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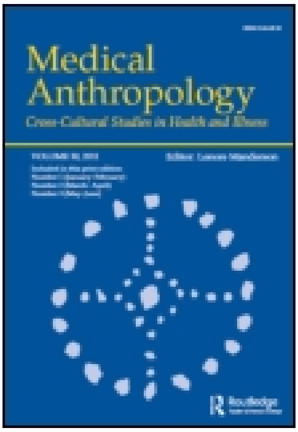

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Therapy, Remedy, Cure: Disorder and the Spatiotemporality of Medicine and Everyday Life

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Therapy, Remedy, Cure: Disorder and the Spatiotemporality of Medicine and Everyday Life

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Increasingly, there is a temporal differentiation among kinds of treatments available through medicine. Cures offer one-time resolution of symptoms; that is, with the benefit of a cure, there is no longer a medical problem in need of treatment. Remedies offer temporary, situational relief of symptoms. Therapies offer temporary relief of symptoms, but promise the possibility of nonsituational fixes, offering universal cessation of symptoms but only for a limited time. Therapy has become increasingly integral to the rhythm of everyday life, particularly in the United States, where medical treatment and pharmaceutical consumption have become a means for normalizing oneself to social expectations. I draw on fieldwork with people who experience sleep disorders—narcolepsy, sleep apnea, and delayed and advance sleep phase syndrome—to explicate these models of treatment and consider how these medical spatiotemporalities formulate emergent everyday orders of life.

Keywords *biopolitics, consumption, pharmaceuticals, sleep, temporality, treatment*

Yes, there were attendees spontaneously falling asleep at the Narcolepsy Network national meeting in 2006. Some 100 American narcoleptics congregated at a hotel outside of Dallas for a three-day social gathering and conference that featured presentations from community members, scientists, and physicians. Each day was booked with one or two tracks of options for attendance, with a series of plenary talks that brought the entire group together. Presentations drew on individual expertise, with discussions of representations of narcolepsy and sleeping in early modern art, dream interpretation, the latest research on treatments for narcolepsy, and self-help discussions regarding work, family life, and school. Lunches were planned to be long, so the sleepy could return to their hotel rooms for a midday nap; days ended early so that groups could eat together, socialize in or around the hotel, or turn in early. The group was mixed, ranging in age from early twenties through sixties and including people old enough to be among the first cohort of individuals diagnosed with narcolepsy with its nosological refinement in the 1970s; most attendees were Caucasian, with a handful of Latinos and African Americans.

Among the presenters was Jerome Siegel, a noted neuroscientist, who has spent much of his career on narcolepsy. His presentation focused on emerging scientific conceptions of narcolepsy,

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including a brief discussion of some of the competing interpretations of its cause. While the science seems to point to a genetic predisposition to develop narcolepsy, he argued, to trigger this, an external stimulus—a viral infection—is required for narcolepsy to manifest. When the question and answer period began, the discussion was dominated by attendees asking about the research on the causes of narcolepsy and how it might lead to future treatment options; I will return to this event later in my discussion of cures and therapies for narcolepsy.[1]

In this article, I propose a heuristic for thinking about contemporary medical treatments, which I class into three modes: therapy, remedy, and cure.[2] My hope in delineating these is to begin to unravel the complexities of modern treatment: What makes a pill different from prosthesis? Next, I elaborate the spatial and temporal rhythms of medical treatments as they address disease, disorder, and disability in the lives of individuals. I focus on individuals who experience disordered sleep—people with a diagnosis of narcolepsy, apnea, and delayed and advanced sleep phases; although the heuristic I develop is more broadly applicable, because of their ubiquity, sleep disorders provide a robust foundation upon which to develop my argument.[3] Medical treatments have always been tied to the market, and in the contemporary medical marketplace, this relationship has become particularly intense, resulting in the need of individuals for repeated, monitored medical interventions. An interest in 'therapy culture' has been forwarded by Frank Furedi (2003), who has suggested that there has been a rise in postpsychoanalytic psychiatric counseling in Western societies as a result of intensifying personal—instead of social—assessments of risk. While he and I share an interest in the term, Furedi is more interested in the rise of emotionalism, its concomitant psychiatric (not pharmaceutical) treatment, and the exportation of therapeutic models into nonpsychiatric institutions. What we share is an interest in form, namely repeated, rhythmic intervention.

The contemporary therapeutic milieu, which stresses repeated, rhythmic medical intervention, depends on an ever-widening conceptualization of individual disorder weighed against social order, and the need for individuals to comply with medical authority to maintain their social standing.[4] Compliance with therapy, in turn, leads to individual investment in one's medical treatment, often producing novel intimacies between individuals and their therapies. I explicate the differences between therapies, remedies and cures, examining, in turn, the role of cures in contemporary narcolepsy research, the use of behavioral and prosthetic remedies for advanced and delayed phase sleep disorders (APSD and DPSD), and the use of continuous and bi-level positive airway pressure (CPAP and BiPAP) machines in the treatment of obstructive sleep apnea. I juxtapose these cases with narratives of disordered sleepers, who evidence contemporary therapy in their lives. I conclude by considering how the emergent spatiotemporalities of medicine might open up possibilities for seeing medical time as critical for the understanding of other modern experiences of social life and individual being in the world.

THERAPY IN CONTEXT

Medical treatment is predicated on assumptions about the ability to return a patient to a normal, nonpathological state (Canguilhem 1991 [1966]). This expectation of medicine is thwarted by the inability to return individuals to their actual prior state, instead only approximating the patient's prepathological condition. When medicine is attempting to restore normalcy, it is disciplinary in nature, identifying the abnormal and attempting to render patients normal through treatment (Foucault 1994 [1963]). This understanding of the normal depends on the generalizability of medicine and its treatments for recognized pathologies, a form of standardization of treatment and practice that is generally associated with the modernization of medicine, the invention of norms, and the definition of disability (Davis 1995).

However, a number of modern aspects have changed the place of normalcy in medicine. First, medical disorders are increasingly seen as chronic rather than acute, requiring that many individuals undergo ongoing treatment and medical surveillance (Manderson and Smith-Morris 2010). Second, individuals increasingly receive a diagnosis with multiple comorbid states that preclude any straightforward return to normal, and instead require a variety of overlapping medical interventions. In this context, normalcy is best understood as elusive, something that individuals—patients and physicians—strive toward but will ultimately fail to achieve. This elusive normalcy is at the heart of recent discussions of health (Metzl and Kirkland 2010), fitness (Porter 1999), wellness (Elliott 2004), and flexibility (Martin 1994), ideological goals that inspire both self-management and medical treatment toward unattainable objectives. Instead of returning an individual to some prior state, the efforts now aim at producing individuals as normal-in-advance, as prepared for future risks. Normalcy now exists in the future rather than the past.

Within this paradigm of elusive normalcy, we might begin to differentiate medical treatments and their goals. The distinctions I draw are as follows. First, cures offer one-time resolution of symptoms; with the benefit of a cure, medical treatment is no longer needed. For example, many acute illnesses, like bacterial infections, can be cured with antibiotics. Remedies, in contrast, offer temporary, situational relief of symptoms; they are often most apparent in the domain of medical concerns labeled as disabilities. Prosthetic limbs or wheelchairs overcome the inability to move, American Sign Language allows those with communication difficulties to communicate. But these needs are situational and exterior: when individuals are alone or in an environment of their choosing, they may not need them. Therapies likewise offer temporary relief of symptoms, but promise the possibility of nonsituational fixes, instead offering universal cessation of symptoms—but only for a limited time. The model of therapy is the pill, which offers temporary relief of symptoms providing the taker continues to take the same pill for the continued alleviation of symptoms. What fundamentally divorces therapies from remedies is the market: therapies depend on regular consumption, while remedies often exist outside regular market transactions and may involve one substantial investment and potential upkeep.

Cures follow a longstanding Western interest in transcendence. They offer to individuals the final release from their woes, a transformation of the self that renders an individual forever changed into a different person, free of disease. They are predicated on the event over the everyday (Badiou 2001 [1993]): the cure serves as a rupture between past and future, and its delivery becomes a historical marker. In contrast, remedies and therapies are mundane, separated by the structure of their rhythms. Although disabilities can be ever-present, their management can be occasional and dependent on environmental needs; remedies are occasional in their use, mediating everyday interactions but often lay inert. Therapies share in the everyday nature of remedies, but their presence is continual, if often discrete, taking brain or body chemistry rather than the whole body as their primary target of action. One difference between remedies and therapies is that of scale, with the latter focused on the molecular and the former upon the molar, or whole body (Deleuze and Guattari 1987 [1980]). As mentioned previously, remedies and therapies are also distinct in their relations to the market, with the former depending on isolated or limited market interaction, the latter relying on regular consumption. The very regularity and invisibility of therapeutic action has led to its success and ubiquity.

Modern medicine traffics in all of these treatments, and although personalized medicine and related technologies promise the possibilities of cures for many—if not all—disorders, therapy has become the predominant model of medical treatment. Cures remain unavailable for many, if not most, conditions, and while the search for cures motivates medical research and activist communities (Rapp, Heath, and Taussig 2001), patients are placed in situations where cures for chronic conditions are less plausible. Medicine, as an object of commodification, now enrolls individuals—and society more broadly—into market processes through ongoing therapy (Dumit 2012; Ecks 2005; Martin 2006; Oldani 2006; Petryna, Lakoff, and Kleinman 2006). And because of this, therapy has become increasingly integral to the rhythm of everyday life, particularly in the United States, where medical treatment and pharmaceutical consumption have become a means for normalizing oneself to social expectations through the logics of American consumerism.[5]

Distinctions between kinds of treatment and their individual, social, and material effects have long been of concern to social scientists interested in medicine. For Arthur Kleinman (synthesized in Kleinman 1988), disease, illness, and sickness are differentiated as physiological, psychological, and social experiences. Disease requires cures, understood here as medical interventions on the organic basis of a disease; healing applies to the experience of illness, and is the primary charge of health care professionals, regardless of their tradition and practice. Since this period, the contexts of medical practice, and our conceptions of society and biology, have changed dramatically. As a result of the Human Genome Project, growing interest has been paid to genetic determinants of disease, with increasing emphasis on the importance of cures and permanent solutions for disease (Montoya 2011; Taussig 2009). However, initial interests in personalized medicine have been thwarted by a growing recognition that genes are only one component in a complex mixture of physiology and environment, and the possibility of a cure for an organic disorder has become less feasible. Instead, modern medicine has become increasingly entrenched in the practice of therapy, ongoing medical interventions that depend on the regular consumption practices on the part of patients. Therapy flattens somatic and social experiences, treating them as inextricable. For Kleinman, physicians act on the social while medicine acts on the organic, but these divisions no longer hold: the social and organic are irreducible in their causes and effects (Wolf-Meyer 2011a). As these experiences of medicine shape the rhythms of individuals' everyday lives, the particular spatiotemporalities of medical treatment provide the coordinates through which individuals interact with institutions, social others, and themselves as subjects (Wolf-Meyer 2012, Chapter 4).

The everyday as a concept helps to bind the disparate phenomena of our lives, unifying our experiences as workers, family members, community participants—and patients (Lefebvre 1987, 2002 [1971]). For many individuals in the United States, the scheduled prescription and daily consumption of pharmaceuticals is integral to their status as subjects (Dumit 2012). Prior to the 1990s, pharmaceuticals were largely accepted as treatments for acute symptoms, serving as temporary remedies for temporary disorders. In cases where they were used in more continuous fashion, they often were seen as addressing ongoing, chronic conditions, including mental health concerns (Tone and Siegel Watkins 2007). However, increasing numbers of Americans consume pharmaceuticals on a daily basis following the rise of direct-to-consumer marketing and the invention of a number of 'lifestyle' drugs—Viagra and similar drugs, but also statins and the off-label use of Provigil; this has led to the development of ‘blockbuster’ drugs earning a billion dollars or more annually, which target common experiences and symptoms, including insomnia, depression, high blood pressure, and cholesterol. People may take one or more pills multiple times each day to alleviate acute symptoms and to manage chronic conditions or symptoms (e.g., hyperlipidemia). Alongside this transformation in marketing and consumption, a number of once-fatal diseases have been converted into ongoing, chronic disorders. This change in these conditions and the temporality of the experience of their symptoms marks a significant change in the ontology and practice of medicine.

The advent of widespread pharmaceutical consumption also marks a shift in how disease is conceptualized, acted upon, and lived. If disease is generally accepted as referring to organic states, that is, pathologies of normal physiology, disability is often understood as being the situational and relational inability of an individual to interact with her or his environment and social others. Narcolepsy, in this schema, is recognizably a disease; a phase delay or advance might be considered both a disease and a disability, depending on its cause and social effects. But contemporary experiences of embodiment exceed these categorizations. Consider the experience of insomnia for many Americans: while it may have an organic cause, and while it may interfere with one’s ability to interact with others, particularly due to sleep deprivation, it is clearly a more profound phenomenon than either of these terms captures. To disease and disability, I suggest we add disorder, a rubric expansive enough to include but not be limited to disease and disability and encompassing the many kinds of friction engendered by non-normative being in the world. Building on anthropological conceptions of purity and danger, order and ‘matter out of place’ (Douglas 2002 [1966]), William Ian Miller (1997) has discussed how social orders inspire always-changing and unpredictable regimes of disorder—what may be orderly in one context is taken as disruptive and disorderly in another. Extending the example of insomnia, at times sleeplessness is beneficial, and goes undiagnosed and untreated; however, as insomnia begins to impinge on social order, as in the case of students falling asleep in class, earning poor grades, and failing exams, it may come to be treated as a disease. As individuals find they fail to conform to normative social ordering, they come to recognize their individual experience as disorderly and in need of treatment. Some disorders, however, inspire individuals to find alternative orderings, as in the case of some narcoleptics, who both identify with the disease category and recognize their biological ordering as disorderly relative to dominant models of everyday life. To explicate these concerns, I now turn to three medical disorders and their entrenchment in contemporary models of therapy.

A CURE FOR NARCOLEPSY

Narcolepsy—literally ‘sleep seizure’—was first identified as a discrete sleep disorder in the 1880s. A sudden onset of sleepiness is the primary symptom of narcolepsy, and this burst of sleepiness is often associated with intense emotional feelings. Narcoleptics fall asleep throughout the day, often impairing desired sleep, fragmenting it so that individuals rarely sleep through the night. The most common additional symptoms associated with narcolepsy are cataplexy (the sudden loss of muscle tone associated with sleep onset) and hypnogogic hallucinations (waking sensory confusion). The disorder is treated with various pharmaceutical agents, each of which targets one of its symptoms. Provigil (modafinil) is used as a stimulant throughout the day to relieve sleepiness; this may be replaced by Concerta or Ritalin, stimulants that act on the nervous system in a fashion quite differently from Provigil. At night, narcoleptics often take Xyrem (sodium oxybate), a controlled substance sometimes known as Gamma Hydroxybutric Acid (GHB), notoriously used as a 'date rape drug.' Because of this, Xyrem is distributed through Orphan Medical, a pharmacy that tracks the prescription and use of controlled substances. For narcoleptics, Xyrem helps to consolidate sleep into four-hour periods; it also reduces the incidence of cataplexy events.

As an example of the experiences of those who are diagnosed with narcolepsy, consider the case of Ryan, a white, middle class American. When I interviewed him in 2006, Ryan had been diagnosed with just about everything a disordered sleeper could be diagnosed with: narcolepsy, REM behavior disorder, obstructive sleep apnea, shift work sleep disorder, and a vague circadian rhythm disorder. Although he had had symptoms since childhood, he was 40-years-old when he had decided something might be physiologically wrong, and 48-years-old when he finally sought out diagnosis. At the time of our interview, in his mid-50s, nearing retirement, Ryan had some control of his sleep through a mixture of pharmaceuticals, CPAP (Continuous Positive Airway Pressure) technology, and social arrangements of his working time. "I work a 12-hour shift," he told me, "from six at night until six in the morning, or from six in the morning until six at night." He worked for a large power company on the East Coast, helping to maintain the integrity of the power grid of a large metropolitan area.

Ryan's workday consists of him sitting in front of a console for hours at a time, with little change in activity or object of focus. It is dull work, but within his unionized labor force, the position is sought after since it does not involve handling any electrical equipment and so is not life-endangering. Because of his host of sleep disorders and workplace problems, he takes Provigil at work. His work rendered his sleep as disorderly:

> The longest one shift goes is four days, and then I shift to the nights. And I can have one day off in-between or eight days off in-between. . . . And then there's one week when you have to work relief, where you have to work four hours in the morning, then 12 hours that night, and 12 hours the next day, so my biggest problem is "when do I take my medication." If I have to skip it, then I'm more of a zombie. . . . I took a letter from my neurologist that said that I need to take a midday nap on each shift, and they sent me home for three weeks without pay while they figured out what to do. They brought me back and said, "If you take a nap, you're fired." And this is a company with 12,000 employees. And then I took a letter in that said that if I continue to work without napping, I could endanger myself or others—and with that one they sent me home for three months. . . . I was on "crisis suspension," so I got paid for that one. . . . My personal feeling is that they don't want anyone to have any kind of personal accommodation or anything because it will open up a can of worms. [My sleepiness was] troublesome when I was a kid, but the older I get, the harder it gets.

"How do you cope with it?" I asked. "Napping, and working an eight-hour shift. I think napping works. But my employer treats napping as a personal choice, so that means it's a conduct issue. That's what they believe right now." Ryan's experiences make clear the need for regular, rhythmic therapy: he needs to take daily medications to alleviate his symptoms, and supplement them with regular naps, just to get through his workday.

With somatic and social experiences like these, the possibility of a cure for narcolepsy is widely desired, by narcoleptics and their families, scientists and physicians. Yet, a cure for narcolepsy seems impossible. At the Narcolepsy Network conference discussed above, when the floor was opened to questions from the audience after Siegel's presentation, discussion quickly wandered to what science could do to alleviate the symptoms of narcolepsy, not cure it. For most narcoleptics in the room, therapy seemed the only plausible option, despite the interest of scientists in eventual cures. As Siegel explained, most narcoleptics with cataplexy share a human leukocyte antigen haplotype, suggesting that narcolepsy is an autoimmune disorder. In conversation, audience members asked whether children and fetuses could be tested for this haplotype, but Siegel explained that to date, such tests were inconclusive and the antibodies that would evidence the haplotype may only be present at the time of symptom onset. A middle-aged man sitting near the front of the room then asked whether any kind of treatment could boost one's immune system, either permanently or at symptom onset. Siegel explained that there had been experiments with hypocretin replacement therapy, but that it would most likely need to be ongoing—it would not be a cure, but a therapy. As hopeful as Siegel was in the ability to eventually uncover the etiology of narcolepsy, the best he could offer was ongoing therapy and the possibility of screening for narcolepsy susceptibility. Trapped in their therapeutic regimes, many narcoleptics accept that there are no cures on the horizon for themselves. Like scientists and physicians, they see the promise of a cure as a future oriented concern: it may not benefit those who currently experience narcolepsy, but if genetic screening and medical interventions are refined, it may benefit their children or grandchildren.

A REMEDY FOR IRREGULAR SLEEP

Two sleep disorders are accepted as such because of their social asynchrony: delayed sleep phase syndrome (DSPS) and advanced sleep phase syndrome (ASPS). The former is often perceived as more problematic, although both are disruptive. DSPS is characterized by an inability to fall asleep at an appropriate or desirable time of night, often perceived as insomnia, but the symptoms fail to be alleviated when treated with standard sleep aids. Those with ASPS symptoms go to sleep at earlier-than-normal hours, but awake well before the school or work day. They are the proverbial early birds, able to take advantage of the day, but find themselves wasted by the day's end, unable to attend to the social demands of evening and night. In both cases, what is medically mandated is the shifting of patients' circadian clocks, a complicated process that is rarely successful. This process employs a variable array of melatonin supplements (which have been shown to affect the circadian rhythm of individuals), light boxes, sleep restrictions (no napping, and waking at set times), and dietary restrictions (especially pertaining to sugar and caffeine). In many cases, because the necessary coordination of these factors is an attempt to regulate an individual's sleeping patterns, if an individual stops the use of the prescribed daily regime, the unwanted circadian rhythm assumes primacy once more. These treatments are remedies: while individuals comply with their usage, their symptoms are likely to be resolved relative to their situations that render their behavior as disorderly. Although they may require occasional market interactions—like the purchase of a device or medication—remedies predominantly distinguish themselves from therapies as situational, and are not required in an ongoing way or in all contexts. A late sleeper might arrange his or her schedule to allow for late sleep, but this may become increasingly complicated with family and work obligations over time.

For both ASPS and DSPS, the most widely used remedies are light boxes. These are manufactured by a number of companies, and retail for less than one hundred dollars (although some cost much more). The principle of the treatment is straightforward: light that simulates the color and intensity of sunlight is projected from the box, and the disordered sleeper with DSPS exposes him- or herself to the light for 10 to 15 minutes upon awakening. Individuals who experience ASPS expose themselves to the light when they begin to feel sleepy in the evening. This exposure is meant to reset their circadian rhythms, with the simulated light of the sun slowly bringing irregular sleepers into normative sleep patterns—what many clinicians refer to as the '11 to 7' model. This 11 to 7 model is the spatiotemporal regime against which both ASPS and DSPS are disabilities; that is, because individuals are unable to sleep at normative times, they find themselves at odds with dominant American work, school, and recreational times. Although light boxes can prove effective for many people, they often need to be used in ongoing fashion; while they serve as a remedy to sleep phase disorders because phase disorders are often chronic conditions, light boxes are often used as therapies. The only remedy to this dys-synchronization with normative spatiotemporal rhythms is to ignore them altogether, and to abide by one's own rhythm, which may be at odds with society.

Dee, a 46-year-old black woman, about a year previous to our interview, had sought clinical treatment for what seemed to her to be chronic insomnia. Dee had been self-employed: she owned a small hair and nail salon with a steady clientele. For the previous three years, Dee had experienced increasingly disrupted sleep, and ever-later sleep onset times. By the time we talked, she would routinely go to bed around 4 a.m., which made opening her salon by 9 a.m. difficult. She started missing clients due to their early schedules and her late one. She would purposefully schedule long lunches for herself, and sleep in her office on a thin mattress. Her work days ended up being rather long, as her errands extended late with her doing paperwork, paying bills, and managing deliveries. "I wasn't anxious at first," she explained, "but when the business started going bad, my sleep got even worse":

> At first they thought it was just insomnia. Then they decided that it was premenopausal. That was after they had given me a prescription for Ambien, and it didn't really help anything. It actually made things worse, because I still couldn't sleep when I took it, and then I would just feel groggy and hazy all night, until I fell asleep.

Dee's children were both grown and in college; her husband worked evenings at a local manufacturing plant. Unable to tolerate the effects of Ambien, Dee eventually stopped taking her medication; the fix, she decided, was to change the hours of the salon. She hired someone to handle the few clients whose schedules were unable to adjust to Dee's, and serviced the rest of her clientele in the afternoon and evening. Medical therapy attempted to align Dee with the spatiotemporal norms of American everyday life, despite the possibility of alternative social orders in which her sleeping behavior would not be disabling. Dee can choose to not medicate her disorder—as she did—but this entails her being out of synch with dominant American spatiotemporal rhythms. The remedy for her sleep disorder was also a remedy for her social disorder; removing the remedy necessitated Dee accepting an alternative social order. This social reorganization as remedy can require profound alterations in one's expectations for everyday life and social interactions; for every individual who has the flexibility and support that Dee has, many others like Ryan are unable to change their everyday schedules. For some, this remedy is bearable; for others, medical therapy provides the means to reenter society, to be orderly once again.

OSA'S TWO THERAPIES AND THE RUSE OF A CURE

The symptoms associated with obstructive sleep apnea (OSA) are primarily related to the collapsing of the airway during sleep: the sleeper makes loud, choking noises, until such a point that he or she spontaneously wakes up from suffocation. Upon falling asleep again, the cycle repeats itself, leading to chronic sleep deprivation. Due to the repeated lack of oxygen and loss of sleep, secondary symptoms of OSA include memory loss, excessive daytime sleepiness, weight gain, and shortness of temper. There is a cyclical relationship between OSA and obesity, as the latter predisposes individuals to developing the former, but, in the 1960s, the disorder came to be more identifiable as a discrete disorder and not a byproduct of obesity. However, because of sleep loss, many people offset their lack of energy with increased caloric consumption, leading to weight gain. This, in turn, exacerbates the symptoms of OSA. The cycle can be interrupted through treatment, of which there is one reliable and one experimental method.

In 1981, Colin Sullivan, an Australian inventor, created a CPAP machine that, when attached to a sleeper by a simple facemask held in place by a tightening band, provides air pressure to inflate the airway. This allows the sleeper to breathe 'normally' (with prosthetic help). This technology was revised in the 1990s with the invention of the BiPAP machine. The BiPAP machine simulates breathing, and alternates between two levels of airway pressure. CPAP and BiPAP machines are sometimes difficult for individuals to tolerate, and compliance with their use has been a concern for many medical professionals: to be effective, the machines need to be used during each rest period; noncompliance with this rhythm can lead to symptomatic relapse. The machines provide an example of modern therapy—routine use of the treatment is necessary for the continued alleviation of symptoms. Unlike remedies, which are situational and might entail social rearrangement to alleviate symptoms, therapies are necessary in a continuous fashion.

For those who cannot tolerate CPAP and BiPAP treatment, an experimental surgery to implant Pillar Supports promises to cure apnea experiencers of their disordered sleep. Pillar implants, a subset of palate implants, strengthen the airway, providing a less obstructed means for breathing. Unfortunately, for most individuals they fail to significantly reduce symptoms associated with OSA. Recent studies of palate implants have shown that they can have some effect on disordered sleepers, but only in reducing (not eliminating entirely) apnea events in a small proportion of people with apnea (Steward et al. 2008). Moreover, due to 'multilevel obstruction'—a variety of factors that lead to apnea, including obesity—palate implants have limited effect; secondary factors persist without treatment, ensuring that apnea symptoms fail to be alleviated. Although many with apnea seek out Pillar and palate implants, most resign themselves to the therapeutic regime of CPAP and BiPAP machines. As the following case makes evident, individuals often find in their therapies the basis of somatic and social transformation, a form of biotechnical intimacy that compels sustained interaction with one's therapies.

Dave, a retired middle class white man in his 50s at the time of our interview, was diagnosed with sleep apnea after a series of social travails and health complaints. Dave had the physiology of a classic apnea patient: he was slightly obese with a thick neck; he had recurrent health problems including high blood pressure, a history of heart attacks, and depression—some related to his apnea, others to his diet and lifestyle. Dave was diagnosed at the age of 45—in 1993, when sleep apnea was still relatively newly recognized—and reported exhibiting up to 82 apnea events an hour, which counts as severe apnea. This means that in the course of one hour, Dave would choke to the point of waking up 82 times, barely sleeping through a single minute.

There were few treatments for sleep apnea in the 1990s—a very limited variety of CPAP machines and masks. By the turn of the twenty-first century, the machinery involved with the treatment of sleep apnea had broadly developed, both through the interests of patients and designers and manufacturers, the latter seeing sleep apnea and its equipment as a site for possible sleep-consumerism. The question of treatment and its successes structured the recounting of Dave's experience as a sleep apnea patient, and brings together the concerns of bedroom intimacy with compliance and patient education in his narrative of his eventual diagnosis:

> I was in [my primary care doctor's] office at 3:30. At 7:30 that night, there was a home care company rep here with a machine and a mask, no choice. And she tried to explain things, and of course when she left and me and my wife are watching her get in the car, we thought "Oh my god, what did she say? Can I use this thing?" Cuz when she was showing me how to use it she had the mask in her hands and she's bringing it to me and she has it two to three inches from my face and she powers on the air. Well, that's not a good way to introduce you—that's like the proverbial dog sticking his head out the car window—ears and hair flopping—because you get this rush of air and it takes your breath away and you think, "Oh my god there's no way I can sleep with this damn thing." And so she left and we're so panicked and we're not sure what's going on, so we said let's both call in and leave word at work that we're not coming in tomorrow cuz we're not sure what's going to be going on tonight. So we finally got brave enough to go to bed and I put the mask on, lay down, and got comfortable, and promptly fell asleep for five hours. So I knew there was something special going on when I didn't have to get up every hour to go to the bathroom. Now my wife laid there those same five hours with her hand on my chest because I wasn't snoring and she wanted to be sure my chest was going up and down to make sure I was still breathing. I was more rested the next day than she was.

Dave's narrative is well honed, a result of his role as a support group leader and a public figure in the dissemination of knowledge about sleep apnea and its treatments through his organization AWAKE (Awake, Well and Keeping Energetic). By bringing together his experience as a patient during a less technologically expansive era and his experience as a husband and bedpartner, Dave evidences his grandfatherly role among those with a diagnosis of sleep apnea (despite his comparatively young age) and his everyman-ness as a disrupted and disrupting intimate and spouse. This was supplemented with an acknowledgement on his part of the need to become intimate both with his therapeutic technology and with himself as a more orderly sleeper.

On the Saturday following his first use the CPAP machine, a day on which he would normally feel lethargic and nap, he finally realized the success of his treatment:

> At 11:00 that night it dawns on me: "Hey dummy, you haven't felt sleepy today. You didn't take your two hour nap—you kept going all day long." I literally walked out into the hallway and banged my head against the wall and said, "You dumb son of a bitch, this thing really works." For me I saw a major difference in how I felt, not so much how I really, really felt, but in the need for sleep, for that nap. So, of course, I didn't nap on Sunday; I saw a difference in four days. The line I use with most patients in my support groups these days is "I saw a difference in four days; some people it takes four weeks; some four months; and I actually know one person who struggled with CPAP for four years."

Throughout his narrative of his illness and treatment, Dave deploys thematic refrains about the beneficial effects of CPAP and BiPAP machines, the necessity for compliance on the part of patients, and the need for the patience of bedpartners. These all call for reconfigured intimacies across bodies, between bodies and machines, and individuals and their institutional roles. Complex relationships between human bodies and desires for sleep are brought into accord with the rhythms of therapeutic machines. Intimacy is founded through the burgeoning capacity of the newly ordered, sleeping body and its prosthesis, although there is always the possibility of noncompliance, of an inability for this intimacy to be founded. There is also the possibility of even more complex therapeutic intimacies, involving more bodies and machines.

This intimacy is the hallmark of contemporary therapeutic regimes. Whereas cures and remedies temporally limit interactions between individuals and their treatments, therapies depend on ongoing investment and use. This leads, in clinical terminology, to 'compliance'—the sustained use of the treatment; but we might also see how this compliance leads to intimacies between individuals and their treatments. Those who undergo their therapies come to understand their treatments as extensions of themselves; they adopt their treatments as prosthetics. This may lead to the frustration of those who would offer cures to the disordered—individuals who have come to accept their treatments as parts of themselves may see their curing as a potential loss of an extension of themselves. This is conjecture, but as we see the intensification of identification through medicine and disorder, as individuals come to think of themselves as their disorders, medicalization may be thwarting physicians and scientists interested in definitive cures (Martin 2006). Therapeutic intimacies entail spatiotemporal regimes that structure the everyday lives of individuals and their social worlds, and through this inevitable, rhythmic structure defy the need for transcendental cures; everyday consumption substitutes for the final resolution of symptoms.

CONCLUSION

Cures, remedies, and therapies coexist as treatment possibilities. However, as we look comparatively at medical systems, particular kinds of treatment can be seen to be preferred among specific societies and groups at particular times and in particular places. In the United States, therapy has become an increasingly dominant form of medical treatment. This is related both to the practice of consumption and the role that consumption plays in the very structure of American everyday life. Therapy, as a social relation, entails the steady interaction between patients and their health care providers, as well as between patients, physicians, pharmacists, health insurance providers, employers, and government agencies. For some scientists, physicians, patients and their families, cures may still loom large as a concern, but the everyday experience of most medical disorders has been relegated to the practice of ongoing, subtle interventions through pharmaceutical and behavioral treatment. Likewise, for many Americans, remedies for everyday disabilities are a dominant concern, whether in the form of prosthetics, pharmaceuticals, behavioral modifications, or social rearrangements. Fundamental to each of these forms of medical treatment is a conception of space and time that marks them as different from the others.

I have suggested that American medicine has become increasingly characterized by its reliance upon therapy, the ongoing intervention of medicine, and the market into the lives of individuals and their families. The use of therapies embeds individuals in cycles of surveillance and care, as they depend on medical professionals, pharmacists, employers, and the state to ensure access to daily treatments. Like work and family obligations, this spatiotemporal rhythm of medical treatment exists at the level of the daily schedule, innocuous in its ubiquity. It may have its complications—the occasional visit to the doctor or pharmacy—but these events are routinized and rendered mundane. Remedies may never become innocuous, as prosthetics mark bodies as fundamentally different in their capacities for being in the world. Wheelchairs, prosthetic limbs, gestural language, light boxes—all are intensely interactional for individuals as they navigate their social and built environments. Technologies may need maintenance or upgrades, but these kinds of interventions, unlike therapies, are exceptional. However, like therapies, they exist within capitalist market logics of consumption. Rather than the rhythmic cycles of therapies and remedies, cures appear to offer a break from these practices of consumption; cures are predicated upon their ability to break an individual from history, from the everyday, and to place him or her into a new spatiotemporal regime.

For many disorders, cures are unavailable. In the absence of cures, individuals are relegated to therapies and remedies. These tie individuals to the consumption regimes upon which these treatments are predicated, and invest individuals in intimate relationships with their treatments. Cures become the object of scientific and popular hopes, motivating individuals, communities, and states; cures become central to whole economies rather than individuals or families (cf. Miyazaki 2006). And cures are able to capture the energy and interest of many stakeholders precisely through their promise of a break from the banality of everyday therapies and remedies; cures and their promises cannot exist without therapies and their everyday ubiquities.

Many medical disorders are now treated as chronic; the social study of medicine demands theorizing the multiple spatiotemporalities at play in modern treatment regimes. This means addressing the implicit linear trajectory of cures and the circular, recursive nature of remedies and therapies (Lefebvre 2002 [1961]; Zerubavel 1985 [1981]), which, combined, lay the basis for our everyday lives. To fully capture how these spatiotemporalities animate our lives, we need to move beyond medical treatment itself, and address how treatments collaborate with and contradict other rhythms that shape society. This approach necessitates placing the analysis of treatments alongside the analysis of broader spatiotemporal orders—like work, school, family and recreation. It also requires moving beyond these immediate institutions to conceptualizing how medicine is shaping and shaped by more abstract forces, like the economy, belief, and belonging, all of which enroll individuals and communities in projects of the future. The existence of these projects—cures for individual disorders or social epidemics—make therapy bearable with their promise of breaks from history; everyday cycles continue in their rhythm with the promise of their eventual undoing.

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NOTES

1. This research is part of a growing scholarship across the social sciences and humanities that has latterly become interested in sleep and its social determinants, effects, and interpretations. Within medical anthropology, sleep remains a novel topic of study with very few contributing anthropologists (Henry et al. 2008; Wolf-Meyer 2008, 2009, 2011a, 2011b, 2012). Outside medical anthropology, the community is substantially larger, and contributions have been made across the social sciences and humanities. These contributions have concerned the ethnological record of sleep variations across societies (Steger 2003; Steger and Brunt 2003; Worthman and Melby 2002), the place of biphasic sleeping schedules among pre-industrial working classes (Ekirch 2005), the transformations in sleep science and medicine over the early part of the twentieth century (Kroker 2007), the relations of work, sleep, and medicine (Williams 2005, 2011), and the specific experiences labeled as medical disorders, primarily insomnia (Greene 2008; Summers-Bremner 2010).

2. I focus on medical treatments, not medical diagnosis. Diagnosis has long been an important process of study (Barthes 1988; Foucault 1994 [1963]), especially in medical anthropology (for three very different examples, see Dumit 2006; Martin 1992 [1987]; Taussig 1991). Most studies of diagnosis stress the processes through which medical professionals classify individuals as patients with diseases, how diagnosis is the enactment of expert power and authority, and how these diagnoses can become the basis for resistance on the part of patients. Focusing on treatment allows a broader conception of medicine, beyond the dyad of patient and physician, and opens up explorations into how treatments become the basis for the daily life of individuals as well as for contemporary societies more generally.

3. From January 2003 through April 2007, I conducted archival and ethnographic research, first in the Twin Cities in Minnesota, and then in Chicago, Illinois. The research began at the pseudonymously named Midwest Sleep Disorder Center, where I would attend weekly case discussion meetings and departmental lunches, as well as visit the overnight sleep clinic. I conducted formal and informal interviews with clinicians, researchers, patients and their families at the clinic and throughout the Twin Cities. I also attended local support groups for individuals with a diagnosis of obstructive sleep apnea and restless legs syndrome, and conducted archival research at the Wagensteen Historical Library of Biology and Medicine, housed at the University of Minnesota, and containing medical monographs from the nineteenth and twentieth centuries. In February 2006, I relocated to Chicago to conduct further research—archival research at the Special Collections Research Center at the University of Chicago's Regenstein Library, and ethnographic research with patient support groups throughout the Chicago Metro region. Over these three and a half years of research, I informally interviewed more than 80 disordered sleepers, and conducted life history interviews with an additional 40. This research received international review board approval at the University of Minnesota, and the confidentiality of all participants has been protected in all related publications.

4. This is often referred to through the idiom of 'compliance,' addressed in a special issue of *Anthropology & Medicine* 17(2) (August 2010).

5. The medical anthropology literature in support of this claim is extensive and varied. In the United States, representative examples include the use of pharmaceuticals to manage time (Vuckovic 1999), social belonging (Becker 2004), emotional normativity (Martin 2007), claims to citizenship (Heath, Rapp, and Taussig 2005), and gender norms (Metzl 2003).

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