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Strength and Science

Gender, Physiotherapy, and Medicine in Early–Twentieth–Century America

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This article explores the development of post–World War I allied medical professions in the United States, and more specifically the rise of physiotherapy as it was used to rehabilitate maimed soldiers. Unlike other female health care professionals of the time, physiotherapists engaged in intra–gender conflicts with white–collar women rather than attempting to gain independence from medical men. Driven to be distinct from other female professionals, physiotherapists created a unique post–Victorian identity, defining their practice as requiring both strength and science, which challenged the convention of seeing women as the weaker, more nurturing sex. Their story, however, is not one of simple triumph. Eager to medicalize and professionalize their field, by 1935 they subordinated themselves to physician supervision, losing what little professional autonomy they had acquired during the 1920s. Yet, by extending their professional sphere of influence over disabled soldiers, these therapists became physical manipulators of the male body and purveyors of knowledge regarding the definition and treatment of disability.

Scholars who study the history of female physicians, social workers, and public health nursing during the 1920s have tended to tell the story of medical professionalism as one in which white–collar men and women held opposing gender–specific views on how expert knowledge should be utilized and disseminated. The most frequently cited example of this divide is the controversy surrounding the 1921 Sheppard–Towner Maternity and Infancy Act.[1] As scholars usually narrate the story, on one side of the debate were the women who worked for the Children's Bureau and who supported the Act, believing that federal dollars should be allocated to state health centers in order to improve, among other things, the nation's infant mortality rate. On the other side stood the elite male physicians of the American Medical Association (AMA), who roundly condemned the Act as an "imported socialistic scheme," which directly threatened their free market ideology of private practice. Indeed, in 1922, the AMA House of Delegates voted unanimously to denounce the Sheppard–Towner Act, declaring it a form of state medicine.[2]

But this story of stark gender conflict does not capture the entire domain of health care professionalism during the early twentieth century. At the same time that women in the Children's Bureau engaged in ideological and

political battles with the AMA for control over the nation's health, a small group of female physiotherapists actually courted the medical profession's favor and cooperation.[3] Only one year after the AMA publicly condemned the Sheppard–Towner Act, women leaders of the American Physiotherapy Association (APA) invited Ray Lyman Wilbur, then president of the AMA, to give the keynote address at the national physiotherapy conference. APA president Dorothea Beck enthusiastically introduced Wilbur to the stage, assuring him that it was the goal of her association to "give the medical profession a band of trained women whose ideals, personality, and technical training are all that the physicians and surgeons of the American Medical Association can wish."[4]

The APA's congenial relationship with Wilbur and the elite men of the AMA complicates the typical historical narrative of professional antagonism between the sexes during the 1920s. Physiotherapy represents a different kind of female professionalism—one that concerned itself more with achieving autonomy from other white–collar women than it did with gaining independence from white–collar men.[5] Other female–dominated health occupations that arose alongside physiotherapy during the war, such as occupational therapy and dietetics, drew support from medical men.[6] But as occupations steeped in the womanly spheres of arts, crafts, and home economics, these other professions also achieved legitimacy through the backing of women's charity networks. By contrast, physiotherapists did not seek support from women's clubs or female associations for professional uplift; rather, physiotherapists legitimized their profession almost solely by association with the medical profession.

To secure the medical profession's support, physiotherapists created a post–Victorian gender identity, making them distinct from traditionally female health care workers. Unlike educated women of the nineteenth century who accepted their lot as the weaker yet more nurturing sex, physiotherapists thought of themselves as strong women who possessed specialized knowledge. Whereas nurses treated patients at the bedside, physiotherapists worked in gyms and performed manual rehabilitative therapy with the goal of reshaping weakened and disabled male bodies, making them stronger and fitter for the theaters of war and industrial work. Physiotherapists believed that their unique combination of brains and brawn gave them authority over the disabled body. To place physiotherapists in the larger context of women's history, then, one must be willing to see physiotherapy as a reaction against Victorian notions of womanhood, creating a discontinuity with the conventional role of female caregivers.

This article traces the development of physiotherapy from its beginnings during the First World War to its establishment as an allied medical field, under the direction of physicians in the early 1930s. Throughout this

time period, physiotherapists faced repeated challenges to their professional identity and territory. Because the first generation of practitioners had degrees in physical education, physiotherapists struggled to establish themselves as legitimate health care providers in a field where nursing had long been the accepted occupation of most women medical assistants. Nurses, however, did not pose the only threat. As physiotherapists moved from the circumscribed sphere of well–defined governmental jobs to the unregulated private marketplace, they witnessed an exponential growth of competitors, the most threatening of which was chiropractic. Throughout their travails, physiotherapists looked to organized medical men—who, during the 1920s, had achieved remarkable legal and political control over the health care field—for guidance and professional support. The campaign for a medical alliance reached its peak in 1930, when a battered, yet more mature, physiotherapy profession made its practice entirely reliant on physician prescription, losing what little professional autonomy they had achieved during the 1920s.

Allies within the War

"War Work for Women" read a banner that the U.S. Army hung outside of the physical education building at Reed College in 1918. Here, in Portland, Oregon, the World War I effort to train female "reconstruction aides" in the newly created occupation of physiotherapy was well underway. By command of Surgeon General William Gorgas, chief of the U.S. Medical Department, physical education programs across the country instituted physiotherapy "War Emergency Courses" to train women who could physically rehabilitate maimed soldiers returning from the battlefields overseas.

Physiotherapy programs represented one part of a much larger military effort to recruit women for war work. Never before in American history had the U.S. Army mobilized women for war service on such a massive scale.[7] In a nation on the cusp of passing federal legislation that would enfranchise its female citizens, the military's mobilization of women elicited what some scholars have called "a war within the war."[8] Behind the front lines, women used the Great War as an occasion to wage battles against men who perpetuated world conflict and gender inequality.[9] One example of this kind of conflict can be found in the life of Alice Hamilton, a prominent Harvard physician who identified war work as a particularly hopeful means of gaining equality with her male colleagues. Although originally a pacifist, Hamilton urged her fellow physician–sisters to join the military when America declared war on Germany in April 1917, with the ultimate goal of achieving military status. If female physicians achieved

rank as medical officers they would receive the same pay as their male colleagues—a kind of economic equity that was unattainable outside of the military setting.[10]

Not all women war workers followed Hamilton's path. As this article demonstrates, the newly minted wartime physiotherapists did not wage "a war within a war," but instead fostered a congenial relationship with their male commanding surgeons. Rather than seeing war as an opportunity to advance the cause of women or to fight for economic equality, they understood it as a chance to carve out a new career path that would have been unthinkable in the civilian professional world.

Ninety percent of World War I physical therapists came from schools of physical education.[11] In contrast to its European allies, the United States did not have a military with an established profession of physiotherapy to fill the ranks of the Division of Reconstruction.[12] The Army's Surgeon General's Office thus looked to the country's physical education programs not only for a supply of possible recruits, but also as sites where course work could be conducted. By April 1918, six women's physical education schools offered their facilities to the Medical Department: Reed College in Oregon, The Battle Creek Normal School of Physical Education in Michigan, The New Haven Normal School of Gymnastics in Connecticut, and the remaining three—The American School of Physical Education, The Boston School of Physical Education, and The Prose Normal School of Gymnastics—in Boston.[13] Schools of physical education provided the best setting for physiotherapy training since they offered ample gym space for physical exercise and had ready-made civilian instructors who could lead classes on the subjects of massage and corrective gymnastics.

For female physical-educators-turned-physiotherapists, the First World War provided a unique opportunity to move from an exclusively female sphere of educating other women and children to a medical arena where men were both superiors and patients. Ever since physical education programs arose during the mid-nineteenth century, sex segregation permeated the methods, aims, and expectations of instruction.[14] Physical education schools for boys, for instance, arose during the Civil War in order to enhance male vitality and produce stronger warriors through gymnastics and drills. Girls' physical education, by contrast, came about in response to postbellum medical concerns that highly educated women suffered from unnaturally high levels of "nervous tension"—a condition that not only resulted in ill-health, but also impaired a woman's ability to bear children. Thus, whereas men's physical education grew out of a desire to enhance and harness physical strength, women's fitness programs stemmed from cultural concerns that the weaker sex would become even weaker. As a system built on unwavering sex segregation, physical education programs

only hired instructors who were the same sex as its students. Male physical educators instructed men to become more vigorous fighters and female instructors worked to create fitter mothers.[15] The military's recruitment of female educators to serve as physiotherapists challenged the Victorian, sex-segregated assumptions upon which the field of physical education had been built. By recruiting female physical educators to treat and exercise male soldiers, the Army insinuated that women could become experts on the physical health and fitness of the male body or, at the very least, the disabled male body.

The recruits, who began their careers thinking that they would become gym teachers at all-women's secondary schools or colleges, described the war work in the Medical Department as a welcome change.[16] Rosalie Donaldson Worthington claimed that when she worked as a physical educator in the school system she had "no notion of how to go about teaching, no notion of how to interest" the girls in her classroom. But when she began studying and practicing physiotherapy on adult men, "life . . . had suddenly jelled."[17] Another therapist, Nellie Chilcote, felt so emboldened by her newly gained medical expertise that she challenged her commanding physician's orders. After months of orders that required her to rehabilitate a soldier whose leg was severely injured as a result of multiple fractures and shrapnel wounds, Chilcote refused to perform further treatment, insisting that her patient's leg be amputated. While she knew that making a medical recommendation to a doctor was a "dangerous thing to do," after a few days of her persistence, the surgeon finally agreed to perform the amputation.[18]

Both military surgeons and wartime therapists adopted the widely popular World War I rhetoric of "teamwork" to describe their relationship with one another.[19] As practitioners of medical specialties that had not yet come of age, orthopedic surgeons and rehabilitation physicians had everything to gain by maintaining a working relationship with the physiotherapists. Before the war, most orthopedic surgeons practiced in children's hospitals, where they experimented with techniques of surgical manipulation on children with congenital deformities. Fueled by the wartime enthusiasm for the rehabilitation of maimed soldiers, the small medical specialty of orthopedists hoped that with the support of some 800 wartime physiotherapy aides, orthopedic surgeons could maintain their position as purveyors of knowledge on matters of repairing injured men, both in times of war and peace.[20] Physicians and surgeons looked to the physiotherapists to convince hospital administrators to plan for rehabilitation departments where both therapists and surgeons could be employed.[21]

Despite the fact that physiotherapists subordinated themselves to male orthopedic surgeons—and indeed, the larger military hierarchy of men—they fastened on to the "teamwork" rhetoric invoked by their su-

periors. Instead of being angered about her lack of medical training and understanding of military-based diagnostic categories, therapist Edith McClure wrote that in her department there was a "very understanding doctor who willingly helped fill in the gaps" left from her hurried wartime course training.[22] Wartime physiotherapist Ruby Decker saw The Division of Reconstruction in an even more democratic light: "Physical therapists worked in conjunction with the patient's personal physicians. Please note the phrase: 'in conjunction with.' [Reconstruction work] was a co-operative program with mutual appreciation and respect."[23]

The case of wartime physiotherapists thus complicates the notion of women fighting "a war within a war" against overt forms of male domination. Contrary to a long line of women in the military who thought that "surgeons were [among] the most brutal men," World War I physiotherapists developed a respectful and close relationship with their commanding physicians.[24] In doing so, physiotherapists gained a new sphere of autonomy and power over a select group of men—namely, maimed soldiers—without ever having to engage in ideological warfare with their commanding officers. The new sphere that the physiotherapists created was a complex web of power structures, with men above and below them.[25]

Intra-gender Warfare

By most scholarly standards, World War I physiotherapists fit the image that historians have identified as the "second generation of new women."[26] Like many other women who began their professional careers at the end of the suffrage movement—and in the midst of a new consumer-oriented economy—the physiotherapists were less reform-minded, less politically driven, and more individualistic than their nineteenth-century counterparts. Educated in the late nineteenth and early twentieth centuries when many high schools were coeducational, these women did not live according to the Victorian rule of gender difference; rather, they fostered heterosexual relations, both professionally and personally. Moreover, as historian Nancy Cott has argued, the scientific ideology so popular in the early twentieth century encouraged professional women to see "a community of interests between themselves and professional men and a gulf between themselves and unprofessional women." Because scientifically-based professions promised neutrality and objectivity, the second generation of women assumed that they would be judged according to their professional merits, regardless of sex.[27]

Yet, while physiotherapists matched most descriptions of the modern professional woman, they differed in the sense that they perceived almost all other women—professional and non-professional—as threats to their

careers. They not only rejected the notion of a class-blind sisterhood that permeated women's clubs and the settlement house movement, but also denied a sense of community that might have existed between them and other scientifically minded female professionals. Again, to invoke the Sheppard-Towner Act example as a point of contrast: whereas public health nurses, female physicians, and social workers involved in the Children's Bureau banded together in the 1910s and 1920s to create a network of female professionals who resisted medicalization, physiotherapists opposed developing a kinship with other professional women and welcomed the idea of medicalizing their uniquely gender-based knowledge of physical fitness.

From the very beginning of their professional formation, physiotherapists actively criticized other professional women in an attempt to distinguish themselves from a myriad of female health care providers. Much of the physiotherapists' intra-gender animus originally stemmed from the same-sex discrimination imposed by the Medical Department during World War I. At the outset of war, physiotherapists entered the armed services as civilian volunteers, while the less-educated, yet medically established, nurses ranked as military personnel, above the therapists.[28] What was a cost-cutting measure for the Army amounted to an affront to many therapists' sense of respectability. The Medical Department granted nurses a degree of security, recognition, and employee benefits not afforded to the hundreds of women who worked as physiotherapy aides.[29]

Overshadowed, outranked, and outnumbered by the nursing profession, physiotherapists mounted a campaign of professional exclusion against nurses. During the months immediately following the war, *P.T. Review* (the first professional journal of the APA) covered extensively the inequalities among women who served in the war.[30] When in 1920 an army officer at San Francisco's Letterman General Hospital assigned a nurse to manage the department of physical therapy, *P.T. Review* editors lambasted the commanding officer, calling the order "brainless," arguing that such an arrangement would ultimately harm patients' health.[31] By March of the following year, and after a stream of letters penned by therapists who condemned the Letterman order, *P.T. Review* proudly announced that the Surgeon General had replaced the commanding nurse with a trained physiotherapist.[32]

Military orthopedic surgeons and rehabilitation physicians who worked closely with the physiotherapists during the war fully supported the therapists in their effort to restrict nurses from entering the specialty of rehabilitation. In a 1920 letter to Mary McMillan (the first president of the APA), Dr. Harold Corbusier argued that the Army Medical Department should only grant physiotherapists the same military status as nurses so long as physiotherapy remained distinct from nursing.[33] After the war,

when the Army Medical Department proposed to subordinate physiotherapists to the nursing corps, Dr. A. B. Hirsh wrote an angry letter to one of his colleagues claiming that "such a demotion to an inferior status would undoubtedly destroy the fine morale of the high type young women [that is, physiotherapists], many of them college bred."[34] Most importantly, when wartime physiotherapists began to organize their own professional association, Dr. Frank Granger, head of the Army's Physiotherapy Division, played an instrumental role in keeping nurses out of the profession by stipulating that all physiotherapists have physical education degrees. In a letter responding to a nurse who criticized his requirements, Granger wrote that from his experience in the army, few nurses "made good as skilled operators."[35]

While a large number of nurses (especially public health nurses) came from the same socioeconomic background as physiotherapists, leaders of the APA and physicians who supported them made an argument for distinction based on education, drawing a line between "skilled" professionals—women who had a four-year secondary degree and specialty training under the tutelage of physicians—and "unskilled" nurses, who had three years of training, at most. For physiotherapists and their commanding physicians, medical specialization served more as a group identifier than gender or class. Orthopedic surgeons, rehabilitation specialists, and physiotherapists all shared the same goal of retaining a unique identity, distinct from the more well-known general practitioners of medicine.

But the physiotherapists used more than their educational clout to drive a wedge between them and other professional women. In order to distinguish themselves from their fellow physical educators, who had the same educational background, physiotherapists appealed to their image as medical experts, using this as an indicator of physiotherapy's superiority. The field of physical education had historically developed in response to worries about how industrialization and the urban lifestyle would affect the physical health and bodies of city dwellers. It was a field, in other words, that aimed toward social reform.[36]

By joining forces with orthopedic surgeons, the physical educators-turned-physiotherapists made a self-conscious turn away from their reformer roots. Instead of *educating* a whole population of urban girls and women, both healthy and ill, physiotherapists *treated* injured men whom they considered to be *patients*. The shift in vision that physiotherapists made from the social to the medical is best exemplified by comparing the educational requirements in both fields of physical education and physiotherapy.

Women physical educators thought of their field as an "applied science." In their courses on anatomy, physiology, gymnastic exercise, and hygiene, students employed an arsenal of scientific instruments—including

microscopes, skeletons, and anatomical charts—to better understand the effects of physical exercise. Some schools even hired medical doctors, usually women, to conduct physical examinations of all incoming students. Although physical educators prided themselves on the scientific basis of their work, they nevertheless understood science to be the handmaiden of social reform. Only when applied properly could the science of physical education succeed in making a healthier society for all women and children.[37]

The Physiotherapy War Emergency program, by contrast, functioned primarily as a full-immersion course in the language and practice of the "new scientific medicine" that arose as a result of the late-nineteenth-century discovery of bacteriology and the germ theory of disease. Much of the physiotherapists' education took place not at the bedside but at the bench, where they dissected human cadavers while learning about the latest theories in human physiology and orthopedic surgery. Male orthopedists commanded the organization and content of the coursework, instructing their physiotherapy students to think of patients in terms of diagnostic groups and medical categorizations, both of which were established by military surgeons.

In addition to military medicine courses, physiotherapists took courses in "military massage," even though many of them were already educated in techniques of manual therapy. Rather than mere "rubbers"—common early-twentieth-century parlance indicating one who was trained in massage techniques—military physicians wanted physiotherapists to be known as "medical rubbers."[38] Not only did medicalization have the effect of bringing massage, which was long considered a "fringe" treatment of manual therapy, to the mainstream of medical practice, but it also subverted the common linkage between masseurs and prostitution. By bringing "rubbing" under the umbrella of medicine, and the alleged objectivity that accompanied it, orthopedic surgeons and the military thought that they could successfully neutralize the relationship between soldiers and the women treating them, despite the unavoidable physical intimacy that massage techniques required.

Perhaps most significantly, at least for the purpose of distinguishing themselves from physical educators, physiotherapists took coursework in the latest medical technologies. In the early twentieth century, medical doctors and surgeons interested in rehabilitation began utilizing deep-tissue heating agents, which were thought to help with the physical manipulation of muscles and joints. Before graduating from the War Emergency Course, physiotherapy aides had to demonstrate proficiency in a wide array of electrical and hydrotherapeutic devices.[39]

Physiotherapists defined themselves as scientific professionals not only by virtue of their education, but also by their lack of commitment to conventional female methods of political and medical reform. This latter approach to identity formation was most apparent in their interactions with

occupational therapists, a group of women whom the army recruited to work side-by-side with physiotherapists in the reconstruction effort. Occupational therapy began during the early twentieth century when Eleanor Clarke Slagle—known as the "Jane Addams of occupational therapy"—attended the Chicago School of Civics where she took courses in "curative occupations and recreations."[40] With Hull House's Labor Museum and its creation of the Chicago Arts and Crafts Society in 1897, Chicago reformers had already established a tradition of engaging working-class men and women in arts and crafts activities to relieve nervous anxieties brought about by industrialization.[41] During the war, occupational therapists brought this approach of easing physical pain to the battle lines, engaging patients in beadwork, basket weaving, and woodworking to strengthen injured limbs and calm the minds of recuperating soldiers.

To be sure, some physiotherapists felt a strong kinship with their fellow occupational therapists—after all, occupational therapists and physiotherapists shared everything from army-issued uniforms to living quarters.[42] But women who went on to become leaders of the physiotherapy profession encouraged distance more than empathy. *P.T. Review* insisted that occupational therapists be considered "society women" rather than professionals whose work was grounded in rigorous educational standards. At its most disparaging, *P.T. Review* characterized occupational therapy as a "pleasant handicraft that can be picked up in a few spare hours."[43] Ultimately, physiotherapists thought occupational therapy served the useful, yet more womanly, calling of "morale boosting."[44]

Physiotherapists were not alone in criticizing the work of occupational therapists. Several influential rehabilitation physicians and orthopedic surgeons contended that occupational therapy should be seen as, at best, the stepchild to the practice of physical therapy, and at worst, a completely expendable frivolity. Once again Granger came to the physiotherapists' defense, asserting that "occupational therapy [was] curative only in the degree that . . . it [took] the patient's mind off of himself." [45] Prominent hospital planner Dr. William H. Walsh expressed the difference between occupational therapists and physiotherapists more clearly: "[T]oo many [occupational therapy] departments are under the auspices and control of well meaning ladies' boards, conducting the work as a social affair and quite independent of professional supervision."[46] Because Walsh and others like him saw occupational therapists more as entertainers than as medical professionals, they thought that occupational therapy should ultimately be "under the direction of physical therapy."[47]

It is no surprise that certain physicians remained wary of occupational therapists, for throughout the war and well into the later half of the twentieth century, occupational therapy retained some of its reformer roots.

According to historian Virginia Quoriga, occupational therapists drew on the authority of medical men, but not at the expense of giving up their larger professional aim of challenging the overly objective methods of the new scientific approach to medicine.[48] As an outgrowth of late-nineteenth-century arts and crafts societies—societies that, as T. J. Jackson Lears has pointed out, represented the heights of anti-modernist sentiments at the turn of the twentieth century—occupational therapy easily lent itself to criticism of medicine's reliance on technology and the laboratory sciences. Accordingly, the occupational therapists themselves advocated a holistic vision of illness, seeing it as a product of a complex mix of social, economic, and biological factors. In addition, unlike physiotherapists, they opposed medical domination of their field; while physiotherapy came under physician-controlled licensing in the 1930s, occupational therapists resisted such medical control well into the 1970s.[49]

That physiotherapists adopted a strategy of inclusion toward male rehabilitation physicians and one of exclusion toward other closely-linked female professionals points to the crux of physiotherapy's problem in creating an identity for itself: women threatened their professional survival more than men did. First-generation physiotherapists wanted to secure their own professional space, devoid of hobbling remnants of Victorian womanhood that still shaped the identity of nurses and occupational therapists.[50] They aimed to maintain the high scholarly standards of physical education, which, by the 1920s, required a four-year degree, while securing widespread recognition as a medically based profession, just as nurses had been enjoying for many years before them. From their perspective, achieving such professional distinctiveness required hitching their fortunes to medical men, even at the cost of alienating themselves from their sisterhood.

A Post-Victorian Identity: The Professionalization of Physiotherapy

As part of the larger effort to create a unique professional identity for themselves, physiotherapists broke away from the Victorian ideal of womanhood. While they engaged in conventional methods of identity formation (through professional associations and journals), they primarily distinguished themselves from other health care providers through their methods of practice. Quite appropriately, physiotherapists challenged traditional Victorian gender roles through the physicality of their work.

Throughout the nineteenth and early twentieth centuries, women were thought to be well-suited for careers in medicine because they had a distinct ability to alleviate suffering—a characteristic that men, by nature, could never possess. In particular, American society held women physicians

in high regard, because they alone, as historian Regina Morantz-Sanchez argues, "could combine sympathy and science—the hard and soft sides of medical practice."[51] Because of their unique strengths, women health providers became leaders in matters of family and public health, where fears about the ill-health of mothers and children intersected with larger societal concerns.

When shaping their own professional identity, physiotherapists resisted the Victorian assumption that "softness" was a biologically determined trait. Instead of emphasizing their ability to sympathize with patients, physiotherapists promoted their career choice as one that required physical strength.[52] One physiotherapist working during the 1920s described her occupation as "hefty" work and wrote that many of her male patients asked if she found her job to be "too much of a strain."[53]

In photographs, as in Figure 1, they portrayed themselves as women of rather large stature, arduously stretching heads and limbs of male patients and providing manual resistance during exercise.[54] While nurses and occupational therapists typically treated patients at the bedside, physiotherapists often worked in gyms, leading group exercise. As such, they resembled drill sergeants more than bedside nurturers; commanders more than those who were ordered to care (Figure 2). They hovered over male bodies, in gyms and on plinths, at times pulling on amputated limbs, and at other times, applying electrical devices (Figure 3).

Because their treatments frequently elicited pain from their patients, physiotherapists could not be nurturers in the traditional sense of the term. Nurses, dieticians, and occupational therapists took on more customary duties of female bedside nurturing: they fed, bathed, and cheered recuperating soldiers. Caroline B. King, a dietician who served in the American Expeditionary Forces during World War I, expressed the nurturer point of view most succinctly when she spoke of the rewards of her work: "[I remembered] the bright faces of a whole ward full of desperately wounded boys . . . when I managed to give them something extra good, like lemon pies; but best of all my rewards was the name the boys bestowed on me—'Mother.'"[55] Physiotherapists, by contrast, actively avoided rhetoric that even hinted of maternalism.[56]

And yet, physiotherapists were not men, nor did they want to be. At every turn, they chose a middle road, characterizing themselves in both traditionally masculine and feminine terms. Army recruitment literature described physiotherapists' comportment as cheerful yet forceful and their touch as gentle but firm.[57] When writing about their commanding wartime physiotherapist, Margaret Sanderson, they described her as a "disciplinarian," who, at the same time, showed great concern for the therapists' well-being, advising overseas therapists to get "proper rest and wear warm underwear."[58]

Figure 1. World War I physiotherapy reconstruction aide stretching the neck of a rehabilitating soldier. Emma Vogel Collection, National Museum of Health and Medicine, Walter Reed Army Medical Center, Washington DC.

In a very real sense, World War I allowed these once-segregated physical educators to experiment with blurring the sexual spheres. Obscuring the spheres, however, did not lead to a full rejection of gender distinctions. Instead, the physiotherapists synthesized Victorian sex-based characteristics that were considered exclusively male and female, producing new combinations of gender distinction. Most strikingly, being a "strong woman" was no longer a contradiction in terms as it had been throughout the nineteenth century. Through their practice, the physiotherapists made a very important step toward creating a female professional space within the medical profession, where medical men would support and respect the work of physically strong women and where the stereotype of women as the inherently weak and delicate sex could be legitimately challenged.[59]

Moreover, the blurring of the gender spheres gave physiotherapists a kind of adaptability that sex-segregation did not permit. In situations where they had to distinguish themselves from other female health professionals,

Figure 2. Mary McMillan (right), who became the first president of the American Physiotherapy Association in 1920, worked as a physiotherapy reconstruction aide at Walter Reed Hospital shortly after the armistice. Here, in this 1919 photo, she is leading a group exercise class, instructing a group of soldiers in physical fitness and stretching. Emma Vogel Collection, National Museum of Health and Medicine, Walter Reed Army Medical Center, Washington DC.

physiotherapists emphasized their strength. When they felt threatened by beauticians and other "untrained graduates of massage," they appealed to the rigorous scientific standards of their practice.[60] And when they felt that they had to protect their professional turf from other male practitioners, such as electrotherapists, physiotherapists called attention to the fact that as women, they had softer, more flexible hands and a more comprehensive training in all physical techniques of rehabilitation.[61]

In order to accommodate their conceptual malleability of the profession's gender identity, physiotherapists decided to avoid sex-laden terminology when naming their professional association. Even though women dominated the field, in 1921 physiotherapists from across the country voted to change their organization's name from the originally proposed "American Women's Physical Therapeutic Association" to the non-gendered "American Physiotherapy Association."[62] Historian Nancy Cott has argued that it was common for early-twentieth-century female

Figure 3. World War I physiotherapy reconstruction aide performing electrical stimulation with a group of rehabilitation soldiers as onlookers. Emma Vogel Collection, National Museum of Health and Medicine, Walter Reed Army Medical Center, Washington DC.

professionals to avoid emphasizing their gender, for these women "often sought to legitimize their pursuits by emphasizing their identification as rational and neutral professionals."[63]

But while physiotherapists used non-gendered terminology to gain respect from the medical profession and to distinguish themselves from physical educators whose profession persisted along gender-specific lines, they had more than legitimization or professional cohesiveness to gain.[64] The APA's creation of a gender-free organizational name made it possible for a handful of male wartime physiotherapists to become members of the association, which, in turn, created a unique situation of female majority rule, a sphere of influence where women had explicit control over their male counterparts. In one of the only surviving accounts from a first-generation male physiotherapist, Carroll McAllister summed up the gender dynamics of the field, saying that "women ran the whole show in physiotherapy."[65] APA membership directories indicate that in the decade following the war, male therapists constituted anywhere from one to four percent of the organization, depending on the year.[66] Few in number, these

men did not have much of a voice in the association. They did not write for the pages of *P.T. Review*, nor did they assume leading positions in the association's bureaucracy. Women physiotherapists held the offices of president, vice-president, treasurer, and secretary throughout the 1920s.[67] Male physiotherapists often found themselves working under the direction of women, both on the national and local levels, since hospital administrators typically hired female physiotherapists to manage hospital rehabilitation units. McAllister, for instance, not only followed his physiotherapist wife, Olive E. Clarke, to California in 1921 when she was promoted to be chief physiotherapist at a San Francisco hospital, but he also worked under her as a member of her staff.[68]

In both their organizational structure and professional literature, physiotherapists created an image of themselves as physical laborers with college degrees. This combination was new, both in the realm of medicine—where book-learning earned far more respect than a hands-on healing—and in the sphere of educated women—a group that was often seen as the weaker sex. Physiotherapists freely admitted that their occupation required a highly educated, "athletic" person to stretch, massage, and exercise patients in a way that would procure concrete measures of physical rehabilitation and bring about quantifiable physiological improvements.[69] Whereas women physicians of the nineteenth century laid emphasis on the dual virtues of sympathy and science for professional advancement, the new twentieth-century profession of physiotherapy emphasized the two "hard sides" of rehabilitative medicine: strength and science.

Marketplace Friends

Rather than sloughing off their wartime past in the decade following the war, the physiotherapists' fervor for professional distinctiveness heightened throughout the 1920s. As a result of cutbacks in government spending, by 1922 the military reduced physiotherapy services, forcing many women to leave their well-defined (although relatively poorly paid) governmental jobs to find employment in the free-market economy.[70] Some therapists opened private practices, others worked in doctor's offices, while still others found work in industrial accident clinics.[71] As these women moved from positions secured by the war machine to the private sphere, however, they encountered an unforgiving medical marketplace crowded with osteopaths, chiropractors, and nurses—all of whom claimed to practice "physiotherapy." Indeed, by the mid-1920s, APA headquarters received a stream of letters from rank-and-file members complaining about "illegitimate" manual therapists who called themselves physiotherapists. Of all the so-called physiotherapy intruders, chiropractors posed the greatest threat.[72]

Compared to their campaigns of exclusion against nurses and occupational therapists, physiotherapists had a much more difficult time keeping their professional identity separate and distinct from chiropractors. Stripped of their professional titles and identities, chiropractors and physiotherapists looked very similar in regard to therapeutic practice, for both treated patients through the laying on of hands.[73] More than a belief in manual healing, however, bound the two practitioner groups. From the beginning, women established a significant presence in chiropractic. Between the years of 1913 and 1919, almost 50 percent of chiropractors in Washington DC were women. A similar male-to-female ratio can be seen in Kansas, where women made up 40 percent of practicing chiropractors in 1925.[74]

In response to the chiropractic threat, APA therapists engaged in a steady campaign to win the approval of the AMA, which throughout the 1920s enjoyed growing dominance and legal control over the health-care field.[75] By the 1920s, newly regulated AMA medical schools began to teach aspiring physicians that chiropractors were unscientific "cultists," mere moneymakers who endangered the public's health with their unsubstantiated claims to therapeutic truths. The AMA lobbied aggressively against chiropractors, convincing state legislatures to create laws that would not only prohibit their licensure but also deny them insurance payments. As a result, hospitals and clinics largely excluded chiropractors from practicing within their institutions' walls.[76]

Hence, APA therapists and the AMA had mutually supporting interests: both wanted to curtail the practice and prevalence of chiropractors. The physiotherapists readily adopted the AMA's anti-quackery rhetoric, and proudly proclaimed themselves to be "scientific" practitioners of physiotherapy, even when the effectiveness of their therapies was still largely based on anecdotal evidence.[77] The medical profession, in turn, supported the physiotherapists, seeing them as a means to undercut their chiropractic competitors. By maintaining a relationship with women who assumed subordinate positions in the medical hierarchy, the organized medical profession could incorporate manual healing techniques into orthodox practice without having to worry about marketplace competition. As the AMA Committee on the Costs of Medical Care later asserted in 1932, the medical profession's use of physical therapy did more than anything else to "eradicat[e] sectarianism and quackery" among manual healers.[78]

While APA therapists succeeded in winning the protection of the AMA, securing their place in the country's modern university hospitals and clinics, the price that they paid for their occupational safety was high. Feeling the pressure to make her profession's cooperation with the AMA more overt, in 1928 APA President Gertrude Beard suggested that her fellow physiotherapists agree to make their treatment wholly contingent upon physician

prescriptions. In practice, most physiotherapists had relied on physician referrals since the days of the First World War, but they had never *formally* relinquished their right to treat patients without doctors' orders.

By 1930, Beard's recommendation became a reality. According to an APA survey conducted during the height of the Great Depression, therapist salaries across the country had been drastically cut throughout the early 1930s and up to a third of all private practices had been closed as a result of the country's economic downturn.[79] In addition, association membership plummeted, despite the temporary moratorium on membership fees.[80] Dispirited and financially strapped, APA physiotherapists had little fervor to fight state medical legislation concerning chiropractors. Instead, the therapists who remained members of the APA urged their association leaders to work "ethically with the medical profession."[81] In response to these rank-and-file pleas, the APA amended its original 1921 constitution, changing crucial wording about the therapist-physician relationship. Whereas the 1921 constitution stated that the organization would provide trained women to the medical profession, the 1930 version asserted that physiotherapists would "cooperate *under the direction* of the medical profession."[82] In essence, the APA mandated physician referral for its practice. Although the mandate was an act of self-conscious subordination, Beard and her successors believed that such a relationship between the two professional groups would create a greater degree of exclusivity in which no other practitioners—especially chiropractors and nurses—could take part.

Even when presented with the possibility of breaking free from the medical profession to become autonomous practitioners, physiotherapists remained conservative in their drive toward professional legitimacy. When, in 1934, a group of osteopaths and chiropractors—who called themselves the "Physiotherapists Society"—invited APA members to join their effort in becoming independent of the medical profession, APA therapists adamantly declined the offer. "Be it resolved," the physiotherapists wrote to the osteopaths and chiropractors, "that it is not desirable to practice physical therapy except under the direction of a physician duly authorized to prescribe."[83] By this point in their professional careers, physiotherapists had not only convinced themselves that they stood on the moral high ground above "cultist" manual healers, but also that the medical profession's support was far too great of an asset to risk losing.

By 1935, the APA relinquished to the medical profession what little self-regulatory control it still maintained. In 1933, it gave the AMA's Council on Medical Education complete power to accredit physiotherapy schools. In that same year, physiotherapists turned over the task of setting up a national registry to medical men in the Congress of Physical Therapy. As part of the agreement, the Congress required that physiotherapists be called

technicians and give up their private practices to work under the direct supervision of medical doctors.[84]

A New Kind of Female Professionalism in Twentieth-Century Medicine

The phenomenon of women welcoming professional medicine into a female occupational domain appears to run contrary to much of the literature in women's history. Many scholars have rightly pointed out that medicalization worked to the detriment of women, both as patients and health-care providers. The history of childbirth in America, for instance, shows us how medical doctors redefined pregnancy and birthing as something "pathological," rather than as a natural part of a woman's life.[85] By the same token, the history of women's medical education demonstrates that the number of female students enrolled in medical school progressively declined during the first half of the twentieth century, largely because of the exclusionary tactics employed by the male-dominated AMA.[86] And finally, historians who study women and public health during the 1920s point to the AMA's take-over of the female-run Children's Bureau as yet another instance of medical invasion.[87]

How, then, are we to understand physiotherapists of the early twentieth century, who appear to stand outside of the prevailing narrative of women professionals and medicine? Part of the answer is that for the physiotherapists, there was little continuity between their physical education roots and their careers in physiotherapy. Since the nurses, social workers, and physicians who worked in the Children's Bureau had deep connections to Victorianism and the sphere of women's clubs, societies, and settlement houses, they belonged as much to the nineteenth century as they did to the twentieth. To comprehend the situation of the physiotherapists, we need different frames of reference and a willingness to think along lines of discontinuity from, or at least reaction against, the Victorian past. The first generation of physiotherapists worked diligently to maintain an occupational space distinct from other female professions. They did not want to be seen as an extension of physical education, nor did they wish to be grouped together with occupational therapists or nurses, all of whom maintained elements of their Victorian heritage.

The story of the first generation of physiotherapists reminds us as historians that, in some respects, women entering the new health-care professions of the early twentieth century profited from professionalization and medicalization. To be sure, much was lost as physiotherapists moved closer to the AMA. Indeed, by 1935, physiotherapists assumed virtually the same position they had held during the First World War, working at

the bottom of a strict chain of command where physicians ultimately controlled female medical assistants and their work. Nevertheless, the physiotherapists created a new sphere of autonomy where they were "strong women" who could legitimately exert power over male physiotherapists as well as the disabled male body—two achievements that would have been impossible in the sex-segregated field of physical education. Ultimately, by working closely with one set of men, physiotherapists gained power over other groups of men. Through the medicalization of physical education techniques, female physiotherapists became purveyors of knowledge inaccessible to the men they treated.

Physiotherapy thus became a viable career path in which women could manipulate men, both through their womanly strength and through the esoterism of medical knowledge and technology. Thinking in broader terms, it is striking that despite the First World War and a well-defined turn-of-the-century "masculinity crisis," the U.S. military and its physicians promoted use of the strong athletic woman who was capable of inflicting pain on her patients rather than the motherly nurse-type caregiver. How the physiotherapists figure into the growing literature on the history of the male body during the early twentieth century as well as scholarship on the remasculinization of disabled men are topics for further research.[88] It is evident, however, that in order to fully understand the motivations and actions of women in the allied health professions, historians must consider the complex web of power relations that these women negotiated on a day-by-day basis. In the case of physiotherapy, the desire to become experts on the disabled male body played a significant role in the trajectory of their occupation. Most of all, the aspiration to take charge of rehabilitating the nation's disabled soldiers and veterans explains why the physiotherapists' story is one of cooperation with medical men, not overt conflict.

Notes

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[1]For a description of the battles that took place between the medical profession and the women of the Children's Bureau, see Molly Ladd-Taylor, *Mother-Work: Women, Child Welfare and the State, 1890–1930* (Urbana: University of Illinois Press,

1994); Kriste Lindenmeyer, *Right to Childhood: The U.S. Children's Bureau and Child Welfare, 1912–46* (Urbana: University of Illinois Press, 1997); Richard A. Meckel, *Save the Babies: American Public Health Reform and the Prevention of Infant Mortality, 1850–1929* (Baltimore: Johns Hopkins University Press, 1990); Robyn Muncy, *Creating a Female Dominion in American Reform, 1890–1935* (Oxford: Oxford University Press, 1991); Sheila M. Rothman, *Woman's Proper Place: A History of Changing Ideals and Practices, 1870 to the Present* (New York: Basic Books, 1978); and Anne Firor Scott, *Natural Allies: Women's Associations in American History* (Urbana: University of Illinois Press, 1991). For a more specific treatment of the role that female physicians played in regard to the Children's Bureau, see Ellen S. More, *Restoring the Balance: Women Physicians and the Profession of Medicine, 1850–1995* (Cambridge, MA: Harvard University Press, 1999); and Regina Morantz-Sanchez, *Sympathy and Science: Women Physicians in American Medicine* (Oxford: Oxford University Press, 1985).

[2]For "imported socialistic scheme," see Meckel, *Save the Babies*, 216.

[3]On the whole, historians have rarely considered the allied health occupations that grew out of World War I. One notable exception is Virginia A. M. Quiroga's work on occupational therapists during the years leading up to and during the war. See Quiroga, *Occupational Therapy: The First Thirty Years, 1900–1930* (Bethesda, MD: American Occupational Therapy Association, 1995). For a brief treatment of occupational and physiotherapy reconstruction aides, see Lettie Gavin, *American Women in World War I: They Also Served* (Niwot: University of Colorado Press, 1997), 101–28. In addition, sociologists Glenn Gritzer and Arnold Arluke have written about the rise of occupational and physical therapy in *The Making of Rehabilitation: A Political Economy of Medical Specialization, 1890–1980* (Berkeley: University of California Press, 1985). Rehabilitation and the profession of physical therapy have received more attention outside of the United States. For example, there is a rich body of literature on Canadian physical therapy. See Ruby Heap's three essays: "The Emergence of Physiotherapy as a New Profession for Canadian Women, 1914–1918," in *Framing Our Past: Canadian Women's History in the Twentieth Century*, ed. Sharon Anne Cook, Lorna R. McLean, and Kate O'Rourke (Montreal: McGill-Queen's University Press, 2001), 295–99, "'Salvaging War's Waste': The University of Toronto and the 'Physical Reconstruction' of Disabled Soldiers during the First World War," in *Ontario since Confederation: A Reader*, ed. Edgar-André Montigny and Lori Chambers (Toronto: University of Toronto Press, 2000), 214–34, and "Training Women for a New 'Women's Profession': Physiotherapy Education at the University of Toronto, 1917–1940," *History of Education Quarterly* 35 (Summer 1995): 135–58. For a history of physiotherapy in Britain, see Gerald Larkin, *Occupational Monopoly and Modern Medicine* (London: Tavistock Publications, 1983), 92–124.

[4]For a reprint of Dorothea Beck's presidential address, see "Presidential Messages: The First Fifty Years," *Physical Therapy* 51 (June 1971): 625. For a transcript of Ray Lyman Wilbur's keynote address, see "Opening Address at the Third Annual Convention of the American Physiotherapy Association," in *P.T. Review* 4 (June 1924): 16–18.

[5]For general histories on nursing, see Susan Reverby, *Ordered to Care: The Dilemma of American Nursing, 1850–1945* (Cambridge: Cambridge University Press, 1987); Joan I. Roberts and Thetis M. Group, *Feminism and Nursing: An Historical Perspective of Power, Status, and Political Activism in the Nursing Profession* (Westport, CT:

Praeger, 1995); and Barbara Melosh, *"The Physician's Hand"* (Philadelphia: Temple University Press, 1982).

[6]See Quiroga, *Occupational Therapy*, 13ff, 35. A comprehensive historical account of dietetics still remains to be written. For a brief overview of dieticians during World War I, see Katherine E. Manchester and Helen B. Gearin, "Dieticians Before World War II," in *Army Medical Specialist Corps*, ed. Robert S. Anderson, Harriet S. Lee, and Myra L. McDaniel (Washington, DC: Office of the Surgeon General, 1968), 15–39. See also Patricia A. M. Hodges, "Perspectives on History: Military Dietetics in Europe during World War I," *Journal of the American Dietetic Association* 93 (August 1993): 897–901.

[7]For an excellent overview of women's war service in America during World War I, see Susan Zeiger, *In Uncle Sam's Service: Women Workers with the American Expeditionary Force, 1917–1919* (Ithaca, NY: Cornell University Press, 1999).

[8]This quotation comes from the title of Ann Douglas Wood's superb essay, "The War Within the War: Women Nurses in the Union Army," *Civil War History* 18 (1972): 205. The argument that women fought a backstage war with men during World War I can also be found in a wonderfully insightful volume, *Behind the Lines: Gender and the Two World Wars*, ed. Margaret Randolph Higonnet, Jane Jenson, Sonya Michel, and Margaret Collins Weitz (New Haven, CT: Yale University Press, 1987).

[9]To see the various forms of these behind the scenes battles, see Barbara Steinson, "The Mother Half of Humanity: American Women in the Peace and Preparedness Movements in World War I," in *Women, War, and Revolution*, ed. Carol R. Berkin and Clara M. Lovett (New York: Holmes & Meier Publishers, 1980). For a more recent treatment of the uses of maternalism in times of war, see Lorraine Bayard de Volo, "Drafting Motherhood: Maternal Imagery and Organizations in the United States and Nicaragua," in *The Women & War Reader*, ed. Lois Ann Lorentzen and Jennifer Turpin (New York: New York University Press, 1998), 240–53.

[10]For more on the role of female physicians during World War I, see Kimberly Jensen, "Uncle Sam's Loyal Nieces: American Medical Women, Citizenship, and War Service during World War I," in *Women and Health in America*, ed. Judith Walzer Leavitt, 2nd ed. (Madison: University of Wisconsin Press, 1999), 540–55. A full account of Alice Hamilton's life and work can be found in Barbara Sicherman, *Alice Hamilton: A Life in Letters* (Cambridge, MA: Harvard University Press, 1984).

[11]For the number of physical education graduates, see Frank Granger, "The Development of Physiotherapy," *P.T. Review* 3 (June 1923): 16.

[12]For British physiotherapy during World War I, see Heap, "'Salvaging War's Waste,'" 224. See also Larkin, *Occupational Monarchy*, 92–124.

[13]See Emma Vogel, "Physical Therapists Before World War II," in *Army Medical Specialist Corps*, 44.

[14]See Martha Verbrugge, "Knowledge and Power: Health and Physical Education for Women in America," in *Women, Health, and Medicine in America: A Historical Handbook*, ed. Rima D. Apple (New Brunswick, NJ: Rutgers University Press, 1992), 361–82.

[15]Paul Atkinson, "The Feminist Physique: Physical Education and the Medicalization of Women's Education," in *From 'Fair Sex' to Feminism: Sport and the Socialization of Women in the Industrial and Post-Industrial Eras*, ed. J. A. Mangan and Roberta J. Park (London: Frank Cass & Co., 1987), 38–57. For other accounts on the early history of physical education, see a reprinted version of the well-known essay written by Carroll Smith-Rosenberg and Charles Rosenberg, "The Female Animal: Medical and Biological Views of Women and their Role in Nineteenth-Century America," in *From 'Fair Sex' to Feminism*, 13–37. Also in this volume, see Patricia Vertinsky, "Body Shapes: The Role of the Medical Establishment in Informing Female Exercise and Physical Education in Nineteenth-Century North America," 256–81.

[16]For recruitment requirements, see Ruby Decker, "Recollections and Reminiscences from Former Reconstruction Aides," *Physical Therapy* 56 (January 1976): 22–23.

[17]Rosalie Donaldson Worthington, "Recollections and Reminiscences from Former Reconstruction Aides," *Physical Therapy* 56 (January 1976): 39–40.

[18]Nellie Chilcote, "Recollections and Reminiscences from Former Reconstruction Aides," *Physical Therapy* 56 (January 1976): 36.

[19]See, for example, Frank Granger, "The Development of Physiotherapy," *P.T. Review* 3 (June 1923): 16; Dr. John C. Wilson, "The Place of the Physiotherapist in the Treatment of Infantile Paralysis," *P.T. Review* 4 (March 1924): 5, 8; and Dr. Harry Mock, "Team Work in Physical Therapy," *Physiotherapy Review* 8 (1928): 2.

[20]As a result of the war, the American Orthopedic Association grew from a small prewar coterie of thirty-five East Coast surgeons to a nation-wide society of over 300 members. For these membership numbers and a compelling account that explains the rise of orthopedics in Great Britain, see Roger Cooter, *Surgery and Society in Peace and War: Orthopaedics and the Organization of Modern Medicine, 1880–1948* (London: MacMillan Press, 1993), 107.

[21]Dr. Harold Corbusier to Mary McMillan, 9 September 1920, file 6, box BOD 1, American Physical Therapy Association Archives, hereafter APTA; and Dr. H. E. Stewart to Dr. Frank Granger, 11 December 1920, file 6, box BOD 1, APTA.

[22]Edith McClure, "Recollections and Reminiscences from Former Reconstruction Aides," *Physical Therapy* 56 (January 1976): 35.

[23]Ruby Decker, "A Hard Look," presented at the 43rd Annual Conference of the APTA, 11 July 1966, file 42, box 128, APTA.

[24]This quotation about surgeons comes from Civil War nurse Dorothea Dix, found in Wood, "The War Within the War," 205.

[25]Gendered assumptions about manhood permeate studies on disabled veterans. David A. Gerber's *Disabled Veterans in History* provides the most comprehensive treatment of this phenomenon. According to Gerber, while the warrior is often valorized as a symbol of masculinity, the maimed soldier (who is pitied) undermines manhood and his existence ultimately results in the feminization of the male. See Gerber's introduction in *Disabled Veterans in History*, ed. David A. Gerber (Ann Arbor: The University of Michigan Press, 2000), 1–51.

[26]The literature on the "second generation of new women," alternatively known as the 1920s "career woman," is extensive. For the purposes of this article, I have chosen to focus on only a handful of the extant historical accounts. See, for example, Nancy Cott, *The Grounding of Modern Feminism* (New Haven, CT: Yale University Press, 1987); Linda D. Gordon, *Gender and Higher Education in the Progressive Era* (New Haven, CT: Yale University Press, 1990); and Caroll Smith-Rosenberg, *Disorderly Conduct: Visions of Gender in Victorian America* (Oxford: Oxford University Press, 1985).

[27]For a "community of interests. . . ," see Cott, *Grounding*, 237.

[28]Emma Vogel, "Events Leading to the Formation of the Women's Medical Specialist Corps," in *Army Medical Specialist Corps*, 1–3.

[29]Military nurses first achieved ranking in 1901, following their service in the Civil and Spanish–American Wars. Physiotherapists did not receive military status in the United States Army until 1947.

[30]"Ever Play It?" *P.T. Review* 1 (December 1921): 4–5.

[31]Ibid., 4.

[32]"Letterman Again," *P.T. Review* 2 (March 1922): 8.

[33]Dr. Harold Corbusier to Mary McMillan, 9 September 1920, file 6, box BOD 1, APTA.

[34]See A. B. Hirsch, M. D. to Dr. Richard Kovacs, 1 July 1925, file 14, box BOD 1, APTA.

[35]Louisa Lippitt, R.N. to Dr. Frank Granger, 19 February 1920, file 1, box BOD 1, APTA. For Granger's response that nurses were not good skilled operators, see Frank Granger to Louisa Lippitt, R.N., 26 February 1920, file 1, box BOD 1, APTA.

[36]See Martha Verbrugge, *Able-Bodied Womanhood*: *Personal Health and Social Change in Nineteenth-Century Boston* (Oxford: Oxford University Press, 1988).

[37]Ibid., 172. For more on the physical education programs at Vassar and Bryn Mawr Colleges, see Rothman, *A Woman's Proper Place*, 30–33. To compare these two colleges with Smith, see Atkinson, *Feminist Physique*, 38–57.

[38]Wendy Murphy, *Healing the Generations: A History of Physical Therapy and the American Physical Therapy Association* (Alexandria, VA: American Physical Therapy Association, 1995), 12.

[39]For information on War Emergency Course curricula, see "Harvard Medical School Physiotherapy Course for the War Emergency Program, 1918," file 4, box 37, APTA; and "Reed College Curriculum," file 1, box 6, APTA. See also Dorothy Pinkston, "A History of Physical Therapy Education in the United States: An Analysis of Development of the Curricula" (PhD diss., Case Western Reserve University (Ohio), 1978).

[40]Quiroga, *Occupational Therapy*, 35.

[41]For "Jane Addams of occupational therapy," see ibid., 35–42.

[42]After the war, a handful of occupational therapists and physiotherapists jointly formed the World War Reconstruction Aides Association and published a monthly newsletter titled *The Re-Aides' Post*. The main impetus of this association was to persuade the Army to grant reconstruction aides military status. Copies of the newsletter can be found in file 21, box 138, Ruby Decker Papers, APTA.

[43]"Ever Play It?" 4.

[44]See Alice Duer Miller, "How Can a Woman Best Help," *Carry On: A Magazine on the Reconstruction of Disabled Soldiers and Sailors* 1 (June 1918): 17. See also "Ever Play It?" 4.

[45]See Granger, "The Development of Physiotherapy," *P.T. Review* (June 1923): 17. See also Dr. H. E. Stewart to Dr. Frank Granger, 11 December 1920, file 6, box BOD 1, APTA.

[46]See Walsh, "The Administration and Planning of the Hospital Physical Therapy Department," delivered at the Annual Congress on Medical Education, Medical Licensure and Hospitals, Chicago, IL, 18 February 1930, file 6, Box 6, APTA.

[47]Granger, "The Development of Physiotherapy," 17.

[48]Quiroga, *Occupational Therapy,* 13–14.

[49]See T. J. Jackson Lears, *No Place of Grace: Antimodernism and the Transformation of American Culture, 1880–1920*, 2nd ed. (Chicago: University of Chicago Press, 1994), 60–96. For occupational therapists and their history concerning licensure, see Quiroga, *Occupational Therapy*, 250–51.

[50]For a fuller comparison of physiotherapy with the history of nursing and other female allied health professions, see Beth Linker, "The Business of Ethics: Gender, Medicine, and the Professional Codification of the American Physiotherapy Association, 1918–1935," *Journal of the History of Medicine and Allied Sciences* 60 (July 2005): 320–54.

[51]Morantz-Sanchez, *Sympathy and Science,* 5.

[52]For more on labor market segregation and the designation of jobs as "male" and "female," see Ruth Milkman, *Gender At Work: The Dynamics of Job Segregation by Sex During World War II* (Urbana: University of Illinois Press, 1987). As Milkman has pointed out, aside from economic and cultural constraints, labor intensity is a key factor that plays a significant role in determining gender-specific jobs.

[53]For a personal account of the labor required to perform physiotherapy, see Ida May Hazenhyer, "A History of the American Physiotherapy Association," *Physiotherapy Review* 26 (February 1946): 12.

[54]See caricatures and pictorial depictions originally printed in the *P.T. Review* 1 (March 1921), reprinted in Hazenhyer, "A History," 9.

[55]Hodges, "Perspectives on History," 900.

[56]Over the course of the 1920s and 1930s, APA therapists shed the feminine characteristics of their journal (such as birth and wedding announcements), transforming it into a more streamlined, objective publication. The issue of purging themselves of a feminine, maternalistic image came to a head when they drafted their first professional code of ethics and promised that their organization's creed would avoid any hint of "sentimentalism." For more on this, see Beth Linker, "The Business of Ethics." For a reprint of the APA's 1935 code of ethics, see Ruth Purtilo, "The American Physical Therapy Association's Code of Ethics: Its Historical Foundations," *Physical Therapy* 57 (September 1977): 1001–1006.

[57]"Physio-Therapy's Part in Reconstruction," *Carry On: A Magazine on the Reconstruction of Disabled Soldiers and Sailors* 1, no. 7 (1919): 7–9.

[58]"Over the Top with Miss Sanderson and the First Overseas Unit," *P.T. Review* 2 (December 1922): 3–4.

[59]An interesting point of comparison would be to contrast public attitudes towards physiotherapists and female athletes. Martha Verbrugge points out that during the early 1900s female athletes were seen as members of a "third sex," neither wholly female—because of their physical prowess—nor male. See Verbrugge, "Knowledge and Power," 361–82. For a wonderful overview of the cosmetic industry and its reputation among the medical profession as non-scientific "quackery," see Gwen Kay, *Dying to be Beautiful: The Fight for Safe Cosmetics* (Columbus: Ohio State University Press, 2005).

[60]For "untrained graduates of massage," see J. F. Krasnye, "Status of Physiotherapy Aides, As It Is and As It Should Be," *P.T. Review* 2 (June 1922): 4–6.

[61]E. G. Brackett, "Physiotherapy in Relation to Industrial Accidents," *P.T. Review* 2 (June 1921): 5–13; and Norman E. Titus, "The Teaching of Physiotherapy," *P.T. Review* 5 (June 1925): 3–7.

[62]For discussion about the change of name, see the Association's first meeting notes from 15 January 1921, titled "Preliminary Meeting of the A.W.P.T.A.," reprinted in the *P.T. Review* 1 (March 1921): 4–5.

[63]For more on professional women and the appeal of neutral scientific standards and organizational structures, see Cott, *Grounding*, 216–37. For "rational and neutral professionals," see 233.

[64]Verbrugge, "Knowledge and Power," 372.

[65]Carroll McAllister, "Recollections and Reminiscences from Former Reconstruction Aides," *Physical Therapy* 56 (January 1976): 36–37.

[66]For the number of male members, see membership directories printed annually in the *P.T. Review*, titled the *Physiotherapy Review* from September 1926 onward.

[67]For a list of officers of the APA from 1920 to 1936, see membership file, file 20, box 162, APTA.

[68]Carroll McAllister, "Recollections and Reminiscences from Former Reconstruction Aides," 36–37.

[69]Julia Tuggle, "What is a Physiotherapist?" *Physiotherapy Review* 11 (1931): 13–15.

[70]For statistics of the number of hospitals and therapists from 1918 to 1921, see Emma Vogel, "Physical Therapists Before World War II," 44, 54. By way of comparison, it is interesting to note that while female physiotherapists found employment with the U.S. Public Health Service (USPHS), women welfare reformers resisted the USPHS, worrying that it would take over the Children's Bureau.

[71]For a sampling of the diverse career paths that physiotherapists took after the Great War's end, see "List of Reconstruction Aides," 1921, file 7, box BOD 1, APTA. For a more global perspective on physiotherapy postwar career paths, see Vogel, "Physical Therapists Before World War II," 54–57.

[72]For concerns about chiropractors taking over physiotherapy, see Anonymous to Dorothea Beck, 30 January 1928, file 10, box BOD 1, APTA, as well as "Physiotherapy Legislation," *Physiotherapy Review* 9 (June 1929): 137.

[73]Steven C. Martin, "'The Only Truly Scientific Method of Healing': Chiropractic and American Medicine, 1895–1990," *Isis* 85 (June 1994): 207–27. See also Walter Wardwell, "Chiropractors: Evolution to Acceptance," in Norman Gevitz, *Other Healers: Unorthodox Medicine in America* (Baltimore: Johns Hopkins University Press, 1988), 157–91.

[74]J. Stuart Moore, *Chiropractic in America: The History of a Medical Alternative* (Baltimore: Johns Hopkins University Press, 1993).

[75]Some historians of medicine refer to the early twentieth century as the "golden age of medicine." John C. Burnham was the first to coin this phrase in his article, "American Medicine's Golden Age: What Happened to It?" in *Sickness and Health In America: Readings in the History of Medicine and Public Health*, ed. Judith Walzer Leavitt and Ronald Numbers (Madison: University of Wisconsin Press, 1997), 284–94.

[76]For some of the more well-known books about the AMA and how it contained competition from alternative healers during the early twentieth century, see Paul Starr, *The Social Transformation of American Medicine* (New York: Basic Books, 1982); Rosemary Stevens, *American Medicine and the Public Interest*, 2nd ed. (Berkeley: University of California Press, 1998); Kenneth Ludmerer, *Time to Heal: American Medicine from the Turn of the Century to the Era of Managed Care* (New York: Basic Books, 1999); and George Rosen, *The Structure of American Medical Practice, 1875–1941* (Philadelphia: University of Pennsylvania Press, 1983).

[77]For the APA's rhetoric of science, see "American Women's Physical Therapeutic Association Constitution," *P.T. Review* 1 (March 1921): 56; Emily Wellington, "Physiotherapy in General Hospital Practice," *Physiotherapy Review* 7 (September 1927): 8–11; and Ida Hazenhyer, "The Convention at Minneapolis," *Physiotherapy Review* 8 (June 1928): 2–4.

[78]Louis S. Reed, *The Healing Cults, A Study of Sectarian Medical Practice: Its Extent, Causes, and Control* (Chicago: University of Chicago Press, 1932), 113. This was part of the 1932 study performed by the Committee on the Costs of Medical Care (CCMC).

[79]Margaret Campbell to Catherine Worthingham, 27 February 1933, file 23, box BOD 1, APTA. See also "Editorials," *Physiotherapy Review* 14 (July–August 1934): 121.

[80]See "Chapter News," *Physiotherapy Review* 14 (July–August 1934): 35; and "Chapter News," *Physiotherapy Review* 13 (July–August 1933): 155, 154, 149. For membership moratorium, see *Physiotherapy Review* 13 (July–August 1933): 150.

[81]See "Chapter News," *Physiotherapy Review* 13 (July–August 1933): 153; and "Chapter News," *Physiotherapy Review* 15 (July–August 1935): 152. For "transfer initiative . . . to the medical profession," see "Chapter News," *Physiotherapy Review* 14 (July–August 1934): 119; and "Chapter News," *Physiotherapy Review* 15 (July–August 1935): 68.

[82]To compare the two constitutions, see "American Women's Physical Therapeutic Association Constitution," Article II, reprinted in *P.T. Review* 1 (March 1921): 5–7; and "American Physiotherapy Association Constitution," Article II, file 6, box 35, APTA.

[83]As recounted by the Pennsylvania chapter members in their "Chapter News," *Physiotherapy Review* 15 (January 1935): 68.

[84]For more on the arrangements that the APA made with the medical profession between 1930 and 1935, see Gritzer and Arluke, *The Making of Rehabilitation*.

[85]Rima D. Apple, "Introduction," in *Women, Health, and Medicine in America: A Historical Handbook*, ed. Rima D. Apple, xiii–xxii.

[86]Cott, *Grounding*, 221.

[87]See Ladd-Taylor, *Mother-Work*, 189; Muncy, *Creating a Female Dominion*, 146–48; and Meckel, *Save the Babies*, 214–19, 221.

[88]I have dealt with this topic briefly in my own work. See Beth Linker, "Picture Perfect: Representation, Medicine, and Consensus in Wartime America, 1918–19" (paper presented at the annual meeting of the American Historical Association, Washington DC, 10 January 2004). For more on the masculinity crisis at the turn of the twentieth century in America, see Gail Bederman, *Manliness and Civilization: A Cultural History of Gender and Race in the United States, 1880–1917* (Chicago: University of Chicago Press, 1992); and John F. Kasson, *Houdini, Tarzan, and the Perfect Man: The White Male Body and the Challenge of Modernity in America* (New York: Hill and Wang, 2001). For an excellent account of the importance of war for masculinity, see Susan Jeffords, *The Remasculinization of America: Gender and the Vietnam War* (Bloomington: Indiana University Press, 1989).