Life and Livelihood: Musicians Coping with Breast Cancer

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Abstract: Cancer survivorship -- an emerging research field, may be particularly helpful in understanding the physical effects of breast cancer and treatment on musicians. The National Cancer Institute reports that breast cancer survivors comprise the largest cohort of documented cancer survivors in the United States overall, representing 40% of female survivors. Nevertheless, the problems routinely encountered by breast cancer patients following treatment – such as lymph edema, post-surgical neuropathy, shoulder morbidity, post-radiation contracture, chronic fatigue, immune deficiency, and chronic pain – have not been extensively studied.

Problems routinely encountered by breast cancer patients – such as lymph edema, post-surgical neuropathy, shoulder morbidity, post-radiation contracture, chronic fatigue, immune deficiency, and chronic pain – may be especially burdensome to musicians. Musicians depend upon their torsos and arms in their professional work, precisely the areas most affected by surgical procedures and adjuvant therapies. From holding an instrument to using lungs and arms to produce sound, a woman's torso is the core of her livelihood.

Performing arts medicine, a discipline derived from sports and occupational medicine, could easily support studies in rehabilitative health for breast cancer patients. As yet, however, no one has studied the problem of musician's injuries from a non-occupational catalyst. Research into the long-term medical and occupational impact of breast cancer is needed so that best practices – both in treatment and rehabilitation – can be identified and developed, to bring about best outcomes for all patients, including, specifically, women musicians.

The *Life and Livelihood Study*, commencing in September 2007, seeks to understand issues faced by women musicians with breast cancer, and clarify how the care of such women can be improved. This qualitative study will develop a profile of the impact of breast cancer and medical treatment for breast cancer on women musicians, toward facilitating a broader understanding of breast cancer survivorship issues in general. This essay describes the research problem of musicians' survivorship after breast cancer, and argues for further examination of the impact of breast cancer not only on musicians, but also on those in other fields where physical fitness, strength, and stamina are vital to occupational and general well-being.

Key Words: musicians with breast cancer, *Life and Livelihood Study*, performing arts medicine

Embodied States: Making Music and Battling Breast Cancer

Survivorship – a new area of cancer research – may have profound implications for musicians who have had breast cancer. From local papers (Cummins, 2007) to the *New York Times* (Berger, 2007), stories about long-term medical problems of cancer patients describe physical challenges that would jeopardize a career in the performing arts. That people are overcoming a life-threatening illness successfully enough to consider their quality of life afterward is cause for celebration in the ongoing battle against this disease. Nevertheless, the growing realization that cancer survivorship can be fraught with severe and often permanent

disabling conditions is cause for exploring the sources of patients' complaints, especially in terms of how these affect their livelihoods. Beyond survival, the quality of life after breast cancer is becoming a primary concern among women who lead active lives. Their concerns relate less to cancer itself than its effects long afterward, issues which are more germane to impairment and disability studies.

Breast cancer is the most frequently diagnosed type of cancer in women. According to the National Cancer Institute (NCI), 178,480 cases of invasive breast cancer are expected to occur among U. S. women in 2007 and 40,460 women will die from breast cancer this year (U.S. National Institutes of Health, 2006). Nevertheless, prognosis for survival from the disease has increased dramatically in the past ten years. Data from the NCI indicates there are over 10,000,000 cancer survivors in the United States, and that the largest single group of survivors is comprised of women who have had breast cancer, representing 23% of all survivors and 40% of female survivors (U. S. National Institutes of Health, 2005).

In addition to the existential crisis precipitated by a cancer diagnosis, the intensity of breast cancer treatment poses a myriad of risks for suffering to patients weak and strong, young and old. Problems routinely encountered by breast cancer patients include lymph edema, post-surgical neuropathy, shoulder morbidity, post-radiation contracture, chronic fatigue, immune deficiency, and chronic pain. These may be especially burdensome to musicians because of the physical demands of the music professions.

For women who are performing artists, the physical discomfort routinely experienced at some point during breast cancer treatment can impede their ability to function at least temporarily. This is no small consequence if this occurs at a critical time in their performance schedule. Long-term effects, which can disable them permanently as musicians, are concerns that are just beginning to emerge in cancer research on survivorship.

Musicians are athletes in that they must maintain high levels of stamina, efficiency, and proficiency. The fitness of their upper bodies is crucial to sustaining their livelihoods. However they construct their careers (whether exclusively as performers or also as teachers or managing a music business), musicians engage in a variety of activities that require advanced levels of physical and mental balance. Recovering that balance, and returning to the studio, stage, or even the classroom after battling breast cancer can be extremely challenging.

Playing any musical instrument involves an upper body sufficiently sophisticated in tone and strength to execute precise, complex motions. Here are just a few examples. String players use their left arm and hand to hold their instrument while pressing firmly against a fingerboard a set of strings stretched taut across the instrument in order to find pitches. Holding a bow in their right hand, they move the bow across several planes of motion in order to execute complex sound-producing effects through musical passages at precise speeds and volumes. Percussionists employ a system of preparation and follow-through not unlike that of professional golfers, and in the act of striking a myriad of playing surfaces they must protect themselves from the rebound shock of hitting those surfaces. Vocalists, woodwind and brass players rely upon the ability to take in a full breath, but that is only an initial step to producing sound. From a full expanse of their lungs, they must pressurize the air in the diaphragm and chest muscles, then balance

perfectly the correct air pressure and speed needed to propel the air through a set of resistant "sound makers" such as vocal cords, compressed lips, or wooden reeds. All aspects of sound production thus work together like a mobile, each component moving in response to the motion of another.

Imagine, then, how surgery and other procedures common for treating breast cancer could affect just one of these movements, or how even a slight disruption would affect one's core sequence of sound production. Post-surgical pain seems the most obvious disruption in this sequence, but numbness incurred from certain chemotherapy drugs, as well as cognitive or neuropathic dysfunction from chemotherapy and radiation can also impair or alter significantly a musician's ability to perform. Compounding this is the tendency among performing artists to adopt a rugged determinism to go "on with the show" in confronting obstacles (both physical and mental). "Suffering for your art" can become a severe liability under these conditions.

Addressing the Needs of Musicians Impaired or Disabled from Breast Cancer Treatment

Accommodating and preventing disability after cancer is emerging as a field of medical practice in selected regions of the country. Nancy Hutchison, MD, is acutely aware of how this new practice affects musicians. A physiatrist specializing in cancer rehabilitation and lymph edema at the Sister Kenny Institute in Minneapolis, she is part of a collaborative team of specialists who provide an impressive menu of rehabilitation and quality of life services for cancer patients. Hutchison is quick to acknowledge the visionary leadership of Jennine Speier, MD, whose establishment of a Performing Artists Clinic has enabled countless musicians to improve their medical and occupational well-being after illness and injury.

In the seven years since Sister Kenny first began to integrate its inter-disciplinary health care options across multiple institutions (Sister Kenny, Virginia Piper Cancer Institute, and Abbott-Northwest Hospital), Hutchison has seen an increasing visibility of chronic medical issues of survivors increase along with the growing number of survivors. Her evaluation of musicians who are treated for cancer acknowledges their high risk for disability:

> "These people [musicians and athletes] are very kinesthetic and finely tuned. They feel small changes in muscle balance, symmetry, strength and restrictions that can totally throw off performing. Most artists and athletes have trained so long that they have a way of doing things that they have internalized. When something changes such as with breast cancer treatment, it can be very difficult to adjust without specific Physical Therapy by a team of therapists who understand the treatments for breast cancer, the radiation and muscle reconstructions" (N. Hutchinson, personal communication, May 2007).

Hutchison and her colleagues have designed intake interviews to screen carefully those cancer patients with physically demanding jobs, underlying musculoskeletal conditions, or jobs that require a high degree of muscle control in the arms and/or chest (such as musicians, dancers, yoga instructors, and athletes). This method of screening does not constitute the norm, however, as few hospitals or even cancer clinics offer programs that track patients from diagnosis through aftercare according to their occupational needs.

Of the breast cancer patients that Hutchison has treated, their most common musculoskeletal complaints all have potentially disabling consequences for musicians. These include shoulder pain and restricted motion, chest wall/rib cage pain and restricted motion, a feeling of trunk asymmetry, arm weakness on the affected side, bound down scars pulling on underlying tissues, and swelling of the chest wall and arm. As yet, no one has documented these symptoms toward defining a specific population of survivors such as musicians. It would seem, furthermore, that the social construction of disability and impairment issues as they derive from cancer treatment protocols has not yet been explored.

Scientific research on the number of women musicians diagnosed with breast cancer and the medical and occupational well being of musicians after breast cancer is essentially nonexistent. A review of the literature in the fields of performing arts medicine, breast cancer research, complementary and alternative medicine, and women's health did not identify any published studies about the effects of breast cancer on women musicians. However, anecdotal evidence from women musicians suggests that breast cancer and its treatment often have profound effects on their well-being. Only recently has a qualitative study been published in book form to address the well-being of cancer survivors in general (i.e., Magee & Scalzo, 2007).[1]

Just as there are many different treatment protocols now used for patients with breast cancer (depending upon tumor stage at the time of diagnosis, co-morbid conditions, patient preferences, and other factors), there are also potentially many different courses of rehabilitation from breast cancer treatments (e.g., Fialko-Moser, Crevenna, Korman, & Quittan, 2003; Kiel & Kopp, 1999). For example, exercise has been cited as crucial to recovery from breast cancer, and potentially to reduce the risk of recurrence (McNeely, Campbell, Rowe, Klassen, Mackey, & Courneya, 2006; Kaelin, Coltrera, Gardiner, & Prouty, 2006). Musician survivors of breast cancer comprise a particularly valuable cohort of survivors to study, in that their occupational needs could help physicians understand how the disease and its treatment can affect the quality of vocational well being on several levels.

The model of integrated care at Sister Kenney suggests that inquiry into identifying the needs of specific populations of survivors would, firstly, advance clinical knowledge in treatment protocols across the nation. Research into the long-term medical and occupational impact of breast cancer is needed so that best practices – both in treatment and rehabilitation – can be identified and developed, to bring about best outcomes for all patients, including, specifically, women musicians. Without a description and understanding of the experiences of female musicians with breast cancer, physicians and medical researchers currently have a limited basis for developing diagnostic tools and appropriate therapies for the occupational rehabilitation of such patients (see Brodsky & Hui, 2004; Cassileth & Deng, 2004; Chua, 2004). Secondly, advancement in clinical knowledge of rehabilitative and preventive practices would broaden the discourse on cancer survivorship from its focus on pathology toward theorizing about the social constructions of disability and impairment around cancer.

The cohort of women musicians impacted by breast cancer is potentially large, given the confluence of the above statistics for the disease and the number of women who are active musicians. "Musicians and Singers" as defined by the federal Bureau of Labor Statistics (BLS),

are people who "play one or more musical instruments or entertain by singing songs in recital, in accompaniment, or as a member of an orchestra, band, or other musical group." For the latest month for which statistics are available (May 2006), BLS had data on 46,600 musicians (U. S. Department of Labor, 2007). The actual number is doubtless much higher, as BLS data is incomplete for not including part time and intermittent workers, which would include those who identify their primary occupation as music teachers. Assuming that 30% to 50% of musicians are women, the BLS data suggest that there are at least 14,000 to 23,000 women musicians in the country.[2] It is also important to note that women musicians are even more populous among the ranks of "uncounted" rosters of freelance performers who combine ad hoc concert engagements; not only those who teach music in public schools or college, but also those performing in regional orchestras and choral ensembles that do not document personnel in BLS, or those who draw a considerable income from studio instruction and performance venues.

Serious illness and physical disability are most certainly the bane of a musician's career. In addition to the financial risk of taking extended time off for a medical condition (such as breast cancer, but also other illnesses), musicians must also consider the amount of time spent away from their instrument as a liability. The phrase "use it or lose it" has a very real application for the target muscle groups that musicians rely on to form an embouchure for a wind or brass instrument, pluck a harp string (callouses on the fingertips of harpists, for example, will begin to soften after only two days of non-use), or to press on a fingerboard. Returning to active performance after an extended hiatus can be disastrous without a plan for gradually re-conditioning the body to its prior level of performance status.

Personal and Professional Concerns of Musicians After Breast Cancer

This dual burden of a musician's financial and emotional needs is understood by Julie Liebelt, a Physical Therapist and Certified Hand Therapist who treats injured musicians at Sister Kenny's Performing Arts Clinic. In the eighteen years that she has helped musicians recover from problems ranging from overuse to injuries incurred from accidents and surgery, Liebelt observes that:

> "Musicians, especially freelance musicians, often are torn between the need to earn a living and taking care of their bodies. If word gets out that a musician is having problems, they may be passed over for jobs. Freelance musicians also often do not have adequate health insurance, resulting in putting up with pain for longer than they should which may complicate the issue" (J. Liebelt, personal communication, May 2007).

The problem is compounded by an overriding need to continue performing despite knowledge that doing so could be counterproductive:

> "Musicians are some of the lucky people that do for a living something they have a passion for, that fills an emotional need. Not being able to play is very difficult, with some musicians not even able to listen to music if they cannot play. So they often will continue to play to meet that emotional need, ignoring the pain. It is

often difficult to get musicians to slow down enough to allow their bodies to heal" (J. Liebelt, personal communication, May 2007).

Echoing Hutchison's observations, Liebelt reports that musicians she has treated who are breast cancer survivors have complained of decreased shoulder motion from surgery, loss of dexterity from lymph edema, and neuropathic pain and/or weakness due to either radiation damage or nerve compression from compensatory patterns.

This is not to suggest that all musicians with breast cancer are pre-destined for injury, or that they are reckless with their bodies. On the contrary, most musicians are likely some of the best candidates for surviving the rigors of cancer treatment. Research may reveal creative artists as uniquely resourceful in apply their vocational skills of disciplined diligence and motivation toward a successful navigation through obstacles that may confront them during cancer treatment. To be sure, women musicians are highly motivated to succeed in their careers. This can become a liability, however, if they are not thoroughly apprised of their rehabilitation issues in the context of recovering from breast cancer.

"Give us six months and we'll give you back your life," the surgeon said to me days before my first surgery to remove a tumor in my left breast. I am one of the fortunate survivors in the 98% category, meaning that I have that much of a chance of becoming a little old lady someday. As thankful as I am to belong to this group of survivors, I nevertheless struggled with postoperative pain, exhaustion, and weight loss during treatment. I suspect that my determination to keep teaching and concertizing despite it all was not uncommon among young female professionals who are active performers and teachers. This kind of attitudinal conditioning served me well in my fight against cancer. Afterward, however, my "type A personality" nearly ended my career as a hornist.

I recall the diligence with which I sought ways to maintain my stamina during my treatments so that I might continue working. With the help of acupuncture that both restored my appetite and boosted my energy, and by keeping my teaching spaces sanitized, I taught all my spring term courses during chemo and radiation. I decided to follow through with my scheduled faculty recital, although I had to change it from a solo horn event to a program of chamber works with horn so that I could conserve energy. When my treatments ended with a final surgery (to remove my estrogen-producing ovaries), I believed that my troubles were over. They were, in terms of the cancer.

I assumed there would be some lingering tiredness and pain from all that I had endured; so it was of minimal concern to me that I felt a little "off" physically when I returned to performing with a chamber orchestra in the summer. So focused was I on getting through my schedule of surgeries and chemo and radiation, that I never considered the cumulative effects of repeated traumas to my body, specifically my torso, and how this would affect my breathing as a hornist. Gradually, over three years, the cumulative effects of certain cancer treatments weakened me to the point where I could barely lift my instrument, despite my disciplined regimen to get back into shape.

Musicians, like all athletes, develop various sets of adaptive skills for responding to the flexible, daily changes to their lips, breath, range of motion; and several of my colleagues shared additional "tricks of the trade" for my recovery. Try as I might, none of these techniques seemed to restore me to my previous levels of endurance and strength. By the next summer season with the chamber orchestra, I was struggling to get a full breath, and I felt winded. At one point during a concert after playing what should have been a relatively easy solo passage, I nearly passed out right on stage. The director of the breast program at the cancer clinic where I had been treated suspected that I had developed a form of pleurisy from the radiation. A lung capacity test indicated otherwise – on a bad day of breathing, I still could inhale and exhale "off the charts" by normal standards.

A breast MRI finally revealed the problem: post-irradiation contracture that had not shown symptoms until well after treatment officially ended. This condition had damaged the nerves around the lumpectomy incision, and it caused a pulling of internal tissue around the excised tumor area. It turns out that I had a particularly exuberant reaction to radiation therapy, one that is rarely documented but was nevertheless frighteningly disabling to my work as a musician.

Three years after being cured of breast cancer, I was unable to pull in a good, full breath to play my horn. Moreover, the chronic pain radiating throughout my left side from my damaged nerve condition worsened when I played my instrument. I had more than sufficient skills in mental focus to block this pain during rehearsals and performances; the pain returned with a vengeance once the show was over. In an effort to find relief from what felt like an ever-tightening band around my chest, I spent six months receiving deep myofascial tissue release treatments that were excruciatingly painful. These did at least enable me to pull in a good breath, but the pain throughout my side was crippling. Unconsciously, I had developed a bizarre set of compensatory motions in order to move my body around the pain when I played the horn. I created within my body a cyclic pattern of compensatory musculoskeletal dysfunction that ultimately exacerbated the pain in my side.[3] I began to dread playing the horn, but not playing caused deep grief.

During my three-year journey of intensifying symptoms, two other members in the chamber orchestra were experiencing their own symptoms from their breast cancers. One colleague, a string player, had received a chemotherapy drug that rendered her fingertips numb, and I watched her struggle with technical passages that she could not possibly master with unresponsive fingers. She also suffered from a suppressed mental acuity ("chemo head") and could not concentrate effectively during an entire rehearsal period. The other musician, a vocalist, had painful fingertips from her chemotherapy that prevented her from working on her solo performance repertoire through practice sessions at the piano (and, she was unable to play the piano in studio lessons with her many vocal students). More important, her single mastectomy left her feeling extremely unbalanced and constricted throughout her torso area when she most needed to build breath support for her operatic singing.

Disability and Community Among Musicians After Breast Cancer

What all three of us lacked in our strategies to overcome breast cancer were long-term plans for addressing issues specific to musicians' physical restoration. I had few resources to consult when it came to figuring out how to resume being an active musician. Through online networking, I located other women musicians who were similarly struggling after they finished treatment for breast cancer. They too, seemed to fit the profile of what Hutchison and Liebelt describe as "powering through" pain and other physical limitations as part of an unspoken musicians' code of honor. But where I had hoped to facilitate among colleagues a common cause toward forging change, I found instead an ingrained sense of isolation and self-reliance. Many women whom I contacted expressed initial relief at discovering another musician survivor with issues, only to become reticent at the prospect of disclosing their problems to a medical professional.

To their detriment, musicians often feel compelled to live up to an internalized ethos of resilience that rewards those who will perform/produce at any cost. This kind of conditioning is only partially to blame. Hutchison laments, "I do not think the health care system in general understands the unique musculoskeletal, breathing and stress issues of performing artists" (J. Hutchison, personal communication, May 2007). Nevertheless, the programs that she has created with her colleagues prove that both the medical and musical communities can change. Perseverance yields rewards, and in the case of injured musicians, the yield depends upon their willingness to disclose their conditions without fear of retribution, financial or otherwise.

Only recently did I find my way to a solution for my own rehabilitation, beginning with a doctor who supplied me with an experimental topical cream that deadens neuropathic pain. This proved the key component to stopping the cycle of tensing up my entire left side in order to manage the pain when I play my horn. The pain gel was so completely effective that I was able to enter physical therapy specifically designed for musicians at the Sister Kenny Institute. My journey back will be a long one, however, as certain muscles have atrophied and others have become linked to inefficient movement sequences. It has been humbling for me to pass up jobs for the sake of recovery, and I was fearful of admitting to my colleagues (and most of all, my students) that I came to work every day in pain. So far, no one has rejected me or questioned my expertise. A few people have ventured to contact me with messages of "me too," and I am both heartened and saddened.

Disclosure was at one point also a major obstacle in launching studies into a once little-known phenomenon of "overuse syndrome" that ultimately formed the core of Performing Arts Medicine. Brave musicians and their doctors, drawing upon research from sports injuries, created a new field of research and a thriving new medical arts discipline. Now, this specialized field of inquiry has produced impressive research on the prevention and treatment of over-used movement (such as the repeated small finger movements of pianists, string and woodwind players), occupational injuries from incorrect posture and lifting, performance anxiety, and TMJ syndrome (temporormandibular joint dislocation that can occur from playing certain wind instruments). The current paucity of studies on the effects of breast cancer treatments seems to shadow the once-nascent status of a currently booming field of research and treatment in musicians' occupational impairments and disabilities.

Performing Arts Medicine could easily support studies in rehabilitative health for breast cancer patients, as it is already providing rehabilitative services at institutions like Sister Kenny. The closest study in print and available to laypersons on how musicians sustain occupational injuries is *Playing (Less) Hurt* by Minnesota Orchestra cellist Janet Horvath (2006). Horvath spent years soliciting the assistance of medical researchers and injured musicians, all of them struggling with the problem of why the majority of string players experience unrelenting and constant pain in their hands, arms, and backs while they played. "Suffering for your art" is, Horvath argues persuasively, a serious and major health issue in professional orchestras worldwide. A second edition of *Playing (Less) Hurt* provides newer research on overuse syndrome as it affects woodwind players, and there are helpful chapters on specific preventive and healing techniques designed for these common problems.

In addition to Horvath's book, other resources such as the non-profit Safety and Health in Arts Production and Entertainment (SHAPE) organization, the quarterly journal *Medical Problems of Performing Artists* published by the Performing Arts Medicine Association (PAMA), and medical facilities such as Sister Kenny and the Integrative Medicine Service at Memorial Sloan-Kettering Cancer Center in New York which are specific to performing arts confirm the significance of medical problems of musicians (See also Bishop, 1991; Cassileth & Deng, 2004; Jabusch & Altenmuller, 2006; Sataloff, Brandfonbrener, & Lederman, 1990; Weiss, n.d.). The latest issue of the Music Teachers National Association (MTNA) contains an impressive annotated bibliography of performing arts health (Cockey, & Kalmanson, 2007), and websites abound with resources on various occupational maladies (e.g. Musicians and Injuries, n.d.). Among all these resources, it is Horvath's collaborative methodology that suggests an optimum model for inquiry into the more specific problem of what women musicians face when they are diagnosed with breast cancer. Women musicians resourceful enough to seek the advice of practitioners in performing arts will be sorely disappointed, however. As yet, no one has studied the problem of musician's injuries from a non-occupational catalyst such as cancer.

Rehabilitation from breast cancer treatment is a topic that has received little scientific study, and certainly not from the perspective of female musicians who have experienced difficulties. For example, a comparative study of questionnaires given to female breast cancer patients about their overall quality of life after treatment appeared in print only two years ago (Wilson, Hutson, & VanStry, 2005). This study did not provide a comprehensive profile of the patients' quality of life, and in fact aimed only to document the extent that respondents believed their treatment had been effective. From this study, however, came a notable incidental discovery that women who continued to suffer from lymph edema rated a lower level of overall well being. Emerging research on symptoms related to breast cancer treatment, such as shoulder morbidity, confirm the existence of problems and also suggest rehabilitation protocols (Ghazinouri, Levy, Ben-Porat, & Stubblefield, 2005; Sprod, Drum, Bentz, & Schneider, 2005).

A recent newsletter issue of the *International Musician*, the largest organization of professional musicians, contains a brief essay that begins with the acknowledgement that "the idea that a musician needs the same physical care as a professional athlete has been slow to take hold" (Steel, 2007). The essay concludes that, although some orchestras and big-budget entertainment companies are beginning to incorporate health care coverage for fitness training,

preventive and alternative medicine, and wellness programs, medical researchers and musical organizations alike need much more commitment to these initiatives. Even so, there is no mention of rehabilitation from non-occupational catalysts such as cancer.

Conclusions

Women musicians, rugged survivors already from working in the cutthroat business of the music industry, are unlikely to succumb to their infirmities from breast cancer. In fact, the anecdotal evidence of women musician survivors of the disease suggests that they have been extraordinarily creative in their persistence to heal. Within traditional western medicine are some promising studies on upper body rehabilitation and lymph edema that, when combined with a focused inquiry on performing arts, could produce significant results. A recent study (Sprod, Drum, Bent, & Schneider, 2005) on the benefit of women who utilize walking sticks in restoring range of motion in their shoulders suggests a connection to prevention of pain or restricted motion from lymph edema. In addition, there are documented benefits of Traditional Chinese Medicine that can provide relief from side effects commonly experienced from chemotherapy, radiation, and post-operative pain. Anecdotally, some women have reported positive results from a variety of Complementary and Alternative Medicine (CAM) such as Rolf, Qigong, and Homeopathy.

It remains the burden of the researchers to define the population of women musicians who have had breast cancer. Toward this end, a qualitative research project, The Life and Livelihood Study, is underway (Sept. 2007) to query the experiences of women musicians in the United States who have been treated for breast cancer within the past five years (see Author's Note). This will be the first investigation to describe the experiences of a specific population of survivors, and it is expected to generate hypotheses for additional inquiries.

Consider the scenario of a wounded athlete who requires extensive rehabilitation, and we might draw some comparisons to what women musicians could one day experience in the event that they are "disabled" from their experience with breast cancer. A quarterback falls to the ground after a play, wincing in pain from torn muscles and ligaments incurred from being tackled. The player is carried off the field, and he will immediately begin the long process of recovery with the help of a team of injury specialists. Sports commentators broadcasting the action worry aloud that the team's star quarterback may not be able to continue playing the rest of his season. When the quarterback returns to active play, and if he is conscientious enough to recognize who helped him do this, he will hold a press conference or an interview where he divulges how his treatment was a success in getting him back to the game he so loves.

A professional sports athlete requires—and has access to—an entire system of physical and mental health services designed to regain his/her place on the playing field.[4] So too, a professional music athlete requires a similar system of services when they sustain injuries. Why then, would a woman who has been deeply scarred and torn, not from a tackle but from at least one incision in her chest (probably more, plus her underarm from a lymph-node biopsy), expect to continue playing her season of concerts unscathed? Furthermore, where is her team of specialists to nurture her back to shape, train her for re-entry onto the playing field of musical performance she so loves?

Sports, of course, is a huge industry, lucrative enough to provide its sponsored teams an entourage of supportive medical and legal resources. Sporting events certainly are a critical component of public culture, more so than the performing arts. Or are they? Music surrounds us in our daily lives, and people consume it on many levels whether or not they are conscious of that consumption. Music, like sports, is a form of entertainment, but there are no impassioned broadcasters narrating about the various injuries sustained by members of the "team" who are performing the crowd's favorite Pearl Jam tune or the audience's favorite symphonic repertoire.

Injuries are a predictable component of a professional athlete's career for which they are at least mentally prepared, insomuch as they enter into their chosen sport knowing full well their chances of getting injured in a game. Musicians, however, do not go into their business expecting that they will have a career expectancy of a football player. Nor do women musicians expect that a diagnosis of breast cancer could bring them to the brink of ending their career. All they want, initially, is to get rid of the cancer, and fortunately this is happening more often than not. Next, however, comes the quality of life afterward, and this can be a lonely road of guessing, worrying, and trying fruitlessly to find out what's wrong. A new area of rehabilitative medicine for women could and should be more visible on the horizon of performing arts medicine, ready to assist these "musical athletes" back to the playing field of the concert stage.

Author's Note

This essay derives from a series of narratives co-written by the author as well as Charles Gessert, MD, MPH, Senior Researcher, St. Mary's Duluth Clinic (SMDC Health System), and Amy Kamenick, University of St. Thomas Corporate Foundation Grants Office, toward proposals to fund The Life and Livelihood Study, which is a qualitative research study to look at the medical and occupational well-being of musicians after breast cancer. The investigative team for this research includes the author as Principal Investigator, Gessert, Jean Giebenhain, PhD (University of St. Thomas), Lisa Starr MSN (SMDC Health System).

The investigators anticipate that the findings from this study will provide physicians, medical researchers, and musicians with new insights into the effects of breast cancer and breast cancer treatment on the medical and occupational well being of musicians. The investigators expect that the findings will also be instructive to researchers and clinicians in the fields of occupational medicine, wellness studies, complementary and alternative medicine, and overall cancer care.

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being of musicians after breast cancer. In addition, she maintains an active freelance schedule as a performer on both the modern and Baroque horns.

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Endnotes

[1] At this essay's printing this book was unavailable for review.
[2] 30% derives from a ratio/count of personnel in the top ten orchestras in the U. S.; 50% derives from a speculative representation of an equal division of the sexes in any general group.
[3] Liebelt describes this as a common scenario: "Musicians often compound their injury from trauma, surgery or radiation, by trying to return to playing before physically ready. If there is any weakness or decreased flexibility as a result of the injury, musicians often will compensate by changing their posture or hand position to be able to play, which can cause new problems or exacerbate existing problems" (J. Liebelt, personal communication, May 2007).
[4] Although the issues faced by female athletes should not be minimized, their profession has traditionally included a retinue of sports medicine specialists with access that artists can not even imagine. The sports industry has been regulated to provide trainers and physical therapists as part of the support services to athletes from high school through pro-sports teams. With the exception of the internationally prominent and incorporated ensemble companies of dance/ballet, orchestras, opera performers, as well as mega-pop stars, the majority of professional performing ensembles have no such partnership with occupational medicine practitioners. Although more of these performing groups now offer health care benefits, when most musicians go on tour it is rare that the management provides more beyond the services of a general MD to accompany them. Thanks to advocates like Horvath and institutions like Sister Kenny, the Minnesota Orchestra and Saint Paul Chamber Orchestra have lobbied successfully for coverage in preventive and rehabilitative care. Moreover, these ensembles have physical therapists with them on tour.