Hot Topic, Important Issues: Women's Health

by Cynthia Smith

A recent leadership workshop in Red Deer, Alberta introduced participants to the Fit For Your Life program, a progressive resistance training program designed for older adults. Fit For Your Life uses basic strength training techniques with small vinyl hand weights, velcro adjustable ankle weights and sash bands. The unique aspect of the program is the 6- to 8-second count done for each repetition of an exercise so that the whole range of motion is worked.

Healthy aging is a community development issue. The overwhelming evidence is that the vast majority of seniors are NOT frail or disabled (NACA Age and disability, Info Age, 16, 1996). The evidence is clear that people who keep their muscles strong are very unlikely ever to enter a nursing home. Women's participation in exercises, which help to maintain their functional independence and health, is critical to their ability to maintain a healthy lifestyle. The inclusion of strength exercises in daily routines is important to maintain movements that enable you to live independently such as getting out of a chair or reaching for a cereal box in the top cupboard. Strength improves mobility and circulation, lowers the risk of falls, and enables individuals to perform daily tasks independently. Individuals who have stronger muscles are able to react better to falls and tend to have fewer injuries. Muscle is also an active tissue which burns off more calories, while fat just sits there!

Currently Fit For Your Life is being offered at various local senior centers and residences in the Edmonton area.

For more information, contact Jennifer Tufts, Project Coordinating Coordinator at ACFWB.
What Is a "Gendered Perspective" in Health?

by Marie Carlson, MA

Consider the following true story: A doctor commenced to a pregnant woman that she already had a boy and a girl. When the woman replied that she had two girls the doctor said, "Really, are you sure?", and checked his notes. Of course the doctor immediately recognised his mistake. The point is his training led him to believe that his knowledge was superior and only the absurdity of the situation forced him to admit his error (Doyal, 1991:283).

This classic doctor-patient encounter illustrates a larger point: that the particular needs and experiences of women have historically been eclipsed, ignored or trivialised in health services, planning, policy and research. Fortunately this is beginning to change. But the example draws our attention sharply to the need to critically incorporate women's experiences into a new knowledge base and practice regarding women's health.

Most of us don't think explicitly about gender on a day-to-day basis. A large part of the reason rests below the surface, reflecting the still widely held, taken-for-granted assumption that men's experience represents all human experience. Another aspect is the belief that professional, scientific knowledge is more authoritative (i.e. valid and reliable) than personal experience and, folk wisdom.

Deeper yet is our societal predilection for a single, one-way approach to solving human problems. We seek simplicity and certainty over complex, interrelated and ambiguous aspects of everyday life. In health promotion as in other areas of social life, this approach is evident whenever a dominant perspective defines the situation over other points of view. Left unexamined, these ideas frame our thoughts and actions in subtle ways. Thus in the traditional, biomedical approach to women's health, we get a pre-dominant focus on sex differences based on biological roles and functions (especially reproduction). The emphasis is on illness, biology and the individual. Much previous basic research, treatment protocols and policy have been created mainly by men with little awareness of the lives of women for whom these decisions and actions apply (Doyal, 1991). For example, much of what is known about the origin, symptoms and treatment of heart disease has been based largely on research using male subjects. As more women are included in research studies, our knowledge of heart disease and many other diseases will become more refined.

The current science of health behaviour change is also severely limited if it does not account for gender differences in how, why and under what conditions people change (Doyal, 1991:283).

Interventions which foster positive behaviour change must likewise address women's real needs and barriers to participation. At health promotion practitioners and researchers, we need to continually explore and understand the complex dynamic between gender and well-being. By comparison, a gendered perspective, which takes women's experiences seriously (called a woman-centred perspective), is characterised by a different set of assumptions about women, the scientific process and the relationship between women and health.

A woman-centred perspective treats all people as knowledgeable participants in their everyday lives (Stern, 1996). It values women's needs, experiences and collective wisdom and critically incorporates them into health promotion theory, policy and practice. It acknowledges that we need many forms of knowledge to address complex human problems. A woman-centred perspective takes context seriously. It addresses the complex interrelations of person and environment, recognising the salient role of social values and material circumstances such as income, ethnicity, education and so on, that we know have such enormous determining influence on individual and collective well-being.

The Edmonton Women's Health Network, Statement of Philosophy captures the essence of an equitable gendered perspective on women's health in all its dimensions (see caption box). It calls for a new model of health enhancement which supports wellness, responds appropriately to illness and which overcomes barriers to optimal health for women and those whose health they influence (prevalence). Most of all, it challenges us to reflect on our current health promotion theory, practice and policy with the critical scrutiny of a gender lens. A woman-centred perspective is a necessary corrective to mainstream vision. Given what we know about what makes people healthy, the opportunity to build on the insights of a gendered perspective is upon us. To strive for anything less is simply bad medicine.

References


Letter to the Editor

I read your publication cover to cover and find your slant on topics unique and distinctly Canadian! Very refreshing! I have cancelled my subscription to the Berkeley Wellness Newsletter as you've done such a fine job of covering health and wellness, and often nutrition. Keep up the good work.

Virginia (Gail) Moore

The Edmonton Women's Health Network Statement of Philosophy

Women's Health includes a holistic perspective incorporating physical, spiritual, mental and social well-being. Increasingly, health is being viewed from a sociosocial-environmental rather than a bio-medical perspective. This perspective recognizes the effects of cultural, economical, social and environmental living conditions on health and is not confined to individual, behavioural or psychological risk factors. A holistic framework is especially important for women because the environment in which women live strongly influences their ability to enhance their well-being.

Concepts involved in a holistic perspective of health include feeling in control over one's life and living conditions, including the opportunity to exercise choice in accessing a variety of resources: a sense of belonging to social networks that enhance self-esteem and self-worth; having a sense of purpose and direction; and a sense of contentment with one's life. Optimal health is a dynamic process.

Health is subjective to the extent that it has different meanings for different women. Women need knowledge to increase their awareness of factors influencing their health, which can lead to the empowerment necessary to make decisions about their individual lives, as well as the collective lives of women.

Given its holistic nature and social determinants, the health of women is both an individual and a societal responsibility recognizing that the health of women impacts on the health of society. Achieving health for women requires cooperation and collaboration among a variety of partners, including women, service providers, funders and policy makers.
In dual-earner families with both spouses employed full-time, 52% of the wives had all of the responsibility for daily housework, while another 28% had most of this responsibility.

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Statistics Canada
1990 General Social Survey

Women's Health Resources Available from the ACWFB

by Tracy Kitagawa
Resource Coordinator

Recent Acquisitions
Directory of Women's Health Research in Canada (November, 1997) compiled in the summer of 1997 by members of the Women's Health Research Group whose mission is to improve the health and well-being of women through innovative multi-disciplinary research. The directory highlights current research initiatives at the University of Calgary and other community groups within the city.

The Endocrine Women (2nd ed. - 1996) by Judy Malhe Laffer and Lynn Jaffe of the Midpenone Institute for Women's Health Research (the only research organization in the U.S. devoted to women's health and physical activity). This resource combines scientific study with women's personal experiences to provide sound, practical advice for women of all ages on health issues as they relate to exercise.

Periodicals
The Canadian Women's Health Network (CWHN) - a quarterly publication of the Centre of Excellence for Women's Health Program dedicated to strengthening and improving the women's health movement in Canada and internationally by sharing information, resources and strategies for action. Women's Health Resources Update - a bimonthly newsletter from the Salvation Army Grace Women's Health Centre in Calgary that features topical articles on women's health and a list of upcoming programs at the Centre.

Wellness Newsletter - a publication formerly produced by the Edmonton-based Centre for Women Wellness Association who have now merged with the Women's Wellness Program at the Health Resource Centre in the Grey Nuns Community Hospital (Edmonton).

Promotion Plus Network News - a quarterly publication from a BC organization involved in the promotion and advocacy of physical activity and sport for girls and women.

InMotion Newsletter - periodic updates from the Edmonton-based equivalent to Promotion Plus.

InMotion Special Collection
Thanks to a generous donation from Dr. Ann Hall, former professor in the Faculty of Physical Education and Recreation at the University of Alberta, and additional contributions from members of the InMotion Network, the Resource Library now houses a collection of materials related to sport and physical activity for girls and women. Items catalogued include facts from other provincial, national and international women's sport organizations, the American Women's Sport Foundation report: "Sports and Fitness in the Lives of Working Women" (1993).

UBC professor Patricia Ventrella's 1996 paper "Physical Activity, Sport and Health for Girls and Women: Issues and Perspectives" and numerous resources from the CANSWS (Canadian Association for the Advancement of Women and Sport and Physical Activity) catalogue - including the 1997 edition of On the Move — A Handbook for Increasing the Participation of Girls and Women in Physical Activity and Recreation. Extra copies of some of these resources are available for distribution. Contact the ACWFB resource library for more information.

Are we overweight or what?

by John Spence, Ph.D.
ACWFB Research Coordinator

In December 1997, local and national media reported that 51% of Canadians are overweight (17%) or obese (34%). These percentages are based on the Canadian National Obesity Survey (CNOS), sponsored by Hoffman LaRoche Limited (Roche Canada). The numbers are alarming, and this is the first time that the majority of our adult population has been designated as being overweight or obese. Regional breakdowns reveal that 55% of Prairies inhabitants (including Albertans) are overweight or obese, second only to the Atlantic region (61%).

As researchers in health promotion, my colleagues and I have several concerns with Hoffman LaRoche and their obesity survey. First, the fact that Hoffman LaRoche currently has an anti- obesity drug under review by Health Canada leads us to question their objectivity is reporting on the obesity status of Canadians. Huge financial gains are to be made if their drug passes the government review, and there is nothing like the impression of an epidemic to influence a government decision-making process. Second, while the pharmaceutical company spent large sums of money in publicizing the findings of this report (e.g., polished media packages, the use of a media communications company), they have not made the report available for public and professional scrutiny. Without such a process, it is impossible to put to rest some of these nagging concerns.

The Body Mass Index (BMI), which is defined as weight (kg) divided by height (m) squared (w2/m2), was used as the weight measurement in the CNOS. The BMI is deemed to be an epidemiologically valid indicator of weight as it relates to health. According to the Canadian Guidelines for Healthy Weights, the following cutoffs should be used to describe the weight of Canadians: BMI < 20 (underweight for most people); BMI between 20 and 25 (normal weight for most people); BMI between 25 and 27 (possibly overweight; may lead to health problems in some people, but still considered "generally acceptable"); BMI > 27 (overweight; increasing risk of developing health problems).

Most national health surveys in Canada (e.g., Health Promotion Survey, General Social Survey) use these guidelines for describing the weight of Canadians.

While the Canadian guidelines were used in the CNOS, a subtle distinction occurred in which BMIs of 25 to 27 were designated as "overweight" and the term "obese" was applied to what formerly had been the overweight category. In comparison, the Health Promotion Survey (1999), General Social Survey (1991), and the Physical Activity Monitor (1995) designated a BMI of 25 to 27 as "possibly overweight" and did not include such BMIs in their overweight category (see table). Thus, when interpreting the CNOS findings relative to other health surveys, it is important to take this difference in definitions into account. Also, while it is true that there has been a substantial increase in the overall percentage of Canadians, aged between 20 and 64 who are overweight, we are alarmed by the dramatic increase that is portrayed in the CNOS. For instance, excluding the "possibly overweight" category, the percentage of Canadians in the overweight (obese) category has jumped from 26% to 34% in two years. This is more than double the change witnessed for the period from 1990 to 1995. One possible explanation for this difference is that the CNOS included persons over the age of 64 while the other health surveys exclude this age group from their weight estimates. The Canadian Guidelines for Healthy Weights apply only to persons between the ages of 20 to 64. It is impossible to determine from Hoffman LaRoche's media release what age range of Canadians was included in their survey. However, considering that a random sample of Canadians from 1300 households were surveyed, it is most likely that some people over the age of 65 were included.

Though Hoffman LaRoche used the media to make public their findings, the pharmaceutical company will not allow public access to the actual report. Our repeated requests to obtain a copy of the report were rebuffed. The company's position is that they are a private institution and do not have to abide by the usual scientific protocol of making documents and data available for independent scrutiny. Instead, we were told the report was reviewed by an expert advisory panel of researchers and practitioners from across the country, and that we would be satisfied with the rigour and integrity of the report. While we do agree that private institutions, commercial enterprises in particular, do not have to make the public privy to their internal studies and documents, we do contend that once the findings are made public, the documents should be made available for further scrutiny. Otherwise, an appearance exists of selective reporting and withholding of information. In this case, one cannot help but feel that Hoffman LaRoche is trying to influence practitioner and government decision-making around their latest anti-obesity drug by possibly overstating the degree of the obesity "epidemic" in Canada. We feel it imperative that the report be released for public access or their findings will remain questionable.

References are available upon request.

Trends in Body Mass Index for Canadians Since 1990 (%)

<table>
<thead>
<tr>
<th>Possibly Overweight*</th>
<th>Overweight*</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>BMI 25 - 27</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>BMI 27</td>
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<td>17</td>
<td>34</td>
</tr>
<tr>
<td>BMI 32</td>
<td>17</td>
<td>34</td>
</tr>
</tbody>
</table>

* Overweight in CNOS #Obese in CNOS
Obesity, Lifestyle and Population Health: A View From Down Under

by Kerry Mummary, PhD
Central Queensland University, Australia

As a recent newcomer to Australia, I have had the opportunity to view the lifestyle behaviour of Australians from somewhere of a distance, accurately being able to compare observations with those collected during a lifetime of Canadian research. Teaching a course in Lifestyle Behaviour to second- and third-year students has led to fruitful discussions about lifestyles specific to the region encompassed by Central Queensland, a tropical climate fuelled economically by a mix of agriculture, mining and tourism.

In Australia, as in Canada, the 1990s have been besieged by so-called "diseases of affluence." High relative levels of individual and societal wealth have led to unhealthy lifestyle choices that offer the promise of reduced life span and decreased quality of life. One lifestyle problem that has become the subject of much recent study in Australia is the expanding waistline and obesity in Australian society (NHMRC, 1997). Women were, on average, 3.5 kg heavier in 1989 than in 1980 and men were 1.7 kg heavier. This translates to an average increase in weight of one gram per day for women and 0.9 grams per day for men over that period -- a "trend" that has generated much public attention. Recent studies have shown that the trend towards increased weight has continued into the 1990s (Abraham, D'Espagnat & Stevenson, 1995).

Given that overweight and obesity are major risk factors for preventable morbidity and mortality, small negative lifestyle changes by the populous across time have placed a large proportion of the Australian population at risk. The key elements to the puzzle lie in the behaviour of the population. Overweight and obesity is a problem that, at the individual level, can be a product of complex interactions between numerous behavioral, biological and environmental elements. At the population level, however, the origins of growing waistlines may be hidden in a simpler context. When aggregated over the population, two distinct behavioural patterns can be seen as primary contributors to the problem: relative small changes in physical activity (decrease) and caloric intake (increase).

Since arriving in Central Queensland, I have noticed a general lack of physical activity in the population not specifically related to competitive sport participation. Australia is "sporting mad." Prime time TV is often devoted to the coverage of any number of sports that would not receive similar treatment in Canada. The World Swimming Championships recently held in Perth, Western Australia were broadcast live to air daily. Similar coverage is extended to tennis, cricket, rugby (union and league) and even major surf lifesaving competitions.

Unfortunately the general population seems to have become more spectators than participants -- an area of actual study that I am keen to have a look at. On the energy intake side of the continuum, there appears to be some basic cultural differences between Canada and Australia -- or at least Edmonton and Rockhampton. In the regional centre, the English influence and diet still reign supreme. Because of this, there is a noticeable prevalence of high fat (and high calorie) foods readily consumed by the local populace. Every neighbourhood has a fish and chip shop, increasing with "takeout".

Although Australia is becoming increasingly multicultural, this trend is much more evident in the major urban centres such as Sydney and Melbourne, than in regional centres such as Central Queensland. The natural nature of these types of food may well contribute to the national concern regarding overweight and obesity.

Demographic differences in lifestyle behaviours such as physical activity are widely acknowledged (Surgeon General, 1996). In Canada, research has shown rural and urban differences for numerous lifestyle behaviours including exercise and dietary habits (Mummary, 1995). Similar disparities exist in regional Queensland. The demographic and health profile of Rockhampton City reveals more than half of the males and 38% of females to be overweight, substantially more than the proportion for Queensland as a whole. The National Health and Medical Research Council (NHMRC) has recently placed a call for the development of guidelines for physical activity in Australia. These guidelines will form the basis of a nation-wide health promotion program. However for this approach to be effective, demographic differences in the target behaviours in select population sub-groups must be established by means of effective and accurate surveillance methods. Following this, educational and intervention strategies can be developed to reflect specific regional needs of the population.

Womens Health and Physical Activity Laboratory

by V.J. Harber, PhD
University of Alberta

Nutrition and physical activity have a profound impact on a variety of metabolic processes, including reproductive function, resting metabolic rate and control of obesity. Women benefit from regular exercise and experience significant improvements in cardiovascular and muscular fitness. However some women, in particular those involved in low weight body or aesthetically-demanding sports, deprive themselves of an adequate energy intake and increase their risk for developing menstrual disturbances, reduced metabolic efficiency, reduced athletic performance and difficulty with weight control. A major goal of the "Women's Health and Physical Activity Laboratory at the University of Alberta is to further our understanding of these phenomena. Our main field of study is metabolic adaptations to diet and exercise in women.

Currently we are examining the relationship between exercise and dietary intake on metabolic in highly active women in the hopes of providing specific training and/or nutritional strategies for maintaining or enhancing performance. Eligible women perform a fixed amount of exercise for 4 days, equivalent to approximately 2.5 to 3.5 hours/day or 1200-1500 kcal/day. In addition, during these 4 days of exercise, each subject's dietary intake is completely controlled with the provision of a liquid nutritional supplement. The entry criteria for this particular study includes being 18-35 years of age, having a maximal oxygen consumption (VO2 max) of 45 ml/kg/min or greater, having regular menstrual cycles, and not being on any medication that alters metabolism, including oral contraceptive pills.

The women have their body composition measured. In addition to height and weight, several skinfold sites are measured and the subject has their body density calculated from a hydrostatic weighing procedure. This latter test requires the subject to be completely submerged in a warm tank of water. After several trials, this "dunking" process provides the body density of the subject which can be conveniently converted into body fat percentage.

Dietary intake is calculated for each volunteer from both a 5-day and 7-day dietary record. This requires each woman to provide an accurate report of the food and drink she consumes over the prescribed time period. We analyze the dietary log with a very sophisticated nutritional analysis program that provides us, and our subjects, with a wide range of information, including daily calories, carbohydrates, protein, fat (saturated and unsaturated), calcium, iron intake, etc.

Once the subject has entered the follicular phase of the menstrual cycle (this is within the first few days of menstrual flow), she is ready to begin the fixed exercise and energy intake protocol. For seven consecutive days, subjects report to the lab each morning following an overnight fast where a urine and blood sample are obtained. The urine is analyzed for ketones and ensures the subject has fasted the night before. The blood is analyzed for several hormones from the thyroidal family, which are known to influence many metabolic functions in the body. The first three days of this procedure provides us with a "baseline" metabolic profile of the subject. Then she commences the 4-day exercise protocol on Day 4. On Day 7, the morning following the last day of exercise, she reports to the lab one last time for a urine and blood sample and then is usually off to somewhere special for a "real" breakfast! The women who have completed our study to date have been incredibly committed, and we are extremely grateful for their efforts.

The ongoing study focuses on athletic women. However it is currently continued on page 5.
Research Corner

Invest in Premenopausal Bones: Early Contributions Yield High Returns!

by Pauline Poon and John Spence

Apart from genetic factors, 20-50% of bone mineral density (BMD) variation is influenced by hormonal status, physical activity, and nutrition (Vuori, 1996). Recent reviews and epidemiological studies reveal that long-term bone-loading physical activity, beginning early in life, results in a strong bone mass portfolio. A crucial factor in determining the risk of osteoporotic fractures in later years is the bone mass at the time when a woman reaches menopause. Consequently, efforts to maximize bone size and strength during adolescence and young adulthood through bone-loading physical activities and proper nutrition should be encouraged.

Studies show that the effects of bone-loading are not only highly site-specific, but that BMD can vary by as much as 30% or more between athletes and non-athletes at the same bone sites (Vuori, 1996). For example, spinal BMD can increase from 2% to 15% through weight-bearing activities (Dindo, 1994). Racquet sport athletes such as squash and tennis players have a significantly greater BMD on their dominant versus non-dominant radius bone (Marcas, 1992). The effect of physical activity between high and low activity groups varies between 5% to 15%, and about 8% on average compared to the sedentary population. The gains may be small but the returns are quite substantial if one considers that a 10% decrease in femoral neck BMD is associated with a 2.6 times increase in the risk of fracture (Vuori, 1996).

Diversify Your Portfolio

Physical activity and calcium intake produce a significant difference in BMD levels in the lumbar spine when the calcium-intake level is greater than 1000 mg/day. A similar interaction seems to exist for the distal radius (Spencer, 1996). Thus it is not just a matter of exercising and drinking your milk. To influence BMD, a minimum level of bone-loading activity is required at a minimum level of calcium-intake. Also, it is not just a matter of taking calcium supplements. Research shows that a well-rounded diet is important for the proper absorption of calcium (Ho, 1997). For example, Vitamin D, iron, and a diet low in sodium are important factors to consider when trying to enhance peak bone mass through calcium intake.

Compound Interest

Smart investors know to start early and plan for long term investment to maximize gains over time. Considering that peak bone mass is attained at last by 20 years of age (Ho, 1997), and that even age doses of continuous physical activity have little influence on BMD in 30-50 year-olds (Ho, 1997; Vuori, 1996), the incentives for early involvement in physical activity are plentiful. Two recent epidemiological studies have examined the effect of bone-loading and longitudinal BMD and BMD. Retrospective analysis of adolescent sport participation indicates a significant difference in lumbar BMD between previously active and inactive groups for both pre- and postmenopausal women (Puntila, 1997). Long-term participants of high and medium impact exercises over a minimum of 20 years have a significantly higher whole body BMD than those involved in non-impact type activities or non-sport activities (Dook, 1997).

The importance of long-term participation in bone-loading activities is demonstrated by the fact that a positive gain in bone mass does not occur if the exercise program is terminated. Bone mass will then regress back to pre-training levels (Dindo, 1994).

What type of physical activities should one invest in to optimize the bone-loading effect?

Reviews suggest that forceful and rapid muscular movements that impact bones from many directions, both mechanically and gravitationally, best serve to increase BMD. Activities that involve high impact jumping, and sports like netball, volleyball, and basketball are examples of movements with bone-loading effect (Heinson, 1996; Dook, 1997). Median impact activities such as running also have some bone-loading effect. Other endurance activities, such as swimming or cycling, are considered less or non-effective bone-loading activities (Vuori, 1996; Drinkwater, 1994). Interestingly, weight training programs using weight machines have little effect on BMD, as demonstrated by both a longitudinal 12-month study with Natus machines (Dindo, 1994) and a 10-week intervention with 'universal' type machines (Chilla, 1996). The skeletal specific nature of bone-loading suggests that the kind of activities that put more stress on areas prone to osteoporotic fractures, such as the spine, femoral neck, distal radius, and the humerus, are warranted. This is particularly true if the goal is to enhance peak bone mass attainment in women for protection against demineralization in later years.

What does this mean for women investors?

- While many benefits are to be gained from being physically active throughout one's life, it appears that bone size and strength are most affected by physical activity at younger ages (< 30 yrs.).
- Young women should be encouraged to participate in bone-loading activities such as swimming, volleyball, basketball, gymnastics, aerobics.
- For physical activity to have an effect on bone in young adults, a minimum of 1000mg/day of calcium needs to be consumed in a well-rounded diet.
- Mature adults (30-50 years) should focus on the maintenance of skeletal health through physical activity and nutrition.
- High-calcium foods such as dairy products, broccoli, spinach, kidney beans, and soy beans should be consumed. For more information on calcium sources, see the article "Your Best Sources for Calcium" in this issue of WellSpring.

References


Women's Health and Physical Activity Laboratory

continued from page 4

clear that many women of varying ages and fitness levels struggle with implementing a healthy lifestyle, including adequate amounts of activity combined with a healthy diet. In April of this year, we will begin a similar study in women who have had a history of dietary and difficulty with weight control. We suspect that women of different body composition and different fitness levels may well have different metabolic responses to the protocol described above. We anticipate the findings from this upcoming study will also help provide specific dietary and exercise strategies for weight control programs.

Although research is the primary activity of this lab, body composition measurement, nutritional and fitness assessment are available at specific times of the year for a fee. For further information, interested individuals may call (603) 492-0739.

Dr. Kraker has been with the Faculty of Physical Education and Recreation at the University of Alberta since July 1991. She holds a sabbatical with the Department of Anatomy and Cell Biology. Her research program investigates the effect of diet and exercise on reproductive function, metabolism and athletic performance in women.

References are available upon request.
Healthy Workplaces: What is Important to Women?

by Judith M. Moodie, BPE, MSc (Family Studies), CHRP

The career transition I recently started is similar, but less traumatic, than the corporately imposed career transitions of downsized employees. I often worked with at Mainstream Access Corp., a national career and organization renewal agency. At Mainstream, I provided what is commonly referred to as outplacement services to downsized employees and their managers. I also provided organizational renewal consulting of varying types, aimed at improving employee well-being, and increasing the understanding of management of the “people side” of change. During my consulting years, I heard about, and experienced, a wide variety of workplaces, working conditions, attitudes of managers (usually male), and about the personal lives of many clients.

Many of the organizations I worked with did not sustain business practices that supported women’s health. In fact, women in some organizations, especially those in lower paying jobs, did demanding but less valued work, and were working in particularly unhealthy situations. Most of the organizations, did not have wellness initiatives of any type. Those that did, focused their programs on the physical aspects of well-being and neglected the psychosocial needs of employees. Wellness may be thought of as a balance of physical, emotional, spiritual and intellectual well-being.

Historically, workplace wellness programs, where they exist, focused on the physical dimension of health usually in the form of fostering healthy lifestyle behaviors and risk reducing practices. More recently, workplace health professionals recognize the need to address the organizational side of the equation. It is a rare workplace that provides an environment supportive of all of these aspects of wellness. Organizational culture includes such factors as alignment of values, leadership style, norms and work design (structure and division of labour). A workplace wellness initiative, which includes a focus on psychosocial issues, is more complex and challenging than the typical initiatives provided by organizations. This broader focus is crucial to the effectiveness of the initiative, particularly for women, who (due to their frequent lack of influence in the workplace and often considerable family obligations) can be more significantly affected by an unhealthy organizational culture than men.

Organizational or workplace culture has an important influence on the psychosocial health of employees, and this dimension is often not supportive of the psychosocial health of employees. I saw that almost all organizations, regardless of size or type, are in process of change, and that leaders are struggling with change management on a daily basis.

It has been said that a well workplace maximizes the “human capital” of the organization. In other words, a well workplace contributes to an employee’s capacity to be productive in whatever work he/she does. Unfortunately, many workplaces have negative aspects to them, such as work overload, unclear communication, lack of support, lack of appropriate structure, no shared vision, or repressive leadership style. In these environments, the efforts of employees are not maximized, and the end result is decreased productivity, quality of service, and profits.

A healthy workplace has shared vision and values, supportive organizational culture, employee influence over day-to-day work. It fosters respect, appreciation, and self-worth in employees. Working conditions are safe, well designed, efficient, and free of harassment. The organizational structure is such that stress-related health problems are minimized.

In short, a well workplace promotes the mental and physical ability of all employees to do the best work they can. Workplace wellness initiatives should be focusing more on organizational culture and the addressing of psychosocial needs, than on primarily physically-based programs already available in the community.

Judith Moodie is the Executive Director of Alberta Special Olympics. She has six years of consulting experience with Mainstream Access Corp.

Work interruptions have more serious implications for women in terms of earnings, employability and long-term economic well-being because women experience more frequent and longer work interruptions. Childbirth and child care remain the predominant reasons for the interruption.

—Canadian Social Trends, January, 1997

References:

WellSpring
Your Best Food Sources for Calcium

by Kimberly Ransome, MSc Candidate
University of Alberta

As Canadians continue to live well into the 8th and 9th decades of life, it is anticipated that osteoporosis will continue to impact upon our health and well being. Yet, due to several lifestyle factors, osteoporosis is considered largely preventable. Among one of the most important lifestyle choices to reducing the risk of developing osteoporosis is ensuring adequate daily consumption of dietary calcium from a variety of food sources.

Historically, the importance of nutrients has focused on the prevention of nutritional deficiency diseases. Recently however, our scientific knowledge has expanded the role of nutrients, to include the ability to reduce the risk of chronic disease (Institute of Medicine, 1997). The expanded role of nutrients has extended the basis for the development of what is now referred to as Dietary Reference Intakes (Institute of Medicine, 1997). Although not currently in effect, the Dietary Reference Intakes will include a public health strategy to encourage North Americans to consume optimal levels of calcium which are associated with maximum retention of bone calcium (Institute of Medicine, 1997).

Information obtained from two recent Canadian Health Surveys suggest that Canadian men and women are still not meeting current Recommended Nutrient Intakes for calcium (Nova Scotia Nutrition Survey, 1990; Ontario Health Survey, 1990). There are a variety of food sources from which to choose to ensure adequate calcium intake. Yet, not all sources of calcium are absorbed with the same efficiency. Several factors affect the absorption, utilization, retention and excretion of dietary calcium and may therefore influence the bioavailability of calcium consumed from a particular source (Yam and Groff, 1990). In Canada, milk is vitamin D fortified. Since vitamin D enhances the absorption of calcium, milk (Table 1) is an excellent food source of this essential mineral. Regardless of fat content, a one cup (250 mL) serving of milk will provide approximately 300 mg of calcium.

Other dairy products (Table 2) such as cheese and yogurt are not fortified with vitamin D, however, they also provide readily available sources of calcium. Although alternative food sources provide calcium, the sources of calcium many of these sources are not consumed in adequate amounts. Furthermore, foods like rhubarb and spinach contain substantial amounts of oxalic acid which binds with calcium, rendering it less available for absorption (Dairy Nutrition Council of Alberta, 1997). Thus broccoli may contain lower amounts of calcium, however it is more readily absorbed than spinach. In addition to oxalic acid, some foods contain phytic acid which inhibits calcium absorption.

Table 1. Current Recommended Nutrient Intakes for Calcium and Vitamin D

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Gender</th>
<th>Calcium (mg)</th>
<th>Vitamin D (µg)</th>
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<td>10-12</td>
<td>Male</td>
<td>900</td>
<td>2.5</td>
</tr>
<tr>
<td>10-12</td>
<td>Female</td>
<td>1100</td>
<td>2.5</td>
</tr>
<tr>
<td>13-15</td>
<td>Male</td>
<td>1100</td>
<td>5.0</td>
</tr>
<tr>
<td>13-15</td>
<td>Female</td>
<td>1000</td>
<td>5.0</td>
</tr>
<tr>
<td>16-18</td>
<td>Male</td>
<td>900</td>
<td>5.0</td>
</tr>
<tr>
<td>16-18</td>
<td>Female</td>
<td>700</td>
<td>2.5</td>
</tr>
<tr>
<td>19-24</td>
<td>Male</td>
<td>800</td>
<td>5.0</td>
</tr>
<tr>
<td>19-24</td>
<td>Female</td>
<td>700</td>
<td>2.5</td>
</tr>
<tr>
<td>25-49</td>
<td>Male</td>
<td>800</td>
<td>5.0</td>
</tr>
<tr>
<td>25-49</td>
<td>Female</td>
<td>700</td>
<td>2.5</td>
</tr>
<tr>
<td>50-75 +</td>
<td>Male &amp; Female</td>
<td>800</td>
<td>5.0</td>
</tr>
</tbody>
</table>

During pregnancy it is recommended that women consume an additional 500 mg of calcium and an additional 2.5 µg of Vitamin D during each trimester and during lactation. (Health Canada, 1990)

Table 2. Alternate Sources of Calcium

<table>
<thead>
<tr>
<th>Dairy Food Sources</th>
<th>Serving Size</th>
<th>Calcium (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheddar cheese, 45 g</td>
<td>1 slice</td>
<td>325</td>
</tr>
<tr>
<td>Swiss cheese, 45 g</td>
<td>1 slice</td>
<td>432</td>
</tr>
<tr>
<td>Processed cheese 31.3% fat, 3 Tbsp</td>
<td>1 slice</td>
<td>128</td>
</tr>
<tr>
<td>Processed cheese 24.6% fat, 3 Tbsp</td>
<td>1 slice</td>
<td>119</td>
</tr>
<tr>
<td>Cheese spread, 21.2% fat</td>
<td>3 Tbsp</td>
<td>261</td>
</tr>
<tr>
<td>Cottage cheese</td>
<td>1/2 cup</td>
<td>83</td>
</tr>
<tr>
<td>Ricotta cheese, 7.9% fat</td>
<td>1/2 cup</td>
<td>335</td>
</tr>
<tr>
<td>Parmesan cheese, grated</td>
<td>1 tsp</td>
<td>293</td>
</tr>
<tr>
<td>Sour cream, 14% fat</td>
<td>1/2 cup</td>
<td>64</td>
</tr>
<tr>
<td>Ice cream, vanilla, 10% fat</td>
<td>1/2 cup</td>
<td>88</td>
</tr>
<tr>
<td>Yogurt plain, 2-4% fat</td>
<td>1/2 cup</td>
<td>296</td>
</tr>
<tr>
<td>Yogurt fruit, 2-4% fat</td>
<td>1/2 cup</td>
<td>263</td>
</tr>
<tr>
<td>Frozen yogurt, 5.9% fat</td>
<td>1/2 cup</td>
<td>139</td>
</tr>
</tbody>
</table>

Non-Dairy Food Sources

<table>
<thead>
<tr>
<th>Food</th>
<th>Serving Size</th>
<th>Calcium (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhubarb, frozen, cooked</td>
<td>1 cup</td>
<td>368</td>
</tr>
<tr>
<td>Spinach, raw</td>
<td>1 cup</td>
<td>58</td>
</tr>
<tr>
<td>Broccoli, cooked</td>
<td>1/2 cup</td>
<td>36</td>
</tr>
<tr>
<td>Almonds, dry roasted</td>
<td>1/2 cup</td>
<td>195</td>
</tr>
<tr>
<td>Baked beans, canned</td>
<td>1 cup</td>
<td>127</td>
</tr>
<tr>
<td>Soybeans, boiled</td>
<td>1 cup</td>
<td>261</td>
</tr>
<tr>
<td>Tofu, 7 cm x 6 cm x 2 cm</td>
<td>1 piece</td>
<td>93</td>
</tr>
<tr>
<td>Red beans, boiled</td>
<td>1 cup</td>
<td>59</td>
</tr>
<tr>
<td>White beans, boiled</td>
<td>1 cup</td>
<td>161</td>
</tr>
<tr>
<td>Split peas, cooked</td>
<td>1/2 cup</td>
<td>29</td>
</tr>
<tr>
<td>Pink salmon, canned with bones, 190 g</td>
<td>1/2 can</td>
<td>211</td>
</tr>
<tr>
<td>Baked custards or puddings made with whole milk</td>
<td>1/2 cup</td>
<td>137</td>
</tr>
<tr>
<td>Pancakes made with skim milk, (3 x 15.2 cm in diameter)</td>
<td>3 medium</td>
<td>235</td>
</tr>
<tr>
<td>Cream soups made with milk</td>
<td>1 cup</td>
<td>179</td>
</tr>
<tr>
<td>Pizza with cheese, (1/8 of a 12&quot;</td>
<td>1/4 slice</td>
<td>99</td>
</tr>
<tr>
<td>Lasagna, homemade</td>
<td>1 cup</td>
<td>28</td>
</tr>
</tbody>
</table>

Table 3. Oxalic Acid Containing Foods

<table>
<thead>
<tr>
<th>Food</th>
<th>Oxalate Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broccoli</td>
<td>Low Oxalate</td>
</tr>
<tr>
<td>Collard Greens</td>
<td>Low Oxalate</td>
</tr>
<tr>
<td>Kale</td>
<td>Low Oxalate</td>
</tr>
<tr>
<td>Mustard Greens</td>
<td>Low Oxalate</td>
</tr>
<tr>
<td>Turnip Greens</td>
<td>Low Oxalate</td>
</tr>
</tbody>
</table>

WellSpring

Centre Happenings

Changes at the AGFWB

"The times they are a changing." Don't we know that phrase well. Like many organizations, the Alberta Centre for Well-Being has adapted to the changing environment. In trying to serve in clients best and address their needs over the years we've provided services that broadened our beyond our capabilities in some cases. Given our limited resources, our value in producing quality products and our clients demands, we are in the process of placing a greater focus and commitment to physical activity. It is the business we know best. We will be looking at physical activity in an inclusive and holistic way, focusing on the trends, determinants of success, and benefits of physical activity. The relationship between physical activity and other lifestyle behaviours will be further examined. Within a determinants of health framework and using health promotion strategies, we will help for example, the barriers to physical activity. This information will be shared through many mechanisms. You are a valued client of the ACWF. Over the next few months we will be implementing a new strategic plan. We invite you to become part of this plan. I would like to know what is important to you. For example: How relevant is the focus on physical activity to you in your work?

What services of the AGFWB have you used in the past two years? What else could we do to better meet your information and education needs?

Please call me at (403) 453-8634 if you would like to chat about our new direction. ■

Upcoming Events

March 22-25 - Action for Marketing Healthy Living - The Banff Centre
March 24th - What's So Supportive about Social Support? Fostering Motivation in Health Promotion Settings - Dr Richard Ryan, Psychologist - King's College, Canada
March 25th - Be Careful What You Wish For: Motivations and Life Goals Associated with Well-Being and Life Satisfaction - Dr Richard Ryan - Myer Horowicz Theatre, SUB, U of A
April 16th - Promoting Physical Activity Among Older Persons: The WHO Guidelines - Implications for Canadian Society, by Wojtek Chodzko-Zajko, PhD - Grant MacEwan Community College, City Centre Campus

For more information, contact Marie Carlson, Education Coordinator, ACWF.
Alberta Centre for Well-Being

Our Mission:
To enhance the health and well-being of individuals and communities in Alberta by providing leadership through education, research and networking opportunities regarding healthy, active lifestyles for well-being practitioners through collaborative efforts.

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Alberta Centre for Well-Being
Serving Practitioners in All Areas of Wellness and Active Living

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