

August 2004

Lack of Physical Activity more Deadly than Smoking

A new study has found that life without regular exercise is more deadly than smoking.

The study of Hong Kong residents aged over 35 who died in 1998 found a lack of physical activity caused more than 6,400 deaths a year, compared with just over 5,700 from smoking.

The research, carried out by the University of Hong Kong and the Department of Health, interviewed the relatives of 24,079 people who died in 1998 about the amount of leisure-time physical activity the deceased engaged in during the decade before their deaths.

Physical activity was defined as any form of activity or exercise outside work. The authors calculated that about 20 percent of all deaths in Hong Kong people aged 35 and above could be attributed to a lack of physical activity. This amounted to 6,450 deaths. Deaths due to physical inactivity (6450) exceeded those due to smoking (5,270) in 1998.

Only 29 to 36 percent of the men who died had been active at least once a month, and 30 to 36 percent of the women. Furthermore, the study found that the risk of dying from cancer increases 45 percent for men and 28 percent for women in those who do not participate in regular physical activity. The risk of dying from respiratory ailments soars 92 percent for men and 75 percent for women, while the rise of dying from heart disease rises 52 percent for men and 28 percent for women.

The authors concluded,

“The present data confirm and extend previous findings in Caucasian populations on the association between leisure time physical activity and longevity. The population attributable risk from physical inactivity exceeds that due to tobacco smoking...”

Reference: Lam TH, Ho SY, Hedley AJ, Mak KH, Leung GM. Leisure time physical activity and mortality in Hong Kong: case-control study of all adult deaths in 1998. *Ann Epidemiol.* 2004; 14:391-8.

Chiropractic in a Complementary and Alternative Medicine Clinic: Evidence of Improved Quality of Life

The purpose of this study was twofold:

1. to design and implement a practical data collection system capable of obtaining pain and quality-of-life outcome measures in a complementary and alternative medicine (CAM) outpatient clinic and,
2. to evaluate changes in patient status over time using these objective measures.

This prospective study was carried out in an outpatient practice based setting (at Special Care Holistic Wellness Connection).

Inclusion criteria consisted of: a starting pain level of 2 or more, subjects receiving 3 or more treatments in a specific modality, and a completed SF-12v2 Health Survey

A total of 94 subjects were evaluated for acupuncture, chiropractic, or naturopathy.

The authors report that an outcome measures data management system was successfully implemented into a CAM outpatient clinical setting. Significant decreases in pain were observed in

subjects receiving acupuncture, chiropractic, or naturopathy. In addition, improvements in various subscales of the SF-12v2 Physical and Mental Health categories were observed for each CAM treatment modality studied.

It is concluded,

“This study established that a practical data collection system could be implemented in a CAM clinic utilizing several treatment modalities. In addition, outcome measures demonstrated both a significant reduction in pain and improvement in quality of life for subjects who utilized acupuncture, chiropractic, or naturopathy treatments.”

Reference: Secor ER, Markow MJ, Mackenzie J, Thrall RS. Implementation of outcome measures in a complementary and alternative medicine clinic: evidence of decreased pain and improved quality of life. *J Altern Complement Med.* 2004; 10:506-13.

Chiropractors are Not a Usual Source of Primary Health Care

Chiropractors are the largest source of office-based care in the United States that does not involve a physician, but people do not view chiropractors as primary providers of health care or advice.

Reference: McCann J, Phillips RL, Green LA, Fryer GE. Chiropractors are not a usual source of primary health care. *Am Fam Physician.* 2004; 69:2544.

Quality of Life Philosophy

These researchers, from the quality of Life Research Center, Copenhagen, Denmark, asked 10,000 people about their quality of life with a validated quality of life questionnaire. How content were they with their lives? How happy were they? Did they feel their needs were fulfilled? And many more questions. The researchers asked the questions they believed to be important in relation to quality of life (QOL).

The results were quite surprising and forced the authors to start to reconTEMPLATE the following philosophical questions: What are quality of life, happiness, and meaning in life? What is a human being? Do we need a new biology? Is the brain the seat of consciousness? How do we seize the meaning of life and by doing so, will we become well again? What are the key concepts of quality of life?

The meaning of life is connectedness and development. It is about realizing every opportunity and potential in one's existence. The opportunities must be found and acknowledged. What do you find when you find yourself deep down? You find your real self and your purpose in life. You realize that you are already a part of a larger totality. Antonovsky called it "coherence". Maslow called it "transcendence". Frankly called it "meaning of life". We call it simply "being".

To test if these philosophical questions are actually relevant for medicine, the authors looked at the consequences for patients being taught the quality of life philosophy. Quite surprisingly the researchers learned from their pilot studies that just by assimilating the basic concepts of the quality of life philosophy, patients felt better and saw their lives as more meaningful.

The authors conclude that, “improvement of the patient's personal philosophy of life seems to be the essence of holistic medicine, helping the patient to assume more responsibility for his or her own existence.”

Reference: Ventegodt S, Andersen NJ, Merrick J. Quality of life philosophy I. Quality of life, happiness, and meaning in life. *ScientificWorldJournal.* 2003;3:1164-75.

Developmental Dyslexia and Chiropractic Care: A case series

This case series reports the results from the chiropractic care of 3 children with a range of health and developmental challenges. Below I detail the case report related to one of those children.

The author reports that the first case involved a 7 year old who presented to a chiropractor with a chief complaint of persistent 'glue-ear'.

History taking revealed that the child was behind at school with his reading and writing and that he had behavioural problems, difficulty concentrating, and clumsiness. The child had been born breech and was delivered via emergency Caesarian section at full term.

Examination revealed decreased hearing in both ears, a physiological short left leg, and numerous cranial 'faults' and positive cerebellar tests.

Management consisted of adjustment using SOT and dietary changes.

The child, his parents, and teachers all concurred that since receiving chiropractic care he had demonstrated considerable improvement in his behaviour, reading, writing and balance.

ASRF Chiropractic Update editor's comments - Unfortunately very little detailed information is revealed in relation to the chiropractic care provided to these children beyond naming the technique used (SOT in all three cases).

Furthermore, the reader has no idea whether the reported outcomes were achieved in each of these children with adjustments on only one occasion or with regular care across a number of years - no information is provided regarding number of visits, frequency of care, spinal segments adjusted, or re-examinations performed.

Reference: Young A. Developmental dyslexia associated with peri-natal trauma. *Clinical Chiropractic* 2004; 7:5-9.

Complementary and Alternative Medicine use among Adults: United States, 2002

This report presents selected estimates of complementary and alternative medicine (CAM) use among U.S. adults, using data from the 2002 National Health Interview Survey, conducted by the Centers for Disease Control (CDC).

Data for the U.S. civilian noninstitutionalized population were collected using computer-assisted personal interviews (CAPI). This report is based on 31,044 interviews of adults age 18 years and over.

The authors found that 62% of adults used some form of CAM therapy during the past 12 months when the definition of CAM therapy included prayer specifically for health reasons. When prayer specifically for health reasons was excluded from the definition, 36% of adults used some form of CAM therapy during the past 12 months.

The 10 most commonly used CAM therapies during the past 12 months were -

- Use of prayer specifically for one's own health (43.0%),
- Prayer by others for one's own health (24.4%),
- Natural products (18.9%),
- Deep breathing exercises (11.6%),
- Participation in prayer group for one's own health (9.6%),
- Meditation (7.6%),
- **Chiropractic care (7.5%),**

- Yoga (5.1%),
- Massage (5.0%), and,
- Diet-based therapies (3.5%).

Use of CAM varies by sex, race, geographic region, health insurance status, use of cigarettes or alcohol, and hospitalization. CAM was most often used to treat back pain or back problems, head or chest colds, neck pain or neck problems, joint pain or stiffness, and anxiety or depression.

Adults age 18 years or over who used CAM were more likely to do so because they believed that CAM combined with conventional medical treatments would help (54.9%) and/or they thought it would be interesting to try (50.1%).

Most adults who have ever used CAM have used it within the past 12 months, although there is variation by CAM therapy.

Reference: Barnes PM, Powell-Griner E, McFann K, Nahin RL. Complementary and alternative medicine use among adults: United States, 2002. *Adv Data.* 2004;343:1-19.

The Use of Muscle Relaxant Medications in Acute Low Back Pain

The stated objectives of this study were to determine the characteristics of patients who take muscle relaxants for back pain after seeking care and to determine the relationship of muscle relaxant use with recovery from the episode of low back pain.

The authors performed a secondary data analysis of a cohort of 1633 patients who sought care from a variety of practitioners (primary care, chiropractors, orthopedic surgeon, Health Maintenance Organization) for low back pain.

Patients were enrolled in the physician's office and interviewed at baseline, 2, 4, 8, 12, and 24 weeks. Pain, functional status, medication use, health care utilization, and satisfaction with care were assessed.

The authors found that muscle relaxants were used by 49% of patients. Over time, among patients muscle relaxant users had somewhat slower recovery from the episode of back pain. This finding persisted after controlling for baseline functional status, age, worker's compensation status, and use of nonsteroidal inflammatory agents.

The authors concluded,

“Use of muscle relaxants was very common among patients with acute low back pain. Muscle relaxant use was not associated with more rapid functional recovery.”

Reference: Bernstein E, Carey TS, Garrett JM. The use of muscle relaxant medications in acute low back pain. *Spine.* 2004;29:1346-51.

Holistic Health Care: When Biomedicine is Inadequate

The following comments are from researchers at the Quality of Life Research Center, Copenhagen, Denmark.

The modern physician is using pharmaceuticals as his prime tool. Unfortunately, this tool is much less efficient than you might expect from the biochemical theory. The belief in drugs as the solution to the health problems of mankind

-- overlooking important existing knowledge on quality of life, personal development, and holistic healing --

seems to be one good reason why approximately every second citizen of our modern society is chronically ill.

The biomedical paradigm and the drugs are certainly useful, because in many situations we could not do without the drugs (like antibiotics), but curing infections or diseases in young age is not without consequences, as the way we perceive health and medicine is influenced by such experiences. When we get a more severe disease in midlife, we also believe drugs will make us healthy again. But at this age, the drugs do not work efficiently anymore, because we have turned older and lost much of the biological coherence that made us heal easily when we were younger. Now we need to assume responsibility, take learning, and improve our quality of life. We need a more holistic medicine that can help us back to life by allowing us to access our hidden resources.

The modern physician cannot rely solely on drugs, but must also have holistic tools in his medical toolbox. This is the only way we can improve the general health of our populations. Whenever NNT (Number Needed to Treat) is 2 or higher, the likelihood of the drug to cure the patient is less than 50%, which is not satisfying to any physician. In this case, he must ethically try something more in order to cure his patients, which is the crossroads where both traditional manual medicine and the tools of a scientific holistic medicine are helpful.

Reference: Ventegodt S, Morad M, Hyam E, Merrick J. Clinical holistic medicine: when biomedicine is inadequate. *ScientificWorld Journal*. 2004;4:333-46.

The Effect of Low Force Chiropractic Adjustments on Body Surface Electromagnetic Field

The purpose of this study was to investigate the body surface electromagnetic field (EMF) changes using a sensitive magnetometer before and after a specific Toftness chiropractic adjustment in asymptomatic human subjects.

Forty four subjects were randomly assigned into control (20 subjects) and experimental groups (24 subjects) in a pre and post-test design.

The Triaxial Fluxgate Magnetometer FGM-5DTAA with five digit display and resolution of 1 nanotesla (nT) was used for EMF detection. The EMF in the research room and on the adjustment table was monitored and recorded. The subjects' body surface (cervical, thoracic, lumbar and sacral areas) EMF was determined in the prone position before and after the chiropractic adjustment. A low force Toftness chiropractic adjustment was applied to the cervical, thoracic, lumbar and sacral areas as determined by the practitioner.

The EMF on the adjusting table changed minimally during the 15 minute observation period. The EMF on the subjects' body surface decreased at 4 spinal locations after chiropractic adjustment. The EMF (mean \pm SD in nT) decreased significantly at the cervical region ($p < 0.01$) and at the sacral region ($p < 0.01$).

The EMF at the lumbar and thoracic regions decreased but did not reach a statistically significant level.

No significant changes of the body surface EMF were found in the control group.

Reference: Zhang J, Snyder BJ, Vernor L. The effect of low force chiropractic adjustments on body surface electromagnetic field. *J Can Chirop Assoc*. 2004;48:29-35.

A Survey of US Chiropractors on Clinical Preventive Services

The stated objective of this study was to assess attitudes of current chiropractic students, public health faculty, and practitioners toward the topics of clinical preventive and health promotion services.

The researchers surveyed samples of students and faculty at 10 US chiropractic colleges and randomly sampled US chiropractors stratified by zip code region using proportional allocation.

Descriptive statistics were computed for all 3 samples and statistical modelling was used to explore relationships between practitioner characteristics and their responses concerning counselling on health indicators.

A total of 582 students, 45 faculty, and 496 practitioners were surveyed; the response rate for practitioners was 27%.

Over 80% of practitioners reported providing information to patients on musculoskeletal risk reduction, exercise, diet, stress reduction, and injury prevention. Over 80% also reported obtaining information from patients on physical activity, stress, dietary habits, obesity, medication use, and occupational hazards.

Concerning immunization information, a much higher proportion of faculty (91%) and students (80%) than practitioners (62%) felt chiropractors should provide both pro and con information to patients.

Practitioners with at least a bachelor's degree were statistically significantly more likely to report providing counselling for physical activity and to agree that chiropractors should provide counselling and to report actually providing counselling within the last month for substance abuse, responsible sexual behaviour, mental health, and injury and violence prevention ($P < .05$).

The authors suggest that,

“The results indicate that a substantial proportion of the US chiropractors and students who completed our survey, as well as a number of key faculty, have a positive attitude toward providing clinical preventive services, particularly those related to physical activity and diet. However, the results also suggest that there may be areas where chiropractic training is not consistently meeting the newly established national guidelines for clinical preventive services.”

Reference: Hawk C, Long CR, Perillo M, Boulanger KT. A Survey of US Chiropractors on Clinical Preventive Services. *J Manipulative Physiol Therap* 2004;27:287-98.