Yoga Therapy in Practice and Methodology

Incorporating Yoga Therapy into Primary Care: The Casey Health Institute

Alyson Ross, PhD, RN,1 Laurie Williams, MA, CWC,2 Mary Pappas-Sandonas, MA,2 Katharine Touchton-Leonard, MA,1 & David Fogel, MD2

1. Nursing Research and Translation Science, NIH Clinical Center, Bethesda, MD
2. Casey Health Institute, Gaithersburg, MD

Correspondence: alyson.ros@nih.gov

Abstract

Individuals seek complementary and alternative medicine (CAM) for a variety of health conditions, and yoga is a popular CAM modality. Over the past few decades, yoga has become incorporated into hundreds of healthcare facilities, most commonly in large university medical centers. While research has shown yoga to be effective in reducing symptoms and improving outcomes in chronic health conditions, most patients seek yoga therapy on their own, as few primary care practitioners have incorporated yoga therapy into their practices. The purpose of this article is to describe the efforts of the Casey Health Institute to incorporate yoga therapy into their primary care integrative medicine center. At Casey Health, a full-time Clinical Yoga Specialist works alongside the physicians, nurses, and CAM providers in delivering care to a wide variety of patients. The majority of referrals to yoga therapy have been for pain-related musculoskeletal conditions, as well as hypertension, headaches, anxiety, depression, and sleep disturbances. Most patients attend weekly 60-minute individual sessions, and the Clinical Yoga Specialist stays in touch with the patient between appointments via telephone and email. The Clinical Yoga Specialist has become an integral part of Casey Health, participating in collaborative medical appointments in which two CAM practitioners provide simultaneous treatments to a patient. She also participates in the clinic’s ongoing weight loss program. The Clinical Yoga Specialist spends one morning each week “floating” in the clinic, when she is on-call to the practitioners to assist in treatment and/or to introduce a yoga therapy experience to the patients. These brief interventions introduce the patients to the therapeutic benefits of yoga, while simultaneously demonstrating yoga’s effectiveness to the healthcare providers. Casey Health has developed a unique teacher training program whose faculty includes senior Iyengar yoga teachers as well as physicians and CAM practitioners. Casey Health is incorporating clinical outcomes into their electronic medical record that can be used internally to assess comparable effectiveness and cost effectiveness of the different treatment modalities such as yoga therapy, providing evidence that eventually may lead to yoga therapy becoming an accepted treatment that is eligible for insurance reimbursement.

Background

According to the 2007 National Health Interview Survey (NHIS), approximately 38% of American adults use complementary and alternative medicine (CAM), with yoga, meditation, and breath work ranking among the most common CAM therapies used (Barnes, Bloom, & Nahin, 2008). Over 10 million Americans practice yoga (Birdee, Legedza, Saper, Bertisch, Eisenberg, & Phillips, 2008), and many yoga practitioners initiate yoga to treat specific health conditions and/or to improve their health (Birdee et al., 2008; Ross, Friedmann, Bevans, & Thomas, 2013; Sibbritt, Adams, & van der Riet, 2011). However, a distinction exists between yoga typically taught in yoga studios and yoga therapy. Individuals often seek yoga classes to learn the discipline of yoga, which in the west focuses predominantly on the practice of physical poses (asanas) and/or breath work (pranayama), while individuals seek yoga therapy to treat specific health conditions or to relieve symptoms (Kepner et al., 2014). This article describes the development of a yoga therapy program to treat specific health conditions and relieve symptoms in patients at the Casey Health Institute, a primary care integrative medicine clinic in the greater Washington, DC area.

Individuals seek CAM treatments for a variety of reasons including back, neck, arthritis, and joint pain and other musculoskeletal issues; anxiety; headaches; and insomnia (Barnes et al., 2008). Complementary and alternative medicine (CAM) is a set of diverse health practices and products that are not typically considered part of conventional medicine, while integrative medicine (IM) refers to the practice of combining both conventional and CAM treatments (NCCAM, 2008). Over the past two decades,
IM has been incorporated into hundreds of healthcare facilities, most commonly on campuses of large university medical centers such as the University of Arizona or Stanford Medical Center (Parkman, 2002); about 70% of such programs offer some form of yoga classes. Physicians who work in academic settings that provide IM services recommend these services for their patients, and 85% of these physicians make referrals for yoga (Ehrlich, Callender, & Gaster, 2013). While most of these programs offer traditional yoga classes, some organizations, such as the Cleveland Clinic, Duke University, and George Washington University, have begun to incorporate yoga therapy into their integrative medicine programs (Bar, 2013; George Washington University, 2015; Duke Integrative Medicine, 2015).

While CAM therapies and IM, including yoga therapy, might be widely accepted in such academic centers, incorporation of IM remains limited outside of these settings. Yet there is interest in such modalities. In a survey of infectious disease physicians, only 11% were interested in CAM treatments, but 80% were interested in IM (Sher-Wolfe, Tilburt, D’Adamo, Berman, & Chesney, 2013). Research about attitudes and beliefs of primary care practitioners regarding CAM therapies in general and yoga in specific is limited, with no large scale U.S. studies published. However, in a random sample of 636 Australian general practitioners, 76% believed yoga was moderately or highly effective, and yoga was viewed as one of the safest CAM modalities, with 92% viewing it as never or seldom harmful (Cohen, Penman, Pirotta, & Da Costa, 2005).

In addition to this general attitude of acceptance toward yoga, the time appears to be right for incorporating yoga and yoga therapy into primary care for other reasons as well. Unlike the diseases and conditions that drove patients to see their physicians in the early 1900’s that were primarily infectious in nature such as tuberculosis, influenza, and pneumonia (Jones, Podolsky, & Greene, 2012), many of the top causes of death today are lifestyle-related such as heart disease, type 2 diabetes, chronic lung disease, and cancer (Hoyert & Xi, 2012). Lifestyle factors that have led to these conditions include lack of exercise; nutrient-poor diets high in sugar, fat, and salt; and stress (USDHHS, 2010). Treating these conditions using traditional western medicine is costly and often ineffective, as only one-third to one-half of patients with high cholesterol and hypertension have these conditions under adequate control (Hyre, Muntner, Menke, Raggi, & He, 2007). Decreasing body weight, blood pressure, and levels of blood sugar and cholesterol by only 1% could save approximately $100 annually per person in medical costs (Henke et al., 2010).

Yoga has shown promise as a safe, non-pharmaceutical lifestyle intervention that reduces stress and improves outcomes associated with a number of chronic health conditions including cardiovascular disease (Innes, Bourguignon, & Taylor, 2005), type 2 diabetes (Innes & Vincent, 2007), and musculoskeletal disorders (Ward, Stebings, Cherkin, & Baxter, 2013), and yoga potentially could improve these outcomes at a cost much lower than traditional medicine. Yet the incorporation of yoga therapy into primary care to treat these conditions has been slow. Most patients still seek such treatments on their own, as access to IM centers is often limited to academic settings and few primary care practitioners have incorporated IM into their own offices and clinics. The purpose of this article is to describe the efforts of Casey Health to incorporate CAM modalities—specifically yoga therapy—into their integrative primary care facility.

Figure 1. Casey Health Institute.

Casey Health Institute

Casey Health is a public, non-profit, integrative primary care center in Gaithersburg, Maryland that serves the greater Washington, DC metropolitan area (Figure 1). Casey Health was born out of a long-held vision by Mrs. Eugene B. Casey, a Montgomery County, Maryland community leader and philanthropist, who envisioned the creation of a truly integrative health center. In 2011, Mrs. Casey engaged two area physicians, David Fogel, M.D. and Ilana Bar-Levav, M.D., to research and refine that vision and to make it into a reality. After spending six months visiting the best integrative care centers around the country and looking at innovative models of care, Casey Health opened its doors in February 2013, funded by a startup grant from Mrs. Casey and the Eugene B. Casey Foundation. Casey Health's mission is to create an innovative model of sustainable integrative healthcare that is patient-centered, highly collaborative, and transforms the patient/practitioner relationship through team-based communication and coordination of care. Casey Health oper-
ates using a salaried staff model that includes primary care, naturopathic medicine, acupuncture, psychology/behavioral health, chiropractic, massage, Reiki, and yoga therapy. Casey Health uses a financial model that accepts all major insurance, Medicare, and Medicaid; it also offers a charity care policy that covers both primary care and integrative services.

Yoga plays a major role in the care provided at Casey Health. Impressed by the health benefits he personally experienced shortly after beginning to take yoga classes, Casey Health co-founder and dedicated Iyengar yoga practitioner David Fogel, M.D. included Iyengar yoga classes and therapeutics in the original conception and design of the Institute. He imagined a primary care clinic model where yoga was an integrative treatment that was valued in the same manner as treatments such as acupuncture and naturopathy and where IM practitioners were valued just as physicians and other traditional healthcare providers. Today, there is a full-time Clinical Yoga Specialist on staff who works as a part of the medical team, as well as a Wellness Center that provides general yoga classes, fitness classes, mindfulness meditation, sleep hygiene, stress reduction, Reiki, and healthy eating and cooking classes for clinic patients and the general public.

**Incorporating Yoga into Primary Care**

A number of issues needed to be addressed prior to incorporating yoga into Casey Health. In addition to the startup grant, Casey Health had been given a 72,000 square foot office building in Gaithersburg, Maryland in which to house their new health center. Major renovations were required to complete a 12,500 square foot primary care clinic and a 2,500 square foot Wellness Center in which two yoga studios are located. The primary studio is 1,500 square feet and can accommodate up to 50 yoga students, and a smaller therapeutic studio is designed to accommodate up to 10 students. Both studios are equipped with rope walls and the two are connected via a 500 square foot prop room that houses traditional yoga props including mats, yoga belts, blocks, blankets, yoga chairs, eye wraps, and eye pillows, as well as therapeutic props such as setu bandha benches, halasana boxes, simhasana benches, slant boards, quarter rounds, and a stump (Figure 2). Each studio is equipped with a trestle and at least oneVIPARITA DANDASANA bench.

Iyengar yoga was chosen as the yoga modality to be incorporated into Casey Health because of its rigorous teacher training program and its strict standardization of teaching. Because the Wellness Center is a part of the greater Casey Health and the yoga studio was likely to attract clinic patients, it was important to incorporate a style of yoga in which teachers are trained to work with a variety of health conditions. The Iyengar Yoga National Association of the United States (IYNAUS) requires teachers to undergo a highly structured teacher training and certification process that involves mentoring and receiving recommendations from two higher level teachers as well as a minimum of three years of training before applying for certification at the introductory level (IYNAUS, 2015). Iyengar certification is a three-part process involving passing a written exam, adequately demonstrating all poses required by the syllabus for the specific certification level, and then teaching a sequence of poses with actual students. There are 14 levels of certification within the Iyengar system and, while even introductory-certified Iyengar instructors are trained to work therapeutically with many common conditions—such as anxiety, depression, and hypertension, as well as back, neck, knee, and shoulder pain—teachers must demonstrate increasingly more knowledge and skill in working with more complex health conditions as their certification level increases. While all certified Iyengar teachers are trained to work with the previously-mentioned health conditions, only teachers who are certified at the senior intermediate level (6th level) are allowed to call themselves “yoga therapists.” In addition to the rigorous teacher training process, the strict standardization of teaching associated with Iyengar yoga helps to ensure that the model of healthcare developed at Casey Health, including their yoga program, can be replicated easily elsewhere.

Because the Iyengar system has strict rules governing the teaching of therapeutics and only instructors certified at the senior intermediate level or above are allowed to be called “yoga therapists” and to treat complex medical conditions, Advanced Iyengar yoga teacher John Schumacher was included as an integral part of the yoga therapy program from the program’s inception (Figure 3).
Initially, Schumacher saw all patients that were referred for yoga therapy. However, he was only available to see patients once or twice a month, so his schedule precluded direct involvement in the daily treatment of patients. Therefore, only instructors certified at the Intermediate Junior level were available to see patients. Casey Health consulted with Advanced Iyengar yoga teacher Gloria Goldberg, who suggested that a description of Casey’s program and its goals be sent to BKS Iyengar, the founder of Iyengar yoga. This information was sent to Sri BKS Iyengar in the fall of 2012. Shortly thereafter, Mr. Iyengar responded in writing with an enthusiastic blessing of the program. Thus, a system was established whereby Schumacher provided direct supervision to Casey Health’s Clinical Yoga Therapist, Junior Intermediate teacher Mary Pappas-Sandonas, as well as to the other instructors teaching the general yoga classes. Schumacher currently oversees the yoga therapy of every referred patient by working with Pappas-Sandonas to develop a plan of care for every yoga therapy patient. Schumacher is available to personally provide yoga therapy to complex patients should he and Pappas-Sandonas determine that it is required. However, since hiring Pappas-Sandonas into the position of Clinical Yoga Therapist, all of the patients referred have been seen successfully by Pappas-Sandonas. To date, the physicians and other healthcare providers at Casey Health have referred over 37 patients to the Casey Health yoga therapy program, with 59 follow-up appointments.

Over the course of 18 months, the yoga therapy program has continued to evolve. The referral process has gone through several iterations. The current process for referrals is detailed in Figure 4. Most patients are referred from with-

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**Figure 4. Patient flow through Casey Health Institute’s Yoga Therapy program.**
In Casey Health, whether from one of the primary care providers (physicians or nurse practitioners) or from one of the CAM practitioners. The majority of internal referrals have been for pain-related musculoskeletal conditions such as osteoarthritis, low back pain, scoliosis, spinal stenosis, and hip, knee, and shoulder pain. Other conditions prompting referrals include hypertension, headaches (including migraines), and fatigue, as well as anxiety, depression, and sleep disturbances. Prior to the first office visit, the Clinical Yoga Specialist reviews the patient’s file in the Electronic Medical Record (EMR), then performs a patient history and supervisory review with Schumacher during which a preliminary, customized yoga sequence is designed. The Clinical Yoga Specialist then works individually with each patient, consulting with Schumacher as needed. The course of recommended treatment for the patient varies and is established with each patient during the first appointment, which is scheduled within seven days of the initial referral and lasts 90 minutes. During the initial session, the patient is oriented to the discipline of yoga and learns his/her prescribed yoga sequence as well as individual modifications, if needed. Props may be introduced, with discussion on how best to modify for home practice. Because repetition is important for the patients to retain the information and to be able to practice the sequences at home, patients typically go through their sequence more than once. Occasionally, a home visit by the Clinical Yoga Specialist has proven helpful to set up a home practice space and to identify appropriate props (or prop substitutes). At the conclusion of the initial session, the patient is given a written copy of the sequence and instructions, along with diagrams of the poses to help guide their home practice. A contract is drawn up between the patient and the Clinical Yoga Specialist that lays out the importance of a regular home practice, and the patient decides what type of treatment series/plan they prefer. As this type of treatment is not yet covered by insurance, the expense is paid out-of-pocket by the patient. The appointment price is $125 for the initial 90-minute consultation and $100 for 60-minute follow-up sessions. The patient may choose a 4-, 6-, or 8-week series and may negotiate a payment plan with Casey Health. There also is a charity care program for those who qualify that allows the patient to pay $20 for each session. Most therapeutic yoga treatment series consist of weekly 60-minute individual sessions; this timing has proven important for those patients with no prior experience with yoga who may need frequent support to begin a regular practice and to perform the physical poses (asanas) correctly. The Clinical Yoga Specialist stays in touch with the patient between appointments via telephone and email.

Once a patient completes their package of classes agreed to in the initial contract, the Clinical Yoga Specialist meets with the patient for a final evaluation and to discuss follow-up. Some patients sign up for more sessions at that point, while others choose to complete their treatment or to join the regular yoga classes offered by Casey Health. Alternatively, some patients move into a small (4-6 patients) therapeutic class taught by the Clinical Yoga Specialist at the rate of $30 per class, which provides a viable option for those who still need supervision and modification of their sequences and who want to extend their treatment without incurring greater expense. Recently, weekly small group classes have been started including chair yoga, as well as therapeutic classes for hypertension, digestive disorders, low back pain, and menopause. Other classes will be added as demand increases. Ultimately, the desired outcome is to have patients incorporate an appropriate yoga practice into their daily lives.

Because Casey Health is a primary care health clinic and all of the patients seen for yoga therapy are clinic patients, recordkeeping is important. At the conclusion of each appointment, the Clinical Yoga Specialist writes up the appointment notes, along with diagrams of the specific yoga sequences. This information is entered into the electronic medical record (EMR) and becomes part of the patient’s permanent medical record. Because there is no commercial software available for recording therapeutic yoga sessions, Casey Health is in the process of creating a highly specialized and unique patient record template compatible with the EMR. The design process of this template included photographing the Clinical Yoga Specialist in over 100 asanas and writing brief descriptions and instructions for each pose. This information was entered into the Casey Health database and can be retrieved and customized as needed for the design of each patient’s yoga sequence. This customized sequence, along with the Clinical Yoga Specialist’s observations and notes, can be uploaded as a single document into the EMR. This proprietary software is continually being refined and upgraded as the system at Casey Health is developed and may be available to the greater yoga community at some point in the future.

The Clinical Yoga Specialist has become an integral part of Casey Health, participating in wellness workshops for specific conditions such as anxiety, depression, and seasonal affective disorder. Pappas-Sandonas occasionally participates in collaborative medical appointments, a popular treatment option at Casey Health, in which two CAM practitioners provide simultaneous treatments to a patient. She also participates actively in the clinic’s ongoing weight loss program. The Clinical Yoga Specialist also spends one morning each week “floating” in the clinic. During this time, she is on-call to the medical and CAM practitioners to assist in treatment and/or to introduce a yoga therapy experience to the patients. These brief interventions (5-10
minutes) have allowed Pappas-Sandonas to become a visible member of the healthcare team and are an effective mechanism to introduce patients to the therapeutic benefits of yoga while simultaneously demonstrating yoga’s effectiveness to healthcare providers. The Clinical Yoga Specialist also has conducted sample therapeutic classes for the staff at Casey Health and the staff are encouraged to attend the regular yoga classes at no charge so that they can experience firsthand the benefits of yoga. The brief patient interventions and the outreach efforts to the staff have helped to increase the number of patient referrals to the yoga therapy program.

Conclusions and Future Directions

During the past two years, the Casey Health Institute has successfully incorporated yoga therapy into primary care. The yoga program continues to grow in size and scope and the Clinical Yoga Therapist is embedded into the day-to-day operations of both the medical clinic and the Wellness Center. In addition to establishing general and therapeutic yoga programs, Casey Health recently introduced a 200-hour yoga teacher training program that features Schumacher as well as Senior Iyengar instructors from across the country including Lisa Walford, Kathleen Pringle, and Marla Apt. The Casey Health practitioners, including physicians, nurses, and CAM providers, also lecture in this training program. This training program was well received by participants during the first year. Participants commented that they found the expertise of the Iyengar faculty and the daily presence and instruction of the physicians and CAM providers contributed to a unique learning experience.

Casey Health will continue to grow the yoga therapy program by building the external referral base. This will be accomplished by reaching out to external specialty practices within the greater medical community including internal medicine, obstetrics/gynecology, rheumatology, and pain management practices. This outreach will consist of Pappas-Sandonas visiting these medical practices to discuss yoga therapy with individual practitioners, as well as conducting “lunch and learn” lectures and demonstrations targeting larger groups of practitioners.

Education is a key aspect of the overall mission of Casey Health. Pappas-Sandonas will continue to participate in health fairs and meetings of community organizations to provide lectures and demonstrations on yoga therapy. The teacher training program will expand to include a 300-hour program with greater emphasis on yoga therapy. In addition to the formal teacher training program, Casey Health is planning to offer daylong and weekend workshops on yoga therapy for specific health conditions and symptoms.

Research also is an important component of Casey Health’s mission. Casey Health recently instituted a new EMR and worked with researchers at the Department of Nursing Research and Translational Science at the National Institutes of Health (NIH) Clinical Center to incorporate clinical outcomes into the EMR that can be used internally to evaluate the effectiveness of the treatment modalities at Casey Health including both traditional medicine and CAM treatments such as yoga therapy. These outcomes include basic physiological information on all patients including BMI, blood pressure, disease-specific symptoms, and medication use. Casey Health soon will incorporate into the EMR a Patient Reported Outcomes Measurement Information System (PROMIS®) measure of global health that assesses overall health in five domains including physical function, pain, fatigue, emotional distress, and social health (Barile et al., 2013). In the future, Casey Health will continue to collaborate with researchers at the NIH as well as researchers in private and university settings to develop studies examining the comparable effectiveness and cost effectiveness of the different treatment modalities at Casey Health, including the yoga therapy program. Such research will help to validate Casey Health’s approach to healthcare and disease prevention, providing evidence that eventually may lead to CAM treatments such as yoga therapy becoming accepted treatment modalities that are eligible for insurance reimbursement.

Note: The opinions expressed in this manuscript are those of the author and do not necessarily reflect the policies of the National Institutes of Health, the Public Health Service, or the Department of Health and Human Services

References
https://www.dukeintegrativemedicine.org/patient-care/individual-services/individual-yoga-therapy


