

HIV threat and health care workers: A view from the therapist's chair

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Introduction

In 1987, the first health care worker in my private practice sat before me. She was a primary care physician with one child, and another on the way. Her presenting problem went like this: "I've found myself wanting to scream at my patients lately and I don't know where it's coming from. I just know I need some help in understanding and stopping it." Her eyes appeared tearful; her expression concerned and sad. She grasped a wad of tissues, periodically forming it into a ball. During the session, she removed her shoes to sit with her feet on the sofa. I felt complimented that she trusted me enough on this initial meeting to be comfortable, both physically and emotionally.

As her story unfolded, I heard details of the stressors of private practice, motherhood, and couplehood. Her husband had just completed his residency. She reported close emotional ties with both families. However, they resided out of the area, leaving her to rely on friends designated as "family-of-choice" to supplement some of the missing emotional and environmental support. Still, they were limited in what they could provide, given their own full plate of daily life responsibilities. Thus, she continued to feel "like a hamster running in its wheel." With child number two on the way, other problems lay ahead: crowded living space, childcare for two, lack of a minimum six-week maternity leave because of her practice's demands, financial limitations coupled with the high property values, and the impact of managed care on this skilled professional's commitment to

providing quality, timely, necessary health care. How long ago that idealistic dream seemed: to practice good medicine over a reasonably long day; to feel fulfilled and financially rewarded most days; to have time and energy for family.

I asked her to provide a few more specific details about incidents in her life during the past month. "Nothing really out of the ordinary," she replied with a hint of confusion. Then, "You see, there's no real reason that I should be feeling this way." It was clear she had become so immune to a lifestyle operating at a 500-percent productivity level that she was unaware of the impact of maintaining this pace over the last few years. "Nothing really out of the ordinary" was a true statement for her because 500-percent productivity had been her business-as-usual pace. However, how "ordinary" could this level of demand and output be to observers?

She pulled out her electronic agenda to peruse last month's events in an effort to answer my question. "I just can't remember anymore without looking at this thing. I'm so busy that everything just runs together." In a few moments, I saw her breathing grow more shallow and concentrate in her upper chest area. This is a response similar to those experiencing anxiety or panic. Her expression clearly changed from neutrality to slight panic as she began to scroll through. "The needlestick! I had a needlestick earlier in the month. My God, I guess I blanked it out."

The incident had occurred while drawing blood from a fairly new patient. Her nurse, who would have

typically performed the procedure, was otherwise detained. So, to save time and "because I'm the overly responsible caretaker-type," she took it on herself. She wore latex gloves, a universal precaution. In a split second, she watched in momentary horror as the one and a half inch, 20-gauge needle quickly pierced the latex skin and her own. Then, red appeared beneath the glove. Panic increased as she irrationally concluded the blood was both her patient's and hers. With a waiting room full of patients and the tension of running behind, her coping mechanism clicked in. She had stashed the impact of the needlestick in the vault of her unconscious. After all, the timeclock was ticking; there was work to be done and a quota of patients to treat. She would take care of the accident later. No, later she would meet her husband to attend a drug company dinner for a little education and a lot of camaraderie. After? She would arrive home and her child might be awake. There would be no opportunity to think about it then. If she thought about it before retiring, she might not get to sleep. Tomorrow, there was another jammed patient schedule. Maybe a glass of wine and half an Ambien would insure a good night's rest. She could not discuss it with her husband just yet because he was studying for his boards. She could not add to his pressure. Tomorrow morning, after dropping off at daycare and before rounds? Or, after rounds and before seeing her office patients? No! At lunch, maybe?

My client continued perusing her electronic agenda; this time with more rapid eye movements. I could see she was onto another discovery. She set the agenda on the end table and wrapped her arms around her knees. She was facing the window, with her body turned to the trees in the courtyard. Her eyes were rapidly scanning as they do when memories are being accessed and processed. She pulled the tissue box closer and

grabbed a couple of tissues. No snowballs this time—these were destined for her eyes. The next chapter of her needlestick story was descriptively and tearfully spoken.

"The same patient came in for follow-up last week. I was impressed by his professional appearance, the quality and cut of his suit. I told him my husband and he had similar good taste in clothes. How articulate, intelligent, and personable he was! I noticed he was watching me as if to say more. I wondered if I had disclosed too much personal information. In a friendly, yet professional tone, I asked if he had any other questions or concerns. I really listen and care for most of my patients. As a primary care physician, I get to learn about their complete health picture and help them manage it. Some of my patients bring me home baked goodies throughout the year. Some even remember my birthday. Sure, sometimes there are those who are troublesome. But, overall, I feel respected and appreciated.

"Anyway, this patient—whose name is Robert—did have something to say. He needed to tell someone; and he felt his confidentiality was safe with me. Apparently, he was having an affair outside of his marriage with a man he'd become friends with years ago. Only over the last year had their relationship become sexual.

"My God, I thought silently, a bisexual man who's actively sexual! He confided that he and his lover only occasionally use condoms. I blanked. I should have discussed safe sex responsibilities with him; it's automatic with all my sexually active patients. Then, I remembered the needlestick; and I imagined his healthy face with that end-stage AIDs look. Suddenly, I felt nauseous. Was I seroconverting?"

This primary care physician, to whom I will refer as *Doc Primary*, was representative of the health care workers who would share their occupational exposures and related life stories with me over the next nine years. Between 1987 and 1998, more than 700 of them passed through the doors of my private



The risk of all occupational exposures, including needlesticks, for health care workers is 0.03 percent.

practice and my office of the Occupational Infectious Diseases Program at San Francisco General Hospital.

In my private practice, I discovered health care workers presented problems that were life concerns which had gone out of control; the problems they presented were not their needlesticks or splashes. This is what occurred with Doc Primary. Similarly, there would be the unveiling of information connected to a previous occupational or personal exposure; the suppression of the spontaneous externalization of the emotional response to the incident; and delayed and diverted emotional or behavioral symptoms in context with the situations at hand. Accompanying these would be an emotional downward spiral in response to other life stressors, which were previously managed. The situation was as though a sudden break occurred under the pressure of suppressing or denying the natural emotional response to the needlestick or splash.

The Occupational Infectious Diseases Program at San Francisco General Hospital was host to health care workers presenting as a result of their occupational exposures. These included contaminated needlesticks, blood or body fluid splashes, lacerations, and punctures. They would arrive at my counseling office in direct crisis or referral by the *Needlestick*

Hotline clinician or after previously meeting with the nurse practitioner for a baseline-reporting visit. The latter visit would include a baseline drawing of blood for HIV and hepatitis B and C, or for their follow-up blood draws.

Our sessions were for post-exposure, pre-HIV-test crisis intervention; or post-HIV-test results and counseling. Sometimes their partners or other family members would attend. The emotional domino-like effect on these loved ones was often even more profound.

Some health care workers reported being sucked into an emotional vortex. Others seemed suddenly to lose their ability to cope with other concerns in their lives, which had been previously managed in the days or weeks following the accident. Coupled with this response were pre-existing stressors that had been ignored.

Thus, both groups of health care workers had these emotional feelings of being out of control in their daily lives. However, the rate of onset was dependent on the timing of the externalization of their feelings regarding the occupational exposure. In other words, the loss of control sometimes came after the health care workers' expression of feelings, when it was close to the time of the accident. Otherwise, the loss of control came first, when the expression of feelings was either suppressed or denied, as in

the case of Doc Primary. Every significant, pre-existing stressor in the health care workers' lives was seemingly contained in a vault prior to the accident. Then, the needlestick, splash, laceration, or poke would cause the vault door to blast open as though a bomb had exploded. The pre-existing stressors would cascade at a gallop into the forefront of the health care workers' days, leaving them ill prepared to cope with the psychosocial aftermath.

So, there's a high probability that healthcare workers, who have frequently lost or never developed the ability to handle past or present significant life stressors, will also be those with delayed emotional responses to the accident. Or, they will be those who have pre-existing, significant life stressors that they have not psychologically dealt with in a timely way.*

Psychosocial effects of needlestick exposure

Doc Primary and other health care workers reported depressive symptoms as part of their loss of control. Of more than 700 health care workers with occupational exposures whom I evaluated and treated in both public health or university and private-practice settings, 224 (32 percent) of the occupationally-exposed health care workers reported being depressed prior to their occupational exposure. Of these, 120 (17 percent) reported current symptoms of depression following the exposure. Their conditions covered the range of depressive disorders, as described in the *Diagnostic and Statistical Manual, 4th Edition* (DSM-IV), published by the American Psychiatric Association (1994).

Dysthymia disorder is classified as one of the *mood disorders*. Dysthymia involves a functionally depressed mood for most of the day. In general, individuals with this diagnosis are able to accomplish their responsibilities of daily life and to make future plans. They will describe a low-grade, manageable "down or distant" feeling that is part of most days. Those who observe these individuals do not suspect they

are depressed because they are functioning well and responsibly.

Some depressive disorders are the milder *adjustment disorders*. These include *adjustment disorder with depressed mood* and *adjustment disorder with a combination of anxiety and depressed mood*.

Several health care workers had previously experienced *major depressive episodes* over the prior 12 to 18 months. These episodes were triggered by one or more major events, including loss of a loved one through death, or a perceived loss of a loved one through a medically diagnosed terminal illness, incapacitating accident, or a natural disaster. Often in the case of delayed bereavement, the occupational exposure incident was the catalyst for initiation of a bereavement cycle that had never been fully experienced. For example, a health care worker's five-year anniversary of a loved one's death could now be immobilizing, if a timely, natural grieving process did not occur.

Those health care workers with dysthymia required intervention and referral regardless of the severity of the occupational exposure and no matter how deep, superficial, definite, or nonpariental their exposures. They needed additional support from an outside psychotherapeutic source to handle the cascade of events and the exposure itself because the fear inevitably brought forth by the contamination released a torrent of pent-up feelings underlying the pre-existing disorders of mood.

Of the 224 health care workers with pre-existing depressions, 132 (58 percent) were without a lifestyle of self-care. When asked what they did for pleasure, joy, or relaxation, they paused to ponder. Some responded, "What do you mean?" I described even the smallest increments of self-care: activities such as walking with a loved one or dog, playing a sport, or even relaxing with the Sunday newspaper. They would shake their heads: "No, I guess I haven't done anything for myself. I'm so busy with all the things that must get done. It's never-ending."

Or, they would say: "Who has time with residency? I'm always on call or, at least, always here [at the hospital]."

Psychosocial referrals were often a part of the post-test counseling session with the depressed health care workers. Some specific referrals included individual, couples, or family counseling; substance abuse counseling; various 12-step programs (including Co-dependents Anonymous); and medication evaluation through a physician (for anti-depressant or anti-anxiety medications). Of the 224 depressed health care workers, 188 (83 percent) required such referrals. The remaining 36 depressed health care workers did not need referrals because they were already using counseling, psychotherapy, 12-step programs, or other regular support groups as a part of their regular self-care. Of the 188 requiring referrals, 70 percent were acutely or chronically depressed without consistent self-care as a lifestyle. Of the 132 depressed health care workers without self-care, 15 percent sought some form of psychosocial support through counseling, psychotherapy, personal growth workshops, 12-step programs, or medication at any time in their lives.

One articulate, concerned, male, clinic nurse described his situation this way: "All my life I've been the caretaker of others. First, it was my alcoholic mother. Then, my siblings. Then, my partner. I never had a chance to turn the time, energy, or focus toward myself."

The path of this clinic nurse is analogous to most health care workers who provide some form of direct patient care. The care-taking behaviors are long established and reinforced through the "family of origin" dynamics well before graduation from nursing school. I call these ingrained behaviors "treadmarks." We all have them. By the time our clinic nurse reached adulthood, these deep, well-defined treadmarks had led him toward a paid position in the care-taking professions. After all, why not get paid for something that comes so naturally? If we are particularly good at what we do and

receive recognition and appreciation, why not give more? So, reinforced learning to care for others in the early years becomes endlessly reinforced in a busy professional setting.

To establish new "treadmarks" on the path of self-care is not easy. A health care worker in his residency responded, as he shook his head from side to side: "I don't know why I don't exercise more because it feels great when I do it. I have the time now that I'm in my fourth year." An intern replied: "I feel guilty about taking time for myself because my family doesn't see me enough as it is."

Referrals for additional professional or peer support were needed by 42.3 percent of the 700 health care workers. All health care workers who were initially seen for non-exposure presenting problems needed at least two additional sessions for or with loved ones, since the latter's reactions were more severe when the news of the exposure had been delayed.

We might hypothesize that a traumatic event could lead to occupational disability when one is already depressed. Yet we find that the majority with depressive conditions fared well with the partnering of regular self-care. Only nine health care workers—those with mild or moderate types of major depressive episodes—fared well with intervention plans that included medication (*i.e.*, anti-depressants, anti-anxiety medications), professional counseling, peer support and daily life changes such as exercise, healthier eating and expanded socialization. These nine workers filed no disability claims. Their stressors were combinations of life events; and the exposure was the catalyst to the episodal onset. The presence of firm support systems insured a timely, successful treatment of stabilization and progress. Conversely, the health care workers with severe major depressive episodes or recurrent episodes had no daily, weekly, or monthly self-care for pleasure, enjoyment, or stress reduction. They were the primary financial and emotional caregivers of their immediate and extended families. These workers returned to work only

after professional psychosocial interventions stabilized their symptoms.

Self-care is the key along with safety. A lifestyle of both self-care and safety is the recommended insurance for quality of health across specialties. We hear this conclusion from our primary care physicians, cardiologists, oncologists, and gastroenterologists. We see it on posters by the American Cancer Society, in HIV clinics, at health fairs, and at relays for life. If we take care of ourselves through diet, exercise, knowledge, fulfilling work, and play, we will have more energy to practice good medicine and to move beyond occupational crises. To serve, to love, and to thrive—for our patients, for ourselves, for our families!

Health care workers who have loved ones with HIV, or who died of HIV, needed referrals for professional counseling or peer support less frequently than those who did not. Only 37.8 percent of the former group needed referral, while 74.7 percent of the latter group needed referral. Those health care workers with delayed bereavement issues regarding the death of any significant loved ones in their lifespan needed referral 50 percent of the time.

When the patient whose blood or other body fluid was the source of the occupational exposure tested HIV-positive and was professionally known to the health care worker, fewer referral interventions were needed. Conversely, when the patient's HIV status was unknown, 43 percent of the health care workers needed referral for professional counseling. Particularly interesting is that the highest percentage of referrals (35.2 percent) were made for health care workers whose source patients had tested HIV-negative. The six-month window period, during which the presence of the virus may not be detected through the testing process, was of great concern, together with the unpredictability of seroconverting following exposure. This result suggests that coping with the unknown was more difficult. Health care workers whose source patients were

HIV-positive more openly displayed and articulated their range of emotions and stages of grief. The 96 health care workers with HIV-positive source patients who needed referrals did not factor in the actual exposure risk: "It doesn't matter to me about the exposure. I'm much more upset that the patient is positive."

Self-care, lifestyle, personal and professional stressors

Traditionally, more women than men have been amenable to psychosocial intervention. You may recall that most of Freud's clients were women. Present day statistics still highlight a 7-to-1 ratio of women to men in counseling or 12-step groups. However, health care workers' needs do not follow this trend. In contrast, 89 percent of our male health care workers needed referral. This compared with 48 percent of females referred.

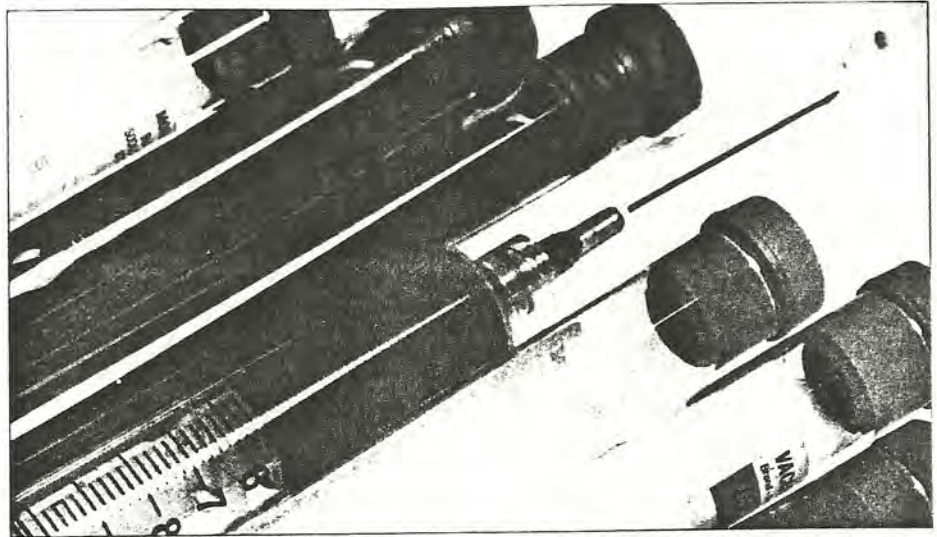
Pre-existing stressors were in professional and personal categories. The professional stressors included: (1) program demands (training, education [42.3 percent]); (2) blaming or scapegoating the health care worker regarding the accident (12 percent); (3) lack of consistent "team-spirit" support from co-workers (69.2 percent); (4) critical, unsupportive attitude by direct management; (5) lack of support from the greater governing organizational bodies (hospital, county, university, business partnership [94.2 percent]); (6) faulty or insufficient equipment; (7) crowded or otherwise unsafe working environments; and (8) perceived low status in the workplace or academic hierarchy (23.6 percent).

Personal stressors included: (1) blame for the accident from family or friends; (2) significant other interpersonal conflicts (15 percent); (3) financial problems (27.9 percent); (4) chronic or acute illness of self or loved one (36.1 percent); (5) HIV diagnosis of loved ones (17.8 percent); (6) parenting children (30.8 percent); (7) bereavement issues; (8) unemployment; (9) major geographical address change; (10) responsibility as family

caregiver in both nuclear and extended families; (11) lack of career support from family (9.6 percent); (12) inability to seek emotional support due to family rules prohibiting it (8.7 percent). Fifty-four percent of health care workers reported illness of loved ones with 17.8 percent losing loved ones to HIV. Only 4.3 percent of health care workers reported no significant stressors. These people also reported sufficient amounts of time dedicated to self-care on a regular basis. Sixty-nine percent saw parenting as more of a pleasure that balanced out its stressful aspects.

In the category of professional stressors, 41.8 percent of health care workers felt overwhelmed by the demands of the job or program and 69.2 percent reported no support from co-workers or supervisors. A mere 5.8 percent of health care workers felt no support from the greater systems; 13.9 percent emphasized faulty or insufficient equipment or unsafe workspaces; 23.6 percent felt stress due to their low status in the hierarchy. The latter group of health care workers included interns, residents, and mid-level medical professionals (*i.e.*, physician assistants, midwives, nurse practitioners, and nurses).

Stressors handed down to us from our families of origin can play a significant role in our ability to handle current stress. These historical experiences often determine our behavioral and emotional responses to current crisis, even if we rationally know there is a better way to respond. Our family-of-origin conditioning can overrule. Although our bodies have matured, we may still react with the guilt and shame we felt as a 10-year-old. The family-of-origin characteristics and our life role through association can provide chronic stressors. These include being the first generation in the United States; surviving childhood physical or sexual abuses; substance misuse, such as self-medication (*i.e.*, alcohol, drugs). Some rules and roles that children inherit and take into adulthood are: perfectionism or overachievement; unacceptance of emotional support outside the family;



The rate of seroconversion for hepatitis C and HIV among health care workers due to needlesticks is one in 300.

invalidation or denial of feelings; phobias; parentification during childhood (usually leading to the adult being the primary family caregiver in the family of origin).

Twenty-six percent of the health care workers reported being the first generation in the United States and still feeling stressed by this status: 24.5 percent developed perfectionism or overachievement; of these, 93 percent were physicians. Can one get through the grueling expectations of medical school, internship, and residency without these qualities?

Substance misuse was present in the families of origin for 31.4 percent of the exposed health care workers. Some 17.3 percent had experienced physical or sexual abuse. Another 36.5 percent had families modeling homophobia in words or actions. A mere 8.2 percent reported growing up in a supportive environment. Finally, 33.7 percent were the family-of-origin's caregivers throughout the years and currently. This meant that they literally took care of family responsibilities through activities, or were the family's emotional caregiver in the case of physicians.

Self-care as a part of everyday life enables human beings to cope with stressors. One's body does not necessarily discriminate between good stress (such as weddings, promotions) and

bad stress (such as funerals, paycuts). All have an effect on the body and emotions and they create tension. Two self-care categories actually add to stress: alcohol, food, or drugs used as self-medication to help relieve or numb the fear or anxiety from the occupational exposure. One hundred thirty-two health care workers needed referral to counseling for substance misuse. They reported being out of control with their pre-existing "addictions," even though these were in control before the exposure. The occupational accident was definitely a catalyst for relapse.

Of the health care workers without depression, 47.6 percent had self-care routines regularly incorporating brief activities. Some 81.3 percent of all health care workers reported inability to express their feelings openly or to communicate well with others as part of their usual lifestyle. Thus, at the time of the occupational crisis, when they were in need of support, they were unable to articulate their feelings in ways that would have been more helpful to themselves and their loved ones.

Some 72.1 percent of health care workers viewed time with others versus time alone as enjoyable self-care. People who generally reached out to others as a regular part of their socialization or companionship process reached out during the post-exposure stage. However, those who preferred

time alone tended to isolate during post-exposure. Their isolation also closed them off from needed support. Then, isolation would have a domino effect that promulgated depression: the isolation would keep them in the company of their thoughts about the accident. Some of their thoughts would be about self-blame, such as, "Why didn't I see it coming?" or "If only I hadn't lost my concentration for that split second." Other thoughts were about anger at co-workers, who had caused the accident: "How could he have been so careless; and then he walked away without apologizing!" Nevertheless, these thoughts and associated feelings became internalized. Such internalization fueled somatization of the stress, an increase in obsessional thinking, and depression.

Fully 90.4 percent of all health care workers never utilized counseling of any kind as self-care. So, those who needed a referral for counseling support, due to either the occupational exposure itself or the cascade of events that transpired, had mixed responses: "I can take care of everyone and do. So, I just don't understand why I can't take care of myself." Or, "I believe in moving forward quickly. It's a useful philosophy, especially for those of us in the OR [operating room]. I'm frustrated that it's just not happening this time." The latter personality type was least likely to follow-up with the counseling referral after the baseline post-test counseling session. However, they would report having used it at a later date, as a result of their significant other's concerns.

Another area of self-care that is virtually eliminated after an occupational exposure is that of sexual encounters. The fear of transmission dominates any desire to be sexual. Some health care workers initially tried to be safely sexual. They had exposures less severe than massive, definitive, or probable; and their patients were HIV-negative: "I'd look at [my partner] and watch the pleasure on her face change to that emaciated look of an AIDS patient. Then I began sobbing." Or, "I wanted to make love

because I needed to feel close. But all during, I was fighting flashes of end-stage AIDS patients. I haven't been orgasmic since."

These responses fall into the diagnostic criteria of *post-traumatic stress disorder* (PTSD), as defined by the *DSM-IV*. The health care workers who reported such responses also reported other criteria. Most significantly, they were among those with varying depressive disorders prior to their occupational exposure.

Flashbacks are a component of PTSD. They occurred more often outside the bedroom. Flashbacks are just one aspect of the diagnostic criteria for PTSD. Other components are the following:

1. The person has been exposed to a traumatic event that threatened death, serious injury, or a threat to her or his physical integrity, and he or she responded with intense fear, helplessness, or horror.

2. The event is persistently re-experienced in recurrent, intrusive, and distressing recollections, dreams, or actions and feelings (as if it were recurring). The event may also evoke intense psychological distress to internal or external cues that symbolize or resemble an aspect of the traumatic event. There may be physiological reactivity on exposure to the aforementioned cues (*i.e.*, panic attacks, hives, twitching).

3. The person exhibits increased arousal that was not present before the trauma in two or more of these ways: difficulty sleeping, irritability or outbursts of anger, difficulty concentrating, hypervigilance, and exaggerated startle response.

4. The disturbance causes clinically significant distress or impairment in social, occupational, familial, or other important areas of functioning.

Additional criteria of PTSD (as reported by health care workers) fall into the symptom category of a persistent attempt to avoid stimuli associated with the trauma and numbing of general responsiveness that was not present before the trauma, as indicated by three or more of the following:

1. Efforts to avoid thoughts, feelings, or conversations associated with the trauma;

2. Efforts to avoid activities, places, or people that arouse recollections of the trauma;

3. Inability to recall an important aspect of the trauma;

4. Markedly diminished interest or participation in significant activities;

5. Feeling of detachment or estrangement from others;

6. Restricted range of affect (unable to have loving feelings);

7. Sense of a foreshortened future (does not expect a future, a normal lifespan).

Discussion

For the most part, health care workers did not experience the minimum number of symptoms to be classified as PTSD: 3.3 percent exhibited a startle response; only 2.4 percent had minimum PTSD symptoms to warrant such a diagnosis; 6.7 percent of health care workers reported having HIV-like symptoms. According to the *DSM-IV*, the duration of the disturbance must be more than one month to be classified as PTSD. Rarely did the symptoms persist for more than a month. Mostly, they were present for one to three weeks. In a few cases, the duration was more than one month.

The following symptoms were reported by health care workers over a three-to-six-month period: 13.3 percent reported disturbed sleep beyond the

first or second night after the accident; 11.9 percent reported appetite changes beyond the first or second day. These two symptoms remained at the time of the three-month counseling follow-up.

The commonality was the concurrent presence of one or more depressive or personality disorders preceding the accident with these PTSD-like symptoms and not previously having undergone psychological or psychotropic treatment for these pre-existing conditions. Thus, the occupational accident was the catalyst that opened the door on their pre-existing, unresolved, emotional issues. For health care workers with concurrent symptoms of PTSD and pre-existing depression, it was the clichéd "straw that broke the camel's back." These health care workers required time off from work and immediate referral to a psychiatrist for medication and psychotherapeutic treatment.

Again, we are reminded of the power of pre-existing depressions to stifle our abilities to cope emotionally with occupational exposure. The lack of regular self-care ultimately affects our emotional recuperation from crises. When we do not regularly take care of ourselves, our psyche is up for grabs after an occupational exposure. If we have pre-existing depression, the risk is even higher.

There are many reasons why our depressions go untreated. Often, there is the inability to recognize them. For example, anxiety-based depressive disorders can resemble nervous productivity. Many people lack information. Our demanding daily lives require our immediate efforts. Anxiety can look like activity. Therefore, why stop and note any psychological or emotional changes? Sometimes, when one symptom is present for a prolonged period, such as disturbed sleep or appetite change, the numbers of symptoms are not present to warrant a typical diagnosis of depression.

Other reasons are that we may lack support from loved ones, our peer groups, our society, and our cultures, which believe depression is treated

by "being strong," "moving forward," "being positive," or "just being happy." Medication or counseling is for "crazy people."

Still other reasons are that our own denial can block our view because depression does not leave external bruises when it strikes. What we do not see, we do not register. An increased need to sleep and loss of appetite means: "I'm just tired and overworked...I need a vacation."

Next come our internal conversations, some of which sound like critical parents: "Be strong, it'll go away." "If you tell your lover you're depressed, she or he will leave." "Don't tell the family you're depressed; they'll think you're a failure." "Get through residency first; then get depressed."

None of these statements treat clinical depression. Some of them *do* increase guilt and shame, and lower self-esteem. Daily attention to our emotional self-care adds interest to our emotional bank accounts. Otherwise, when an unforeseen, dinosaur-sized crisis strikes, we are void of assets.

There is both bad news and good news in this statement. The bad news is just that—our assets are drained by crisis. The good news is that in knowing this now, we can begin to take responsibility for our self-care to prepare for "the earthquake." In part, self-care is like storing up emergency supplies. The other part is that self-care feels good once we are accustomed to it. With self-care, we give this esteemed message to the self: "I matter!"

The exposure could be as minimal as a superficial needlestick through gloves from a gay-identified, HIV-negative patient; a splash of urine to the eye from an HIV-positive patient; or a "blood bath" in labor and delivery from a low-risk patient, whose HIV status is unknown. There is little relationship between the severity of the actual accident and the fear of transmission or the decision about being sexual following the exposure. The HIV status of the patient took precedence for many of the health care workers. In obvious

situations where exposures were considered, sexual contact was stopped. In the case of nonparenteral exposures where the health care worker's intact skin was visibly contaminated with any bloody fluid, sexual contact was stopped whether the patient was HIV-positive or HIV-negative. Note that 36.2 percent of all exposed health care workers required special crisis counseling support for themselves and their families. The first-patient status did not affect the need for crisis counseling intervention. Surprisingly, 69 percent of the health care workers whose first patient was HIV-negative and 34 percent whose first patient was undetermined required such interventions, while only 31 percent of health care workers whose first patients were HIV-positive required such interventions. Some 19.5 percent of health care workers feared what is unknown about HIV transmission. Half of these health care workers reported some suicidal thoughts or ideation. Of this number, 21 percent said they would not follow through with a plan.

Only 9.8 percent of the health care workers reported being sexual with their partner two or more times per week before or after the exposure. A disgruntled and fidgety paramedic explained: "Even though I can't remember when my lover and I last had sex, I'm angry that the needlestick is making a current and future choice for me."

Many health care workers across specialties made decisions to discontinue sexual contact with partners until they tested negative after six months; or one year—"just to be sure." Only four health care workers extended the decision to two years after recommendations from professional sources in other parts of the country. This information took precedence over the recommended guidelines from the Centers for Disease Control and Prevention (CDC) in Atlanta; the State of California Office of AIDS; and the Occupational Infectious Diseases Program at San Francisco General Hospital.

Other health care workers chose to continue safe sexual contact when their patients tested HIV-negative, or when their risk for transmission was very low, regardless of the patients' HIV status. Several health care workers headed for unpredictable, unwelcomed surprises. Consciously, they approached their safe-sex opportunities with anticipations of pleasure. Instead, feelings of fear and panic "appeared out of nowhere when we were making love, even though I knew rationally that I couldn't get the virus."

How does this happen? Our brain—also known as our rational mind—takes over so that we can cope, regroup, and get on with our post-exposure lives. However, our vulnerable feelings ultimately surface, even when our rational mind has initially dominated. Thus, what you rationally know about your exposure and your heartfelt experience can be at opposite poles. In enjoyable sexual encounters, our rational mind takes a lunch break to turn on our senses. The doors and windows of our hearts and vulnerabilities are wide open. We no longer have our brains as our security guards. Health care workers experienced this phenomenon when feeling emotionally overwhelmed during sexual encounters. The feelings they described were panic, fear, anger, anxiety, and sorrow. Irrationality took over and worry emerged.

The conscious is linked to our rational brain and logic, while the unconscious and subconscious are linked to our hearts, emotions, and intuition. There is no direct road between feelings and logic. Our ability to function well and productively in our daily lives is steered by the brain. Some 55 health care workers voluntarily reported flashbacks of AIDS patients' sunken faces appearing over their lovers during sexual sharing. These occurrences were unexpected and startling. This phenomenon was the most commonly reported post-exposure, sexually related response. Such startling responses emerged even when the first patient tested HIV-negative, with a data-supported very-low-risk exposure classification.

Post-exposure risks and anxiety: Case studies

Health care workers have access to myriad facts and figures indicating their exposure risk. The probability of HIV exposure from a needlestick is very low. The Centers for Disease Control (CDC) cites the risk from all occupational exposures combined at 0.03 percent. On one hand, according to the data, they are "in the clear" after the results of their six-month follow-up HIV blood test. Actually, they are *more or less* in the clear. After six months, the numbers of seroconversions have been very, very few. In fact, there have been only two or three documented cases, and these people were been co-infected with hepatitis C virus (HCV). The number of all percutaneous exposures that have seroconverted is one in 300 after the six-month time frame.¹

On the other hand, we present more recent facts. *The New England Journal of Medicine* recently reported a case of simultaneous transmission of HIV and HCV from patient to health care worker between 8 and 9-1/2 months (HIV) and between 9-1/2 and 13-1/2 months (HCV) after the needlesticks, which occurred in 1990.¹ As a result, the CDC Public Health Service task force recommends post-exposure HIV serologic follow-up beyond six months in cases of simultaneous exposure to HIV and HCV. The CDC task force's recommendations were published in 1996.²

The case of an emergency medical technician who was a client in my private practice is illustrative. He began to sob during a couple's counseling session. He and his lover had made giant, healthy leaps in learning healthy, effective communication methods during our work together. We were acknowledging their progress when his lover embraced him and said, "Thanks for hanging in so we can be better together."

That was when the sobbing began. His lover moved the tissue box into immediate action. "I can't hold back any longer. I'm deceiving you,"

confessed Mr. EMT. His lover's face was instantly veiled in shock. "Is there...somebody else?"

Mr. EMT spoke slowly, "It's not somebody else. It's *something* else."

Mr. EMT told his story. He spoke of his unreported occupational exposure—a needlestick from a loose needle at the bottom of a medical bag. It happened in 1995. The patient was HIV-positive. Mr. EMT had wiped it from his mind; it was too scary to think about. Besides, how could he have continued tending to the immediacy of his emergency calls if he had?

In the previous week, Mr. EMT heard news about a simultaneous transmission of HIV and HCV from a single needlestick. He held back the news until his tears in our session would no longer let him.

The "something else" to which Mr. EMT referred was new information. New data can light a fire under old exposure-related anxieties and rationality is not a fire extinguisher. The roads of facts and feelings are often parallel, but not connected. Mr. EMT summed it up for countless health care workers: "I don't care if my chances are one in a million. I could be that one!"

The data keep coming. However, there does seem to be a relationship between how health care workers cope with low- and moderate-risk exposures and the presence or absence of regular self-care as a lifestyle philosophy. Specifically, health care workers that have no regular self-care, numerous pre-existing stressors, and low-to-moderate-risk exposures do not cope favorably and are unable to continue with their usual high-stress lifestyle. Thoughts and feelings regarding the exposure are most likely to become unmanageable.

For example, our anecdotes about post-exposure sexual experiences were reported by health care workers who had no regular self-care and numerous pre-existing stressors. Whereas health care workers who incorporated a regular range of self-care continued sexually as usual, without unexpected demonic "bedfellows."

Results

Health care worker clients from my private practice had not reported their needlesticks, splashes, or other occupational exposures and they had not received baseline or follow-up HIV testing. Those employed in public health or university health care settings had received baseline, follow-up HIV testing, and post-test counseling as well as support for themselves and, if needed, their significant others. This protocol allowed these health care workers to deal with their feelings about the unfortunate incident. With this came the potential for pouring forth a "warehouse" of feelings, thoughts, and physical-somatic responses.

The health care worker's return to stability in daily life was quickest with the following combinations: (1) pre-existing self-care without pre-existing depression; (2) pre-existing self-care with pre-existing adjustment disorder involving depression or adjustment disorder with mixed features including depression or dysthymia.

The types of depressions most frequently reported by health care workers are defined in the *DSM-IV* manual of mental disorders as follows.

Adjustment disorder

An adjustment disorder is marked by the development of significant emotions or behaviors within three months after the occupational incident. Adjustment disorders have predominant symptoms. They present with depressed mood, anxiety, and mixed anxiety with depressed mood. Adjustment disorders persist no longer than six months.

Major depressive episode

A major depressive episode is identified where there is either a depressed mood or loss of interest or pleasure in practically all activities for at least two weeks. Symptoms are present nearly all day, every day. An episode lasts six months or longer.

Major depressive disorder

A major depressive disorder is

characterized by one of the aforementioned major depressive episodes. The patient has at least four additional symptoms of depression beyond those necessary for the diagnosis of a major depressive episode.

Conclusions

Health care workers experiencing a major depressive episode following their accident reported significant pre-existing stressors prior to the accident. The workers studied also reported other depressive conditions, such as pre-existing adjustment disorders, dysthymia, or both. Depression as a result of natural or normal bereavement is not considered a disorder. However, health care workers who had not mourned the deaths of significant loved ones during the one-to-10-year period prior to the needlestick were at risk for a major depressive episode after the needlestick.

Health care workers with various types of depression had one or another form of self-care. Only 52.4 percent of the total of more than 700 health care workers had self-care that consisted of brief activities on a daily basis. Conversely, 47.6 percent of the health care workers had no consistent self-care. Of the health care workers studied, 19 percent reported neither a history of depression nor current depressive symptoms with self-care as a part of daily life. Health care workers who had delayed recognition of the exposure, such as Doc Primary, were at risk for symptoms of major depressive episode. This result could have been because the period of time between the occupational exposure and our initial session allowed many more other stressors and problems to "stack up" in the "warehouse." As the emotional warehouse fills to capacity, the ability to cope with or deny the exposure becomes less probable.

We need not fear that the presence of depression indicates our inability to handle life's crises. More important is the type of depression, and greater still is our attention to self-care in daily life. Considering the extent and time those

of us in health care spend caring for others, are we not just as important?

Note

* Dr. Mardi Horowitz of the Center for Stress and Personality at the University of California, San Francisco, has published prolifically on the subject of stress response. Horowitz coined the term "cascade of events" to describe this phenomenon. In the case of Doc Primary and others like her, who had suppressed the gut emotional response at the time of the accident, the cascade of events was delayed. Plus, her unconscious, which had been the warehouse for the suppression of emotions connected with her needlestick, gave way when other stressors in her life continued to an uncontrollable point. The reappearance of her bisexual patient, whose blood had been on the end of the needle, was the catalyst. It also made way for the somatization of fear, the nausea.

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