised the importance of play in adulthood. According to Erikson, being playful is a release, and having time to relax is equally important to other areas of an individual’s life, such as work.

Incorporating laughter therapy in nurse education
At De Montfort University in England, laughter therapy is offered to nursing students as a part of a health and well-being undergraduate module, to raise their awareness of this therapy and to provide an opportunity to experience it themselves. An internal evaluation of the sessions, undertaken between June 2015 and September 2015, found that participants’ responses appear favourable (Table 2). However, since attendance is optional, it could be suggested that the nursing students who participated were those who were already interested in complementary and alternative medicine, or intrigued about laughter therapy. Furthermore, the long-term effectiveness of laughter therapy and whether those who attended continue to perform the exercises is yet to be ascertained.

Before and after the sessions, the nursing students are also asked to offer numerical scores from one to ten (one being poor and ten being excellent) in relation to: feeling enthusiastic; energy level; mood; level of awareness of breathing; level of muscle relaxation; level of mental relaxation; ability to be playful and laugh without reason; ability to engage with others in a group more easily; willingness to embrace new ideas more easily; and stress. These scores are used to elicit the effects of the laughter therapy session. The most significant improvements identified in nursing students’ scores before and after laughter therapy sessions have been in the ability to be playful and laugh without a reason, and in the level of awareness of breathing.

**Recommendations for practice**
Early introduction to complementary and alternative therapies such as laughter therapy for nursing students would be beneficial, to enhance their knowledge and understanding of the valuable contribution these therapies can make in delivering holistic and compassionate care. It is important that undergraduate and postgraduate nurse education programmes embrace complementary and alternative therapies within their curricula so that nurses can provide safe advice and support patients to enhance their quality of life.

Laughter therapy could be offered as an intervention for certain patients with long-term conditions, for example those undergoing stroke rehabilitation, older people, those awaiting organ transplant, those undergoing haemodialysis and those with cancer (Dolgoff-Kaspar et al 2012, Bennett et al 2015, Kim et al 2015, Ellis et al 2017). It could also be offered as part of occupational health and well-being initiatives for nurses. Furthermore, longitudinal research should be undertaken to identify the long-term effects of laughter therapy.

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<th>Question</th>
<th>Examples of nursing students’ responses</th>
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| What did you think worked well in the session? | » The breathing exercises  
» The participating in exercises and actually ‘doing’ instead of just talking  
» Everyone was laughing – it was fun |
| What is the relevance to nursing? | » Different interventions  
» Engaging patients, finding play and fun activities in all service areas  
» Breathing exercises  
» It showed alternative techniques to interact with patients  
» Developing therapeutic relationships |
| How will this affect your nursing practice? | » It has made me loosen up and stress free – left the session feeling happy and laughing  
» Holistic approach towards nursing  
» More open minded  
» It has already impacted by relieving stress and clearing my mind. I can also bring out positivity in others |
| How will this affect your own health and well-being? | » Stress reliever  
» Relax and reduce stress |
| How would you rate this session from one to ten? (one being poor and ten being excellent) | » The median mark for the session was 7.25 |
| Would you recommend this session in the future? If no, please explain | » Yes, it was fun and made me relax and laugh and understand how to connect with the mind through laughter  
» Helps a person to relax; great for mindfulness and ‘living in the now’ |

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Conclusion
While laughter therapy is a lesser-known and under-used form of complementary and alternative medicine, it has several potential benefits. Laughter therapy aims to enable participants to revisit their playfulness as well as principles of mindfulness, which are important for patients and nurses. Evidence suggests that it could offer several potential benefits to patients, particularly those with long-term conditions, in terms of improving their physical and psychological well-being. Laughter therapy could offer a useful supplement to the care and treatment they are receiving, and therefore nurses could consider recommending this to patients. Nurses should also be invested in their own physical and mental health, because their ability to care for others may be affected if they do not address their own well-being. Therefore, laughter therapy could be beneficial for nurses as part of their self-care and ensuring their well-being is maintained.

Occupational health programmes could consider including laughter therapy as part of their health and well-being initiatives.

References