

## Chiropractic and Wellness Care

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Many critics of our health care system make the point that what we really have is not a health care system but a disease care system. Our system is designed not to maintain health but to treat disease. A number of commentaries in these pages and elsewhere suggest that this deficiency in our health care system is one that the chiropractic profession can and should exploit, and that chiropractors should define themselves as "wellness practitioners." Indeed, many in the profession see this idea of delivering wellness care rather than disease care as an obvious and natural extension of chiropractic principles.<sup>1-6</sup> While not representing precisely the same points of view, a number of these commentaries argue that the principles of wellness care could or should serve as the unifying principle or paradigm around which the chiropractic profession defines itself. Yet this principle of wellness care, which seems to have become a central tenet of chiropractic, remains largely unexamined.

Beyond asserting its virtues, advocates have not described exactly what they mean by wellness care, have not explained how the individual practitioner implements wellness care, and most importantly, have not described what specific services would be delivered by wellness providers. This paper will examine the principles and limitations of wellness care in general and of chiropractic wellness care in particular and argue that it does not represent a useful model for the chiropractic profession. Alternatives to wellness care as a model for chiropractic will be offered for consideration.

### What is Wellness Care?

The underlying premise of wellness care is that the focus of care should be directed away from treating disease and toward promoting good health. Another way of stating this is that wellness care concentrates on two areas: disease prevention and health promotion.

Long before our current interest in wellness care, the logic of this principle was recognized: "An ounce of prevention is worth a pound of cure." On the face of it, it seems difficult to argue against such an idea. However, as attractive as the idea of wellness care is in principle, difficulties arise when attempting to implement it, particularly if wellness care is intended to be delivered within the context of the traditional doctor/patient relationship.

Beyond the general principle of disease prevention and health promotion, what does wellness care actually consist of? Wellness care can be broken down into three different components:

- Health Risk Assessment and Lifestyle Modification

- Disease Screening
  
- Preventive Intervention

Each of these components will be examined as to how they are currently administered, how chiropractors could administer them, and the limitations of each component.

### Health Risk Assessment and Lifestyle Modification

It is widely recognized that many of our health problems are behaviorally based. If we can identify what types of behavior are risky, we can educate our patients as to these risks and help them modify their behavior accordingly. Thus there are two parts to this enterprise: 1) identifying, usually through population studies, specific risk factors for certain diseases (smoking as a risk factor for lung cancer, high serum cholesterol as a risk factor for heart disease, etc.), and 2) changing patients' behavior.

### Identifying Risk Factors

There is no point in prescribing radical changes in lifestyle unless there are reliable data that support such a change. Cigarette smoking certainly satisfies this criterion. No one outside the Tobacco Institute doubts the causal relationship between cigarette smoking and disease. But in no other case is the relationship between a particular behavior or lifestyle and disease as clear cut as it is with smoking. In no other case does behavior impact health as profoundly as does smoking.

Consider for example the relationship between cholesterol and heart disease. For almost a generation, cholesterol lowering, either through diet or medication, has been the cornerstone of heart disease prevention. This policy is based primarily on data from the Framingham study which showed an association between elevated serum cholesterol and heart disease. In this investigation, virtually the entire adult population of Framingham, Massachusetts, was monitored for years and their health history and habits examined. It was hoped that by discovering risk factors for certain diseases, those risk factors could be modified and the diseases prevented.

The Framingham study found a correlation between elevated serum cholesterol and heart disease. This finding, coupled with the observation that cholesterol deposits are found in atherosclerotic plaques, led researchers to conclude, not illogically, that coronary artery disease might be prevented, or at least slowed down, by lowering serum cholesterol. The lowering of serum cholesterol has thus become the cornerstone of heart disease prevention programs. There is even a major PR campaign that asks, "Do you know your number (serum cholesterol)?" as if our entire well-being could be reduced to our serum cholesterol concentrations.

Several assumptions underlie the practice of cholesterol lowering as a prevention of heart disease. First it assumes that the relationship between elevated cholesterol and atherosclerosis is causal: atherosclerosis is caused by elevated serum cholesterol. Other interpretations are possible however. Atherosclerosis and elevated serum cholesterol may both be secondary to some other factor or caused by another underlying disorder. It further assumes that elevated cholesterol is a significant enough factor in the development of heart disease that its lowering will yield clinically significant benefits to the patient. Even if cholesterol is causally related to atherosclerosis, it does not necessarily follow that it is the only, or even an important cause.

What the Framingham study failed to show was whether lowering cholesterol would in fact lower morbidity and mortality from heart disease. Undeterred by this lack of evidence, an entire industry

has evolved around the business of cholesterol lowering. Eventually clinical trials were conducted to test the cholesterol hypothesis and as those results came in, doubts emerged. The benefits of cholesterol lowering turned out to be modest, or nonexistent, or there was an actual increase in overall mortality rates in patients taking some cholesterol lowering drugs. In addition, other epidemiological studies came to different conclusions regarding serum cholesterol and mortality rates. One study by Harris et al., found no increase in mortality in even the highest cholesterol groups.<sup>7</sup>

Thomas J. Moore, a fellow at the Center for Health Policy Research at George Washington University, has studied the cholesterol debate and makes the following observations:<sup>8</sup>

- A majority of heart disease deaths occur in those with relatively normal cholesterol levels.
- The Framingham study showed no differences in the diets among those with heart disease and those without heart disease.
- The correlation between elevated cholesterol and heart disease is relatively weak at moderately increased serum levels and only becomes significant at the extreme, i.e., above 280mg/dl.
- The clinical trials of cholesterol lowering drugs showed a modest decrease in heart attack deaths, but an overall increase in mortality compared to controls.
- Of seven clinical trials of diet therapy, only one succeeded in showing any decrease in heart disease mortality and that was only a very small decrease.

Several studies have attempted to calculate, using mathematical models, the benefits of cholesterol lowering in terms of extended lifespan. These studies optimistically assume that lowering serum cholesterol will result in a corresponding lowering of heart disease mortality, an assumption that remains unproven. Even making this assumption, the benefits of cholesterol lowering were found to be very modest, ranging from days to months in increased lifespan. One of the studies considered serum cholesterol levels between 180 and 300mg/dl in patients who otherwise had low risk factors and calculated: "a gain in life expectancy of three days to three months from a lifelong (my emphasis) program of cholesterol reduction."<sup>9</sup>

Given the fragile evidence for the benefits of cholesterol lowering, the medical profession has belatedly begun to re-examine its anti-cholesterol campaigns.

In 1992, the journal *Circulation* reviewed the available data on cholesterol and heart disease and concluded:<sup>10-11</sup>

1. There is an association between low blood cholesterol and increased non-cardiovascular deaths in men and women.
2. There is no association (causal or otherwise) between high blood cholesterol and cardiovascular deaths in women.

3. Primary prevention trials of cholesterol intervention in men and women (both diet and drug therapy) show no net benefits in decreased mortality rates. (Some show increased mortality rates.) It concludes by stating that: "We need now to pull back our national policies directed at identifying and treating high blood cholesterol."<sup>10</sup> The British Medical Journal reached a similar conclusion: "The cholesterol lowering enterprise threatens to turn a large percentage of the healthy population into patients, at a substantial cost to the NHS (National Health Service)."<sup>12</sup> Curiously, in spite of this evidence, there has been little change in the policy regarding heart disease prevention and cholesterol. One critic of cholesterol screening programs ponders: "One wonders whether the cholesterol dogma is falsifiable by any conceivable observation."<sup>13</sup>

A correlation has also been discovered between not eating breakfast and heart disease. It was assumed that this relationship was causal, and that by eating breakfast you can protect yourself from heart disease. From this rather thin evidence comes the recommendation that "eating a good breakfast" is part of a healthy lifestyle. Upon reflection, it turns out there are more plausible explanations for this correlation between breakfast eating and heart disease. The type of person who doesn't eat breakfast is the type of person who tends to sleep later in the morning, and stay up late at night, which is a lifestyle associated with other risky behaviors. However, the admonition to "eat a good breakfast" has survived this re-analysis.

In addition to the problem of determining whether risk factors are causally related to disease, there is the question of the magnitude of the risk. The relative risks of smoking are very high. Lung cancer is 15-20 times greater in smokers than in non-smokers. An estimated 95 percent of lung cancer is smoking related. The absolute risks of smoking are also significant. The decrease in life expectancy among smokers compared to non-smokers can be measured in years. Once again, smoking is the exception. For example, dietary fat has been associated with an increased relative risk in a variety of diseases. A recent study found an 80 percent increase in the risk of prostate cancer among men eating a high fat diet.<sup>14</sup> This sounds alarming, but what does this really mean? Less than it seems, as it turns out. While the relative increased risk, 80 percent is large, the absolute risk is small. Another study calculated the potential effects of lowering fat consumption, not just on prostate cancer, but also on breast cancer, colon cancer and on heart disease.<sup>15</sup> It concluded, again assuming optimal compliance and causality, a benefit of three to four months of added longevity. The study assumes that these are overestimates and that real world benefits will be much lower. It also concludes that this modest benefit would be realized by those over 65, i.e., not in preventing premature deaths. The absolute risk of a high fat diet is not nearly as large as suggested by the relative risk.

### Changing Patient's Behavior

Assuming that a risk factor has been accurately identified, the next question is how to change behavior. The first step is education. Most wellness programs are predicated on patient education. The physician first identifies risk factors in a patient's lifestyle, informs the patient of those factors and then instructs the patient on how he or she might change the behavior. The problem with this is that there is very little evidence indicating that having information about risk factors has any bearing on patients' behavior. The best predictor of risk factor behavior is not whether the person is informed about those behaviors, but socioeconomic status.<sup>16-17</sup>

This conclusion, that education about risk factors has a minimal effect on behavior, is most dramatically seen in smoking. With the possible exception of those employed by the tobacco

industry, everyone knows that smoking is hazardous. In fact, a study of active smokers found that they significantly over-estimated, by a factor of three or four times, the risks of smoking.<sup>18</sup> What would it mean to educate such a patient about smoking? "I see you're a smoker, Mr. Smith. While I want to encourage you to quit, let me reassure you that dangers of smoking are probably far less than you think." The reason that people use tobacco is not because of a lack of knowledge about the effects of tobacco.

Obesity presents similar problems. No one doubts that excess weight is an important risk factor for a number of conditions. No one wants to be obese. The problem is in changing behavior. Whether people follow commercial weight loss programs like Weight Watchers or medically supervised programs like Optifast, the results are uniformly and distressingly poor.<sup>19</sup> Long-term significant weight loss (the only kind that is going to have beneficial health effects) is achieved in only a very small percentage of patients. Most patients regain all their weight loss, and often even more. This yo-yo type of dieting is itself considered to be a health risk factor. One is entitled to ask, would some patients who have had repeated unsuccessful efforts to lose weight be better off never having tried to lose weight? For many people, the answer is yes. The potential benefits of weight loss must be balanced against both the physical and emotional harm of failed efforts.

The most ambitious effort ever made to identify coronary risk factors and modified behavior in individual patients was recently conducted. This British study used specially trained nurse practitioners to monitor patients' blood pressure, cholesterol, glucose, weight, smoking behavior and to deliver appropriate counseling, education, or treatment. The results were disappointing. After one year there was an estimated 12 percent reduction in coronary risk. This 12 percent reduction would be realized only if the improvements were maintained over the long term, an outcome that by on means can be assumed. Additionally, the researchers noted that the level of intervention in this study was far more intensive than could be delivered by most practitioners, and that real life benefits would be even smaller. They concluded that the government's screening policies could not be justified by these results.<sup>20</sup>

The fact that risk factor behavior are not under the direct control of physicians, does not suggest that we should ignore them. It does suggest that the chiropractic profession must be realistic about what it can and cannot deliver in this form of wellness care. Perhaps the profession can develop more effective behavior modification programs than others have been able to develop. It is not obviously apparent that there is any expertise within the profession to do so.

In spite of this rather pessimistic view of changing lifestyle factors, it is a fact that in the last 25 years, there have been dramatic changes in most of these behaviors. Fewer people smoke, fewer people drink and drive, more people wear seat belts, more people get regular exercise, and our diets are lower in fat. Something has happened to change all this.

Again consider smoking as an example. In the last 30 years, the percentage of smokers in the population has diminished from about 50 percent to less than 30 percent. Cigarette smoking is considered to be one of the most powerful addictions known, yet there are now 40 million ex-smokers in the United States. How and why did these people quit? The surprising answer is that nearly all, 95 percent, quit spontaneously, without the benefit of any formal treatment program or other intervention.

What has occurred over the last 30 years is a profound cultural change in our attitude regarding smoking. We have gone from Robert Young smoking cigarettes on "Father Knows Best" to the point where lighting a cigarette instantly identifies the villain in a movie. When President Clinton smoked a cigar while golfing, it made the network news. Almost all states have significant restrictions on

smoking in public places. One can no longer smoke on commercial airline flights within the U.S. In Minnesota, self-conscious groups of office workers huddle together against the January cold taking a cigarette break in the only allowable place, outside. Cigarette smoking has come to be regarded not just as a health hazard, but as a moral failing and evidence of a defect of character.

We can see similar patterns of attitude change relative to other risky behaviors: drunk driving, driving without a seat belt, sedentary lifestyles, eating fatty food, etc. All these risky activities have acquired a stain of disapproval that goes well beyond their effects on health. All of these risky behaviors are far less common than they were a decade or two ago. While all of these changes in behavior were set in motion by health concerns, the behaviors changed only to the extent that other more potent motivation supplanted abstract concerns about health. The abstraction of dying of lung cancer or heart disease 30 years hence seems to be far less effective as a motivating factor than does being perceived as weak willed or unattractive. Jane Fonda is probably responsible for more people exercising than all cardiologists combined. The fact that many who exercise to Jane Fonda video tapes do so in the mistaken belief that they will begin to look like Jane Fonda does not diminish the significance of this fact.

The point is that these dramatic and beneficial changes in lifestyle have very little to do with interactions between individual doctors and their patients. The most effective way of changing behaviors is by making them inconvenient, expensive, socially unacceptable, even illegal. That is done, not through a doctor's office, but through legislation, in schools, the workplace, and even in Hollywood.

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