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Massage Therapy in Outpatient Cancer Care: A Metropolitan Area Analysis.

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Abstract

Massage offers cancer patients general quality of life benefits as well as alleviation of cancer-related symptoms/cancer-treatment–related symptoms including pain, anxiety, and fatigue. Little is known about whether massage is accessible to cancer patients who receive treatment in the outpatient setting and how massage is incorporated into the overall cancer treatment plan. Outpatient cancer centers (n = 78) in a single metropolitan area were included this mixed-methods project that included a systematic analysis of website information and a telephone survey. Massage was offered at only 40 centers (51.3% of total). A range of massage modalities were represented, with energy-based therapies (Reiki and Therapeutic Touch) most frequently provided. Although massage therapists are licensed health care providers in the states included in this analysis, massage was also provided by nurses, physical therapists, and other health care professionals.

Keywords

complementary and alternative medicine, massage therapy, cancer

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Medical treatment for cancer patients can interfere with quality of life. Cancer-related symptoms and cancer-treatment–related symptoms include an array of physical and psycho-emotional symptoms such as pain, worry, anxiety, and fatigue. Any or all of these can interfere with the patient's ability to function while undergoing treatment.[1-8] To improve quality of life and relieve cancer-related symptoms/cancer-treatment–related symptoms, cancer patients turn to alternative therapies including massage.[9,10]

Research indicates that massage interventions can favorably influence cancer-related symptoms/cancer-treatment–related symptoms.[7,11,12] In particular, massage can serve as a valuable alternative to conventional interventions for cancer-related pain.[6-8,13-15] Because cancer patients experience type and severity of symptoms in different ways, nonpharmacological interventions like massage can play an important role in well-being.[8,16-18] Cancer is one of the most robust areas of massage therapy research. A variety of styles of massage are associated with benefit of cancer-related symptoms/cancer-treatment–related symptoms.[19-27] In practice, because massage has potential application to cancer-related symptoms/cancer-treatment–related symptoms for cancer patients, massage treatment should be widely available for cancer patients receiving treatment.

Massage therapists are licensed as health care providers in most US states. Training and licensure requirements prepare massage therapists to assess and treat a variety of clinical presentations, focusing primarily on soft-tissue dysfunction as well as providing treatment for general relaxation.[28] Massage therapy training programs teach future massage therapists how to assess client overall health, design massage treatment, and evaluate effectiveness. This includes identifying precautions that may warrant adaptation of a massage treatment design. Across the United States, massage therapists work in a wide variety of settings. The holistic nature of massage, the variety of styles, and flexibility of massage treatment design make it adaptable to different settings, including outpatient cancer treatment centers. The existence of massage training courses

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and certificate programs specific to oncology massage suggests that some special knowledge and skills may be useful in treating cancer patients.

Despite the number of research reports illustrating the positive impact of massage on cancer-related symptoms/cancer-treatment–related symptoms, limited information is available on whether cancer patients receive massage as part of cancer treatment. Studies on complementary and alternative medicine utilization have included general descriptions about massage, but these studies lack specificity.[26,29] Because it is unclear if—or how—massage is included as complementary therapy in outpatient cancer centers, an exploration of the delivery of massage services at accredited cancer centers is warranted. The purpose of this study was to survey the Greater New York City/Newark metropolitan area outpatient cancer centers on the incorporation of massage therapy as a complementary therapy for patients undergoing outpatient cancer treatment.

Methods

This project employed a descriptive, mixed-methods approach. A content analysis using publicly available web-based information and a telephone survey were used to gather data. A list of cancer centers located within a 50-mile radius of the Newark, New Jersey was compiled from the American College of Surgeons Commission on Cancer locator and the National Cancer Institute. Cancer centers were eligible for inclusion if they provided outpatient cancer treatment and were accredited by the American College of Surgeons or a National Cancer Institute–designated cancer center.

The website for each cancer center was systematically searched for massage information during June and July 2014. Specific areas of the websites targeted in the searches included patient services, treatment, supportive care, and integrative oncology. For websites where no information was located, the general website search feature was searched for any reference to "massage." Relevant information was extracted from the websites and entered into a database. Two investigators searched and abstracted information from the websites. Ten websites were cross-checked for interrater reliability by these investigators and independently examined by a third investigator to ensure consistency in the extraction of information. No differences in the data collection were evident between the 2 investigators for these sites.

A follow-up telephone interview was conducted to obtain more detailed information. Two investigators followed a 14-question survey protocol that was developed for this project. The survey tool aimed to verify whether the website information was accurate, up-to-date, and identify whether any information was missing from the website. Questions were open-ended in order to capture as much information as possible (eg, "What types of massage are provided to patients undergoing cancer treatment?" "How often do patients receive massage?" "How do patients pay for massage treatments?"). Two attempts were made to obtain a completed survey from each cancer center during the study period. In some cases, multiple telephone calls and departments were contacted in an attempt to locate a person with information about a massage program or availability of treatment.

All information relevant to massage available during outpatient cancer treatment from the website or telephone interview was combined into a database and coded for analysis. Information qualified for inclusion in this study if it involved massage, energy-based (Reiki), or other touch therapies available during outpatient cancer treatment, and provided information about massage including educational information and suggestions for referrals to community-based resources. The following were excluded: treatments offered to employees or families/caregivers, provided at health fairs, or targeted specifically to noncancer patients (eg, postpartum, orthopedic rehabilitation). The project team recognized that web-based resources are fluid in nature and may not be updated in a timely manner. Thus, when discrepancies were noted between the content analysis and the telephone survey, information from the telephone survey was considered to be more current and used in the analysis.

The protocol was reviewed and approved by the Rutgers Biomedical and Health Sciences – Newark Human Subjects Institutional Review Board. Verbal consent to participate in the telephone survey was obtained from the person responding to the telephone survey at each cancer center prior to the initiation of the survey. Data were analyzed using SPSS version 20. Descriptive statistics, including frequency distribution and cross-tabulation, were used to analyze the data.

Results

A total of 78 outpatient cancer centers met the criteria for inclusion. Information about treatments and services provided to patients was available via the Internet for 100% of the centers. Telephone interviews were completed for 34 centers (43.6%), and 3 centers refused to participate in the survey—although data from the websites were able to be included in the analysis as it was publicly available. Information from all sources—content analysis of websites and telephone surveys—were aggregated for analysis.

A majority of the centers (48, 61.5%) provided information about massage for cancer-related symptoms and cancer-treatment–related symptoms on the website. The purpose of the information was general education about the potential use of massage as a treatment during cancer care. Approximately half of the centers in the sample (40, 51.3%) offered massage therapy onsite for cancer patients undergoing treatment. Differences were noted in the availability of massage across the cancer center categories. Of note was a higher percentage of National Cancer Institute–designated and comprehensive community cancer centers providing massage (see Table 1) and a lack of massage at any of the Veterans Affairs cancer programs. This indicates a wide range of difference in access for patients receiving treatment in various settings.

An array of different modalities was offered to cancer patients (see Table 2). The most popular offering was Reiki—an energy-based therapy. In the states covered by this survey, a massage license is not required to practice Reiki or another of the more popularly noted therapies: Therapeutic Touch. The finding suggests that this type of treatment might be offered by non–massage health care providers (ie, nursing staff) rather than as a billable service to patients. Reflexology and manual lymphatic drainage were among the most common offerings across all of the types of centers. Both modalities are within the scope of licensed massage therapists as well as other health care providers—particularly nurses and physical therapists. However, certification specifically in manual lymphatic drainage was required in all settings—regardless of the role of the provider.

Table 1. Massage Availability by Cancer Center Category.

Center Category	Total Included in Survey (n)	% of Total	Offer Massage[a] to Cancer Patients (n)	% of Type Offering Massage
Academic comprehensive cancer program	26	33.3	13	50.0
NCI-designated comprehensive cancer program	4	5.1	3	75.0
Comprehensive community cancer program	30	38.5	20	66.7
Community cancer program	14	17.9	4	28.6
Veterans Affairs cancer program	4	5.1	0	0.0
Total	78	100.0	40	51.3

Abbreviation: NCI, National Cancer Institute.
[a]A center was considered to offer massage if they listed any massage or touch services on their website or responded affirmatively to the survey question about whether massage was offered to outpatients.

Table 2. Massage Modalities Offered to Cancer Patients.

	Centers Offering Therapy (n)	% of Total Centers in Survey
Reiki	27	34.6
Reflexology	18	23.1
Manual lymphatic drainage	13	16.7
Aromatherapy massage	12	15.4
Therapeutic Touch	12	15.4
Swedish massage	9	11.5
Acupressure	5	6.4
Medical Qi Gong therapy	5	6.4
Craniosacral	2	2.6
Shiatsu	2	2.6
Trager approach	1	1.3

This suggests that manual lymphatic drainage is perceived as having a higher risk-benefit ratio or requires advanced training for any provider interested in performing a treatment.

Although this survey specifically inquired about massage for cancer patients receiving outpatient treatment, additional modalities not targeting cancer-related symptoms/cancer-treatment–related symptoms were identified including prenatal, sports, hot stone, and neuromuscular massage. This suggests that general massage programs affiliated with the institution might provide general massage therapy to healthy patients or patients with other needs in addition to offering massage treatments specifically for cancer patients.

Regional massage to the head, neck, shoulders, and/or back was also provided by 8 centers, but without reference to the specific techniques that would be applied to these areas of the body. Across all types of massage, lack of consistency in length of treatments offered to cancer patients was noted. Treatments ranged in length from 10 to 90 minutes, with 30 minutes being the most frequently described length.

Insurance coverage did not factor into the delivery of massage. None of the 40 centers providing massage billed insurance companies directly for massage therapy treatments. Out of the 21 centers that provided information about payment, patients paid out-of-pocket at 11 centers, 8 centers offered massage free, and receipts for patients to seek insurance reimbursement were provided by 2 centers.

Of the 40 cancer centers that made massage available onsite to cancer patients, information about the massage providers was available for 25 centers. Of these, 18 (23.1% of total centers) employed or contracted with at least one licensed massage therapist. Massages were provided by nurses at 4 centers and physical or occupational therapists at 3 centers. Volunteer massage therapists provided massage at 6 centers. Most centers had a combination of different categories of massage providers. An additional 2 centers reported not offering massage at present, but described massage had previously been made available by massage students during visits from local massage therapy schools but that was no longer available. At 8 centers that did not provide massage onsite, patients were referred to external establishments for massage therapy services. Only 2 centers required certification beyond licensure in massage for oncology patients.

Overwhelmingly, patients seemed to have the choice to seek massage on their own. Approval of the patient's physician was described as a requirement by only 5 centers (6.4%). Oversight by physician or other health care providers does not factor into licensing laws for any state in the United States. Thus, the requirement for a referral potentially indicates interest by the institutions to have access to information about all types of therapeutic intervention cancer patients are receiving while undergoing cancer treatment. For patients who did receive onsite massage, information about massage was recorded in the patient medical record at a small portion of the centers (11, 14.1%). This indicates that massage was not overwhelmingly considered to be a formal part of the cancer patient's treatment regimen. The range of record keeping from tight control (indicated by a requirement for a physician referral) to no written evidence (associated with a lack of any documentation in the medical record for patients who did receive massage treatment) suggests inconsistency in the perceptions of the benefits or risks from massage. Despite a robust—and growing—field of oncology massage research, cancer patients in the Newark/New York City metropolitan area did not have substantial access to massage in the cancer care setting.

Discussion

The mixed-methods approach utilized in this study was necessary to yield comprehensive data for analysis. Our data

collection approach was intentionally broad in order to capture information about what constitutes massage in the outpatient cancer setting. The term "massage" is relatively generic in that it can reference a wide range of styles, techniques, and modalities. Although energy-based modalities do not meet the technical definition of massage because they do not involve manipulation of soft tissues, all of the cancer centers that offered these modalities referred to them under the broad heading of massage.

Despite promising research evidence that suggests massage is an effective treatment for cancer-related symptoms and cancer-treatment–related symptoms, findings reveal massage is only made available onsite at approximately half of cancer centers in the metropolitan area. The types of massage provided to cancer patients were varied and were not necessarily provided by licensed massage therapists. Overall, massage services were not integrated into health care delivery for cancer patients in a streamlined manner. It was difficult to find information about massage on the websites, particularly of centers that did not have integrative oncology departments. During the telephone survey, it frequently took multiple attempts to reach a person who was aware of massage services or even that massage was listed as available on the center's website. This suggests that cancer center staff may not be aware of the full array of supportive care services available to patients, including massage. Additionally, one survey respondent indicated that massage was not offered to cancer patients because they were considered medically fragile. Another survey respondent stated that massage was not appropriate because it dislodged blood clots. Respondents at 3 centers expressed interest in free massage services for patients and staff. Collectively, this indicates that staff working in the outpatient cancer center setting may not be adequately informed about the body of research evidence that substantiates the effectiveness of massage for cancer-related symptoms/cancer-treatment–related symptoms.

Cancer-specific massage training programs and specialty certifications for licensed massage therapists are extensive and expensive. Yet at the centers that did offer massage, the massage therapy license was adequate credentialing; no additional certifications were required. No evidence of massage or oncology massage training for other health care providers performing massage (nurses, physical and occupational therapists) was found in this analysis. This suggests the perception that the training needed to identify precautions and massage treatment adaptations for cancer patients is covered in entry-level/basic provider training.

The majority of massage services were free or paid out-of-pocket by patients. This suggests that the research on the impact of massage for cancer-related symptoms/cancer-treatment–related symptoms is not stimulating recognition of massage as viable supportive treatment by insurance companies. Several of the centers listed massage styles that are not typically associated with cancer-related symptoms/cancer-treatment–related symptoms, such as deep tissue, hot stone, kinesio taping, prenatal, repetitive stress injury, and sports massage. The availability of these treatments suggests that additional integrative medicine may be available through the larger facilities to which the cancer centers are affiliated and that cancer patients may avail themselves of more general massage services.

A limitation of this research is focus on a single metropolitan area. Other regions of the United States have factors that influence differences in the availability of massage for cancer patients. Future research should examine delivery of massage treatments to cancer patients on a national scale. Additionally, barriers to the inclusion of massage should be explored—especially in light of the emphasis in the Affordable Care Act on recognition of the importance of all licensed health care providers. More thorough exploration of massage treatment designs as well as evaluation of assessment tools used to measure the impact of massage on cancer-related symptoms/cancer-treatment–related symptoms are needed to provide a more robust picture of where and how cancer patients are receiving massage and how it affects their health and well-being.

This study highlighted the gap between research and practice. Although research supports massage's effectiveness for cancer-related symptoms/cancer-treatment–related symptoms, translation of best practice into health care delivery is needed. The lack of robust availability of massage performed by licensed massage therapists in clinical cancer care suggests dissemination of information about the research evidence base is needed to improve access to care. Because there is a relatively large body of research on massage for cancer patients, and massage therapists are licensed health care professionals in most US states, exploration of the limited use of insurance reimbursement for massage warrants specific attention.

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Author Contributions

Virginia S. Cowen: Preparation of research proposal, project management, data verification, data analysis, and report preparation. Robin Streit Miccio: Data collection, data analysis, and report preparation. Bijal Parikh: Data collection, data analysis, and report preparation.

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Ethical Approval

The protocol was reviewed and approved by the Rutgers Biomedical and Health Sciences Newark Campus Human Subjects Institutional Review Board (Pro # 20140000268).

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