Understanding Bodywork for the Patient With Cancer

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Bodywork includes modalities from the domains of energy therapies, alternative medical systems, and manipulative and body-based methods defined by the National Center for Complementary and Alternative Medicine (NCCAM, 2004). However, bodywork is a term commonly used by touch therapy practitioners, or “bodyworkers,” to describe their work.

An understanding of common bodywork modalities and current research findings will help oncology nurses in three ways. It will increase the ability to assess current patient use of bodywork, provide evidence-based guidance for patients choosing bodywork, and facilitate communication among patients, physicians, and bodyworkers. This article describes 11 common bodywork modalities. Selected research studies of bodywork are summarized in Table 1. Many of the studies focused on symptom management and quality of life and found that bodywork has positive effects on these variables.

Massage is one of the complementary and alternative medicine (CAM) modalities included under the term “bodywork.” Multiple surveys have found that patients with cancer are using CAM modalities (Kao & Devine, 2000; Lengacher et al., 2002; Sparder et al., 2000; Yates et al., 2005). Massage therapy was used by 18%-27% of the respondents (Kao & Devine; Lengacher et al.). Yates et al. found that massage was one of the CAM modalities most frequently discussed with physicians. Meta-analyses of massage research found that it reduces anxiety, depression, and delayed assessment of pain (Moyer, Rounds, & Hannum, 2004) and may provide pain relief for patients with cancer at the end of life (Pan, Morrison, Ness, Fugh-Berman, & Leipzig, 2000). Furthermore, massage is considered reasonable for physicians to accept and recommend for relief of anxiety and reasonable to accept for cancer-related pain (Weiger et al., 2002).

Swedish massage is one of the most popular and best known forms of massage. The primary goal is relaxation. It combines five types of strokes: effleurage (long strokes), petrissage (grasping, compression, and kneading), friction, tapotement (pounding, tapping, and cupping), and vibration (rhythmic shaking) (Ashton & Cassel, 2002). It can be done with any level of pressure from light to heavy and is easily adaptable to an individual’s needs and limitations.

Aromatherapy massage is the controlled use of essential oils to effect physical, mental, emotional, and spiritual health. Essential oils are aromatic essences distilled from plants. Oils may be used individually or in blends to achieve the desired effects (Perez, 2003). Although essential oils can be used by themselves in diffusions, baths, and compresses, they often are mixed into oils, lotions, or gels. Aromatherapy is easily combined with massage. Generally, practitioners who use aromatherapy provide clients with a choice of oils (Hadfield, 2001). Research has focused on the role of aromatherapy massage in hospice settings (Soden, Vincent, Craske, Lucas, & Ashley, 2004; Wilcock et al., 2004; Wilkinson, Aldridge, Salmon, Cain, & Wilson, 1999). The Cochrane review of aromatherapy and massage concluded, “Massage and aromatherapy confer short term benefits on psychological wellbeing, with the effect on anxiety supported by limited evidence. Effects on physical symptoms may also occur” (Fellowes, Barnes, & Wilkinson, 2004, p. 1).

Deep tissue massage encompasses several modalities, such as neuromuscular therapy and trigger-point therapy, that target areas of muscle and connective tissue constriction to release chronic patterns of tension (American Massage Therapy Association [AMTA], 2005a; Decker, 1999; Holmes, 1999). They are done with heavy pressure applied by a practitioner’s fingers, hands, forearms, knees, and elbows. Recipients need to be in good health to withstand the heavy pressure. This, in addition to the risks associated with altered coagulation states and bony metastasis, make cancer a contraindication for deep tissue massage (MacDonald, 1999; Weiger et al., 2002).

Athletic, or sports, massage is designed to improve and maintain performance and to prevent and rehabilitate injuries. Practitioners use techniques that include assisted stretching and application of heat and cold (AMTA, 2005a; Ashton & Cassel, 2002; Decker, 1999). Although the techniques may...
### Table 1. Current Research Involving Bodywork

<table>
<thead>
<tr>
<th>Area of Research</th>
<th>Study</th>
<th>Focus</th>
<th>Methods</th>
<th>Conclusions</th>
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<tbody>
<tr>
<td>Prevalence of complementary and alternative medicine (CAM) use</td>
<td>Kao &amp; Devine, 2000</td>
<td>Use of CAM among patients with prostate cancer who are receiving radiation therapy</td>
<td>Prospective survey, N = 50</td>
<td>37% used CAM not prescribed by a physician. 18% used massage. Physicians estimated that an average of 4% of patients used CAM.</td>
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<td>Lengacher et al., 2002</td>
<td>Use of CAM use among women with breast cancer</td>
<td>Descriptive, cross-sectional survey, N = 105</td>
<td>27% of all participants used massage at least once since diagnosis.</td>
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<td>Sparder et al., 2000</td>
<td>Patterns of use of CAM among adult patients enrolled in National Cancer Institute clinical trails</td>
<td>Prospective, cross-sectional, descriptive survey, N = 100</td>
<td>63% used at least one CAM. An average of two CAM therapies were used per patient.</td>
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<td>Yates et al., 2005</td>
<td>Use of CAM by patients during cancer treatment and communication between patients and physicians about CAM use</td>
<td>Cross-sectional, retrospective survey, N = 752</td>
<td>91% used at least one form of CAM. 57% discussed at least one CAM therapy with physicians. The most frequently discussed CAM therapies were diets, massage, and herbal medicines.</td>
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<td>Swedish massage</td>
<td>Cassileth &amp; Vickers, 2004</td>
<td>The effect of massage therapy on the cancer-related symptoms of pain, fatigue, anxiety, nausea, and depression</td>
<td>Retrospective review, N = 1,290</td>
<td>Symptom scores decreased by 50%, even for patients with high baseline scores. Benefits to outpatients lasted through the 48-hour follow-up. Swedish and light touch massage were more effective than foot massage. The largest effects were seen on anxiety and the smallest on fatigue.</td>
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<td>Grealish et al., 2000</td>
<td>The effects of foot massage on the subjective experience of pain, nausea, and relaxation</td>
<td>Quasi-experimental study with crossover, N = 87</td>
<td>Foot massage had a significant immediate effect on perception of pain, nausea, and relaxation.</td>
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<td>Hernandez-Reif et al., 2004</td>
<td>The effects of massage on mood and the biologic measurements associated with mood enhancement, stress and stress hormones, and immune function in women with stage 1 and 2 breast cancer</td>
<td>Randomized control design, N = 34</td>
<td>Immediate effects included reduced anxiety, depressed mood, and anger. Longer-term effects were reduced depression and hostility and increased urinary dopamine, serotonin values, and natural killer cell and lymphocyte numbers.</td>
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<td>Smith et al., 2002</td>
<td>The effects of massage on the perception of pain, subjective sleep quality, symptom distress, and anxiety for hospitalized patients with cancer</td>
<td>Quasi-experimental study with control group, N = 41</td>
<td>Statistically significant interactions were found for pain, sleep, and symptom distress in the massage group. Sleep improved slightly in the massage group but dropped significantly in the control group.</td>
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<td>Wilkie et al., 2000</td>
<td>The effect of Swedish massage on pain intensity, prescribed intramuscular morphine equivalent doses, hospital admission, and quality of life (QOL) in hospice patients</td>
<td>Pilot study with a randomized control design, N = 29</td>
<td>Pain intensity, heart rate, and respiratory rate were significantly reduced immediately after massage. Longer-term effects included reduced average pain intensity, stable or reduced analgesic therapy for half of patients, and a reduced decline or improvement in QOL.</td>
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<td>Aromatherapy massage (AM)</td>
<td>Hadfield, 2001</td>
<td>The effect of AM on anxiety in patients with primary malignant brain tumors after completing radiotherapy</td>
<td>Quasi-experimental study, N = 8</td>
<td>Physical parameters were significantly lower after AM. AM had no effect on anxiety and depression scale. All patients reported feeling relaxed or less tense after AM.</td>
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<td>Soden et al., 2004</td>
<td>The effects of AM or massage in addition to usual care versus usual care alone for hospice patients with cancer</td>
<td>Randomized control design, N = 42</td>
<td>The study was unable to demonstrate any significant long-term benefits of AM or massage in terms of improving pain control, anxiety, or QOL. Sleep scores improved significantly in AM and massage groups. Statistically significant reduction in depression scores occurred in the massage group.</td>
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Table 1. Current Research Involving Bodywork (Continued)

<table>
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<th>AREA OF RESEARCH</th>
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<td>MLD</td>
<td>McNeely et al., 2004</td>
<td>The effect of MLD with compression bandaging (CB) compared to CB only on arm lymphedema volume in women with breast cancer</td>
<td>Prospective, randomized control design, N = 50</td>
<td>Significant reduction in arm volume occurred in both groups. CB was effective with or without MLD. Women with mild lymphedema had a significantly larger percentage reduction with combined MLD and CB.</td>
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<td>Stephenson et al., 2003</td>
<td>The effect of reflexology and usual care versus usual care only on patients with metastatic cancer pain, with equianalgesic dosing calculated</td>
<td>Pilot study, stratified random sample with control, N = 36</td>
<td>Foot reflexology had a positive, immediate effect. No statistically significant effect existed at 3 or 24 hours after intervention.</td>
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<td>Stephenson et al., 2000</td>
<td>The effect of reflexology on anxiety and pain for inpatients with breast and lung cancer</td>
<td>Quasi-experimental crossover design, N = 23</td>
<td>Both groups had a significant decrease in anxiety after reflexology. Patients with breast cancer experienced significant decrease in pain as measured by descriptive words.</td>
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<td>Ross et al., 2000</td>
<td>The effects of reflexology versus foot massage on anxiety and symptom distress on outpatient hospice patients with cancer</td>
<td>Single-blind, randomized pilot study, N = 17</td>
<td>Patients generally enjoyed the therapies. No superior effect was found with reflexology. No cumulative effects were noted.</td>
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<td>Hodgson, 2000</td>
<td>The effect of reflexology versus foot massage on QOL for inpatients with advanced cancer</td>
<td>Single-blind, randomized control design, N = 12</td>
<td>Both groups reported improved QOL, but the reflexology group had significantly more benefit.</td>
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<td>Roscoe et al., 2003</td>
<td>The effect of acupressure and acustimulation wristbands on CINV in chemotherapy-naive patients receiving either cisplatin- or doxorubicin-containing regimens as adjuncts to standard antiemetics</td>
<td>Single-cycle randomized control design, N = 739</td>
<td>Significant improvements occurred in energy levels, relaxation, confidence, symptom control, clarity of thought, and mobility that lasted a few hours to beyond the treatment period.</td>
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<td>Dibble et al., 2000</td>
<td>To compare the effects of acupressure training and treatment plus usual care versus usual care only on chemotherapy-induced nausea and vomiting (CINV) for women receiving outpatient chemotherapy for breast cancer</td>
<td>Single-cycle, randomized control design, N = 17</td>
<td>The acupressure group reported significantly less experience of nausea and nausea intensity.</td>
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<td>Asian massage modalities</td>
<td>Chessman et al., 2001</td>
<td>The effects of shiatsu on clients attending a hospice day center</td>
<td>Qualitative study using content analysis, N = 11</td>
<td>Patients with acustimulation bands experienced less nausea on the day of treatment. No significant differences in delayed NV occurred between groups. Pronounced gender difference existed because men with acustimulation bands had less NV compared to controls. Patients’ expectation of efficacy was related to acupressure bands but not acustimulation bands.</td>
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<td>Wilkinson et al., 1999</td>
<td>The effectiveness of massage versus AM on QOL of patients with advanced cancer</td>
<td>Randomized study, N = 67</td>
<td>Statistically significant reduction in anxiety occurred after each massage. Symptom and QOL scores improved on all subscales after AM. Improvement occurred on some QOL subscales after massage.</td>
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<tr>
<td>MLD</td>
<td>Wilcock et al., 2004</td>
<td>The effect of AM and usual care versus usual care only on mood, QOL, and physical symptoms in patients at a palliative care day center</td>
<td>Pilot study, randomized control design, N = 29</td>
<td>Mood, physical symptoms, and QOL improved in both groups with no statistically significantly difference between groups.</td>
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Asian massage modalities are based in the traditional health paradigms of many Asian countries. The most common modalities are acupressure and shiatsu. Acupressure is based in traditional Chinese medicine. Shiatsu is a Japanese modality that combines Western concepts of anatomy and physiology with traditional Chinese medicine (Ashton & Cassel, 2002; MacDonald, 1999). These modalities affect health by balancing the flow of energy, or “chi.” Chi flows throughout the body in a network of channels, or “meridians.” Chi is balanced by the manipulation of the meridian as a whole and at specific points along the meridian called “acupoints.” The acupoints are the same as those used in acupuncture (Ashton & Cassel; Decker, 1999). Research with acupressure has focused on chemotherapy-induced nausea and vomiting. It currently is under review by the Cochrane Library (Cochrane Library, 2005). Research with shiatsu has been qualitative.

The use of acupoints, such as P6 for chemotherapy-induced nausea and vomiting, can be taught to patients and their families (Dibble, Chapman, Mack, & Shih, 2000). Practitioners who do not specialize in acupressure also may use selected acupoints in their work. Neither replicates the complexity or effect of a full acupressure or shiatsu session.

Reflexology maps the entire body into “reflex zones” on the feet and hands. The activation of a reflex zone affects the corresponding body part. The feet are used more commonly in medical settings. Foot reflexology is different from foot massage in both intent and technique (Decker, 1999). Researchers point out that “reflexology can be performed anywhere, requires no special equipment, is noninvasive, and does not interfere with patients’ privacy” (Stephenson, Weinrich, & Tavakoli, 2000, p. 71). Reflexology for symptom relief currently is under review by the Cochrane Library (2005).

Manual lymphatic drainage (MLD) uses very light pressure, similar to the weight of a dime, in probed hand shapes and patterns to move lymph back into circulation. It is used in conjunction with exercises, self-massage, and compression wraps and sleeves (McNeely et al., 2004; Williams, Vagdama, Franks, & Mortimer, 2002). In the oncology setting, MLD is used primarily for lymphedema. Research about the role of MLD in the treatment of lymphedema is conflicting. Reviewers have concluded that well-designed studies of every component of lymphedema management are needed to determine the best approach (Badger, Preston, Seers, & Mortimer, 2004). Weiger et al. (2002) indicated that recommending MLD for lymphedema management is reasonable.
Energy work involves modalities that affect the body through its energy field. The energy field surrounds the body in successive layers that can be sensed by those working with them (Cook, Guerrero, & Slater, 2004; Holmes, 1999). Energy modalities are either combined with other bodywork modalities or used on their own. They can be done with the hands laid lightly on or above a clothed patient or outside the presence of the patient. Practitioners use proscribed hand positions and hand and body movements to assess and affect the energy flow within the field (Decker, 1999; Holmes). Energy modalities include Reiki, therapeutic touch (TT), and healing touch (HT). Reiki practitioners act as channels for universal energy to enter and unblock energy flow (Potter, 2003). TT practitioners assess and direct energy to clear congestion and balance energy flow without touching the physical body (Potter). HT practitioners also assess the field and work to restore balance to it. HT is similar to TT and Reiki but uses techniques from a broad variety of sources that includes Reiki and TT (Mentgen & Bulbrook, 2001). Because of the physical gentleness of these modalities, they can be used when others cannot (MacDonald, 1999).

Safety

As practitioners learn new modalities, they also learn the modalities’ contraindications. The contraindications of one modality cannot be generalized to another. Practitioners should be able to discuss the contraindications of each modality they plan to use in a session.

Safety also is dependent on the ability of patients and healthcare providers to communicate key information such as cancer diagnosis, metastases, likely areas of metastasis, and comorbidities such as coagulation abnormalities. Practitioners need to be aware of previous invasive procedures such as biopsies, surgeries, and the placement of stents, central venous catheters, and prosthetic devices; treatment-related toxicities such as neutropenia, thrombocytopenia, and neutropathies; and skin breakdown from radiation and recent surgery (Gecsedi, 2002; Weiger et al., 2002).

A computerized literature search found 31 adverse events related to massage reported between 1995 and 2001. An analysis of the reports found that the incidence of adverse effects is probably low (Ernst, 2003). Three of the studies summarized in Table 1 discussed adverse effects: Two found no adverse effects in their studies (Cassileth & Vickers, 2004; Hernandez-Reif et al., 2004), whereas Ross et al. (2002) found one minor adverse effect, foot discomfort, directly related to reflexology and foot massage.

The Practitioner’s Perspective

Historically, bodywork practitioners were taught not to work with patients with cancer because of the fear of causing metastasis. The current understanding of the metastatic process and the effect of touch has changed this view (MacDonald, 1999; Walton, 2000). “Currently, no evidence indicates that massage promotes tumor metastasis” (Weiger et al., 2002, p. 896).

Practitioners follow a series of recommendations for safe practice for working with patients with cancer. The recommendations have three key parts. First, massage to tumor site is contraindicated. Second, deep traumatic massage to any part of a patient with active cancer is inadvisable. Third, MLD should be performed only after speaking with a patient’s physician (Ashton & Cassel, 2002; MacDonald, 1999; Walton, 2000; Weiger et al., 2002).

Choosing a Practitioner

The choice of a practitioner is important to ensuring a safe and effective experience. NCCAM (2004) recommended that consumers ask their healthcare professionals for referrals. Other recommendations include the completion of an accredited program, a current license, certification by the National Certification Board for Therapeutic Massage and Bodywork (NCBTMB), and membership in a professional association (Gecsedi, 2002). In addition, consideration should be given to professional liability insurance and oncology-specific education and experience.

Practitioners often hold massage therapy licenses. A license can be a requirement for them to legally touch a client. Massage therapy licensure requirements are complex and highly variable from state to state. A written and practical examination may be required. Regulators also may have continuing education requirements for license renewal. Increasingly, regulators are requiring the NCBTMB examination (AMTA, 2005b). This written examination requires the completion of 500 hours of training (NCTMB, 2005). Local massage schools can provide information about who regulates bodywork in their area and what the licensing requirements are.

Massage therapy programs are accredited by the Commission on Massage Therapy Accreditation (COMTA). The accreditation specifies minimum subject and hour requirements, currently 600 hours. Accreditation must be renewed every five years (COMTA, 2005). The COMTA Web site provides a current list of accredited programs.

Practitioners also may hold national certifications in modalities such as aromatherapy, reflexology, MLD, TT, and HT. Acupressurists may take the National Certification Commission for Acupuncture and Oriental Medicine examination instead of the NCBTMB examination. Practitioners who specialize in energy modalities may not hold massage therapy licenses but should be certified in their specialties. Practitioners also may attend additional programs focusing on the needs of patients with cancer (see Table 2) or have personal experience with cancer.

Professional associations (see Figure 1) are a good source of information about particular modalities. In addition, they may have information about licensing and liability insurance for its members. Also, they frequently host referral lists of practitioners.

The Nurse’s Role

Oncology nurses can help patients to decide which modalities are appropriate, including ones that they currently are using, and to sort through the lay and professional literature. Communication can be facilitated
understanding the descriptions of less common bodywork modalities. Finally, oncology nurses who understand bodywork can facilitate discussions among patients, physicians, and bodyworkers that are necessary to ensure that patients with cancer are receiving safe, effective, and rewarding bodywork.

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References


Rapid Recap

Understanding Bodywork for the Patient With Cancer

- Bodywork is being used by patients with cancer as a complementary modality.
- Common bodywork modalities include Swedish massage, aromatherapy massage, deep tissue massage, athletic massage, acupressure, shiatsu, reflexology, manual lymphatic drainage, Reiki, therapeutic touch, and healing touch.
- The research involving the effects of bodywork on patients with cancer is limited but expanding.
- Familiarity with common modalities will help nurses understand and implement research findings.
- Discussion among patients, healthcare providers, and bodywork practitioners is essential to ensure that patients receive safe and effective bodywork.