Massage Therapy Practice Guidelines at NCI-Designated Cancer Centers

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Overview

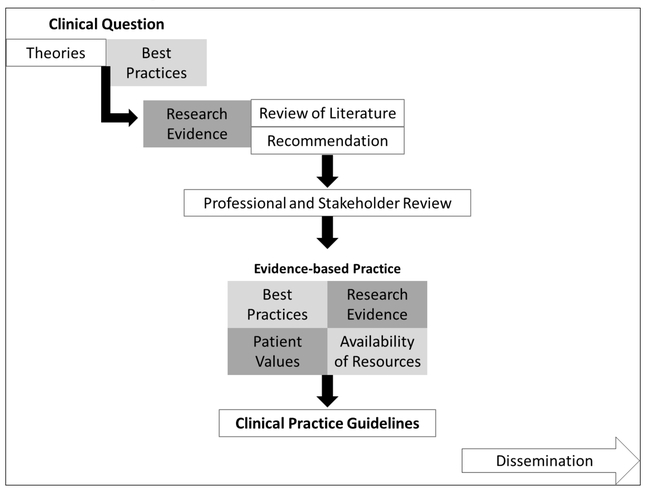
Development of clinical practice guidelines involves integrating information from best practices, theory, and research evidence. The process begins with a treatment and outcome related question for a patient population. Resources that document best practices and theories (i.e. textbooks, clinical overviews, professional training materials) are mined for background information. Translational research is then undertaken. Parameters are established for a review of research studies with inclusion and exclusion criteria detailed *apriori*. These criteria may include--but are not limited to--specific patient groups, setting for the research, attempts to minimize bias by selection of specific study designs or approaches in data analysis, identification of clinical outcomes measured in the research studies, and/or specific assessments employed. Exclusion criteria are also established to establish boundaries for the generalizability of results.

Once inclusion and exclusion criteria are established, a systematic and comprehensive search for studies is undertaken, and articles meeting inclusion criteria are gathered for review. Elements of the studies are extracted into a dataset to permit aggregated analysis of the studies as a group. This analysis is examined for statistical significance, power, and effect size within treatment groups and between groups (where applicable.) A conclusion is made for the overall findings. While a typical literature review ends with publication of these results. When a literature review is used as part of the development of clinical practice guidelines, the findings are analyzed in relation to best practices and theories by a panel of experts who develop guidelines for use of the intervention in clinical practice. This panel may be within an institution, at a state level, or involve an entire profession. Modern evidence-based medicine approaches also reference availability of resources and patient preferences for treatment. So in put from patients and other stakeholders may be sought at this point in the process.

Because there is a robust research literature on massage for patients undergoing treatment for cancer, examination of the translation of research to inform practice is warranted. National Cancer Institute (NCI)-designated cancer centers are a group of cancer treatment and research institutions at the forefront of cancer care. Cancer treatment at these centers is comprehensive in nature, aiming to eliminate cancer, facilitate healing, and promote well-being. This may include treatment to alleviate cancer-related symptoms (CRS) and cancer-treatment related symptoms (CTRS) which can cause discomfort and interfere with quality of life.

Research indicates that cancer patients do utilize alternative therapies, including as massage, during cancer treatment. Our recent publication based upon the dataset used in this present analysis found that massage was offered at roughly half of the centers but was not highly integrated into outpatient cancer care at NCI-designated cancer centers (Cowen & Tafuto, 2018.) Since massage was available to patients, a follow up question was posed about the translational nature of massage research. Specifically whether research on massage for cancer patients was being leveraged by massage therapists to guide patient care. The present analysis undertakes an exploration of clinical practice guidelines used at the highest levels of cancer care in the United States to shed light on the translation of massage research into practice.

Development of Clinical Practice Guidelines



Methods

A mixed methods approach was used to gather data from the 62 NCI-designated cancer centers that provide clinical services to patients. Content analysis of each center's website and a telephone survey were used to gather initial data. All centers were invited to submit blank forms and written clinical practice guidelines for inclusion in the study. Content analysis of these documents was conducted.

All data were entered into a single dataset and coded for quantitative analysis. Statistical analyses were conducted using SPSS version 22. More specific information about the data collection process and procedures and the modalities offered to patients has been published elsewhere (Cowen & Tafuto, 2018) *In order to display the findings in relation to the entire group of NCI-designated cancer centers, all percentages were calculated using the total number (62) of NCI-designated cancer centers for the denominator.* This project was reviewed and approved by the Rutgers Biomedical and Health Sciences—Newark Human Subjects Institutional Review Board (Protocol # Pro20150001821.)

Selected References

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Results

Data were available from 59 (91.1%) of the centers. Massage was offered to cancer patients undergoing treatment at 34 (54.8%) centers. Guidelines that were in place at the centers included formal clinical practice guidelines, pressure guidelines, frequency limitations for massage, and written policies and procedures.

Table 1: Guideline Resource Materials

	N	%
Research literature review	10	16.1%
Oncology massage course materials	10	16.1%
Massage textbook	9	14.5%
Walton textbook	3	4.8%
MacDonald textbook	2	3.2%
S4OM Guidelines	2	3.2%
Professional MT expertise	2	3.2%
Memorial Sloan Kettering Guidelines	1	1.6%
Developed by a physician	1	1.6%
Developed by a nurse	1	1.6%
Developed by institution	1	1.6%
Physical Therapy SOP	1	1.6%

Table 2: Pressure Guideline Utilized

	N	%
Light pressure only	10	16.1%
Patient preference	7	11.3%
Pressure Scale (Walton)	5	8.1%
According to Platelet Count, Lab Values, or Bone Metastasis	3	4.8%
Nothing more than moderate pressure	2	3.2%
Physician directed	1	1.6%
Massage Therapist assessment	1	1.6%

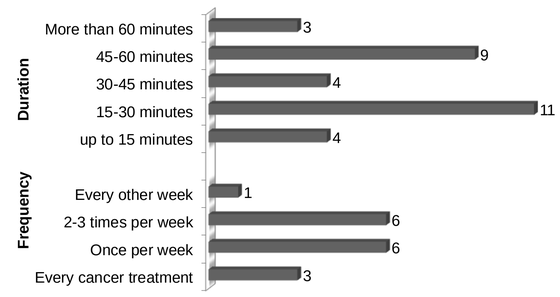
Formal clinical practice guidelines were in place at 16 (25.8%) centers. Resources used to develop guidelines ranged from evidence-based to provider opinion (See Table 1.) 14 of the centers used two or more resources to develop massage guidelines. Quality resources that involved editing and/or peer-review (research, textbooks) were reportedly used by 9 (14.5%) centers. The remaining 7 (11.3%) centers relied on resource material that was not peer-reviewed or rooted in research evidence.

Some form of pressure guidelines were in place at 23 (35.4%) centers. But the guidelines were not consistent among the centers (See Table 2) The most frequently noted pressure guideline was use of light pressure only. A majority of the existing outcomes research studies on massage for cancer patients has involved treatments to limited areas of the body. Roughly half of the centers offering massage included these types of treatments, but 21 centers offered full-body massage. Only 7 centers specifically indicated they offered massage for limited areas of the body only and did not offer full-body massage to cancer patients.

There was variety in the dose of massage used in treatment ranging from very brief massages on an infrequent basis to massages lasting over 45 minutes several times per week (See Figure 2.) While this suggests individualization of treatment, it does not reflect the structured dosing used in massage research studies.

Written policies and procedures for massage were noted at only 6 (9.7%) centers. Although oversight for massage therapists is not required by any U.S. state, a referral for massage was required by 10 (8.4%) centers. Referral for inpatient massage only (i.e. not outpatient massage) was required by only 3 (2.5%) centers. Specific approval from a physician was required at only 3 (2.5%) centers.

Figure 1: Massage Dosing



Discussion

The objective and systematic methods used in this research provide a somewhat surprising picture of translational research on massage for cancer patients undergoing treatment. Although most NCI-designated cancer centers that offer massage employed some type of guidelines, only one-quarter of the centers had formal clinical practice guidelines in place. The wide variety in the guidelines and the resource materials utilized indicates that the body of research evidence on massage for cancer patients undergoing treatment is not being effectively utilized.

A limitation of this research was the focus only on NCI-designated cancer centers and exclusion of other outpatient cancer care settings. However, evidence-based practice guidelines are more likely to be expected in centers with this level of status. The findings of this study suggest an important opportunity for massage therapists who are affiliated with NCI-designated cancer centers to take a leading role in translational research on massage. There are a range of modalities and doses in massage research. To date there have been few studies analyzing different effects of massage dosing or comparing effects of massage to a limited area of the body to full-body massage for cancer patients. Although massage is an individualized treatment, it is possible that different characteristics of treatment are associated with more favorable results—even for indirect outcomes like CRS/CTRS.

Acknowledgement

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