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***Soothing relaxation journeys:* designing evidence based music and imagery opportunities**

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Abstract: This paper provides information on the creation of an original collection of music and imagery journeys based on the literature in oncology and palliative care. Background evidence is shared about music and relaxation, music relaxation in medical settings, and music and relaxation in oncology/hospice treatment. The development of the resource is illuminated with respect to principles that guided the design. The *Journeys* collection is a tool that can be used independently by persons experiencing a variety of issues including: anxiety, pain, stress, low self-esteem, and low mood, etcetera; as well as with groups when implemented by a healthcare professional. While the *Journeys* collection has been primarily developed for those receiving cancer care and palliative care, it has applications in a variety of settings for others in home, hospital, hospice, long-term care facilities and community centres; as well as for persons new to guided imagery and music.

Keywords: Relaxation; Imagery; Guided imagery and music; Pain, Palliative care; Oncology.

Revigorando jornadas relaxantes: desenvolvendo oportunidades de música e imagem baseadas em evidências

Resumo: Esse artigo traz informações sobre a criação de uma coletânea original de jornadas de música e imagem a partir da literatura em oncologia e cuidados paliativos. São compartilhadas evidências anteriores sobre música e relaxamento, relaxamento musical em contextos de saúde, e música e relaxamento em tratamento oncológico / paliativo. O desenvolvimento desse recurso é elucidado de acordo com princípios que orientaram o design. A coletânea *Jornadas* é uma ferramenta que pode ser utilizada de maneira independente por pessoas que vivenciam uma variedade de questões, incluindo: ansiedade, dor, estresse, baixa autoestima e humor deprimido, etc., assim como com grupos conduzidos por um profissional de saúde. Embora a coletânea *Jornadas* tenha sido primeiramente desenvolvida para aqueles que fazem tratamento de câncer e de cuidados paliativos, ela tem aplicações em uma variedade de contextos para pessoas em domicílios, hospitais, cuidados paliativos, instituições de longa permanência e centros comunitários, assim como para iniciantes em imagens guiadas e música.

Palavras-chave: Relaxamento; Imagens; Imagens guiadas e música; Dor; Cuidados paliativos; Oncologia.

Revigorando jornadas relajantes: construyendo oportunidades de música e imagen basadas en evidencias

Resumen: En este artículo se proporciona informaciones acerca de la creación de una colección original de jornadas de música e imagen a partir de la literatura en oncología y cuidados paliativos. Són compartidas evidencias anteriores acerca de la música y la relajación, relajación musical en contextos de salud, música y relajación en tratamiento oncológico/paliativo. El desarrollo de esta función se aclara conforme a los principios que han guiado el diseño. La colección de las jornadas es una herramienta que se puede utilizar de forma independiente por las personas que experimentan una variedad de temas, incluyendo: la ansiedad, el dolor, el estrés, la baja autoestima y depresión, etc., así como con grupos dirigidos por un profesional de la salud. Aunque la colección de las jornadas se ha desarrollado principalmente para aquellos que están pasando por el tratamiento del cáncer y de los cuidados paliativos, ella tiene aplicaciones en una variedad de contextos para las personas en domicilios, hospitales, cuidados paliativos, instituciones de atención a largo plazo y en los centros comunitarios, así como para principiantes en imágenes y música guiadas.

Palabras clave: Relajación; Imágenes; Imágenes guiadas y música; Dolor; Cuidados paliativos; Oncología.

Introduction

“*Soothing Relaxation Journeys*”¹ is a specifically designed relaxation and imagery music collection created to facilitate relaxation experiences, reduce anxiety and pain perception, improve mood and enhance comfort during treatments in oncology and palliative care. It is also developed as a tool for those new to the Guided Imagery and Music (GIM) process and imaging to music. There is a substantial body of research in the areas of music and relaxation, and music and relaxation in medical settings, and that research has informed the development of the Journeys collection. There are numerous relaxation and im-

agery recordings on the market but few have been developed upon evidence-based principles, thus there was a need to create such a resource.

1. Background literature

1.1 Music and relaxation

Studies that focus on music and relaxation highlight the biological and neurological effects that music has on the body and the brain. Fried (1990) discussed decreasing heart and respiratory rates initiated by changes in the autonomic nervous system activity when relaxing music is played; and changes that occurred in paradoxical arousal patterns that were contrary to those in cognitive function and anxiety, which is a positive result showing how music was used to create physical relaxation symptoms that are opposite of physical symptoms experiences during anxiety.

Significant decreases in state anxiety were found in college students when listening to preferred, relaxing music (DAVIS & THAUT, 1989). In a broader study, Robb (2000) found music relaxation and progressive muscle relaxation were the most effective in eliciting changes in anxiety and perceived relaxation when listening to music and participating in various relaxation techniques, but that state and trait anxiety did not differ among treatments. A meta-analysis of 22 studies focusing on using music to decrease physiological arousal due to stress found that music and music-assisted relaxation significantly decreased arousal due to stress, and the amount of stress that was reduced was dependent on the client's age, type of stress, musical preferences, and the type of music utilized (PELLETIER, 2004).

1.2 Music and relaxation in medical settings: surgery and treatment

There are multiple studies on music used in medical settings to alleviate pain or improve treatment procedures. Below a few examples are shared.

Surgery

Research with music and relaxation in post-operative pain shows that relaxation and music were effective in reducing affective and observed pain in the majority of studies, and that music and relaxation treatments were effective for pain across ambulation over several days (GOOD, et al., 2001). Studies in gynecologic surgery show that pain was significantly reduced when music was used post-surgery, and music and relaxation helped relieve anxiety and lower pain scores (GOOD, CRANSTON, STANTON-HICKS, GRASS, & MAKII, 2002; DAVIS, 1992). For burn victims, music has been used to decrease pain and initiate relaxation before and after surgery resulting in decreases in state trait anxiety and assisting in pain and anxiety management after surgery or treatment (ROBB, et al., 1995; PRENSNER, YOWLER, SMITH, STEELE, & FRATIANNE, 2001). When relaxation and music was used with postoperative pain after major abdominal surgery, results showed that the relaxation and music groups scored significantly less on all pain, sensation, and distress tests, except after ambulation (GOOD, et al., 1999).

Medical Treatments

Research in music and relaxation in pediatric care shows that when undergoing bone marrow aspirations, pediatric patients showed a significant reduction in anticipatory fear, experienced fear, and experienced pain when participating in music-assisted relaxation during the procedure (PFAFF, SMITH & GOWAN, 1989). A study by Wolfe, O'Connell & Waldon (2002) focused on determining the kinds of musical selections/CDs that could be used in a music listening/relaxation program for parents of children in a pediatric hospital.

Research on specific procedures established that music and relaxation during labour helped relieve pain during contractions (HANSER, LARSON, & O'CONNELL, 1983). In a study with patients diagnosed with presumptive acute myocardial infarction in a coronary care unit, the group who received music and relaxation had a lower incidence of cardiac complications, and that physical relaxation such as lowered heart rates and raising peripheral temperature was also achieved (GUZZETTA, 1989). Chlan (1998) found that patients who received music and relaxation reported significantly less anxiety than those subjects in the control group, and heart rate and respiratory rate decreased over time for those subjects in the music group as compared with the control group subjects with patients receiving ventilator assistance. Patients undergoing MRI treatments who received live music therapy had significantly better perception of the MRI procedure and asked for less breaks during the scan. It also took subjects receiving the live music protocol less time to complete the scans (WALWORTH, 2010).

1.3 Music and relaxation in Oncology/Hospice treatment

The literature on the use of music therapy in the treatment of patients diagnosed with cancer or long-term illnesses in medical settings is rich. Krout (2001) found that single-session music therapy interventions were effective in increasing participant perceived pain control, physical comfort, and relaxation in hospice patients. Similarly, Curtis (1986) found that patients with terminal malignant diseases who received music therapy had an increase in contentment; Burns, et al. (2001) found: increased well-being and relaxation and less tension during music listening experiences; and increased well-being and energy with reduced tension during music improvisation with adult cancer patients; and, live and recorded music listening resulted in statistically significant reductions in pain perception in palliative care patients (CLEMENTS-CORTES, 2011). In a study with patients in palliative care, music creativity and music therapy significantly alleviated pain (O'CALLAGHAN, 1996). When the Bonny Method of Guided Imagery and Music (BMGIM) was used to improve the mood and quality of life in cancer patients, the study found that patients who participated in BMGIM sessions scored better on mood scores and quality of life scores, and that mood and quality of life continued to improve in the experimental group even after sessions were complete. Sabo & Michael (1996) found that when a personal message was played with music during chemotherapy treatments, state anxiety significantly decreased from pre-test to post-test with cancer patients.

This literature provided a rationale and the support to create an original Journeys collection of music and imagery experiences.

2. Creating an evidence-based music journey collection

2.1 Journeys' collection inspiration

Jung's (1983), "*Integration, Wholeness and the Self*", speaks of learning to integrate all aspects of one's life for balance and wellness. This reading was inspiration in the development of *Soothing Relaxation Journeys*. The Journeys were created by the author for her clients to use independently in order to help them achieve a sense of wholeness and wellness. Learning to quiet the mind, and to relax are essential to one experiencing opportunities for repose, reflection and integration of the self. In BMGIM sessions clients are guided to a deep inner space in order to work on unconscious issues that are prominent in their lives, but that clients may or may not be aware of readily. This Journeys collection can be used by clients as a way to learn to relax, trust oneself and prepare for potential BMGIM sessions.

Lewis (1998/1999) speaks of the importance of the BMGIM in guiding the therapeutic process for clients towards transpersonal experiences by:

1. Quieting the mind, therefore allowing a more expanded state of consciousness,
2. Loosening attachments to thoughts, emotions and beliefs,
3. Facilitating growth and development, and
4. Allowing clients to be connected with God or spirituality and nature.

In order to do this a client must be in a frame of mind and a space that will allow and permit this accomplishment. Being able to relax and trust the experiences of GIM are key to achieving success. *Soothing Relaxation Journeys* may help clients learn about trusting the relaxation and induction process while also engaging in the potential of imagery. The scripts and music in the collection have been developed to provide prepared journeys where clients can learn: how they image, to be open to the imaging process, and how they can trust and work with a GIM guide in future BMGIM sessions.

Bonny (2001) inspired the development of the original music in this collection. She states that in GIM the music she selected for the programs was done purposefully; the musicians must be stellar and the musical structure is an integral part of the GIM experience. As a researcher the author became excited by the opportunities to design studies that look at what brain waves and/or parts of the brain are engaged when listening to the different programs. *Soothing Relaxation Journeys* was developed to target a resting brain wave and for the client to be entrained to that external pulse in order to open their mind to imaging in a semi-relaxed state. The author developed the music with much consideration of the images she was trying to invoke via the scripts. Together the author worked in collaboration with the pianist to create original music of the highest quality in order to elicit the described images. With respect to the balance between voice and piano, the pair worked with the sound engineer to provide the voice in the forefront and the music to serve as the true accompaniment to the guided scripts.

3. The evidence

The discussion below provides insight into the choices and rationale for the script and music preparation in the Journeys collection.

3.1 Music for relaxation

Indications, Goals

If a client discusses experiences of anxiety, pain, difficulty sleeping or tension, music for relaxation is indicated (BAILEY, 1986). A number of goals are aligned with music for relaxation for persons receiving palliative care. These include: enhancing physical comfort; decreasing anxiety, agitation and/or restlessness, and shortness of breath; and facilitating muscle relaxation (GALLAGHER, et al., 2006). According to Grocke and Wigram (2007) music and relaxation may also be effectively used to: reduce tension and stress as well as anxiety prior to medical procedures, lessen pain and its intensity, and regulate breathing. Journeys was created to provide images that would assist with and/or are associated with: freedom, release, comfort and relaxation to maximize obtaining relative goals for this population.

Contraindications

When a client desires or is struggling to remain conscious, music for relaxation is contraindicated. Further, if a client wishes to remain alert and awake and is receiving medications which cause drowsiness or are fatigued due to their illness, music for relaxation is not advisable. For other clients wishing to actively participate in a music making intervention or discussion, introducing music for relaxation may cause anxiety and restlessness. Additional contraindications for music and relaxation are shared by Grocke and Wigram (2007) and include clients: who may have trouble with abstract thought or confusion with scripts that require embodied experiences, difficulties engaging in deep breathing, feeling vulnerable by being observed or uncomfortable focusing on their bodies in the presence of the therapist. Formal assessment of the client will uncover these potential contraindications. The Journeys collection is not for all clients, and was designed for clients who are able to understand images and abstract thought and is contraindicated for persons with cognitive impairments including Alzheimer's disease.

Preparation of Session, Music and Environment

There are four essential aspects to providing an environment that fosters music for relaxation including: light and dark, a comfortable position for the patient, continual space, and ensuring the music equipment is properly placed and prepared (GROCKE & WIGRAM, 2007). It is important to consider the client's preferences when selecting music and the therapist should individualize the selections as music and relaxation is optimally received when the music selections are chosen or catered to the client's preferences (SAPERSTON, 1999). When selecting music for relaxation, a number of factors are important to consider such as: steady and predictable melodies, consistent tempos with only minor changes in dynamics, repetition, and tonal and consonant melodies and harmonies. When listening to classical music Kemper and Danhauer (2005) maintain clients demonstrate decreased tension, and when listening to music created for well-being participants reported increased mental clarity, relaxation, and compassion as well as decreased feelings of sadness, fatigue and tension. Again these principles were considered in creating the Journeys collection. For example, the inductions begin by inviting a person to get into a more comfortable position, and predictable melodies and harmonies, steady tempi and continual space are included. There are times in each of the Journeys where there is no speaking, allowing the client to process the images just presented and transition to the next images.

Observation and Assessment

Both objective and subjective measures can be used to assess clients in music and relaxation sessions. Questionnaires that the client reports upon are implemented to allow the client to convey changes they experience as a result of the music for relaxation session. A number of tools could be used including: Spielberger's State-Trait Anxiety Inventory (STAI), the Short-Form McGill Pain Questionnaire (SFMPQ), the Linear Analog Self-Assessment Scale (LASA), and visual analogue scales (CALOVINI, 1993, LONGFIELD, 1995). Objective observation methods offer the potential to assess the client's breathing, if tension is released, and also attend to the client's level of consciousness. It is important for therapists to assess the musical selections and to tailor future sessions based on the client's response. Informally the author piloted the Journeys collection with clients and asked them to rate themselves on anxiety, pain, mood and energy using visual analogue scales. Informal reporting from these clients suggests that persons found pain and anxiety reduced by an average of 2 points (i.e. from 5 pre- session to 3 post- session) and mood and energy were increased by an average of 2 points from pre- to post- session. A formal study to assess the self-reporting of clients is need and is being planned.

Inductions and Recorded Music

The inductions and start to each of the Journeys was guided by the BMGIM session structure which includes: Preparation, the induction, music, return to alert state, and verbal processing (GROCKE & WIGRAM, 2007). Further the various types of inductions as discussed by Grocke & Wigram (2007) were instrumental in helping guide the beginning of the scripts. These include: structured/count-down induction, autogenic-type induction, colour induction, light inductions, and progressive muscle relaxation (GROCKE & WIGRAM, 2007).

As opposed to a typical BMGIM, the music on the Journeys collections begins with the induction. While Journeys may easily be used independently by persons, it also has applications for use by healthcare professionals. For example a music therapist might chose to use a track from the Journeys collection while having a session with a client. A therapist might find it challenging to play live music in a continuous manner while also describing imagery and facilitating the relaxation techniques and therefore recorded journeys may be more practical in some settings.

Adaptations

Shorter music for relaxation sessions may be indicated if a person has trouble focusing. Inductions might also require adaptations depending on the cognitive abilities of the client and their understanding of abstract concepts. Delirium and confusion can be side effects of pain medication, and scripts that require considerable abstract thought could cause frustration and further confusion. These factors need to be considered when a healthcare professional considers recommending products such as the Journeys collection as they are not for everyone. Journeys could also be done in group settings or with the client and their family members to offer a unique experience and in these situations should be facilitated by a healthcare professional.

3.2 Guided imagery and music

Indications, Goals

There are a number of goals that can be accomplished with the use of GIM including: reducing anxiety, improving mood while decreasing depressive symptoms or sadness, enhancing quality of life, decreasing symptoms such as pain, nausea, and emotional stress while also facilitating emotional outlets, and avenues for expressing grief and hope (LOGAN, 1998; BURNS, 2001). GIM can be used to help clients who are experiencing psychological pain to address these issues and emotions while facilitating emotional relief. Short (2002) explains that reducing psychological distress is an important goal of GIM as psychological distress can reduce a person's immune function, and GIM has positive effects on immune and endocrine function for persons experiencing a chronic illness. In medical settings Clark (2000) acknowledges there are four ways to use guided imagery with clients: to decrease negative feelings, promote healing, improve problem solving, and prepare for upcoming situations. In a study with chemotherapy patients, Troesch et Ales (1993) found patients who received guided imagery had delayed symptoms compared to those in the control group. These persons also reported feeling relaxed, more prepared and in control prior to their chemotherapy treatments.

Contraindications

Contraindications for GIM include: emotionally unstable clients, persons with reality problems and intellectual impairments (WIGRAM, PEDERSON, & BONDE, 2002) as well as persons suffering from suicidal ideations, hallucinations and personality disorders. For persons having acute pain, it may be helpful for sessions to occur after medical treatments as pain can make the imagery process more challenging (Burns, 2002). Patients who have difficulty focusing due to their illness might not have the ability or energy to participate in a longer imagery journey. Cohen (2002) states particular populations should not receive guided imagery to music, which includes clients who are: mentally unstable, acutely psychotic, in acute phases of substance withdrawal, or those lacking cognitive skills to interpret the abstract material from their unconscious. Again these factors should be considered when any type of GIM experience is being recommended to clients.

Music and Imagery Selections

The music created for Journeys was influenced by Burns and Woolrich (2008), who recognize that the choice of music is important as it provides the structure for the imagery experience. Music selection provides a focus for sessions (BUSH, 1995) and Bush describes how music can be categorized into 6 groups based on aesthetic differences including: earth music, fire music, air music, water music, descent music and ascent music. These properties were considered when creating the original music for the scripts in the Journeys collection.

Clinical Observation

If a therapist is providing one of the Journey's recordings during sessions there are a number of areas to observe and also facilitate discussion upon with the client post journey. These areas are informed by Grocke (2002) who prepared a list of typical experiences that clients have in BMGIM as: body sensations or movements, somatic sensations, altered auditory perceptions, associations and transference to the music, spiritual experiences, etcetera. Further directives are provided by Grocke and Wigram (2007) who state four essen-

tial items that a therapist should observe including if the client can: listen to the relaxation induction and follow instructions, concentrate on the therapist's voice when giving visualization, return from the relaxed state, and discuss and gain benefit from the experience.

Types of Guided Imagery and Music Experiences

The various music and imagery methods are described by Grocke and Wigram (2007) as: directed music imaging which includes an imagery script; unguided music imagery which is when a client produces imagery in response to the music he/she hears; group music and imagery where individual responses are generated by each group member; and guided music imaging where the client and therapist dialogue and the client describes the imagery while the therapist asks clarifying questions and augments material to discuss. The Journeys collection was designed as a directed music imagery experience.

Clark (2000) provides images to suggest in guided imaging taking place in medical settings. These include: picturing radiant light, blood flow inside the body, giving cancer an image and voice, inner advisors, or images of health and wellness. These images were considered in the Journeys creation and implemented.

Adaptations

The addition of physical objects or visual images could be useful to help clients who are challenged to have clear images (CLARK, 2000). This is certainly something a therapist could do if they are using the Journeys collection with individuals or groups. Depending on the client's level of functioning and psychological need, music and imagery could be combined with other forms of therapy, including gestalt dream work therapy, Jung's analytical psychology, psychodynamic approaches, and incorporating spiritual growth (WARD, 2002).

Conclusion

The research and literature support the efficacy of using music for relaxation and music and imagery in medical settings with persons experiencing a variety of issues. The Journeys collection is one tool that has been created based on the evidence, and this paper discussed the rationale for selections in the collection as well as the background information and literature. The Journeys collection can be used independently by persons or by healthcare professionals in a variety of settings including palliative and oncology care. Music and imagery experiences are not for all clients and a number of contraindications are also discussed alongside the potential goals. It is hoped that by describing and discussing the importance of such relaxation tools that more will be created as resources for individuals as well as healthcare professionals and their effectiveness will be assessed in future research studies.

Nota

¹ Soothing Relaxation Journeys was created by Amy Clements-Cortes; vocals are provided by Amy Clements-Cortes, and piano accompaniment is provided by Sincere Tung. The Cd is available at <http://www.notesbyamy.com/store.html>

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