



A Pre-Gendered Student: An Analysis of Gendered Subtleties Experienced within the Medical Field

Christopher Bailey

The past three years of my academic career have been dedicated entirely to the sciences. Can you guess what I want to be when I grow up? No, not a scientist. I want to become a doctor. At first glance, a course load composed of primarily sciences makes sense for someone entering the medical field, but upon closer inspection how much do those science classes really come into play? Well, seven months ago I found out the answer to that question. Not much! Shocked by that harsh reality, I realized that my entire undergraduate education had been preparing me for a career that I truly knew nothing about. Panicked, I went to an advisor who suggested that I should intern at a hospital for a year so that I could get a feel for what I was getting myself into. I decided to take her advice, and in November of last year I began an internship at an unnamed psychiatric clinical research laboratory. I had initially intended to use my internship to learn what a career in medicine was all about; however, I ended up discovering how my personality, behaviors, beliefs and roles within the medical field would interact with gendered expectations, expectations associated with hegemonic definitions of masculinity and femininity, to ultimately determine my career trajectory and personal life.

I began my internship by attending daily lab meetings. The dialogue usually included progress reports, observational anomalies and ethical concerns regarding

any part of the research protocol. At first I remained quiet because I felt unfamiliar with the practices of the department. My reserved behavior, however, was in opposition to my normal personality, which some people would describe as impulsive, passionate and a bit abrasive when I disagree with an issue. Hence, in one of these meetings, when I learned that some of the study protocols were ignored in order to fill available slots in clinical trials with low enrollment, I was livid. I faced a dilemma. Should I voice my ethical concerns at the cost of alienating myself from the department? In the end, my principles won and I snapped at an investigator during a meeting. I interrupted the entire meeting and questioned the choice to ignore the original protocol. To my surprise, he was neither angry nor taken aback. He gave me a brief and dismissive answer as if my comment was simply unwarranted, but not personally offensive. After the meeting, my sponsor Dr. Clarkson pulled me aside and warned me that emotional outbreaks within this atmosphere will get me no respect. From that moment forward, I ensured that my comments strictly pertained to the study design or analysis; I no longer brought up humanistic issues in fear of being reprimanded and removed from the department.

My experience in confessing my ethical concerns mirrored many of the main points in Carol Cohn's *Wars, Wimps, and Women: Talking Gender and Thinking War*.

For instance, Cohn contends that a statement such as “a corporation should stop dumping toxic waste because it is damaging mother earth” is labeled “female” in manner because it is an “irrational, emotional [and] subjective” means of expressing an opinion (Cohn 568). This specific example proposed by Cohn was similar to my predicament at the meeting. My superiors easily dismissed my comments because my highly emotional behavior was marked as feminine. Similar to Cohn, my actions were categorized by a particular gender, regardless of my biological sex. In addition, both cases demonstrate that both the masculinity and femininity exist in various discourse and these two categories have various strata within themselves. My own experience was emotional but not too “extreme.” If I had said, “I do not endorse the protocol because patients are being misled and they will be emotionally hurt,” perhaps my response would not have received any attention. Within the medical field one would expect a patient’s emotional well being and comfort to come first; ironically however, many of the decisions made by health professionals are positioned within the masculine realm marked by “rationality, objectivity and logic” (Cohn 568).

By January my incident was long forgotten. Most of the studies were put on hold due to a lack of patients available over to the holidays. By default, I spent everyday in the psychiatric clinic observing Dr. Clarkson’s consultations with patients. It was not long before I recognized that the vast majority of his patients shared a common criterion— they were mostly women. I quickly ruled out mere coincidence and asked Dr. Clarkson if he could explain why women represent the majority of his patients. Wanting to stimulate my own deductive reasoning, Dr. Clarkson asked me to try to come up with my own answer. Using my knowledge from

undergraduate classes, I confidently stated that women seek more treatment simply because more females are afflicted with mood disorders. This is because they have a higher risk for contracting them when compared to men due to their highly emotional nature. Dr. Clarkson grinned and replied, “You’ve got a lot more learning to do.”

Though Dr. Clarkson’s response was insensitive, I now realize that my thinking reflected my naivety. It was not until I read Michael Kimmel’s The Gendered Society that I began to question my explanation to this gender-polarized phenomenon. Kimmel suggests that “there are signs of gender convergence” in health citing several examples including risks, seeking health care and life expectancy (Kimmel 311-13). Kimmel goes on to say that this convergence could be due to “increased spending on health care, dismissal of traditional feminine and masculine strictures and greater health awareness” (Kimmel 311-12). Should mood disorders such as depression show the same kind of gender convergence since they too have received more public attention and improved treatments? Kimmel further explains that not all health issues are converging in the United States citing AIDS as an example of a “gendered disease” affecting a larger proportion of men than women (Kimmel 310). While depression, like AIDS, could be a gendered disease affecting more women than men, for a couple reasons, I personally believe this is not the case.

The first reason is that in most clinical studies, both men and women participate in equal ratios. Though this information is based on observations from one site, if there was truly a higher occurrence of depression of women there would also be a greater proportion of women participating in clinical trials due to the increased probability of finding female

patients. The second reason depression is unlikely to be a gendered disease is because there is little to no evidence that male and female brains differ in way. Due to this idea, many of the pathophysiological suggestions for the increased female susceptibility must also exist in male brains due to the identical structure. Kimmel's article, more than anything, helps to refute my original conjecture

My prediction about the prevalence of female patients was based primarily upon what I have read in textbooks and what I have observed throughout my own life. With regard to the latter, I am reminded of Judith Lorber's article *Believing as Seeing: Biology as Ideology*. Lorber states that "many of the beliefs" about gender differences "emerge from imagery that pervades the way we think," hear and see (Lorber 22). In my own life, I generally see more women seeking help for mood disorders. In turn, I constructed a social meaning for this behavior; women must be more susceptible to mood disorders. In order to internalize this meaning, I proposed that there must be a physiological difference between men and women that must cause this fictitious susceptibility. Though it is possible that a physical difference may have caused this phenomenon, "these differences were socially meaningless" until I created a "social fact" which points at a simple female inequity concerning the psyche when compared to males (Lorber 21). Coupled with this flawed reasoning was the presence of information with several textbooks that solidified what I observed. But why do these textbooks indicate that more females are affected by depression? I propose that with respect to seeking treatment, females still dominate this domain when it comes to psychological disorders. This could be a result of long-standing cultural pressures on males maintaining that masculinity is characterized by "playing through the pain"

(Kimmel 311). Though Kimmel does say that seeking healthcare is converging between genders, psychological diseases may be harder for males to admit since many of the symptoms can be misinterpreted or suppressed since they are not characterized by physical pain. Because of this lack of physical pain, the masculine pressure may cause males to remain silent since they may not feel that mental indicators are a strong enough to warrant treatment. This would leave females as the primary patients for psychiatrists since males have not equalized to their level of seeking psychological treatment.

Intrigued by my findings and disheartened with the experiences I had at the research clinic, I decided to intern for a different department. Fortunately there was an opening in cardiac surgery. Although I had intended to see if gendered trends existed in other afflictions, I ended up observing another gendered phenomenon through my conversation with four male fellows, doctors training in cardiology, while observing procedures in a viewing room. At first, the fellows provided me advice about applying to medical school and we also exchanged stories of debauchery during our undergraduate career. It was not until we reached the subject of relationships that I began to notice a common trend among the fellows. Three out of four of the fellows married women that they had been involved with before or at the beginning of medical school. The fourth fellow was currently engaged to his undergraduate sweetheart. I speculated that they stayed with these women because they not only loved them but they also had no time to go out and mingle with other women throughout medical school. However, when I asked why they married women they knew before medical school the common response was alarming. Though they did not say it this eloquently, they all agreed that they valued

their companions since they were able to hold down a demanding medical career knowing that their wives could be counted on to “manage” their future family. Their comments echoed the arguments of David Popenoe in his essay *Modern Marriage: Revising the Cultural Script*. Like Popenoe, the fellows were making a case for “the maintenance of relatively traditional marital gender roles” (190; Kimmel 206-207). Still, unlike Popenoe, these men did not want women to “leave the labor force” only once “children become part of the equation,” instead they required a lifelong commitment to motherhood and homemaking (200). But, why did these men feel that it is necessary for the woman to be at home to “build the family” instead of taking time off then pursuing their own goals?

Appalled by their egotistical reasoning and feeling comfortable enough with the fellows, I insulted their chauvinistic behavior calling it ridiculous and juvenile. Silenced by my comment, only one fellow responded, “wait until you start medical school and you need someone to help you go through hell in order to reap the benefits of a secure life in the future, then you will better understand why our relationships turn out like this.” Realizing that I could not win this debate, I gave up. Nonetheless, his statement did make me reflect upon my current relationship.

I met my girlfriend shortly after I began my freshman year at NYU. At the beginning of our relationship, we both frequently expressed our emotions and feelings in a manner largely consistent with Cancian’s feminized description of love, which is an identification of “love with emotional expression and talking about feelings, aspects of love that women [tend] to prefer” (491). Yet once six months had passed, many of the “feminine” emotions went away with the exception of “I love you” and other verbal reminders of our love

for one another. What replaced this emotional intimacy would be considered a masculine style of love as described by Cancian. We showed our affection more indirectly through the actions we performed for each other such as cooking and cleaning, as well as through doing activities we both enjoyed together ranging from working out to visiting museums. I believe that this expression of love was in the service of living efficiently. Both of our schedules became more hectic and it was more convenient to spend our limited free time taking care of tasks that would alleviate one another’s stress. As school became more demanding and I secured my decision to pursue medical school, I began to shift many of my concerns towards myself and I viewed much of what I was working on and what I was involved with as the most important aspects of my life.

As a result, I no longer expressed any form of love. Instead I expected my girlfriend to take charge of the household tasks completely while I devoted my time to studying. I indirectly neglected my girlfriend’s aspirations because they seemed “less important” than mine since her career goal seemed easier to attain than my own. Recalling the progression of my own relationship, I am now able to propose an answer to my question about the fellows’ desire for their spouses to “build their families.” Though I now can see the callousness of my actions, at the time I most likely justified my arrogant behavior by assuming that my girlfriend does not only desire a career to attain happiness, but also valued motherhood and “a strong and lasting relationship” with her future partner (Popenoe 190). Thus, I did not see my actions as oppression, but instead as a necessary sacrifice, on my girlfriend’s part, in order to build a communal future. In return, I would subject myself to years of hard work and dedication in order to provide

financial security and stability for our future family (Kimmel 207). Based on my personal reasoning, I believe the fellows' shared a similar ideology that justifies this unequal distribution of household work and career opportunities. Under this principle the male fellow sacrifices his life to a career that is both time consuming and emotionally draining in order to provide for his family while fulfilling his medical aspirations (Kimmel 207). In turn his wife or fiancé sacrifices her career independence to experience motherhood. Is the pressure of the medical field to blame for the fellows' and my own repressive behavior? No!

Instead, this behavior could be explained by the theory outlined by Robert Max Jackson in his book Down So Long about how powerful men have enhanced women's subordination. Fellows possess power which stems from their high position within society. Accordingly, these men tend to marry women "within their own class," thus the division between these equitable women stems from "familial differentiation of roles" (Jackson 115). If gender status inequality was no longer embedded in positional inequality, women within this class would have equal access to all positions in society and would no longer be tied to lower positions and familial obligations causing men to lose their dominance over their wives and subsequently their masculinity and role of the family patriarch (Jackson 115; Kimmel 207). In an effort to avert potential conflicts and "retain family authority," or in my case future familial authority, these fellows and myself adopt traditional ideologies that kept women chained to their familial obligations (Jackson 115). Though this is largely speculation based on a finite observation, it is reasonable to suggest that this mechanism may play a minute role in "biasing [the fellows and myself] against women" (Jackson 115).

Once again, I decided to alienate myself from the members of a medical department. Embarrassed by my heated conversation with the fellows and fearing retribution if I asked to join another department, I decided to shadow the nurses of cardiology in early March. At first I was given menial tasks, such as stamping consent forms and delivering blood to the lab, that the current intern Melanie did not want to complete. However, it wasn't long before the nurse manager, Arthur Perlas, recognized my aptitude. Although I had only been at the lab for a couple weeks, Arthur allowed me to assist him while he took vital signs and inserted IVs. We became fast friends, treating me as an equal rather than a pupil and inviting me to eat lunch and attend nursing seminars with him. While I knew that I had been enthusiastic and steadfast during the first couple weeks, I was shocked at how quickly I had become entrusted with such a large number of tasks. Despite my astonishment, I was thrilled to be finally enjoying my internship and forming a close bond with a medical professional, but unfortunately my delight was short lived.

After a month of preferential treatment from Arthur, I was confronted by Melanie. She wanted to know what exactly I had done to win Arthur's favor in such a sort space of time. I did not know what to say since I really had not done anything extraordinary, so I told her I had just been working hard. Unsatisfied by my answer and obviously frustrated, she explained how Arthur had never gave her any of the tasks he was currently giving me despite how hard she had been working over the past year. After Melanie expressed her personal anguish and stormed away, I began to wonder why I had been able to surpass Melanie in a short period of time with modest effort. Over lunch, I confronted Arthur. Why he had provided me with such a large amount of responsibility and

encouragement even though he barely knew me? He responded, “You remind me of myself in college, and it had been a long time since I have had anyone to relate to in this department.”

Coincidentally, the week that I confronted Arthur about my rapid upward mobility was the same week that I read Christine L. Williams article, *The Glass Escalator: Hidden Advantages for Men in the “Female” Professions*. Like the interviewees in the article, I was part of a predominantly female career. Fortunately, I did not fall victim to negative discrimination, which could have potentially barred me from opportunities in the department (Williams 326). Instead I took a ride on the “glass escalator”, being granted tremendous opportunity and surpassing the senior intern, Melanie (Williams 326). I credit my quick ascent not to my efficient work, but to my “good rapport with my male supervisor,” Arthur (Williams 328). Based on Arthur’s statement, I believe he may have empathized with me since he feared I might feel uncomfortable being a token male (Williams 326). Thus, he took me under his wing and we were able to form a close personal relationship based on our mutual tokenism (Williams 325). Through this relationship we engaged in homo-social behavior which reinforced our masculine behavior making ourselves feel more comfortable within our “female profession” (Kimmel 207; Williams 329). Though some nostalgia may have come into play, I am confident that Arthur allowed me greater responsibility based on trust formed through our personal bond sparked by our mutual token status. Unfortunately, our homo-social behavior was not a harmless form of communication. This type of conversational mode blocks out women, indirectly limiting their ability to form relationships with other males in higher positions of power and subsequently limiting their mobility within

the positional hierarchy (Jackson, *Destined* 221; Kimmel 207; Williams 329). For instance, Melanie’s inability to engage with Arthur in the same manner as myself caused her to remain in her present position for a considerable amount of time. Sadly, I am partially to blame for Melanie’s subordination since I helped to create the conversational atmosphere that obstructed her positional mobility in order to gain favor within the department.

Shortly after realizing that my successes with the nursing staff in cardiology were a result of my gender rather than my ability, I yet again said goodbye, this time to Arthur and left the department in mid-April. Although I am currently on hiatus, I am confident that I will continue interning once I have completed my finals. However, I am unsure of what department I will try next. What I learned throughout my six months of interning is that gender inequality is omnipresent throughout the hospital atmosphere and it exists in several forms. Many may think that the presence of gender inequality within the medical field is quite evident, however, it is difficult to pinpoint specific examples beyond the relative distribution of males and females in different medical specialties (i.e. cardiology, pediatrics, oncology etc.) and the predominance of females in nursing. I was able to observe several subtle instances where the presence of societal gender inequalities created expectations that could potentially determine ones career trajectory. For instance, if laboratory dialogue is not conducted in a “masculine manner” one could risk losing credibility when expressing ethical concerns pertaining to research. Furthermore, my homo-social behavior with Arthur coupled with our mutual tokenism within a “female occupation” allowed me to quickly attain advancement. In addition, these gendered expectations can make their way into one’s personal life as seen by my

lack of concern for my girlfriend as my work became more demanding. Regardless of the various consequences for disobeying or obeying gendered expectations, all instances of gender inequality resulted in generating gender differences that are largely fictitious. I do believe that the medical field is progressing toward an egalitarian future. As I saw with Dr. Clarkson's disapproval of my proposed reasoning for his large proportion of female patients, many medical practitioners recognize that males and females do not differ significantly. Thus, it is more useful to look at socioeconomic

differences among populations rather than gender. In addition, most American medical schools currently aim to have a student bodies composed of equal amounts of males and females. As of now, I am aware that I presently behave and reason in ways that contribute to both the existence and the extinction of gender inequality. Although I am unsure of how I will react to many of the same situations I encountered during this internship once I become a doctor, I do recognize the vast implications of such gender inequality and the impact it can have on both my personal and professional life.

References

Cancian, Francesca M. "The Feminization of Love." The Gendered Society Reader. Ed. M. Kimmel and Amy Aronson. 3rd ed. New York: Oxford University Press, 2008. 491-502.

Cohn, Carol. "Wars Wimps, and Women: Talking Gender and Thinking War." The Gendered Society Reader. Ed. M. Kimmel and Amy Aronson. 3rd ed. New York: Oxford University Press, 2008. 565-577.

Jackson, Robert M. Destined For Equality. Cambridge: Harvard University Press, 1998.

Jackson, Robert M. Down So Long. Unpublished 2009

Kimmel, Michael S." The Gendered Society. 3rd ed. New York: Oxford University Press, 2008.

Lorber, Judith. "Believing Is Seeing: Biology as Ideology." The Gendered Society Reader. Ed. M.

Kimmel and Amy Aronson. 3rd ed. New York: Oxford University Press, 2008. 14-25.

Popenoe, David "Modern Marriage: Revising the Cultural Script." The Gendered Society Reader. Ed. M. Kimmel and Amy Aronson. 3rd ed. New York: Oxford University Press, 2008. 185-200.

Williams, Christine L. "The Glass Escalator: Hidden Advantages for Men in the "Female" Professions." The Gendered Society Reader. Ed. M. Kimmel and Amy Aronson. 3rd ed. New York: Oxford University Press, 2008. 322-338



Ageism and Breast Reconstruction

Kimi Swartz

Ageism, prejudice against older adults, is one of the most salient issues in bioethics today. There are many people who will jump to the defense of ageism, yet a surprising few who are willing to criticize it. In the absence of greater context, it is easy to declare that ageism, like all types of discrimination, is wrong. However, we find that ageism is almost instinctive. A common thought experiment goes: if a girl and her grandmother are drowning and there is a single lifebelt, whom do you save (Shaw 1994)? Those who claim that ageism is innately 'wrong' would often choose the girl without hesitation. I believe that this innateness of ageism is important and should be noted, but will not discuss it further. There are many variations of this scenario, but the underlying premise is a commodity in limited supply desired by two people of different ages, essentially presenting itself as a problem of resource allocation. It is this same dilemma that appears over and over again in medicine, and youth often wins. When life and death are involved, we may not comfortably partake in ageism, but we do so nonetheless. However, in a non-urgent situation where the resources are not limited, can we continue to defend ageism? If the girl and grandmother were both to get a paper cut, and there were two band-aids available, we would give each a band-aid without a second thought. Why then does the phenomenon of ageism persist in medicine when treatment supply is not limited? For example, breast reconstruction

following a mastectomy is a treatment that is not limited in supply and is non-urgent. However, there is a plethora of literature supporting the existence of ageism in breast reconstruction. Due to the effectively unlimited nature of the 'supply' of breast reconstruction surgery following mastectomy, ageism in this area of medicine is an indefensible practice.

While most physicians will not openly admit to distributing care based on a patient's age, prioritization of patients is a recognized element of medical care, and age certainly plays a role in this process. For example, if a 50 year old and an 80 year old are both admitted to a hospital for a stroke, the 50 year old is likely to be treated aggressively with aims at rehabilitation. On the other hand, the 80 year old is more likely to be treated symptomatically with palliative care in mind. Shaw, a practicing physician in the UK, makes a strong case for ageism in his article "In Defense of Ageism. (Shaw 1994)" His platform is based on the claim that "health care must be distributed in a way that achieves maximum benefit and is seen to be just", as well as in a cost effective manner. In the article, Shaw makes the bitter but honest observation that "aortic valve operations on the elderly are very cost-effective if the result is death or cure instead of prolonged illness"(pg 188). It appears Shaw sees little value in investing in reoperations if the result is only prolonged malady, especially during the end of the patient's life.

This notion of having to end a life to save a life is not unheard of in medicine. Frequently people die while waiting on the organ transplant list—a list on which priority is based on a number of factors, age included. The choice to save one person over another can be rationalized in either direction when the supply of the treatment is limited. However, this practice becomes less justifiable when the supply is not limited, or is less limited, as in the case of hospital admission, time consuming procedures like dialysis, and high cost surgeries. It is a reasonable conclusion that if supply is not limited, then the product should be equally distributed to all patients. We see that this is not the case when considering the fact that residents of nursing homes are often not transferred to the hospital for illnesses that would otherwise warrant hospital admission in the general population (Pedersen 2008).

Defending age discrimination in instances of limited resource supply is often justified through the concept of ‘fair innings’ (Harris 2006). The basis of this line of reasoning is as follows: when there are two people who are of different ages but are identical in all other ways, including medical condition and desire to live, and only one can be saved, the choice to save one over the other must be made based on who has had a chance at a fuller life, or a ‘fair inning’. Often, it is assumed that the older person has had a better chance at a fair inning up to the present time, thus the younger person must be saved. This is done in order to give the greatest number of people a chance at a fair inning. A recurring example of this is enrollment in drug trials. Most new cancer diagnoses occur in people over age 65, meaning that more people aged 65 and older stand to benefit from novel cancer drugs. However, pharmaceutical companies preferentially enroll young people in trials, resulting in a

disproportionate amount of young cancer patients who are given access to innovative treatment at the expense of older patients (Murthy 2004).

When supply is unlimited we fail to see the justice in valuing a person’s life by age. This is clear when considering that the punishment for killing a fifty year old and an eighty year old is the same, because we refuse to put a value on what life they may have had left (Hamel 1999). Although we should treat young and old similarly when there is no limit on supply, this does not happen in practice. Breast reconstruction is a unique instance of this, as it is non-urgent and carries no opportunity costs in terms of another’s treatment. Nearly all young women diagnosed with breast cancer discuss their reconstructive options at the time of diagnosis, while as few as 16% of older women are presented with their reconstructive options (Bowman 2006). Thus we see that the distribution of reconstruction over age is not a product of patient preference, but a result of the practice of surgeons.

Following a mastectomy, breast cancer patients have four options for surgical breast reconstruction, which can be categorized by type of reconstruction and timing. Regarding type, the reconstruction can either be prosthetic based or autologous. Prosthetic-based reconstruction involves an initial surgery to place a tissue expander, essentially a deflated implant, under the pectoralis muscle. This expander is then gradually inflated with serial injections over a period of time so that the muscle can be stretched to a size capable of accommodating a permanent implant. When the final volume is reached, the patient is brought back to the operating room and the expander is exchanged for a permanent implant. The surgeries involved in this process are much quicker and less complex

than the alternative autologous reconstruction.

Autologous-based reconstruction, which uses the patient's own tissue to reconstruct a breast mound, is an operation that can take as long as 14 hours to complete and costs on average \$20,000 (compared to the \$15,000 for the prosthetic-based reconstruction (Spear 2003). While more difficult and complex, autologous reconstruction is associated with a lower rate of complication than prosthetic-based reconstruction. The reconstruction can be immediate (at the time of mastectomy) or delayed. Immediate reconstruction has the benefit of fewer operations, avoiding the psychological effects of experiencing the loss of a breast, and superior aesthetic results. Conversely, it has a higher rate of complication than delayed reconstruction (50% v 43%)(Sullivan 2008). Despite the fact that prosthetic-based reconstruction is associated with higher complication rates, over 55,000 of the nearly 80,000 breast reconstructions performed last year were this type (ASPS Stats).

It is important to note that despite the fact that the majority of women diagnosed with breast cancer are age 65 or older (August 1994), they are the minority when it comes to breast reconstruction surgery, indicating a large discrepancy in the proportion of women undergoing breast reconstruction from different age groups (ACS Stats). The frequency of breast reconstruction following mastectomy in the United States is cited in the literature at somewhere between 8-12% (Polednak 1999,2000). While this may seem like a surprisingly low number, the competitive economy of the health care industry in the United States leads to very fractured care and a lack of incentive on the part of the oncologist or breast surgeon to coordinate reconstructive efforts with the plastic surgeon. When considering exclusively

women over 65, the rate of breast reconstruction can drop to below 1% (Barnsley 2008). One large-scale study found that "patients age 50 or under had a 4.3-fold greater likelihood of having reconstruction than their older counterparts." (Morrow 2001)

If an older woman is fortunate enough to be offered reconstruction, it is likely that she will be offered prosthetic reconstruction, the surgery with less benefits and higher complications. The reason for this is often due to the surgeon's concern of the patient's ability to endure a longer and more complex surgery. This choice is made by the surgeon despite the difference in complication rates between prosthetic and autologous reconstruction is even greater in patients over age 65, with complication rates of 76.9% and 41.7% respectively (Lipa 2003).

It is conceivable that one barrier to breast construction might be health insurance, even though federal law mandates that health insurance companies pay for breast reconstruction in cancer survivors. We would then expect that in a country such as Canada where the government provides health care free of charge, there would be a greater proportion of women undergoing breast reconstruction. However, in Canada the reconstruction rate is approximately 3.5% (Barnsley 2008). Given this persistently low incidence of reconstruction in spite of universally paid for reconstructive services, insurance is not likely to be the main barrier to reconstruction.

Before the issue of how to best distribute breast reconstruction can be considered, we must address why women are undergoing breast reconstruction at all. There is no medical reason for a post-mastectomy patient to undergo breast reconstruction surgery, and no evidence to suggest that the patient will be any healthier with reconstructed breasts than without

breasts. Thus it appears that the reasons to undergo reconstruction are purely psychological in nature.

Very often during a reconstructive consultation with a woman about to have a mastectomy, her husband will insist she not endure more surgery, that she is beautiful no matter what and that she should not seek breast reconstruction. However, breasts are an outward projection of a woman's femininity, and women typically associate their breasts with their identity. Thus, most will choose reconstruction. When she comes in to the clinic to be seen regarding an issue of her breasts, she is asked to undress from the waist up and given a gown closing to the front. Usually the patient ties the gown very tightly, visibly trying to conceal her breasts as any modest woman might do. However, when you walk into the room of a woman who has just undergone a mastectomy, the gown is often put on haphazardly or not at all. They feel as though they have nothing to hide, and appear to assume a masculine attitude toward baring their chest. The strong link between a woman's breasts and her identity quickly became apparent to me the first time I witnessed this reaction.

In fact, it is this very phenomenon that drives Lisa Parker in an article published in a journal of Feminist Ethics (Parker 2009) to argue that women should not undergo breast reconstruction following a mastectomy. She posits that by seeking reconstruction, women are submitting to an ideal form of beauty that has been established by a "phallogentric" society. As such, she argues the decision is not possibly autonomous or "substantially voluntary", and that even the informed consent may not be entirely legitimate.

Indeed, breasts are unique in that women invest so much of their identity into a single body part. However, women should not be vilified for doing so. There are body

attributes that are distinctly masculine, such as defined muscle structure. We do not ridicule men for going to the gym in order to achieve this, so why should we deride women for wanting to achieve a normal female appearance following cancer? One aspect of Parker's argument that reconstructing breasts feeds into this phallogentric society is that the breasts are "symbols of women's stereotypical role as...objects of sexual desire". It would be out of line to say that both heterosexual and homosexual women view their breasts as part of their sexual appeal, so this attribute need not be phallogentric. Furthermore, the desire to be sexually appealing to another human being, one of the substantial benefits of breast reconstruction, is neither excessively selfish nor age dependent. Based on these psychological aspects of breast reconstructions, it stands that women of all ages can benefit, and that the surgery should not be appropriated based on age in the name of benefits.

Age, though it may at times be a risk factor, is neither a valid nor sufficient reason to deny a woman reconstructive breast surgery. Dr. Joan Lipa confronts the discrepancy in prosthetic versus autologous reconstruction among older women in her article "Breast Reconstruction in Older Women: Advantages of Autogenous Tissue. (Lipa 2003)" She suggests that plastic surgeons might offer their older patients the higher risk prosthetic reconstruction because it is "the least disruptive method, especially among patients who may be facing limited survival times." While the shorter operating time may be less disruptive, the higher frequency of complication is certainly not. Dr. Lipa goes on to show that the autologous method of reconstruction is a safe operation for older women, and that age cannot be used to justify guiding a patient towards prosthetic reconstruction. Understandably, some women would prefer the increase in

risk in exchange for a significantly shorter and less physically invasive reconstructive surgery. Additionally, women value the aesthetic outcome differently. There are certainly some older women who seek a very natural outcome, just as there are younger women who just want something there so as to appear normal, but do not necessarily desire a perfectly natural appearance. While the surgeon has a duty to inform the patient about all aspects of the different reconstructive options, each person perceives risk and the value of aesthetic outcome differently. Ultimately, the decision needs to be that of the patient.

I, like Shaw, defend ageism. It is a necessary evil in medical care because, realistically, the supply of treatment is not unlimited. Even if the supply of treatment is unlimited, it is likely that the funding for such treatment is not. In fact, if this much debated health care reform is to come to fruition, we will need to be more responsible in distributing healthcare. In many cases age is a factor that can be justly used to guide this distribution. However, there are instances when age should not be a contributing factor, namely when the treatment is not effectively limited in supply or urgent in nature, and I believe that breast reconstruction clearly represents such a situation.

We see that breast reconstruction surgery is not inherently more risky for older women and, furthermore, that older women stand to gain just as much from breast reconstruction as younger women. Given this reality, coupled with the nature of breast reconstruction, the current practice of infrequently offering older women breast reconstruction, and consistently offering them the 'simpler' reconstruction cannot in any way be justified. The many psychological benefits of breast reconstruction, including a restored sense of femininity after battling cancer and renewed

self-esteem, can be equally enjoyed by young and old alike. Older women need to be offered breast reconstruction, and all sorts of breast reconstruction, just as often as younger women.

References

- Shaw AB. In defence of ageism. *J. Med. Ethics.* 1994;20:188-194.
- Pedersen R, Andersen B. *J. Med. Ethics.* 2008;34:230-235.
- Harris J. "The Value of Life." *Bioethics: An Anthology.* Eds. Kuhse H, Singer P. Oxford: Blackwell Publishing, 2006. 428-436. Print.
- Hamel MB et al. Patient Age and Decisions To Withhold Life-Sustaining Treatments from Seriously Ill, Hospitalized Adults. *Ann Intern Med.* 1999; 130: 116-125.
- Bowman CC, Lennox PA, Clugston PA, Courtemanche DJ. Breast Reconstruction in Older Women: Should Age Be an Exclusion Criterion? *Plast Reconstr Surg.* 2006 Jul;118(1):16-22.
- Sullivan SR, Fletcher DR, Isom CD, Isik FF. True incidence of all complications following immediate and delayed breast reconstruction. *Plast Reconstr Surg.* 2008 Jul;122(1):19-28.
- Spear SL, Mardini S, Ganz JC. Resource cost comparison of implant-based breast reconstruction versus TRAM flap breast reconstruction. *Plast Reconstr Surg.* 2003 Jul;112(1):101-5.
- American Society of Plastic Surgeons. 2009 Report of the 2008 Statistics (data set). Retrieved from <http://www.plasticsurgery.org/Media/stats/2008-US-cosmetic-reconstructive-plastic-surgery-minimally-invasive-statistics.pdf>
- Lipa JE, Youssef AA, Kuerer HM, Robb GL, Chang DW. Breast Reconstruction in Older Women: Advantages of Autogenous Tissue. *Plast Reconstr Surg.* 2003 Mar;111(3):1110-21.
- August DA, Wilkins E, Rea T. Breast reconstruction in older women. *Surgery.* 1994 Jun;115(6):663-8
- American Cancer Society. Breast Cancer Facts & Figures 2007-2008. Atlanta: American Cancer Society, Inc. Retrieved from: <http://www.cancer.org/downloads/STT/BCFF-Final.pdf>
- Polednak AP. Postmastectomy Breast Reconstruction in Connecticut: Trends and Predictors. *Plast Reconstr Surg.* 1999 Sep;104(3): 669-673.
- Polednak AP. Geographic Variation in Postmastectomy Breast Reconstruction Rates. *Plast Reconstr Surg.* 2000 Aug;106(2): 298-301.
- Barnsley GP, Sigurdson L, Kirkland S. Barriers to breast reconstruction after mastectomy in Nova Scotia. *Can J Surg.* 2008 Dec;51(6):447-52.
- Morrow M, Scott SK, Menck HR, Mustoe TA, Winchester DP. Factors influencing the use of breast reconstruction postmastectomy: a National Cancer Database study. *J Am Coll Surg.* 2001 Jan;192(1):1-8
- Parker L. Beauty and Breast Implantation: How Candidate Selection Affects Autonomy and Informed Consent. *Hypatia.* 2009 Jan;10(1): 183-201.
- Murthy VH, Krumholz HM, Gross CP. Participation in cancer clinical trials: race-, sex-, and age-based disparities. *JAMA.* 2004 Jun 9;291(22):2720-6.



Achieving Immortality

Parth Patel

What if you opened your newspaper one morning to see the headline: “Cure for death discovered by prominent scientists”? Although this scenario seems unreal, that day might not be as far away as you would expect. Certain mind-boggling discoveries by leading researchers in various fields are slowly turning the idea of living forever into a reality. Dr. Sanjay Gupta, a practicing neurosurgeon and chief medical correspondent for CNN, touches upon this possibility in writing about stem cell treatments, human body replacements, nanotechnology, and other life-extending breakthroughs in his book *Chasing Life*.

Dr. Gupta begins his book by investigating a current trend in Russia: stem cell injections. He visits one of many clinics in Moscow that offer their clients a series of simple injections under the skin that not only make them look younger but also revitalize their hair and skin and give them more energy. After a series of tests, the patient undergoes an operation in which about five grams of fat tissue are removed. These cells are put in a vial with solution and are spun in a centrifuge. The centripetal force in the centrifuge “awakens” the cells and prepares them for the next step by separating the solution and the cells. After centrifugation, the cells are placed in a growth medium, where they are incubated. When they have multiplied, they are placed into a tank of liquid nitrogen in order to induce a state of hibernation. Immediately after that, the stem cells are injected into the

patient. While the advantage of these stem cell injections is that the person receiving treatment is injected with his or her own cells, therefore eliminating the risk of rejection, this practice is illegal in most parts of the world. Furthermore, since these injections can cost from ten to thirty thousand dollars, they are currently only available to a select, rich few. These individuals, however, are willing to go through this expensive and semi-risky procedure under the nose of the authorities in order to become decades younger. They know that they will be able to look and live like they used to a long time ago, while at the same time knowing from the inside that they have far surpassed their time.

Another new development, which Gupta reported on CNN in the second week of October 2009, sounds impossible, but is actually already being tested on pigs and other animals. It is called suspended animation, and it refers to the slowing of life processes like breathing, heartbeat, and involuntary functions by external means. The method involves injecting hydrogen sulfide gas and stripping all the oxygen away from the cells. While this is occurring, the body is provided with a fuel, a ketone (a chemical produced when there is a shortage of insulin in the blood as a result of inadequate calorie intake) that keeps it “running” but not “working.” The main purpose of suspended animation is to allow doctors more time to treat a patient who is in

a severe state of emergency. Dr. Gupta gave this example:

“Imagine someone who gets a mortal wound in a war zone. It would take a long time to get that person to a place where they can actually get treated; so you inject the shot, which puts them in a state of suspended animation, allowing for more time. After you get that person on a chopper and in a hospital, where everyone is ready to go, the person wounded can be reanimated by giving him or her oxygen and then the doctors and nurses can go right to work.”

So how do we get from short-term medical stabilization to the eradication of death? In *Chasing Life*, Dr. Gupta interviews author, inventor, and futurist Ray Kurzweil, who envisions the evolution of life extension in three stages. According to Kurzweil, we are currently in the midst of the first stage, a biotechnology revolution. In one or two decades, we will enter the next stage, during which we will be able to reprogram our bodies in order to avoid cancer, diabetes, and heart disease. A couple of decades later, he believes that we will reach the final stage, in which we will be able to use technology at a molecular level to make us live significantly longer, even using our own cells to build and replace the organs in our body that have been damaged. “The progress is exponential, not linear -- that’s the important point,” (205) he says to Dr. Gupta. The rate of scientific progress is doubling every ten years. Kurzweil adds, “It took us fifteen years to sequence HIV. We sequenced SARS in thirty-one days” (205).

This final stage that Kurzweil envisions leads directly into the world of biomedical nanotechnology. Atomic-scale nanobots will navigate through our bloodstreams, fighting against pathogens, mutations, and reversing the aging process. These nanobots will also circulate in our brains, making us smarter. Dr. Gupta says,

“Already, scientists have developed nanotechnologies that deliver insulin to diabetic rats via capsules with pores only seven nanometers (10^{-9} m) across, inject drugs to small tumors via microscopic spinning screws, and capture individual cells in microteeth” (231). There are indeed many companies and labs in the U.S. that are already devoted to nanomedicine.

Until that day comes, people who want to prolong life at some uncertain point in the future can arrange to have their bodies frozen, with instructions to be thawed when science has advanced enough to bring them back to life. Dr. Gupta says, “At Alcor Life Extension Foundation in Arizona, which may be the largest company catering to cryonicists, it costs \$150,000 to store the whole body; \$80,000 for the head and brain” (233). As of September 2009, 905 people have already signed up to be cryopreserved when they die and 88 are currently patients at Alcor that are frozen.

Dr. Sanjay Gupta’s latest book, *Cheating Death*, follows his *Chasing Life* with more information on medical miracles that can save patients on the brink of death. Recent advancements that blur the line between life and death, Gupta posits, are fast making the concept of immortality less fantastical than it may seem.

References

"Alcor Membership Statistics." Alcor Life Extension Foundation. Web. 8 Nov. 09. <www.alcor.org>.
Gupta, Sanjay. *Chasing Life: New Discoveries in the Search for Immortality to Help You Age Less Today*. New York: Wellness Central, 2007.



Short Synthesis of Social Causation and Social Selection: Implications for the Diathesis-Stress Model of Poverty and Psychopathology

Lance Rappaport

Whereas people suffering from mental illness tend towards a downward social mobility, current research suggests a number of variables that may mediate this relationship between poverty and the development and onset of psychiatric symptoms. Given the increased social demand for public health policies that address growing pandemics, efficacious and large scale interventions are in high demand. A model of the relationship between debilitating psychopathology and poverty is required to guide the development of burgeoning public health projects. Rutter (2003) and Costello, Compton, Keller, et al. (2003) demonstrate an ongoing debate between the two highly influential perspectives on the association between poverty and psychopathology: social causation and social selection. This debate concerns whether the high correlation between financial distress and psychopathology arises because psychiatric symptoms create financial strain or because financial strain creates additional stresses and inhibits protective factors thereby leading to increased risk of mental health problems.

However, integrating sociological studies and case reports (i.e. Kozol, 1995) allows for the expansion of these original models to include the role of the individual and of society beyond the immediate scope of poverty. These additional factors may

account more directly for this association and thereby allow public health intervention programs to address the more direct causes of psychopathology. For instance, a diathesis-stress model of poverty implicates correlations between poverty and mental illness to propose that poverty is a distal stress both interacting with and influencing the nature of life stresses that serve as proximal stresses (i.e. more direct causes) in the development of psychopathology (Figure 1a). This model is still widely used to develop policy and psychotherapeutic interventions. However, new investigations have illuminated a more specific understanding of the mechanism by which poverty increases risk for psychiatric problems (Figure 1a).

In this article, several studies and literature are reviewed to suggest a modification of the diathesis-stress model wherein poverty is associated with psychopathology only through its dual role on increasing the likelihood of certain proximal stressors (i.e. hunger, a lack of security) and on decreasing the availability of protective factors (i.e. family support, education) (Figure 1b). Finally, this new formulation allows for implementing interventions on the factors directly related to psychopathology rather than on limiting interventions to addressing financial distress itself, as is prescribed as a potential public health policy in Sacks (2006). The flexibility of this new model better

represents the interaction of family, community, and social behaviors to enhance or to decrease these stressors, such as types of support and community involvement (for example of these factors see Bürgin & Steck, 2008; Cohen & Willis, 1985). For example, a number of recent investigations have discovered mechanisms through which poverty influences risk of psychiatric disorder on both the community and economic levels. Finally, the specificity of an updated understanding of the relationship between poverty and mental health allows for efficacious interventions focused on the direct functional causes and antecedents of psychological disorders.

As one of such community level factors, the relationship between poverty and neighborhood violence has been shown to be largely mediated by the collective efficacy of neighborhood members (Sampson, Raudenbush, & Earls, 1997). In their analysis of 343 Chicago neighborhoods, these authors used survey methods and multilevel regression to demonstrate that “collective efficacy,” a measure of “social cohesion among neighbors combined with their willingness to intervene on behalf of the common good,” accounted for 75% of the variance in rates of violence across neighborhoods and that it mediated the association between violence and social composition, concentrated disadvantage, immigrant concentration, and residential stability (pp. 918). The authors conclude that while rates of violence are related to neighborhood wealth, it is more strongly associated with the social cohesion of community members to help each other in preventing neighborhood violence.

Examinations of the relationship between poverty and mental health symptoms have produced two competing models. Rutter (2003), in a review of the Great Smoky Mountain Study (Costello et al., 2003), illustrates the nature of the debate

between social selection and social causation. The social selection theory states that the harmful effects of psychopathology lead to worsened functioning and, eventually, to economic and vocational failure, which in turn propels the patient into poverty. In contrast, social causation theory posits that poverty creates increased stress and decreased resources thereby increasing risk factors and epidemiology of mental health problems. In the Great Smoky Mountain study, Costello et al. report that the natural manipulation of a casino opening in a nearby Native American reservation allowed for the prospective, quasi-experimental test of both theories prospectively. The “manipulation” was conducted by a supplemental income that the casino agreed to pay each member of the tribe, thus substantially increasing each family’s income.

After measuring rates of externalizing disordered behavior (e.g. Oppositional Defiant Disorder, Conduct Disorder, risk factors for Antisocial Personality Disorder) and signs of internalizing disorders (e.g. Major Depressive Disorder, Anxiety disorders) in the children of this population, the investigators analyzed the rates of both externalizing and internalizing diagnoses and symptom counts across time (pre- and post-casino opening) and across 3 groups: never poor, persistently poor, and ex-poor. The investigators defined the ex-poor as those for whom the casino’s addition increased their income to above the annual poverty line. According to the investigators, the rates of externalizing diagnoses and symptoms decreased when the family moved out of poverty. In fact, Costello et al. report that the ex-poor were insignificantly different from the persistently poor before the casino opened, and moved to be indistinguishable from the never poor group after receiving the supplemental income.

The same trend was not significantly demonstrated for children's internalizing problems. The results demonstrate that children whose families' income increased to non-impooverished levels showed a decrease in rates of psychiatric symptoms, however these changes were related to secondary social indices (e.g. parental supervision) more strongly than they were related to change in income.

Costello et al. conclude that their findings provide support for the social causation model, though they highlight the mechanisms by which this occurs. In a response to Costello et al., Rutter (2003) argues that subjects in the "quasi-experiment" were not randomly assigned to groups and that because of this the data may suggest the effect of social selection on group assignment. The two positions are not mutually exclusive. In fact, as is suggested in the developmental psychopathology literature, disability may lead a patient to vocation loss and a decline in socio-economic status, and that change may also trigger a preponderance of stress that influences the maintenance and progression of mental illness (i.e. homelessness) (Copeland, Shanahan, Costello, et al., 2009). The essential change to the previous model is the notion that poverty may not act as a distal cause of mental illness (much as the loss of a loved one in childhood is considered a distal cause predisposing one to depression later in life). Instead, poverty may be correlated with variables that cause a preponderance of stress (i.e. low community collective efficacy) or may lead directly to stressors (i.e. hunger) (Sampson et al., 1997).

The elimination of poverty as a distal cause highlights the lack of evidence of a direct relationship between poverty and stress in predisposing an individual to psychopathology. In support of this hypothesis, Sampson et al. (1997) suggest

that collective efficacy is correlated with variables that identify low-income groups (i.e. low residential stability, low social mobility, lack of homeownership). However, when controlling for the mediating effect of collective efficacy only the effect of residential stability was even loosely predictive of community violence (in fact, the relationship between residential stability and distress decreased significantly when collective efficacy is also included in the predictive model). This demonstrates that the relationship between residential stability and a measure of psychological distress is largely due to the collective efficacy of the neighborhood and not due directly to poverty. Herein, it becomes more apparent that the effect of poverty on psychopathology may be through indirect means. For example, whereas poverty predisposes one to hunger and homelessness, it is the lack of food and/or shelter that predicts increased rates of psychopathology. In fact, we can expect that where shelters and food kitchen or food stamp programs are instated the relationship between poverty and psychiatric symptoms will diminish.

In *Amazing Grace*, author Jonathan Kozol presents a first person narrative of the South Bronx that illustrates social systems that mediate the association between poverty, violence, and psychiatric symptoms. Kozol's account of the chronic influence of neighborhood violence, combined with lack of education and meaningful health care, suggests that these conditions are responsible for a rise in childhood asthma, substance abuse, and prostitution as well as externalizing disordered behavior in children and adolescents. Furthermore, the cycle develops as these disorders further perpetuate neighborhood violence. Without needing to address the economic element of the problem, the model proposed in this

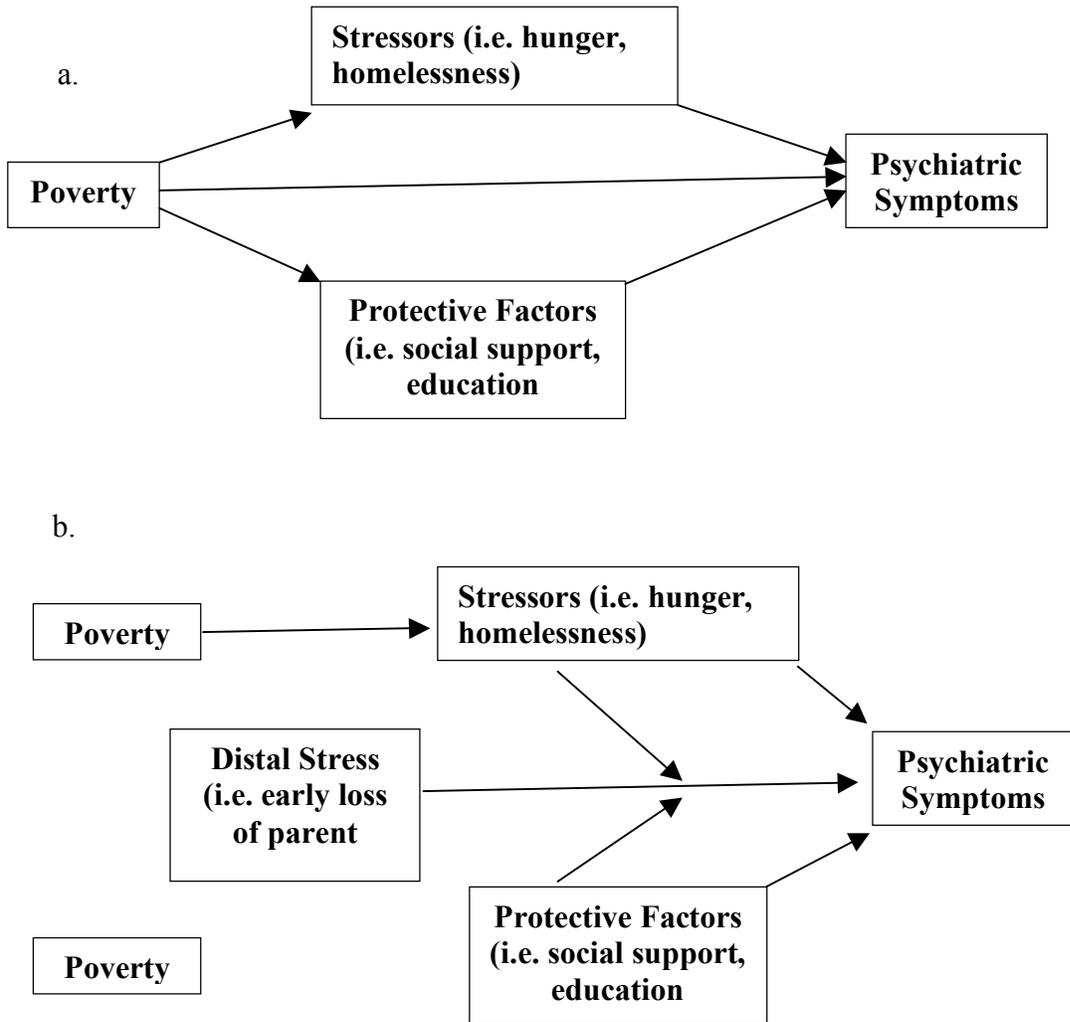
paper allows for public health advocates and policy makers to design interventions targeted at factors related proximally to the increased violence, drug abuse, and mental health problems.

These location-specific interventions would have a more immediate impact on the living conditions in the South Bronx than would economic growth programs, which would likely have to wait for economic change to “trickle down” to impact these detrimental elements of the area. The current model does not address the debate between social selection and social causation. Instead, it provides a more effective method for synthesizing the evidence for both theories into a more specific model for understanding the relationship between poverty and psychopathology. With this enhanced approach, interventions can begin to focus on the areas shown to directly influence mental illness, to address the more meaningful, immediate areas of need.

References

- Bürgin, D., & Steck, B. (2008). Resilience in childhood and adolescence. *Schweizer Archiv für Neurologie und Psychiatrie*, *159*, 480-489.
- Cohen, S., & Willis, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, *98*, 310-357.
- Copeland, W., Shanahan, L., Costello, E. J., & Angold, A. (2009). Configurations of common childhood psychosocial risk factors. *Journal of Child Psychology and Psychiatry*, *50*, 451-459.
- Costello, E. J., Compton, S. N., Keeler, G., & Angold, A. (2003). Relationships between poverty and psychopathology: A natural experiment. *JAMA*, *290*, 2023-2029.
- Kozol, J. *Amazing Grace: The Lives of Children and the Conscience of a Nation*. Crown Publishers, New York. 1995.
- Rutter, M. (2003). Poverty and child mental health: Natural experiments and social causation. *JAMA*, *290*, 2063-2064.
- Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, *277*, 918-924.

Figure 1





Healthcare Stewardship in Namibia

Abhinav Rohatgi

Namibia, a South African country with contrasting landscapes and a booming mineral industry, has a fragmented healthcare system, which is strained by the HIV/AIDS pandemic. Due to limited resources, the Namibian government contracts health services to privately owned firms, called NGOs, which both are self-organized and self-regulated. “Namibia’s health care system relies strongly on FBOs[Faith-Based Organizations] and NGOs [to provide healthcare] (Namibia).” The Namibian Ministry of Health, by failing to provide the proper stewardship, one of the four functions of every health system, is reducing the capability of the health system to provide health, responsiveness and financial protection (What is a health system?). As a country with limited financial and labor resources, a strong focus on bolstering stewardship would be a cost-effective method to improve overall health. How can the capacity of the Ministry of Health to organize and regulate NGOs in Namibia be enhanced? A combination of policy changes including fiscal centralization and administrative decentralization with a strong focus on primary healthcare would be effective strategies for improving governmental stewardship and health.

The mission of the Ministry is the, “attainment of a level of health and social well being by all Namibians, which will enable them to lead economically and socially productive lives (Economic

Overview Namibia: The Gateway).” “Today HIV/AIDS is the primary cause of death and hospitalization in Namibia. The International Labor Organization estimates that, without widespread treatment, Namibia could lose a quarter to a third of its work force by 2020 as a result of HIV/AIDS (USAID Mission News and Highlights).” Yet, the Ministry only manages 34 district hospitals and numerous health centers and clinics, which focus on the HIV/AIDS pandemic. The numerous unregulated NGO hospitals, such as those owned by Medi-Clinic Southern Africa, an international private hospital group with more than 50 hospitals in South Africa and Namibia, offer patients a wide range of specialized services with little focus on HIV/AIDS (Medi-Clinic Overview). “The Namibian government has responded to these challenges by expanding its health care system in contributive, preventive, curative and rehabilitative services to provide broad affordable access, “and in establishing effective partnerships with civil society, the private sector, and donor community (USAID Mission News and Highlights).”

Currently, the majority of primary healthcare in the country is provided by state hospitals. The strained state hospitals must follow a harsh triage logic and cannot provide universal access to its population. According to Margaret Chan, the Director-General of the WHO, the primary health care approach is the most efficient and cost-effective way to organize a health system

(Chan). One example of the effectiveness of a primary healthcare approach is in China's control of schistosomiasis in the 1980s, which significantly reduced disease prevalence by focusing on prevention via environmental management (Schistosomiasis in China).

The threatening HIV/AIDS pandemic should be met by bolstering primary healthcare in the health system. An increased focus on providing primary healthcare to all would improve equity; a key focus of the Alma Ata declaration of 1978 (Alma Ata). Instead of establishing new infrastructure to accommodate the need for increased primary care, the Ministry can divert resources in NGO hospitals from specialized services to primary care. Currently, the transfer of resources from specialized to primary care is extremely difficult in the Namibian health system. Thus, we must ask ourselves: how can the Ministry of Health regulate these changes?

The policy of decentralization is an effective method by which the Ministry can regulate NGOs to increase primary care. Decentralization, "the distribution of administrative functions of a central authority among several local authorities," is a response to the drawbacks of a centralized public institution, "such as poor efficiency, slow innovation, and lack of responsiveness to patients' preferences (Saltman et al.)." Administrative decentralization was implemented in England in the 1990s when the National Health System of England transformed each hospital into a semi-independently managed public firm. The hospitals, now within public sector, had to provide a "Business Plan" with the Ministry, specifying how they would provide services and in return, the Ministry approved major budget and personnel decisions. A similar policy of administrative decentralization can be effectively implemented in Namibia if

local public administration is found to be an effective avenue for change (Saltman).

Administrative decentralization will enable an efficient allocation of resources. Administratively, the NGOs are independently managed and not in the public sector. The Ministry can distribute its regulatory powers to the thirteen administrative districts. The Ministry should establish guidelines on how primary healthcare will be improved and on each healthcare provider's role. The administrative districts will enforce the guidelines on primary care and general resource allocation. One example of a district regulation is that a certain percentage of physical hospital space must be applied to primary care. Depending on the demographic, such location-based regulations would maximize the percentage of the population receiving primary care (Saltman).

The danger of decentralization is that, "if they [hospitals] are inadequately managed, they can build up high debt levels that will require substantial additional funds from the national level (Saltman)." To firmly establish decentralization without substantial additional funds, increased levels of fiscal regulatory activity by the Ministry will be required. Fiscally, NGOs have both private funding and contractual funding through the Ministry of Health. Currently, in Macedonia, general practitioners have centralized funding, which is provided by the Health Insurance Fund and decentralized or local administration of the physical hospital building including monitoring and supervision (Saltman et al.). One suggestion for the improvement of the regulatory capacity of the Ministry of Health will be an increase in fiscal centralization.

Fiscal centralization established through government legislation will increase the Ministry's regulation of NGOs and

increase the accountability in the health system. NGOs will submit a “Business Plan” with the Ministry, specifying how they would provide services (Saltman et al.). These would be the basis of contracts, which need to be approved by the Ministry. Thus, the Ministry would control and approve major budget decisions. To build emphasis on a primary healthcare approach, the Ministry should allocate a certain percentage of the budget to prevention and education programs. Additionally, this would increase patient feedback in the system. Currently, there are low levels of health literacy resulting in patients who cannot question the practices of providers. Thus, patient autonomy is limited to the highly educated. Providing health education programs will enable patients to control their health decisions. This increase in patient autonomy will increase feedback into the system and help to refine it in the future. Most importantly, the focus on prevention would reduce the incidence of disease, keeping costs to a minimum.

The administrative decentralization and fiscal centralization will not be effective without an effective dialogue with a well-organized and well-coordinated group of NGOs. Coordination will maximize the utilization of resources. In Kosovo, for example, some of the major INGOs have attempted “to facilitate NGO coordination through an NGO council (Scott-flynn).” In addition, The National Council of NGOs of Kenya, an umbrella organization with a membership of 6,000 NGOs, was established by an NGOs Coordination Act No. 19 of Parliament (Namibia National Health Accounts). Such initiatives provide an accessible forum where the NGO voice can develop a common focal point to address shared problems (About The National Council of NGOs of Kenya). Overall, the development of an NGO

council in Namibia will save time, money and will improve coordination with policy makers.

How can we test whether our recommendations will prove effective? The three questions we can ask are: 1. Does it improve health system performance? 2. Does it enhance governmental legitimacy? 3. Does it restrain self-interested behavior by health care institutions and personnel? Accordingly, the answers based on these recommendations are 1. Yes, this strategy does improve health system performance because more patients are treated. 2. Yes, it does enhance governmental legitimacy because the government is more involved in the healthcare system due to fiscal decentralization and regulation of medical records. 3. Yes, it does restrain self-interested behavior by health care institutions and personnel because accountability and feedback are built into the system (Saltman et al.).

These policies will have to be enacted before a final verdict can be given but some of the criticism can be addressed. How will the hospitals pay the costs of such restructuring? The restructuring of the Namibia’s health system will certainly cause a drain of its limited resources, especially for the hospitals. The district may offer to subsidize the cost of new patients receiving primary care by encouraging IT infrastructure development and the collection of electronic patient records (How can countries benefit from HMN?). Not only will electronic records encourage Chan’s primary care approach but they will also allow the NGOs to become accountable to the government. How will the possible negative consequences of decentralization such as service fragmentation and increased inequity be prevented? Strong fiscal centralization will prevent service fragmentation and a strong emphasis on

primary care will ensure that equity is maintained throughout every hospital.

Namibia needs to address the HIV/AIDS pandemic immediately. Due to limited resources, the Namibian government contracts health services to privately owned firms, called NGOs, which both are self-organized and self-regulated. To improve the stewardship of the Ministry of Health in Namibia, a combination of policy changes including fiscal centralization and administrative decentralization with a strong focus on primary healthcare will need to be established. Overall, with strategic operational and financial accountability and with strong stewardship of the NGOs, the Ministry of Health in Namibia can provide, “the Namibian people the opportunity to lead a normal fulfilling life (Mission Statement).”

References

- Namibia. Intrahealth International. IntraHealth International, Inc. <<http://www.intrahealth.org/where/14>> 2007.
- What is a health system? World Health Organization. <<http://www.who.int/features/qa/28/en/index.html>> 09 Nov. 2005
- Economic Overview Namibia: The Gateway. Ministry of Trade and Industry of the Republic of Namibia. n.p. <<http://www.mti.gov.na/subpage.php?linkNo=47>> n.d.
- USAID Mission News and Highlights. USAID Namibia. n.p. <<http://www.usaid.gov/na/>> n.d.
- Medi-Clinic Overview. Medi-Clinic. n.p. <<http://www.mediclinic.co.za/framesets/fsabout.htm>> n.d.
- Chan, Margaret. *World Health Report Calls for Return to Primary Health Care Approach*. WHO. <<http://www.who.int/mediacentre/news/releases/2008/pr38/en/index.html>> 14 October 2008
- Schistosomiasis in China*. Intervention Research. University of California, Berkeley. <http://ehs.sph.berkeley.edu/china/Research/interventions_default.htm>
- Alma Ata. International Conference on Primary Health Care. <www.who.int/hpr/NPH/docs/declaration_almaata.pdf> 6-12 September 1978.
- Saltman, Richard and Figueras, Josef. *Analyzing the Evidence on European Healthcare Reforms*. European Reforms. Health Affairs – Volume 17, Number 2. 85-108.
- Saltman, Richard. *Decentralization in Macedonia. Decentralization in Macedonia's Health System*. Consultant Report. March 2007.
- Scott-flynn, Nick. *Coordination in Kosovo. The challenge for the NGO sector*. Humanitarian Exchange Magazine. <<http://www.odihpn.org/report.asp?id=1039>> November 1999.
- About The National Council of NGOs of Kenya. The National Council of NGOs of Kenya. <<http://www.ngocouncil.or.ke/pages/about.html>> 2008.
- Namibia National Health Accounts. Ministry of Health and Social Services. <<http://209.85.129.132/search?q=cache:jJRXKdtCRXAJ:www.afro.who.int/hfs/publications/nhac/namibia.pdf+Namibia+ministry+of+Health&cd=3&hl=de&ct=clnk&gl=ch&client=firefox-a>> November 2003.
- How can countries benefit from HMN? Health Metrics Network. <<http://www.who.int/healthmetrics/en/>>
- Mission Statement. Ministry of Health and Social Services. <MDR Volume 5 copy.doc><http://www.healthnet.org.na/Default.asp>> 2009.
- Zhou XN, Wang LY, Chen MG, Wu XH, Jiang QW, Chen XY, Zheng J, Utzinger J. *The public health significance and control of schistosomiasis in China - then and now*. National Institute of Parasitic Diseases, Chinese Center for Disease Control and Prevention, Shanghai <[http://www.ncbi.nlm.nih.gov/pubmed/16125655?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DiscoveryPanel.Pubmed_Discovery_RA&linkpos=1&log\\$=relatedreviews&logdbfrom=pubmed](http://www.ncbi.nlm.nih.gov/pubmed/16125655?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DiscoveryPanel.Pubmed_Discovery_RA&linkpos=1&log$=relatedreviews&logdbfrom=pubmed)> Aug 25. 2005



Chasing the Burger Infiltrator—E. coli 0157:H7

Gabriel Miller

When you bite into a juicy flame broiled burger at the local diner do you consider that you may be ingesting strains of toxic bacteria? If not, then you probably haven't heard about the multiple cases of meat recalls or the sick individuals infected by E. coli 0157:H7. On October 3rd, 2009, an article published in the *New York Times* attacked the meat producing industry and the USDA (Department of Agriculture) for failing to prevent the contamination of raw meat with E. coli 0157:H7. According to the Centers for Disease Control and Prevention, the majority of people infected with the pathogen don't develop complications, while 5-10 % develop a severe condition called hemolytic uremic syndrome (Moss 2009). Infection usually results in stomach cramps and diarrhea, which last for 5-7 days. Those who develop HUS, experience improvement of diarrhea after roughly a week, before showing symptoms of decreased frequency of urination and loss of pink color in the cheeks and inside the lower eyelids (CDC). Hemolytic uremic syndrome is characterized by hemolytic anemia, renal failure, and low platelet count. Respectively, that is the breaking down of red blood cells, severe kidney damage and reduced blood clotting ability. The mortality rate for HUS is 5-10% and those who survive usually experience kidney problems and forms of paralysis throughout their lives (Tan).

The potential severity of 0157:H7 infection yields much public health concern.

The general public feels that it should be able to order a burger without the fear of being stricken with a potentially fatal disease. Anger and resentment emerges whenever the USDA recalls thousands of pounds of meat after an E. coli outbreak. While there certainly is legitimacy to these sentiments, the public doesn't seem to fully grasp the complexities of preventing contamination in the meat production process. 0157:H7 is a highly viable strain of bacteria, which can make its way into meat, in all its forms: as live cattle, removed hide, a ground mixture, and even after it has been cooked. The pathogen is a mesophilic species, which means that it thrives in temperatures of 10-50 degrees Celsius (50-122 deg F). Although carcass-breaking facilities try to keep the temperatures down, they inevitably rise to the mesophilic range. Despite the stepped up efforts of the Food Safety and Inspection Service (a division of the USDA) over the years, there are still cases of infection and meat recalls because it is not possible to completely eliminate the pathogen during production. 0157:H7 will always be present in meat at some level, but the regulatory agencies and producers are not working hard enough to keep contamination low. Much more can be done to decrease the rate of infection among consumers.

The first opportunity for contamination begins on the farm. The source of 0157:H7 comes from the intestines and fecal matter of cattle (Nikolaos, 46). Many possibilities

for bacterial infection emerge from growing cattle on dairy farms. Some of these are the type of feed allotted, the presence of different types of soil and manure, and weather patterns (Groneberg). For example, poor weather or quality of feed can induce irritability and stress, which enhances the growth of *E. coli* in cattle. Also, it is virtually impossible to detect the pathogen in infected cattle because farm animals are asymptomatic. When infected animals are transferred to slaughterhouses a whole new set of problems arise. Meat production is comprised of slaughtering, carcass dressing (removal of the hide), cooling of the meat, and carcass breaking, respectively. The opportunities for contamination during this process are further increased by the assembly line nature of production. The stage at which the pathogen is most likely to be transferred occurs during the dressing period when fecal matter left on the hide contacts the cow's flesh. This is inevitable when cuts are made from the outer to the inner surface of the hide (Nikoloas, 233). Cutting from the inside to the outside is a much better approach to avoid the spread of fecal matter.

The knives and blades used in skinning can also transfer contaminants to the meat. It is common practice to wash hands and blades with water of 82 deg. C (above the mesophilic range) after operations on each carcass. However, this only helps prevent cross contamination to other carcasses but not the transfer of bacteria from the hide to the meat of the same carcass (Nikoloas, 232). Also, in large slaughterhouses, one carcass is worked on by multiple people in the assembly line. The carcasses are moved very quickly in order to maximize production and profit. This inhibits the workers from carefully checking the hide for fecal matter or from dressing the hide carefully so as to not allow

it to contact the meat. Another factor that prevents proper hygiene in slaughterhouses regards worker's rights. In 2008, Greater Omaha packing, a large slaughterhouse, was sued by some of its worker's on grounds that the company was not paying them for extra time required to 'clean contaminants off their knives and other gear before and after shifts' (Moss). Although workers should always practice proper hygiene, it is understandable that they won't be as careful if they are not getting paid proper wages. The high probability of *E. coli* contamination during production should not be increased by worker negligence. This is one of shortcomings of meat production that needs to be addressed by the government.

Just as blades become contaminated, so do the meat-contacting surfaces of conveyor belts. Although these surfaces are cleaned after work every day, the 'undersides of belts, rollers and static support for belts... are often inaccessible without dismantling the equipment' (Nikoloas, 237). And if workers neglect to dry the conveyor belt, the moisture that is left on them increases the viability of 0157:H7.

The FSIS attempts to take on the extremely difficult task of regulating the pathogen by employing 7,800 personnel in 6,200 manufacturing plants (MCHR). These supervisors monitor workers to make sure that they are practicing proper safety techniques. However, it is impossible to catch every fecal stain or intestinal spillage in a huge factory with a limited number of inspectors. The FSIS began a microbial testing program to detect 0157:H7 in raw meat in response to an outbreak traced to Jack n' the box in 1994 (Moss). Since its inception, the FSIS has improved the efficacy of the testing program. In October 1997, the organization increased analysis samples from 25 to 325 grams in order to

increase detection sensitivity. In 2000, follow up samples were introduced for positive findings of *E. coli* in order to yield a more thorough analysis. The possibility of false positives has been reduced by this initiative. In October 2005, a 'new screening method was introduced to reduce the number of screen positives' that were inaccurate (fsis.usda.gov). The incorporation of more efficient methods has resulted in a decrease of percent positive *E. coli* findings from 2001 to 2008. The data collected for this period, measured by percent positives, was as follows: 0.80, 0.55, 0.32, 0.18, 0.17, 0.17, 0.23, 0.44 (an increase from '07-'08 resulted in changing the date of collection, not on decreased detection quality). The work of the FSIS is very important and the organization should continue to progress in the area of food safety, however, the shortcomings of the operation are very significant. It is impossible for the FSIS to screen all the meat that is processed due to the magnitude of production. Therefore, a decrease in percent positives does not automatically eradicate the proliferation of O157:H7. There are still millions of pounds of meat recalled every year and incidences of infection, which in some unfortunate cases, lead to hemolytic uremic syndrome.

After an unusually large outbreak of *E. coli* infection in 2007, the FSIS responded aggressively. From June to September alone, contaminated ground beef sickened 55 people (Groneberg). In July, the number of samples taken increased from 1,100 to 1,943 (fsis.usda.gov). But, even if the organization had the manpower and laboratory material to take 100,000 samples in one month, not all tainted meat would be detected because 'the specific pathogen is not homogenously distributed in the food, thus a sample removed for analysis may not be representative of the entire lot' (Nikolaos, 26). Despite the practical shortcomings of

preventing *E. coli* contamination of meat, there are certain aspects of production, which also need to be addressed. The salient issue is the economic monopolies wielded by the large slaughterhouses. Cargill, one of the meat producers exposed in the recent *Times* article, makes a profit at the expense of food safety and worker's rights. According to Moss, Cargill spent 25 percent less by using an 'amalgam of various grades of meat' from multiple providers as opposed to whole cuts of meat from one supplier. As Moss points out, the problem is that by using multiple producers, the probability of contamination (not to mention cross-contamination) increases dramatically. It also makes it more difficult to accurately determine the source of contamination when it occurs. Individual producers, mandated by the FSIS, are supposed to conduct their own tests for *E. coli*. But as illustrated by the outbreaks of 2007, they are shirking their responsibility. If Cargill's producers fail to test than certainly Cargill should conduct it's own testing? However, economic incentives and a refusal to assume responsibility inhibit proper safety protocol at the slaughterhouse level: 'many big slaughterhouses will sell only to grinders who agree not to test their shipment for *E. coli*... Slaughterhouses fear that one grinders discovery of *E. coli* will set off a recall of ingredients they sold to others' (Moss). Also, testing takes away precious time from production, which yields the big bucks.

Unfortunately, it is the grinders who get regulated by the USDA even though the tainted meat likely came from a large slaughterhouse. John Munsell, the head of a small grinder, had his operation shut down by the USDA despite the fact that subsequent testing found *E. coli* contamination from ConAgra foods, a large packing plant in Colorado (Groneberg). The

USDA is not regulating the larger companies because they have too much economic and political power. Eighty percent of the country's beef is processed by only four companies (Groneberg). This gives excessive power to lobbying groups such as the National Cattlemen's Beef Association. Therefore, the legal authority of the USDA to fine or shut down slaughterhouses that do not comply with safety regulations is not fully exercised. Also, the massive quantity of meat produced in the U.S. plays another role in curtailing the efforts of the public health authorities. Meatpacking plants slaughter roughly 400 cattle per hour (Groneberg). This high rate is simply too fast for the proper checking of fecal particles and safe trimming.

Despite the belated effort, some progress is being made. In May 2009, President Obama established the Food Safety Working Group, which combines the resources of the FDA, FSIS and CDC in curtailing food borne illnesses. The organization promises to improve food safety through technological innovations, better communication among agencies and legislative reform. The 'National Traceback and Response System' intends to increase the speed of trace back to the source of E. coli. This will be accomplished by linking relevant agencies more effectively, preventing gaps in data reporting (FSWG). The Working Group also plans to alert consumers of specific recalls and safety information on their website. But the most significant reform could potentially take place in Congress. New legislation could give the FDA and FSIS more power over the slaughterhouse monopolies. This will involve reducing the speed of production and the enforcement of fines. Agencies will have greater access to food safety records to determine whether slaughterhouses are combining different grades of meat from

myriad producers. The integrity of grinding facilities may become better protected from exploitation by slaughterhouses. Ensuring that workers get paid overtime for practicing proper hygiene should also be considered.

These are all just practical goals of the Group, which have not yet been achieved. Time will determine whether the government has exercised all of its power to make beef production safe. As mentioned previously, there is no way to completely eradicate the contamination of meat with E. coli. But that is no excuse for the government to not do everything in its power to help keep contamination low. Once meat producers assume mature responsibility, through coercion or conversion, the skeptics can go back to eating their filet mignon and burger deluxe as soon as possible. And for those cooking meat at home, always make sure that you heat it above 160 degrees Fahrenheit!

References

- Groneberg, Tom. "Why our Burgers Still Aren't Safe." *Men's Health* Mar. 2008: 124-129
- Moss, Michael. "E. Coli Path Shows Flaws in Beef Inspection." *New York Times* 3 Oct. 2009
- Nikolaos, John. *Improving the Safety of Fresh Meat*. Cambridge, GBR: Woodhead Publishing, 2005
- National Center for Health Marketing. *cdc.gov*. Center for Disease Control and Prevention, Mar. 27, 2008 (updated). Internet. Oct. 2009
- foodsafetyworkinggroup.gov*. United States Government (FSWG), May 2009. Internet. Nov. 2009
- fsis.usda.gov*. Food Safety and Inspection Service. Department of Agriculture, Sep. 30, 2009 (updated). Internet. Oct. 2009
- midwesthumanrights.org*. Midwest Coalition for Human Rights (MCHR). Internet. Oct. 2009
- Tan, Audrey J. *emedicine.medscape.com*. Oct. 2005.



Coffee: Friend or Foe?

Sabena Gupta

Coffee has become a natural staple in the life of a college student. Even students who have never had coffee in their lives before college feel inclined to give it a try once they arrive on campus, in order to pull off all-nighters and not fall asleep in class. 52% of Americans over 18, including the college student population, drink coffee every morning. However, because of its prevalence, drinking coffee has not been an educated decision for most people. In fact, very few know of the detrimental effects it could have. Different types of tea, on the other hand, are very beneficial for the body and just as accessible as coffee in the morning. With this essay, I will show how coffee can affect one's body badly, and how tea may serve as a much stronger alternative.

One of the more studied detrimental effects of coffee is a rise in high blood pressure and cholesterol, which leads directly to heart problems,--specifically coronary heart disease (CHD). One way this occurs is due to the fact that coffee consumption increases the concentration of certain compounds in cholesterol particles and platelets, thereby raising cholesterol levels in the process and releasing epinephrine (Van Dam 2). The cholesterol increasing is directly related with coffee intake due to low-density lipoprotein, or LDL, cholesterol which is dose-dependent (Sanders 1). For further proof of this, there was a Finnish study in the 1980's during which participants were

monitored by a hospital-discharge registry for heart attacks and related events. This study showed that men drinking about 3 cups of coffee a day were 43 percent more likely to experience life-threatening heart events than men drinking about a cup a day would experience. Men who entirely abstained from coffee suffered the least heart problems. Other factors, such as smoking and diet, were taken into account ("Coffee's... 1). The rising of cholesterol levels was also shown in a Norwegian study, where participants were placed into three groups: the first had to give up coffee altogether, the second had to limit their intakes to 1-3 cups a day, and the third had to drink at least 4 cups a day. Cholesterol levels and other heart risk indicators were measured at the beginning, middle, and end of the trial. The results showed that those in the first group dropped in blood cholesterol by 5%, and dropped in homocysteine levels-- homocysteine being an amino acid that indicates risk. Cholesterol can also increase from oily components of coffee beans, which some filters do not eliminate (Raloff 1). Drinking decaffeinated coffee unfortunately does not make much of a difference. Researchers at Stanford University shows that decaf drinkers may have up to a 7% rise in blood levels of LDL cholesterol. This may have to do with the fact that different coffee beans are used in decaf coffee to give it a stronger flavor ("Decaffeinated..." 1). These are many

studies that conveyed detrimental effects of coffee through heart problems, including CHD, and increases in cholesterol levels.

Coffee is also known to have detrimental effects on the stomach. For starters, coffee tends to create a laxative effect by stimulating wave movements in gastrointestinal tract. In addition, it can cause distress or pain in the abdomen due to not being adequately digested before leaving the small intestine (Seeman 1-2). Another, more prevalent, effect of coffee is irritation in the stomach and ulcer susceptibility due to the acidity. Coffee can stimulate the secretion of gastric acids--decaf coffee does this to an even greater degree than regular coffee by raising serum gastrin levels. In addition, since coffee has a laxative effect, it can allow stomach contents to pass into the small intestine more rapidly than normal. The popular drink, whether caffeinated or not, can decrease pressure in the lower esophagus, contributing to heartburn, acid reflux, and dyspepsia (Rafetto 1). For those who find that drinking coffee can relieve their stress, think again. Coffee, on the contrary, has the opposite effect because it elevates stress hormones including cortisol, epinephrine, and norepinephrine. These hormones increase heart rate, blood pressure, and a feeling of alertness while decreasing the circulation of oxygen to the brain and the strength of the immune system. All of these bodily changes result in a feeling of anxiety (Rafetto 2). Lastly, coffee has a tendency to mess with a neurotransmitter called gamma-amino butyric acid, or GABA. GABA is produced in the brain, nervous system, and GI tract with the purpose of managing mood and stress by exerting a calming effect. Caffeine has been found to interfere with the binding of GABA to its receptors,

preventing it from carrying out its role. This results in psychological stress, which is also known to be a factor in heartburn and ulcer susceptibility (Rafetto 2-3).

Of the many alternatives to coffee, there is one that can have a beneficial effect on a person, and tea may even reverse the bad effects caused by coffee. One way that it can act as a reversal is in the matter of LDL cholesterol. A study done by the U.S. Department of Agriculture found that consumers who drank black tea experienced a decrease from 7-11% of their LDL cholesterol levels, because the body's ability to absorb it is slowed by tea ("Drinking..." 1). In addition, tea is said to act as a protection against heart disease, high blood pressure, some cancers, strokes, and osteoporosis—the first two of which are proven to be detrimental effects of coffee. This protection is thanks to antioxidants and polyphenols contributed by tea. All of this is done while still receiving a boost in energy (Dowd 1). Green and white tea, specifically, stimulates the liver to detoxify carcinogens and potentially kill pre-cancerous cells, as shown by a study done at Oregon State University. Furthermore, white tea extract is said to inhibit the bacteria that cause strep throat and ammonia, according to the American Society for Microbiology, while also increasing the ability of toothpaste to fight cavities, (Dowd 2). The energy boost provided by tea, making it a true alternative for coffee, arises from the natural caffeine in *Camellia sinensis*, the plant from which tea is derived. Therefore, tea is a perfectly acceptable way of enjoying the benefits of coffee, and avoiding its more harmful aspects.

With the numerous detrimental effects of coffee conveyed in this paper, it is my hope that you will reconsider your

drinking habits for energy boosts. Although these consequences seem minimal or unrealistic as college students, they will show their true colors as the years go by and we age. We may, one day, truly regret the constant coffee drinking back in college to stay awake in class or to finish writing that paper due the next morning.

References

"Coffee's curious heart effects". Science News. FindArticles.com. 21 Oct, 2009. "Decaffeinated coffee and cholesterol". Medical Update. FindArticles.com. 21 Oct, 2009. "Drinking Tea May Lower Bad Cholesterol." Tea and Coffee Trade Journal. 2006: 1-2. Print. Rachel Dowd "Give teas a chance: skip the coffee and drink in the healing power of the white, green, or black". Natural Health. FindArticles.com. 21 Oct, 2009. Raloff, J. "Even a little coffee may up heart risk".

Consider drinking tea instead, a viable option that will help you stay awake under the same exact conditions, but by providing you, at the same time, with protection from harmful diseases in the future, rather than rolling out the red carpet for them, as coffee has a tendency to do.

Science News. FindArticles.com. 21 Oct, 2009. Rafetto, Meri. "Effects of Caffeine and Coffee." Teeccino. 2004: 1-4. Web. 19 Oct 2009. Sanders, Tom. "Coffee and cholesterol". Chemistry and Industry. FindArticles.com. 21 Oct, 2009. Seeman, Joy. "Coffee and how it affects the Digestive System." Hemorrhoid Information Center. 2009: 1-3. Web. 18 Oct 2009. Van Dam, Rob M. "Coffee Consumption and Coronary Heart Disease: Paradoxical Effects on Biological Risk Factors versus Disease Incidence". Clinical Chemistry. FindArticles.com. 21 Oct, 2009.



Reflection: Who Wants to be the Perfect Doctor?

Shreya Malhotra

I think I may have been one of three freshmen, sitting in the middle of a large room of 200 students all dressed to impress and vigorously taking notes. A panel of medical school deans lined the front of the room, smiling enthusiastically as they told us about the wonderful opportunities awaiting students that would apply to their schools. I could sense the competition in the room as I listened to everyone's varying opinions on what they pictured as the perfect doctor. The medical school deans reminded us of their purpose: to produce doctors that would ultimately work for the *good of the people*. That was the doctor's sole responsibility, a definition that will never change. And yet there was a strange juxtaposition in the room. The prospective students buzzed, asking each other questions such as "What field do you want to specialize in?" "Really, pediatrics, but you will get paid much more if you're in something like dermatology. We just prescribe pills and cream all day." The students that wanted to pursue pediatrics would admit that they would rather follow something they are passionate about, but the sense of the financial burdens still lingered on their minds.

We all know that beneficence is the ultimate purpose of a doctor, but just by this simple example, financial considerations and lack of time make the "perfect doctor" goal harder to attain. In a doctor's perspective, a patient can be viewed as an entirely complex, variable puzzle, which

may not always fit into the same diagnoses. After all, not each human being is fitted with a pre-designed body and mind. In order to understand an ailment, and ultimately cure it, a doctor must delve into every complexity and most importantly care for the patient during what could be the most vulnerable times of their lives. With such responsibility where the stakes are higher than in any other profession, clearly there needs to be time. Here is where the calamity lies. A number of factors deviate doctors from giving each and every patient equal and efficient care. It could be the health care system that requires doctors to receive compensation depending on the number of patients they can see in a given amount of time or the decrease in pay of primary care physicians. In a busy, rural hospital, I have witnessed doctors setting a time limit on patients even before they step into the room. Regardless of what the specific reasons are for a shift in the mindset of doctors, now they have a much harder time juggling their responsibilities to themselves and to the patients. The ultimate question becomes whether a perfect doctor even exists and is there a balance between meeting the standards required by the managed care system while still keeping faithful to the doctor-patient relationship?

I think this is a dilemma that is becoming more relevant as I decide whether pediatrics is truly the career path for me. There is a stigma about the process and consequences of becoming a doctor. It is sometimes believed that in order to become

a practicing physician, one has to sacrifice their life for their patients. Although it may seem early to be considering this, it is still a human thought that can easily plague those individuals who find it hard to do what is expected of them in the medical field without losing that initial spark. Every doctor must endure mental, physical and financial job stresses, which may blind them from their purpose.

Despite these difficult choices, as humans we must not strive for perfection but to make the best of every circumstance. Perfection, even in the medical field, is an asymptote that can never be reached but nonetheless, can be approached very closely. The current system is going to always force doctors to meet productivity standards, so this adaptability becomes a constant variable. Then the question becomes how one must decide the degree to which monetary rewards should play a role in molding one's practice.

If one is to be truly altruistic, money would play no role when placed against a real life patient. Being a doctor guarantees someone a secure income, but this should not be the primary reason for pursuing this career. Practically however, a doctor has a responsibility to himself, his family and others who financially depend on him and expecting a doctor to sacrifice all considerations of monetary rewards is impossible. However, pay is not usually something a doctor can directly influence without sacrificing care for a patient. Therefore, a doctor needs to provide for a patient despite any outside limitations.

This is why I personally always felt that a doctor should work in an intimate setting whether this was a private practice or a rural area, in which business and managed care had the least influence. This is the ideal setting to cultivate a strong doctor-patient relationship. Essentially, the goal is to have

the most direct relationship with patients while minimizing possible outside influences. There are many ways this can be done. However, this primarily requires a new way of thinking about medicine.

In the issue of balancing a doctor's needs with those of the patients, it must be realized that imperfection is part of the medical field. Errors can be made and any doctor who says that they have never made an error does not exist. Whether this error was the result of malpractice, such as an obvious detail that was overlooked, or from something that was truly unforeseen, is the difference. One of the main ways to reduce this carelessness, whether intentional or not, is to have the mindset that no matter what, time as it relates to productivity is not a factor in the examination of a patient. Without this sense of urgency, a doctor can improve the care he provides a patient. Everything that makes a good doctor – the ability to listen, to truly be aware of the subtleties of the patient and of the extensive environmental, physical, mental, cultural and spiritual factors that affect the patient's health – is a honed skill. Such skills improve with time, experience, and the recognition and hopefully, the improvement of one's own flaws.

Therefore I think that the perfect doctor in any environment is impossible. However, regardless of the changing times and the shift of the managed system, doctors are still treating people, and so the responsibility should not be altered or sacrificed to meet other demands. In a situation that a doctor is pulled in every direction, the need to maintain a sense of purpose is essential. They must have a love and passion for their careers. Being a doctor requires initiative and confidence in almost every aspect. One has to continue learning to keep up with the medical world, take unforeseeable risks, constantly adapt their

methods and face an unknown challenge every day. Further, a doctor has to live up to an expectation that they have the knowledge, care and responsibility to help their patients. The world and the system are not perfect so the solution is entirely dependent how the doctor handles it.

I think that the real dilemma lies in one's own conscience. If a doctor did not do all they could for a patient, which would be the case if he or she succumbed to a mechanical system of seeing medicine as a business, they would not be satisfied with their work. If a doctor had the *ability* to provide for a patient but chose not to do it, they would not be at peace. Finally, a standard needs to be set. If a doctor aims for perfection every day, he or she can be persuaded to go against their gut feeling – that first instinct that can be a powerful force in a successful doctor.

This is something all doctors must expect in themselves. We cannot risk extreme shifts from a completely patient-focused career. This could mean that doctors must come up with creative ways to “get around” the system to make sure they are fair to their patients while still able to live in the real world. Even if this means giving out their email to their patients to open up another path of communication, a doctor must not let the patient feel abandoned, even in the face of whatever external obstacles.



Rushing Medicine

Parth Vaghasia

Rush, rush, rush. Hurry, hurry, hurry.
The patient might die on the table,
And ev'ry doctor's in a worry.
Hit by a car while crossing the street,
Traumatic bleeding and concussion.
Docs working, blood dripping from the sheet
On to the emergency room floor
Right when the PA system comes on:
"Dr. 'So-and-So' code red on four"
"I have to go," said he to the nurse,
And off he went as quick as he came.
The bleeding continued- getting worse.

Running up the stairs, three steps a hop
Zooming through the hall, passed a fam'ly
Who was mourning the loss of their pop.
More families praying in the hallway.
He didn't even notice them there.
An old lady with something to say
Stood there, her face thin, her hope thinner.
Her husband should've been out and they
Were supposed to be home for dinner.
She looked to the doc for an answer,
But, speeding, he didn't even look.
"Oh, please, God. Did he survive cancer,"
She asked, as the doc's coat followed
Behind him in the wind of his rush.
She sat down slowly, her tears swallowed.

The doc threw open the double doors.
The sign above: "Cardiology"
The doc had heard the bellowing roars
From across the room, passed the nurses.
The patient was screaming through the pain.
The nurse explained over his curses:
"Male. Forty-five. Had surg'ry last week.

Went in and out of fibrillation.
Lift up the blanket and take a peek."
The doc revealed bleeding in his chest.
"The incision never healed closed,
There must be a leak within his breast."
The doc got up and walked to the wall.
He grabbed the AED machine.
Screaming. Beeping. Silence. And a call.
The doc's hospital cell phone- ringing.
The voice: "Third floor in Pediatrics.
A nine-year-old girl just clinging
On to her life. Code blue. Quick, hurry!"
"I have to go." Said he to the nurse.
With that, he was gone in a flurry.

Jumping down four steps at a time,
He knocked over a janitor, but
His phone rang again, "Yeah, I know. I'm
Coming right now." The janitor stared
At the hurrying doctor, no time
To say sorry or show he cared.
Finally, he was there, greeted by
A hysterically crying mom:
"Please! My baby, my baby! She'll die!"
Mom pulled him into the girl's room.
The nurse looked up, and gave him the file.
The lil' girl screaming. In her face: gloom.
"Give her five milliliters dextrose,"
Said the doc looking down at his beeper.
"That's it? She's in pain!
What'd you suppose
It is?" The doc looked at her blankly.
"It will relieve the pain, we'll run tests
Tomorrow. All I can do, frankly"

The call sent him back where it began:

At the emergency room center.
He took a seat, stressed out, and tired.
He looked over to the doors. Read: "Enter"
Nurses hoisted a body in a van.
It was the women from just before.
Standing next to the van was a man.
He was sobbing. He looked terrible.
The doc would not know the feeling of
Losing somebody. It's unbearable.

Meanwhile, a woman also crying
Crossed the empty lobby towards the
Exit. She passed the doc while sighing.
She looked at him. Right into his eyes.
She recognized them from just before.
"He doesn't know what they are- goodbyes,"
She thought, as her eyes glazed again.
She's just another woman to him:
Old. Wrinkly. Thin skin, seeing ev'ry vein.
But she had just gotten all the news
After waiting three more hours than
She should've. The one thing she'd to lose:
Her husband, her partner, her best friend.
Gone forever. The doc had the chance
To ease the tension, or to extend
His hand, in the midst of all the rush:
Answer a simple question. Maybe
Ease the effects of the blowing crush.
But he didn't, he went on moving.
He blew right past her not even to
See her there. Only further proving
What medicine has become today.

A phone rang. A nurse answered it.
"Um, sir, it is from pediatrics."
The voice was blaring in a big fit.
The doctor had prescribed the wrong thing.
It relieved the pain, but soon after
She had a reaction that would sting
Her. "Must have made a mistake in the chart,"
He said, "But is the boy doing fine?"
"It's a girl, but she has a big heart,
And she is doing better than fine.
She has a couple rashes and had a seizure,
But she's been sleeping since about nine."

At that moment a stretcher came by
And crossed the emergency room
With a body. "Is that... the... same guy?
From cardio just an hour ago."
Thought the doc as he sat there, thinking.
In the same van he went- tag on his toe.

Another woman was passing through.
This one was middle aged, but the doc
Did not know from where he knew
Her, but she was familiar to
Him. "Maybe a patient," he was thinking.
If he'd taken his time, he'd a clue
As to who she was or what to do.
She knew him, though. She couldn't forget.
He was the man who made her daughter
Suffer through pain she wasn't s'posed to
get.

If he'd just taken time in the chart,
He wouldn't have given the wrong thing.
She wouldn't have seized. The mother's
heart
Wouldn't have to break in great despair
Of watching her own daughter suffer
And be hurt. He could've saved her scare.

But that is the healthcare of today.
Hospitals are no longer the same.
Its mass production wellness you pay
For these days. Not the one-on-one care
Giving that you used to be given.
It is now doctors that might just "spare"
You a time slot to talk about what
It is that is bothering you at
Just that moment in time, right there, but
Miss the big picture of who you are;
Not just what is written on a chart,
But you as a person - a bright star;
Somebody who they used to serve.
Today, it is about how many,
Not how good. Moving around with verve,
Trying to get to hundreds of us
But out of a hundred, helping none.
With no time to chat or just discuss.

For this, a husband lost his dear wife.
Hit by a car while crossing the street.
Due to rushing, she has lost her life.
For this, a poor man saved just to die.
A week after a life saving surgery,
His life was lost to a rushing guy.
A mother had to watch her very own child
Suffer just because a doc had rushed.
Just 'cause his night was a little wild.
If he had just stopped and slowed down.
Maybe see the color of the girl's eyes,
Called her by her name, and looked around
To see her mother caring so much,
Maybe then he would've done what he
Had to and it wouldn't be like such.
Maybe if he didn't go in a rush,
He could stop, think, and act. Do what a doc
Is s'posed to. Then he wouldn't have to push
To help "more" but to help "enough"
'Cause today, docs don't have it like they
Used to. Being a people's person is tough.
A woman who cared for her husband
Did nothing wrong, but wait for the rush
To die down. Just to hear: "The End."



Prognosis: Unknown

Marcus Cimino

It's late. You need help; it might be a simple change of bandages that you do not know how to do properly, or a more serious issue such as your loved one is not responding to the medication given, or the sutures reopened after surgery. You call your doctor, because he gives out a number to his patients to use if it is after office hours. He answers the phone and if he cannot help over the phone, he will come over to see what he can do. After traveling thirty or forty minutes, he arrives with all of his necessary equipment. He quietly listens to the problems again and does the necessary procedures to stabilize or make the patient comfortable. Once everything is in order, he drives home to his family who may already be asleep. He quickly eats dinner if he had to miss it, and goes to sleep as soon as possible. After all, he may have to go into the office to see his patients or he may be on-call for the emergency room. But he does not complain or pity himself. No, he feels satisfied in what he does. He studied for at least 12 years to get where he is today and he does not have any major regrets in the life he chose.

If I were to ask you how common this practice was today, many of you would say, "times have changed, this is not feasible anymore". After all, with medical malpractice lawsuits (of which some are warranted) driving up the cost of insurance that doctors have to pay, and the relentless bureaucratic gymnastics required to get a

code processed by insurance companies for payment, doctors cannot afford to expend their energy in such gratuitous ways. Technically, it is not part of their job description. Doctors just try to get through each day with the knowledge that they advised and treated their patients to the best of their ability. Unfortunately as a result, the quality of care has been deteriorating over the years in this regard.

But it is not only doctors who have been suffering from deteriorating health care; the patients have the largest financial burden. If a patient is deemed to be able to pay it or if an insurance company will not cover it, the fees themselves become malignant and can ruin a patient and his or her family financially.

President Obama has seen the people's struggle with their medical bills and the insurance companies inefficient use of money. That is why one of his top priorities is to overhaul health care and revamp it so that a greater proportion of our country (ideally all) has access to affordable quality care. Concurrently, any changes President Obama implements should simultaneously decrease the money wasted, thereby lowering the deficit.

Most people I have talked to, regardless of their party affiliation, feel that the health care system needs to change. Ask people how to change it, and you will not only get a myriad of responses, but also arguments on the topic. In fact, as I am writing this, congress is

deliberating the basic components of the health care system. The talking heads have been commentating on the stances of the politicians, insurance companies and people. There has been one group that has been quiet in comparison: doctors. Many physicians believe that medical care needs to be improved (http://www.pnhp.org/about/about_pnhp.php). Up until recently the AMA even supported the health care bill (Senate Democrats Hit Snag With Doctor Payment Bill). There are many questions that arise regarding the healthcare bill. Can this new bill provide what the doctors need to perform their profession to the best of their abilities? Will they be protected while having the freedom to do what they feel is right? What does the future of medicine look like, for the sake of those already in medicine and to the future medical professionals of the United States?

Currently, doctors have evolved the way they care for patients so that they can pay off their medical school bills and make a decent living. According to an article from CNNMoney.com, many doctors owe “\$140,000 on average in medical school debt”. One doctor quoted from this article has chosen to overcome this by having the state of Mississippi pay down part of the debt if he works in an underserved area, and “[sees] 30 to 35 patients a day, sometimes only 7 minutes per patient”(Family doctors: An endangered breed). Although his case is not the norm, it is common for family physicians like him to be forced to sacrifice the doctor-patient relationship in order to maximize the amount of patients seen and the volume of payments received. Abraham Veghese, Professor and Senior Associate Chair for the Theory and Practice of Medicine at Stanford University, summarizes this idea: “Cut, poke, sew, burn, insert, inject, dilate,

stent, remove and you get very well paid; if you learn how to do this efficiently, maybe set up your own outpatient center so you can do it to more people in a shorter time”(The Myth of Prevention). As a result, many doctors will concern themselves with the business aspect of their careers, doing procedures and ordering superfluous tests for the patient.

Not all doctors practice medicine this way. Imagine that an emergency room physician sees one thousand patients with the same symptoms: chest pain, and a cough. After taking down their symptoms and reviewing the results from the simple blood workup, he decides that ninety-nine percent of the patients only need antibiotics. For the other 10 patients he orders a MRI and/or an X-ray to get a closer look at their thoracic cavity (chest) because he believes their problems are more serious.

Now, if each MRI/X-ray order cost 500 dollars, and these patients were either on Medicaid or what is referred to by Hospitals as charity care (no insurance), these tests cost \$5,000. As for the other 990 patients, the doctor just saved the hospital \$495,000. As reimbursement, many of the patients would have to pay a minimum co-pay of \$25 while he may have spent as much as 2 hours on that one patient. Most likely, it will not be worth any more of his time to do the paperwork for this check. Is he rewarded for his choices which saved the hospital nearly half a million dollars? No. Now imagine the same scenario. This time, unfortunately, he was wrong about one of the patients who he just prescribed antibiotics which were not appropriate for a much more insidious disease. The pain and suffering caused grief for him and his family. Due to the improper diagnosis from a lack of the results of an x-ray/MRI,

the ailment resulted in a much greater financial burden because he had to be hospitalized. The family files a lawsuit against the hospital and the physician. Is the doctor or hospital protected? No. Despite the best judgment of the physician, in the eyes of the law, it was his choice to not get the extra test. He and the Hospital are liable as a result. In addition, many states have very high caps, if any, on how much the patient can sue for. For example Pennsylvania has no cap in many situations (Pa. malpractice reforms could set the pace for other states - Health Law). Due to one misguided choice, the doctor and hospital now have a financial burden of paying for part of the settlement from the trial. Without tort reform, the regulation of medical malpractice lawsuits and appropriate settlements, the vicious cycle will perpetuate where the premiums for doctors' malpractice insurance will rise and some, if not all, of the cost will be passed on to you, the patient.

President Obama and his cabinet have identified this a problem they intend to solve. The President and his team and legislators have included a few solutions to this problem in the health care reform Bills. The desired result being Doctors are protected and properly compensated for treating the many that are uninsured. Using the massive amounts of research on cost-effectiveness of procedures and treatments, the new health care reform will provide monetary incentives for doctors who follow the guide lines while also providing protection against lawsuits for those physicians who follow the guidelines. This seems like a sensible option that would allow doctors to do what has been deemed appropriate by research while being compensated fairly (Barack Obama and Joe Biden's Plan).

Doctors Groopman and Hartzband wrote an article in the Wall Street Journal that analyzes these objectives of the Obama Health Care Plan and found some serious flaws. Some of the "best practices" that is determined by research and a committee formulates a protocol that would most likely work for the average patient (Barack Obama and Joe Biden's Plan). Unfortunately, Patients rarely fit the exact mold of average. Many of these studies do not include "patients with more than one medical condition and often the elderly or people on multiple medications"(Sorting Fact From Fiction). Additionally, they cite an article from the Ottawa Health Research Institute which states that in as little as 5 ½ years, half of the conclusions derived from clinical studies will be contradicted: the very same kind that will determine the "best practices" (BARACK OBAMA AND JOE BIDEN'S PLAN).

Even for those findings that are not contradicted by those from another study, their results could easily be interpreted differently among doctors. One doctor's recommended course of treatment could be different from another. In March 2003, the Journal of General Internal Medicine had a study that showed that in a clinic with 100 consecutive patients who all had high cholesterol, 52% would be treated with statins in the U.S., while only 26% in Germany (Sorting Fact From Fiction). While statins are approved for lowering cholesterol, each doctor has the capacity to choose whether it is appropriate for their patient, and from the results of this study, it appears this may not be a uniform decision. The necessity for a specific medicine or treatment is dependent on the Doctor's training and opinions he has formulated through his own experiences. This shows that given the same

circumstances, the doctor and patient may choose the course of action that works best for the patient, not the “best practice”.

Yet, if doctors are rewarded and protected by lawsuits for strictly following the guidelines set forth by the government, then, despite assurances by politicians, it would be a bureaucratic organization that determines health care (Sorting Fact From Fiction). The reason for this is that the physician and hospital will risk a chance of a lawsuit if they deviate from the recommended course of treatment as prescribed by the government. Not only would this interfere with the treatment of the patient, but it also may be incongruous with the patient’s beliefs and values. I wrote an article for the Medical Dialogue Review discussed this issue. In certain cases, it can be difficult to respect the patients belief system while giving proper medical care. If the “best practices” force the patient to follow a procedure that conflicts with his/her faith then this not only takes the autonomy of the patient away, but also his/her religious freedom (Have Faith in Medicine, Sorting Fact From Fiction).

Realistically for the new health care plan to achieve its goal of quality health care, it cannot prevent doctors, physicians and surgeons from doing the things they deem necessary for their patient. Simultaneously, if President Obama wishes to include tort reform, it cannot be contingent on following guidelines put in place by politicians that may not be in the best interest of the patient. I suggest we increase payment to doctors for Medicare and Medicaid patients, while expanding the number of patients it covers and the funding to these groups already in place. Although I do not know the costs or the logistics of implementing a new health care plan, it

seems advantageous (not to mention cheaper) to build and improve upon infrastructure already in place. Also, I believe that having a national cap on malpractice lawsuits will deter the filing of frivolous lawsuits and thereby decreasing the premiums for doctors. They can then pass the savings on to patients and worry less about the volume they see. This would strengthen the doctor-patient bond and physicians will be less likely to run extraneous tests for the sake of making more claims to the patients’ insurance companies just to make more money. Further savings would then be passed on to the patients.

Remember that “nostalgic” scenario I described at the beginning of this piece? I did not make it up and it is nostalgic only if you consider a night this past summer long ago. The doctor I describe is my father, Dr. Ernest James Cimino. He is a Plastic, Reconstructive and Cosmetic Surgeon (nothing like Dr. 90210, thankfully) and studied for 15 more years after High School. He makes house calls when his patients are in need, does not charge for consultations nor try to force a patient to do a procedure that he/she does not want, despite the exorbitant medical malpractice insurance premiums he incurs. The patient in the scenario was someone who had been seeing my father for 20+ years. He passed away this autumn due to a situation unrelated to my father’s work on him. While he was hospitalized, Dr. Cimino stayed in contact with the family to make sure they understood what was going on with their father despite not being his primary physician. After he passed my father and mother, a nurse, who works along side my Father, attended the funeral.

Few physicians do that today, and while my Father may seem like an

exception we must remember why most doctors go in to the profession in the first place. The late nights, the selfless acts, the compassionate behavior: they want to do this because it is ingrained in who they are.

References

“About PNHP.” <http://www.pnhp.org/about/about-pnhp>
Cimino, Marcus. “Have Faith in Medicine.” Medical Dialogue Review. Volume 2. 2007- 08. Pp. 5-7.
<<http://meddialogue.org/sitebuildercontent/sitebuilderfiles/MDR0708.pdf>>
“Barack Obama and Joe Biden’s Plan to Lower Health Care Cost and Ensure Affordable, Accessible Health Coverage for All.”
<http://www.barackobama.com/pdf/issues/HealthCareFullPlan.pdf>
Groopman, Jerome and Hartzband, Pamela. “Sorting Fact From Fiction on Health Care”. The Wall Street Journal. Aug. 31, 2009
[Herszenhorn](http://www.wsj.com/articles/SB10001424052970204005504574235751720822322.html), David M. and Pear, Robert. “Senate Rejects

So lets create a Health Care Plan that lets the doctors of today and tomorrow heal and care for the weak without worrying about making a living and paying off debt.

‘Doc Fix’ Spending Bill, as Some Democrats Side With Republicans.” Oct. 21 2009.
<http://prescriptions.blogs.nytimes.com/2009/10/21/senate-rejects-doc-fix-spending-bill-as-some-democrats-side-with-republicans/?scp=5&sq=AMA&st=cse>
Kavilanz, [Parija B.](http://www.wsj.com/articles/SB10001424052970204005504574235751720822322.html) “Family doctors: An endangered breed.” Jul. 18, 2009
http://money.cnn.com/2009/07/16/news/economy/healthcare_doctors_shortage/
Verghese, Abraham. “The Myth of Prevention.” The Wall Street Journal. Jun. 20, 2009.
<<http://online.wsj.com/article/SB10001424052970204005504574235751720822322.html>>



Medical Dialogue Review

www.med-dialogue.org

Editor-in-Chief: Jen Zhu, email jzhu@nyu.edu

Join the Medical Dialogue Listserv by sending a blank email to:

Join-medical-dialogue-club@forums.nyu.edu